CITY OF POST FALLS

CITY COUNCIL MEETING AGENDA

April 21, 2026 6:00 PM

Location: City Council Chambers, 408 N. Spokane Street, Post Falls, ID 83854

WORKSHOP – 5:00 pm 2nd Floor Conference Room

a. Efficiency Study Continued Discussion

REGULAR MEETING – 6:00 pm City Council Chambers

The regular agenda is scheduled to start at 6:00 PM, but may start earlier depending on the completion of any preceding workshop.

CALL TO ORDER BY MAYOR WESTLUND

INVOCATION

The Mayor will offer a brief invocation intended to solemnize the Council's proceedings. Attendance and participation are voluntary. The invocation is not intended to require or encourage participation by members of the public, nor to advocate or proselytize for any particular religion or belief. No Council action is influenced by participation or non-participation.

PLEDGE OF ALLEGIANCE

ROLL CALL OF CITY COUNCIL MEMBERS

Samantha Steigleder, Aaron Plew, Joe Malloy, Nathan Ziegler, Jack Mosby, Marc Lucca

CEREMONIES, ANNOUNCEMENTS, APPOINTMENTS, PRESENTATION: ACTION ITEM

a. Proclamation - Arbor Day 2026

b. Proclamation - Military Child Month

c. Proclamation- National Fallen Firefighters Memorial Day

AMENDMENTS TO THE AGENDA

Final action cannot be taken on an item added to the agenda after the start of the meeting unless an emergency is declared that requires action at the meeting. The declaration and justification must be approved by motion of the Council.

DECLARATION OF CONFLICT, EX-PARTE CONTACTS AND SITE VISITS

The Mayor and members of the City Council have a duty to serve honestly and in the public interest. Where the Mayor or a member of the City Council have a conflict of interest, they may need to disclose the conflict and in certain circumstances, including land use decisions, they cannot participate in the decision-making process. Similarly, ex-parte contacts and site visits in most land use decisions must also be disclosed.

1. CONSENT CALENDAR

The consent calendar includes items which require formal Council action, but which are typically routine or not of great controversy. Individual Council members may ask that any specific item be removed from the consent calendar in order that it be discussed in greater detail. Explanatory information is included in the Council agenda packet regarding these items and any contingencies are part of the approval.

ACTION ITEMS:

a. Minutes – April 7, 2026, City Council Meeting

b. Payables 04/08/2026 - 04/22/2026

2. PUBLIC HEARINGS

There are generally two types of public hearings. In a legislative hearing, such as adopting an ordinance amending the zoning code or Comprehensive Plan amendments, the Mayor and City Council may consider any input provided by the public. In quasi-judicial hearings, such as subdivisions, special use permits and zone change requests, the Mayor and City Council must follow procedures similar to those used in court to ensure the fairness of the hearing. Additionally, the Mayor and City Council can only consider testimony that relates to the adopted approval criteria for each matter. Residents or visitors wishing to testify upon an item before the Council must sign up in advance and provide enough information to allow the Clerk to properly record their testimony in the official record of the City Council. Hearing procedures call for submission of information from City staff, then presentation by the applicant (15 min.), followed by public testimony (4 min. each) and finally the applicant's rebuttal testimony (8 min.). Testimony should be addressed to the City Council, only address the relevant approval criteria (in quasi-judicial matters) and not be unduly repetitious.

ACTION ITEMS:

a. City of Post Falls - 2025 Transportation Master Plan

3. UNFINISHED BUSINESS/RETURNING ORDINANCES AND RESOLUTIONS

This section of the agenda is to continue consideration of items that have been previously discussed by the City Council and to formally adopt ordinances and resolutions that were previously approved by the Council. Ordinances and resolutions are formal measures considered by the City Council to implement policy which the Council has considered. Resolutions govern internal matters to establish fees and charges pursuant to existing ordinances. Ordinances are laws which govern general public conduct. Certain procedures must be followed in the adoption of both ordinances and resolutions; state law often establishes those requirements.

ACTION ITEMS:

a. The Quarry Sports Complex Phase 1 Construction Agreement

b. Seltice Way Rehabilitation and Pipeline Project, Recommendation to Award

c. Seltice Way Rehabilitation and Pipeline Project, Construction Management Services Amendment

4. NEW BUSINESS

This portion of the agenda is for City Council consideration of items that have not been previously discussed by the Council. Ordinances and Resolutions are generally added to a subsequent agenda for adoption under Unfinished Business, however, the Council may consider adoption of an ordinance or resolution under New Business if timely approval is necessary.

ACTION ITEMS:

a. Solid Waste Temporary Projects Ordinance Update

b. Community Garden MOU with Post Falls Food Bank

5. CITIZEN ISSUES

This section of the agenda is reserved for citizens wishing to address the Council regarding City-related issues that are not on the agenda. Persons wishing to speak will have 5 minutes. Comments related to pending public hearings, including decisions that may be appealed to the City Council, are out of order and should be held for the public hearing. Repeated comments regarding the same or similar topics previously addressed are out of order and will not be allowed. Comments regarding performance by city employees are inappropriate at this time and should be directed to the Mayor, either by subsequent appointment or after tonight's meeting, if time permits. In order to ensure adequate public notice, Idaho Law provides that any item, other than emergencies, requiring Council action must be placed on the agenda of an upcoming Council meeting. As such, the City Council can't take action on items raised during citizens issues at the same meeting but may request additional information or that the item be placed on a future agenda.

6. ADMINISTRATIVE / STAFF REPORTS

This portion of the agenda is for City staff members to provide reports and updates to the Mayor and City Council regarding City business as well as responses to public comments. These items are for information only and no final action will be taken.

7. MAYOR AND COUNCIL COMMENTS

This section of the agenda is provided to allow the Mayor and City Councilors to make announcements and general comments relevant to City business and to request that items be added to future agendas for discussion. No final action or in-depth discussion of issues will occur.

8. EXECUTIVE SESSION

Certain City-related matters may need to be discussed confidentially subject to applicable legal requirements; the Council may enter executive session to discuss such matters. The motion to enter into executive session must reference the specific statutory section that authorizes the executive session. No final decision or action may be taken in executive session.

ACTION ITEMS:

a. 74-206 (a) To consider hiring a public officer, employee, staff member or individual agent, wherein the respective qualities of individuals are to be evaluated in order to fill a particular vacancy or need. This paragraph does not apply to filling a vacancy in an elective office or deliberations about staffing needs in general.

74-206 (b) To consider the evaluation, dismissal or disciplining of, or to hear complaints or charges brought against, a public officer, employee, staff member or individual agent, or public school student.

74-206 (d) To consider records that are exempt from disclosure as provided in chapter 1, title 74, Idaho Code

RETURN TO REGULAR SESSION

ADJOURNMENT

Questions concerning items appearing on this Agenda or requests for accommodation of special needs to participate in the meeting should be addressed to the Office of the City Clerk, 408 N. Spokane Street or call 208-773-3511. City Council and City commission meetings are broadcast live on Post Falls City Cable on cable channel 1300 (formerly 97.103) as well as the City's YouTube Channel (https://www.youtube.com/c/CityofPostFallsIdaho).

Mayor Randy Westlund
Councilors: Samantha Steigleder, Aaron Plew, Joe Malloy, Nathan Ziegler, Jack Mosby, Marc Lucca

Mission
Building Community.

CITY OF POST FALLS
AGENDA REPORT
WORKSHOP – 5:00 pm 2nd Floor Conference Room
MEETING DATE: 4/21/2026

TO: HONORABLE MAYOR AND CITY COUNCIL

FROM: Shelly Enderud, City Administrator

SUBJECT: Efficiency Study Continued Discussion

ITEM AND RECOMMENDED ACTION:
This item is a continued discussion of performing an efficiency study of the Streets Division or other internal options.

DISCUSSION:
Background

This discussion stems from an item on the February 17, 2026, Council Agenda. In that discussion, a proposal requested by the Mayor to complete a trial manpower (efficiency) study was presented by Jeremy Williams of Star of the Sea Consulting. Council members requested additional information, including further details from Mr. Williams and information from city staff on internal efficiency analyses.

To recap that discussion, statutory constraints on local government revenue, in conjunction with high inflation, and a decreasing levy rate, have created a structural gap for all local taxing jurisdictions including the city. Without statutory change, this structural gap between expenses and revenues will continue to widen, leading to the need to reduce expenses or services in future years. This widening gap makes it necessary for the City to increase its efforts to find ways to decrease expenditures, increase revenues, create efficiencies, and/or reduce service levels and programs offered by the city.

As an option to explore increasing efficiency, Mayor Westlund asked staff to meet with Jeremy Williams, owner of Star of the Sea Consulting, beginning in late 2025 to investigate performing a City-wide efficiency audit. Mr. Williams, who has previous experience evaluating efficiencies as a consultant for the army, recently opened his own consulting firm hoping to provide this type of service for local governments. Because Mr. Williams has no previous experience working in the local government context, a smaller study focused on the Streets Division was proposed as a possible trial run to evaluate Mr. Williams' services rather than using the City's usual RFP process to hire a consultant. The Mayor suggested this approach to spend the time and resources that would otherwise be involved in the RFP process to evaluate Mr. Williams' services. The proposed cost of this trial is $30,000. Staff prepared a request for proposals to perform an operational efficiency audit on the streets division along with supporting information about staff time, methodology, costs, and other items from Mr. Williams. The information submitted by Mr. Williams for the Feb 17th packet are also attached for convenience.

Additional information from Star of the Sea

During the February 17th discussion, council requested Mr. Williams provide examples of his work product and how they would apply to a study of the streets division. On March 4th, Mr. Williams submitted additional information to the Council, which is attached. Staff also followed up with a request for additional information that was missing from the original scope/proposal. Mr. Williams responded on March 24th, with additional information, which is also included.

Internal Efficiency Study Options

Council also requested staff bring back information on what an internal efficiency study would look like and examples of how this applies in the normal duties of department heads. The city is continuously seeking efficiencies in our services. This is an essential skill for a department head in city government. Some examples of past efficiencies that have been implemented in the city include the transition to digital processes for city council packets, budget packets, building permits, personnel action forms, employee on-boarding and recruitment and many finance processes, including utility billing and payment processing.

Staff also work to eliminate duplicate data entry processes and unnecessary approval processes. Examples include streamlining approval processes for timecards, personnel action forms, and curb bonds, among others, to remove unnecessary process steps, thereby saving time and reducing costs. Additionally, the city has moved many of its operating systems into the cloud allowing easier submittal and approval processes. This has reduced workflow steps and process bottlenecks.

Council also asked if the city could do something like Mr. Williams' audit in-house. There are many different programs for evaluating and/or increasing efficiencies that the city could implement in-house. The first is an in-house evaluation of the streets division staffing, somewhat akin to Mr. William's approach. A memo from Public Works Director John Beacham is attached briefly outlining one such option.

A second approach is a more broadly focused in-house efficiency program incorporating the principles of lean manufacturing. City administration has been exploring this approach separate from Mr. Williams' proposal. A memo from Shelly Enderud, outlining what this process could look like, is also attached.
Staff could pursue either, or both, of these concepts, if desired. However, limited resources and time would make pursuing multiple options at the same time difficult.

Additional Considerations for Council Discussion on External Efficiency Study

- As noted above, the standard method in the City's purchasing policy is to issue a Request for Qualifications seeking consultants who are then ranked to select the most qualified firm. This process was not followed in this instance to allow a potential new consultant to demonstrate the viability of his approach in a trial run.
- Based on the quote for evaluating the streets division, a city-wide study could take 12 to 18 months and cost between $300,000 - $500,000.
- This project is not included in the City budget. If Council elects to move the study forward, funding would be allocated via a budget amendment or budget transfer.
- There is no method, program, or process approved by either GFOA or ICMA for performing audits of this nature.

Council may direct staff in the following ways:

- Proceed with negotiating a contract with Star of the Sea and starting the process of allocating funds through a budget amendment, budget transfer or FY 27 budget request.
- Begin the process of analyzing a city-wide efficiency study and issue a Request for Proposals to obtain responses from qualified firms.
- Pursue developing an internal city-wide efficiency program.
- Begin the internal efficiency study of the streets division.
- Take no action.

- Provide other possible directions.

ITEM / PROJECT PREVIOUSLY REVIEWED BY COUNCIL ON:
February 17, 2026.

APPROVED OR DIRECTION GIVEN:
Staff was requested to provide options for an internal efficiency program as well as to obtain additional information from Mr. Williams concerning his deliverables and their applicability to local governments.

FISCAL IMPACT OR OTHER SOURCE OF FUNDING:
Mr. Williams has requested $30,000 to perform his evaluation. This is not in the current budget, so a budget amendment or transfer would be needed.

BUDGET CODE:
N/A

ATTACHMENTS:
1. Efficiency Study Proposal for Streets Department
2. 2026.03.30 In House Streets Efficiency Study Memo
3. 2026.03.26 Lean Process Improvement Program Memo
4. Federal_Methodology_Portfolio_Cover
5. Federal_Methodology_Portfolio
6. Exhibit_A_OCSE_Study_Findings_Redacted
7. Exhibit_B_OCSE_Observations_Recommendations_Redacted
8. Exhibit_D_OCSE_Summary_Table
9. Transmittal_Memo_Process_Mapping
10. Peer_City_Benchmarking_Memo
11. Timeline_Payment
12. Post_Falls_Streets_Division_EXHIBIT_A_Scope_of_Services
13. City of Post Falls Streets Operational Efficiency Study Proposal Request
14. Jeremy Response to Questions for RFP
15. 1 Star of the Sea Consulting_Council Overview Memorandum – Streets Division
16. 2 Star of the Sea Consulting_Operational Efficiency Study Proposal – Streets Division
17. 3 Star of the Sea Consulting_Appendix A – Streets Division Study Artifacts
18. 4 Star of the Sea Consulting_ICMAGFOA Alignment Memorandum – Streets Division
19. 5 Infographic
20. 6 Star of the Sea Consulting_Streets_Division_Staffing_Efficiency

City of Post Falls
Operational Efficiency Proposal
Street Department

Shelly Enderud, City Administrator
Warren Wilson, Deputy City Administrator
April 7, 2026

Operational Efficiency Timeline

- November 20, 2025
  - Jeremy Williams introduction – Mayor, Warren & Shelly
  - Discussion of a city-wide efficiency study
- December 2026
  - Internal discussions on city-wide vs. single division
  - Scope of work prepared
- January 23, 2026
  - Streets Division proposal request sent to Jeremy

Operational Efficiency Timeline

- February 06, 2026
  - Streets Division proposal received from Jeremy
- February 17, 2026
  - Street efficiency study presentation to council
- February/March 2026
  - Staff discussions on internal efficiency projects vs. external
  - Staff communications with Jeremy
  - Jeremy submitted additional work product

Operational Efficiency Study Benefits

- Enhanced productivity and resource allocation
- Data driven decision making
  - Limited resources
  - Budget structural gap
- Improved sustainability
- Alignment of services & process with priorities
- Identify opportunities
- Quality and customer satisfaction
- Risk management (reduction)

Operational Efficiency Proposal Key Points

- City's purchasing policy
  - Typically use a Request for Qualifications/Proposals
- No existing budget for project
  - division level or city-wide
- Contract negotiation required
- Staff time required to work with consultant

Operational Efficiency Response

- Documents provided by Mr. Williams:
  - Federal methodology portfolio presentation
  - Federal methodology portfolio cover
  - Exhibit A, B & D
  - Transmittal memo – process mapping
  - Timeline payment
  - Peer city benchmarking memo
  - PF Streets Division Exhibit A

Internal Operational Efficiency Examples

- Prior efficiency examples:
  - Digital conversion
    - Utility billing and payments
    - Council packets
    - Budget packets
    - Permitting processes
    - H/R on-boarding and recruitment processes
    - Personnel Action Forms
    - Work orders

Internal Operational Efficiency Considerations

- Option for internal streets evaluation
  - Outlined in memo
  - Evaluate paving and snow operations
    - Quantify necessary tasks and identify minimum staffing levels for tasks
    - These two operations drive necessary staffing for division
  - Evaluate shoulder season tasks
    - Focus on efficient use of staff needed in summer and fall during off-peak times

Internal Operational Efficiency Examples

- Option for implementing internal lean processes
  - Some of recommended processes already implemented
    - Use of technology
  - Results usually take 12 to 18 months
  - 10 to 30% faster internal processes
  - Measurable cost savings
  - Improved resident services

Internal Operational Efficiency Considerations

- Establish clear goals for the process
  - Reduce operational costs
  - Reduce time spent on processes
  - Eliminate redundant work or re-work
  - Improve service delivery to residents
  - Improve cross-department collaboration
- Goal is making work efficient and not cutting jobs
  - More efficient can slow growth of workforce
- Hold efficiency workshops/training with staff

Internal Operational Efficiency Considerations

- One possible approach: Create a small efficiency team
  - Four to six cross department members
  - Both service and support divisions involved
  - Option for council member participation
  - Option for rotating members
- Roles:
  - Align with GFOA, ICMA, etc. guidance
  - Train on lean processes
  - Review assigned division
  - Identify inefficiencies
  - Assist with implementation
  - Track results (KPIs)

Internal Operational Efficiency Considerations

- Collect employee and department head
- Pick 3 to 5 processes each quarter
- Map the process
- Identify bottlenecks
  - Ex. processes waiting on other departments or agencies
- Remove redundant/unnecessary steps
  - Duplicate and/or unnecessary approvals
  - Duplicate and/or manual data entry
  - Paper forms
- Automate where possible
  - Workflow
  - Electronic Signatures

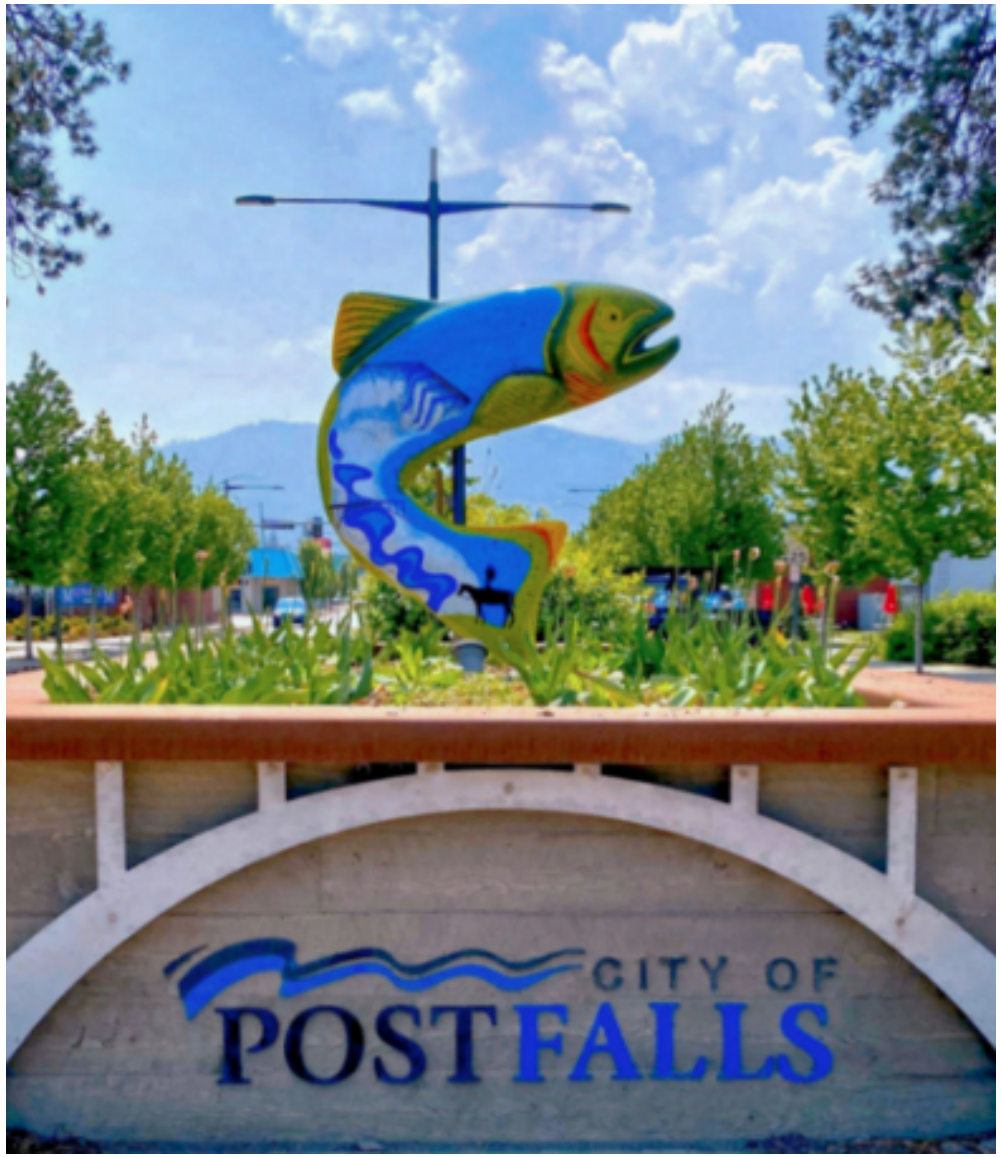
Internal Operational Efficiency Considerations

- Track key metrics
  - Operational:
    - Permit turnaround time
    - Work order completion time
  - Financial:
    - Overtime reduction
    - Reduced staff time expenses
  - Service:
    - Improved resident response time
    - Snowplow time (Start to Finish)
    - Consider surveys

Internal Operational Efficiency Timeline

- 1st Quarter
  - Launch initiative
  - Form efficiency team
  - Collect ideas
  - Train
- Quarterly
  - Process improvement implementation
  - Publish results
  - Provide recognition

Questions?



MEMORANDUM

DATE: March 12, 2026

TO: Shelly Enderud, City Administrator

FROM: John Beacham, Public Works Director

SUBJECT: Proposed In-House Efficiency Study

Background: At a recent council meeting, staff were asked about in-house capabilities of conducting efficiency studies. In response, this memo outlines one potential way existing staff could develop a report on the efficiency of a particular division.

Because the Streets Division was discussed, this proposal focuses on that workgroup. The Streets Division is a part of the Public Works Department and is responsible for the maintenance of the city's streets and traffic control devices. The work for this division varies both in terms of its overall scope and seasonal weather needs.

Proposed Study: The study and resulting report would address the question, "How efficient is the current staffing within the Streets Division?" This is an important piece of information, as efficient utilization of tax dollars is highly important. The study will also outline times when efficiency is sacrificed in order to maintain an acceptable level of service.

The study would first focus on the two times of year with the highest staffing needs, the summer paving season and winter snow operations. This portion of the study would analyze the roles of necessary staff for operations which must be conducted simultaneously and determine the minimum level of staff needed to safely perform the operations. This analysis would also consider how staffing beyond the minimum level may increase the division's ability to perform the needed tasks efficiently and how the anticipated production levels would match service and performance expectations. This portion of the assessment would be similar to the study proposed by Song of the Sea in that it would quantify the necessary tasks and establish minimum staffing levels to accomplish them.

The second portion of the study would focus on the shoulder seasons. During these off-peak portions of the year, the focus is not on how many staff are needed for efficient operations, but rather on how efficiently the available staff time is used. The study would provide information as to how time is utilized currently and would investigate whether there are times of the year in which Streets Division staff could undertake additional work.

As with any study, this proposal would have limitations in its ability to explain a complicated process. First, work within the division varies greatly from year to year. Second, compared to ten or fifteen years ago, our staff are both relatively new to their roles and rapidly gaining experience. This means that production

numbers can likely be increased as experience is gained, if a majority of staff are retained. Additionally, while there are components of work where efficiency may be gained at the cost of quality work, this study is not anticipated to look into the long-term financial implications of adjusting quality expectations.

An ancillary benefit to this study would be documenting years of institutional knowledge into a document which could be utilized by future staff to plan work. Many of the programs have evolved organically and are not formally documented.

Timeline and Staff Time: The majority of work on this study would be performed by the Public Works Director, the Public Works Maintenance Manager, and the Streets Supervisor. I expect the Streets Supervisor would need to dedicate around 40 hours documenting tasks at a level of detail sufficient for analysis. The PW Maintenance Manager and PW Director would both need to dedicate approximately 40-60 hours analyzing the data, developing comparisons to service level expectations, and writing the report.

I expect the project will take 2-3 months, as staff would also be working on other efforts. If the study occurs during peak operations, such as summer paving, it should be expected that it will extend for at least another month.

CITY OF POST FALLS

Office of the City Administrator

MEMORANDUM

DATE: March 30, 2026

TO: City Council

FROM: Shelly Enderud, City Administrator

SUBJECT: Proposed In-House Lean Team Program

Background and Current Work: City administration has been exploring the creation of an internal efficiency team to assist staff members with evaluating current processes to eliminate any redundant or unnecessary steps or waste, thereby reducing costs. This approach would be centered on lean manufacturing principles like Kaizen and Six Sigma programs.

This process would formalize and provide support for what has been occurring organically in the city but would provide training to allow for additional process improvements and allow for better tracking of key metrics to demonstrate the cost savings created by the process. Guiding principles of programs like this include prioritizing practical, achievable improvements; using data to guide decision making; encouraging employee-driven ideas and starting small then scaling successful solutions to make work more efficient. Many cities have seen cost savings of 10% to 30% in 12 to 18 months, primarily when tracking work focused on automating processes and digital transitions. Post Falls is ahead of the curve in these areas, so we may not see as much savings in those areas, but there are still efficiencies, savings, and improved service delivery that can be gained again through process improvement.

Program Examples: One such program, which is supported by both ICMA and GFOA, is Innovation Academy provided by Brian Elms. Mr. Elms was the developer of the very successful innovation and efficiency program at the City and County of Denver in Colorado and is the author of book Peak Performance. This program focuses on empowering employees to improve the processes they control through developing a network of trained staff that can help map processes, suggest improvements, and measure results. Online training is available through ICMA and directly through the Innovation Academy. Warren and I have a Zoom meeting scheduled with Mr. Elms on April 6th to discuss this program and training options.

A second program is the Lean Solutions Academy provided by Patrick Adams. He focuses on lean thinking through leadership and culture and uses a style of continuous

improvement to find waste and identify process improvements. Twelve continuous improvement questions are used during this process. The academy offers on-line training programs to assist with training employees on lean principles and practices.

Both programs could provide the city with the ability to develop employees with the lean training and skills to operate with a continuous improvement mindset that makes the best use of the knowledge and skills of the people who work most closely with city processes and have the best solutions for identifying process improvements and eliminating waste. These small changes and investments in our team could provide sustainable solutions that will build a culture of improvement and community trust.

Efficiency Team Concept: One approach would be to set up an "efficiency team" with goals like, reducing operational costs and time spent on internal processes, eliminating redundant work or errors leading to re-work, and improving service delivery and cross-departmental collaboration. The idea is to make work more efficient, creating cost and time savings that slows down the need to increase staffing as population grows.
Such a team could consist of four to six cross departmental members including members from service, support, and administration departments who receive training on lean principles. Team membership would likely rotate to allow for training and input from new members to help build a culture of continuous improvement. Potentially, participation could be extended to council members as well.

The team could assist departments in mapping and improving processes identified by employees or department heads and then tracking the results. This would help ensure alignment with best practices from GFOA and ICMA. Ideally, the team would focus on three to five processes each quarter for improvement. The team would look at improving:

- Process bottlenecks (waiting on co-workers, other departments or other agencies),
- Communication disconnects;
- Misunderstood responsibilities;
- Duplicate or unnecessary steps;
- Duplicate or manual data entry;
- Unnecessary or unneeded paper forms leading to rework or slow service delivery;
- Identifying potential process automations; and
- Identifying hidden costs, work, or materials.

Some key tracking metrics may be operational, like permit turnaround time or work order completion time. Others may be financial like overtime reduction. They may also be service oriented like decreased wait times, or documented improvements in service delivery to residents. Surveys may help to track some of these metrics regarding service delivery time and satisfaction. Some of the times understanding what frustrates residents may also be frustrating to the employees providing the service.

To begin an internal program, the first quarter would focus on launching the initiative by organizing and training the initial team members. This would include adopting the

methodology for identifying and evaluating processes submitted by employees, department heads, or other stakeholders. Selecting quick wins will help to build momentum and encourage an efficiency culture. Then quarterly the team would go through the process of helping employees map and improve processes and publish and track results as well as holding training and workshops to prepare the next group of members. The team would also recognize and celebrate successful process changes. This may include things like providing an award for “random acts of improvement” that occur organically within employee groups.

STAR OF THE SEA CONSULTING, LLC

Operational Analysis • Workforce Optimization • Decision Support

Federal Methodology Portfolio

Proof of Analytical Capability

Prepared for the City of Post Falls, Idaho
City Council

Jeremy Williams
Founder & Principal Consultant
Star of the Sea Consulting, LLC

March 2026

1. Introduction

This portfolio provides the City of Post Falls City Council with representative examples of workload-based manpower studies completed under federal oversight. These materials demonstrate the analytical methodology, data collection instruments, and deliverable formats that form the foundation of the Post Falls Streets Operational Efficiency and Staffing Study currently underway.

The enclosed exhibits are drawn from studies conducted for the U.S. Army through the United States Army Manpower Analysis Agency (USAMAA) in partnership with CALIBRE Systems, Inc. All personally identifiable information has been redacted. Organizational details have been preserved at a level sufficient to demonstrate analytical rigor and methodological depth.

2. About the Consultant

Star of the Sea Consulting, LLC provides operational analysis and workforce optimization services to government organizations. The firm's principal consultant has direct experience conducting workload-based manpower studies for Army headquarters organizations, including multi-hundred-person directorates spanning military, civilian, contractor, and foreign national workforce categories.

This experience includes every phase of the study lifecycle: scoping and front-end analysis, stakeholder training and familiarization, structured data collection using standardized instruments, workload validation and analysis, findings development, and the formulation of actionable observations and recommendations for senior decision-makers.

3. The Methodology: How It Works

Federal manpower studies follow a workload-based analytical framework governed by Army Regulation 570-4 (Manpower Management) and AR 71-32 (Force Development and Documentation). The core principle is straightforward: determine what work must be done, measure how long it takes, calculate how often it occurs, and derive the minimum staffing required to accomplish it.

3.1 The Analytical Chain

Every study follows the same logical sequence regardless of the organization's size, mission, or domain. The process begins with **mission identification** — what is this organization directed to do? From the mission, the study team derives **functions** (the categories of work required to accomplish the mission), then identifies the specific **outputs** (products and services) within each function. Each output is measured by **frequency** (how many times per period) and **per-accomplishment time** (hours required per occurrence). These two values multiply to produce **annual manhours**. Total manhours divided by an availability factor (accounting for leave, training, and non-productive time) yields the **full-time equivalent (FTE) requirement**.

This is not an estimation exercise. It is an algebraic model where every staffing number is derived from measurable inputs. Change an input and the output recalculates automatically.

3.2 Data Collection Instrument: The Workload Wizard

The primary data collection tool is the Workload Wizard (WLW), a structured Excel workbook that captures mission statements, functional breakdowns, output inventories, frequency counts, per-accomplishment times, and personnel assignments for each organizational work center. The WLW includes built-in formulas that compute manhour totals, FTE requirements, and workload distribution across personnel categories. See Exhibit C for a redacted example.

3.3 What the Study Produces

A completed study delivers three products: a workload-based manpower summary showing validated requirements by organizational unit (Exhibit D), a proposed staffing document reflecting recommended changes, and a set of observations and recommendations identifying structural inefficiencies, workload imbalances, and opportunities for improvement (Exhibit B). These products are presented to senior leaders in a formal findings memorandum (Exhibit A).

4. Federal-to-Municipal Crosswalk

The analytical methodology described above is domain-agnostic. The framework does not depend on whether the organization being studied is a military headquarters or a municipal streets crew. What changes is the subject matter of the inputs — not the analytical engine that processes them. The following table illustrates how each federal study component maps directly to the Post Falls engagement.

Study Element	Federal Application	Post Falls Application
Mission Identification	Determine organization's directed mission per Army regulation and command directive	Define the Streets Division's operational mandate per City charter, Public Works mission, and council priorities
Functions & Outputs	Catalog every product and service the work center delivers (e.g., acquisition oversight, systems engineering, budget execution)	Catalog every task the crew performs (e.g., snow removal, pothole repair, crack sealing, street sweeping, sign maintenance)
Frequency Measurement	How many times per year each output is produced (daily, weekly, monthly, quarterly, annually)	How many times per year each maintenance task is performed (seasonal cycles, weather-driven demand, scheduled vs. reactive)
Per-Accomplishment Time	Hours required to complete one instance of each output	Hours required to complete one instance of each task (e.g., hours per lane-mile of plowing, hours per pothole patch)
Manhour Calculation	Frequency × PAT = Annual Manhours per output. Sum across all outputs = total workload demand	Frequency × PAT = Annual Manhours per task. Sum across all tasks = total workload demand (H^d)

Availability Factor	1,740 productive hours/year for civilians (accounts for leave, training, holidays, non-available time)	Net available hours per FTE after leave, holidays, training, weather days, and administrative time
FTE Derivation	Total manhours ÷ availability factor = minimum FTE requirement per work center	Total workload demand (H^d) ÷ available capacity (H^c) = staffing adequacy ratio and FTE gap/surplus
Findings & Recommendations	Validated staffing levels, structural observations, efficiency recommendations presented to Army senior leaders	Validated staffing analysis, overtime drivers, backlog exposure, fiscal alignment, and scenario modeling presented to City Council
Scrutiny Standard	Reviewed by USAMAA, HQDA Force Management, and Deputy Director of Force Management before implementation	Designed to withstand Council review, public scrutiny, and independent audit. All outputs derived from locked formulas with zero manual overrides

Key takeaway: The formula ***Frequency × Per-Accomplishment Time = Annual Manhours*** is the same engine whether the output being measured is an Army acquisition review or a lane-mile of snow plowing. The analytical rigor transfers completely.

5. Post Falls Deliverable Preview

The Streets Operational Efficiency and Staffing Study being prepared for Post Falls applies this proven methodology to a focused municipal context. The final report is organized into ten sections, each building on the previous to create a complete analytical picture for Council decision-making.

Section	Title	What It Delivers
A	Governance & Definitions	Study scope, ground rules, variable definitions, and the analytical framework that governs all subsequent calculations
B	Data Foundation	Baseline staffing structure, budget allocations, historical work order volumes, and asset inventory for the Streets Division
C	Workload Drivers	Complete task inventory with frequency counts, per-accomplishment times, and annual manhour totals for every maintenance category
D	Capacity Model	Available labor hours versus required hours, identifying the gap or surplus between what the crew can do and what needs to be done

E	Service Standards Compliance	Assessment of whether current staffing meets established service expectations across all maintenance categories
F	Backlog Model	Quantification of deferred maintenance accumulation — work that should be done but is not getting done, and its compounding effect over time
G	Financial Alignment	Analysis of budget versus actual expenditure, overtime cost drivers, and unit cost per maintenance activity
H	Scenario Modeling	What-if analysis showing the operational impact of different staffing levels, budget adjustments, and service priority changes
I	Executive Decision Framework	Consolidated summary with decision levers, trade-off matrices, and clear options for Council consideration — no advocacy, only analysis
J	Appendices	Supporting data tables, complete variable registry, formula documentation, and methodology notes for independent verification

Design principle: Every numerical output in the report is derived from a locked set of master input variables. There are no manually entered results. Change an input assumption and every dependent figure recalculates automatically. This ensures the report functions as a reusable analytical tool — not a static document that becomes obsolete when conditions change.

6. Enclosed Exhibits

The following exhibits are enclosed with this portfolio. All documents have been redacted to remove personally identifiable information. Organizational names and mission details are preserved to demonstrate analytical context.

Exhibit A: Study Findings Memorandum (OCSE)

A formal study findings memorandum for the Office of the Chief Systems Engineer (OCSE), a headquarters organization within the Army's acquisition enterprise. This document demonstrates the complete deliverable format: purpose, background, scope, analytical approach, procedures, organizational baseline, findings with validated staffing numbers, and recommended way ahead. The study analyzed 11 work centers and validated 69 total positions across military, civilian, and contractor categories.

Relevance to Post Falls: The Post Falls study follows this same structure — substituting streets maintenance work centers for Army acquisition work centers, and City Council for Army senior leadership.

Exhibit B: Observations & Recommendations (OCSE)

A detailed analytical document identifying structural and operational issues discovered during the OCSE study. Observations cover mission statement clarity, workload rationalization, indirect workload burdens, organizational structure inefficiencies, and process improvement opportunities. Each observation is paired with a specific, actionable recommendation.

Relevance to Post Falls: The observation categories map directly to municipal operations. Task frequency validation, distinguishing direct work from overhead, and identifying structural inefficiencies are core components of the Post Falls analysis.

Exhibit C: Workload Wizard — Digital Transformation AI (Redacted)

A validated Workload Wizard (WLW) Excel workbook for the OCSE Digital Transformation — Artificial Intelligence work center. This is the actual data collection and computation instrument used in federal studies. The workbook contains the mission statement, functional breakdown, output inventory with frequency and per-accomplishment time entries, formula-driven manhour calculations, personnel assignment tracking, and a manpower summary table. All formulas are intact and operational. Two additional Workload Wizard files (Exhibits C.1 and C.2) are enclosed to demonstrate the instrument across different work center types and workload scales.

Relevance to Post Falls: The Post Falls study uses an equivalent formula-driven computation engine (the PV_VAR_ algebraic spine) that follows the same logical chain: task identification → frequency → duration → manhours → FTE requirement.

Exhibit C.1: Workload Wizard — Cyber Focal (Redacted)

A validated Workload Wizard for the OCSE Cyber Focal directorate, one of the larger work centers studied. This work center had 9 authorized civilian positions with the study validating a requirement for 6 civilians plus 23 contractors. The Cyber Focal WLW demonstrates how the instrument handles a work center with significant contractor reliance and complex, evolving workload that includes both developmental and enduring task categories.

Exhibit C.2: Workload Wizard — Digital Transformation Software (Redacted)

A validated Workload Wizard for the OCSE Digital Transformation — Software Modernization work center. This work center had 3 authorized civilian positions with the study validating a requirement for 3 civilians plus 6 contractors. The SW WLW demonstrates the instrument applied to a technically specialized work center where approximately 75% of workload was executed by contractors, illustrating how the methodology captures and validates mixed-workforce environments.

Exhibit D: Manpower Summary Table (OCSE)

The consolidated output table showing, for each work center: authorized positions (TDA Requirements), actual staffing (Onboard), study-validated requirements, and the delta between authorized and validated levels. This table is the primary decision-support artifact — it tells leadership exactly where the organization is overstaffed, understaffed, or correctly staffed.

Relevance to Post Falls: The Post Falls study will produce an equivalent summary showing current staffing versus workload-derived requirements for each maintenance function, enabling the Council to see precisely where gaps exist.

Questions regarding this portfolio or the Post Falls study may be directed to:

Jeremy Williams

Star of the Sea Consulting, LLC

Coeur d'Alene, Idaho

STAR OF THE SEA
CONSULTING

Federal Methodology Portfolio

Proof of Analytical Capability for the Post Falls Streets Operational Efficiency & Staffing Study.

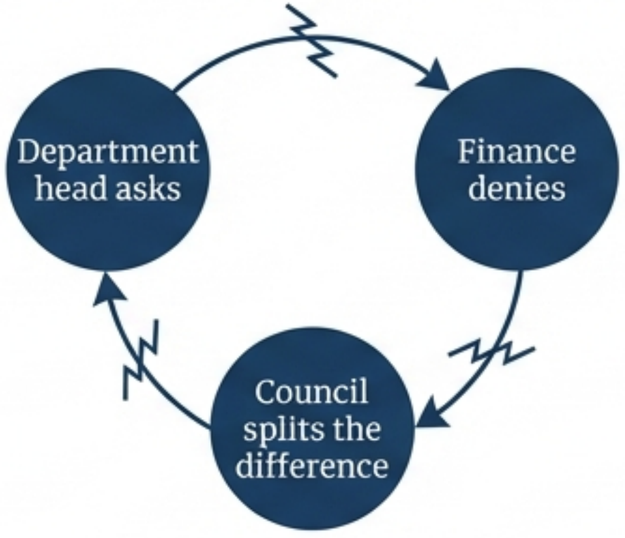
Jeremy Williams
Founder & Principal Consultant
Star of the Sea Consulting, LLC
March 2026

This portfolio demonstrates the mathematical engine that will power the City's upcoming streets staffing analysis.

The Question Every City Department Faces

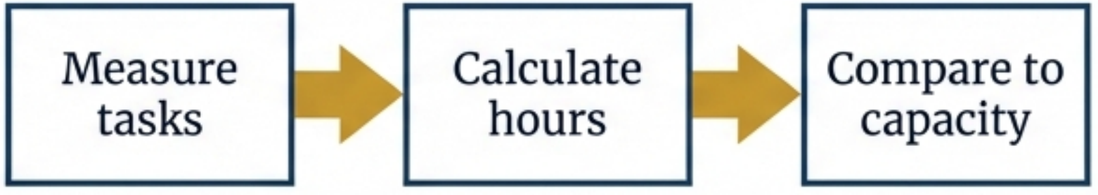
“Do we have enough people to do the work that needs to be done?”

Intuition-Based Staffing



Political, not analytical.

Workload-Based Staffing

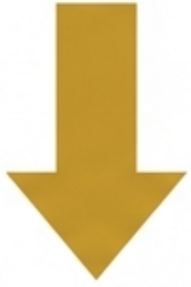


Answers if potholes and snowplowing are delayed by understaffing or other factors.

One approach relies on negotiation. The other relies on evidence. This study provides the evidence.

The Analytical Engine That Drives the Assessment

Frequency × Per-Accomplishment Time = Annual Manhours



Total Manhours ÷ Available Hours = FTE Requirement

The Pothole Example:
800 occurrences × 1.5 hours = 1,200 manhours.
1,200 ÷ 1,740 available hours = 0.69
FTEs just for pothole patching.

This is the exact formula used by the U.S. Army Manpower Analysis Agency to staff generating-force organizations.

This is not an estimation exercise. It is an algebraic model. Change an input, and the output recalculates automatically.

Translating the Federal Engine to Municipal Operations

Study Element	Federal Application	Post Falls Application
Mission	Army regulation/command directive	City charter/Public Works mandate
Functions & Outputs	Acquisition reviews, budget execution	Snow removal, pothole patches, crack sealing
Availability Factor	1,740 productive hours/year for civilians	Net available hours after leave, training, weather days
Scrutiny Standard	Reviewed by USAMAA, HQDA Force Management	Designed for Council review and independent audit

The formula doesn't care about the domain. The math is exactly the same whether processing an Army document or plowing a lane-mile of snow.

Federal Proof of Analytical Capability



Exhibit A

Formal Findings Memorandum.



Exhibit B

Qualitative Observations & Recommendations.



Exhibit C

The Workload Wizard (Data-collection instrument).



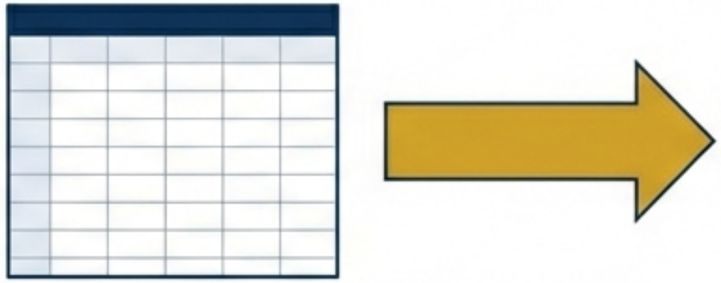
Exhibit D

Manpower Summary Table.

These documents prove the consultant has executed this exact methodology at scale, under rigorous federal scrutiny.

The Computational Model and Output Artifacts

Workload Wizard spreadsheet (WLW)



Manpower Summary Table

All formulas in the WLW are live. It computes total workload versus available capacity based purely on inputs, not assumed headcounts.

OCSE Study Key Findings:

- Validated 69 positions across 11 work centers.
- Identified over-reliance on contractors (validating 39 down from 45 reported).
- Drove a net decrease of 6 civilian requirements.

The tool objectively identifies where an organization is overstaffed, understaffed, or correctly staffed.

Identifying Structural and Operational Inefficiencies

Federal Finding (Exhibit B)	Municipal Equivalent
Unreliable frequency tracking undermining quantification.	Lack of work-order data requiring baseline estimates.
High indirect workload consuming core capacity.	Crew time lost to safety meetings, equipment shuttling, and administrative overhead.
Redundant supervisory roles (e.g., duplicate NH-04s in BROM).	Span of control imbalances and task assignment mismatches in a 12-person crew.

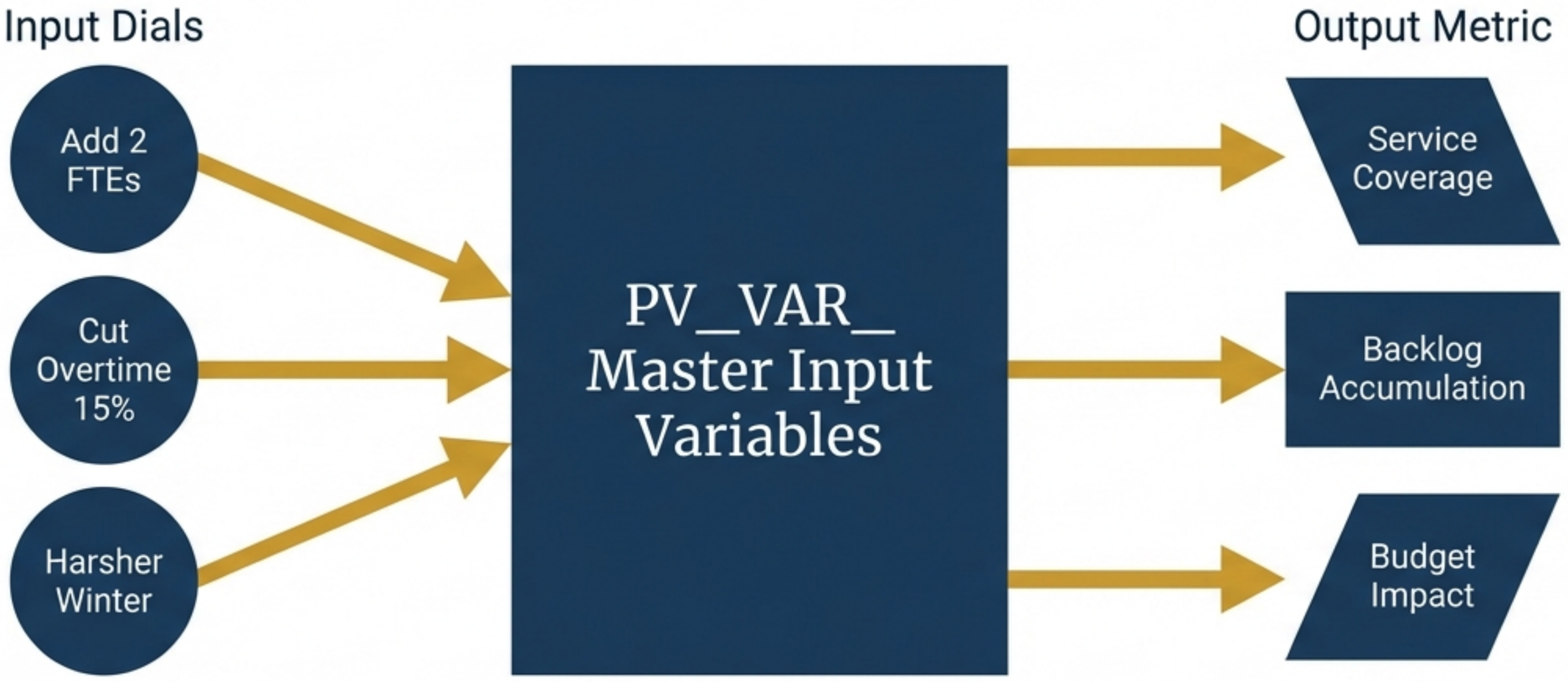
Structural and operational inefficiencies look the same in a military headquarters as they do in a public works yard.

The Post Falls Deliverable Structure

Section A: Governance & Definitions	Section B: Data Foundation	**Section C: Workload Drivers** (Complete task inventory and frequencies)	**Section D: Capacity Model** (Available labor vs. required hours)	Section E: Service Standards Compliance
Section F: Backlog Model (Quantification of deferred maintenance accumulation)	**Section G: Financial Alignment** (Budget vs. actual expenditure, overtime cost drivers)	Section H: Scenario Modeling	Section I: Executive Decision Framework	Section J: Appendices

Council will receive a comprehensive 10-section report where every number traces back to documented inputs.

Interactive Scenario Modeling for Council Decisions



The model serves as a reusable analytical tool. Change an assumption, and every dependent figure recalculates automatically.

Instead of debating opinions about what might happen, Council can see the calculated consequences of each decision before making it.

Why Domain-Agnostic Methodology Works

1. **The methodology is domain-agnostic:** The mathematical engine operates identically regardless of the specific tasks being measured.

2. **The complexity is lower:** Analyzing a 12-person streets crew with observable physical outputs is analytically simpler than evaluating a 300-person joint defense directorate across multiple workforce categories.

3. **The standard of rigor is identical:** The standard required to survive review by USAMAA and HQDA Force Management is being fully applied to Post Falls.

The real question isn't whether this works for cities; it's whether the City wants staffing decisions based on data or intuition.

Enclosed Read-Ahead Materials

- ✓ Cover Letter (Methodology overview and crosswalk)
- ✓ Exhibit A: OCSE Study Findings Memorandum (Redacted)
- ✓ Exhibit B: OCSE Observations & Recommendations (Redacted)
- ✓ Exhibit C: Workload Wizard Spreadsheet (Redacted)
- ✓ Exhibit D: Manpower Summary Table (Redacted)

Jeremy Williams
Star of the Sea Consulting, LLC
Coeur d'Alene, Idaho

The math does the work.

DEPARTMENT OF THE ARMY

OFFICE OF THE ASSISTANT SECRETARY OF THE ARMY

ACQUISITION LOGISTICS AND TECHNOLOGY

103 ARMY PENTAGON

WASHINGTON DC 20310-0103

SAAL-ZRH

5 June 2025

MEMORANDUM FOR Director, U.S. Army Manpower Analysis Agency, 5915 16th Street, Building 238, Fort Belvoir, VA 22060-5514

SUBJECT: Office of the Chief Systems Engineer (OCSE) Manpower Study Findings

1. Purpose. Provide results for the Office of the Chief Systems Engineer (OCSE) study conducted from January through May 2025.

a. Request for Validation of Manpower Study Results for the Office of the Chief Systems Engineer (OCSE) Manpower Study.

2. Background.

a. Previous Manpower Studies. No documentation exists for previous studies.

b. Fiscal Year (FY) 2022 Study Request: In January 2022, ASA(ALT) engaged the United States Army Manpower Analysis Agency (USAMAA) to conduct a series of single-point manpower studies. This initiative was prompted by the expiration of ASA(ALT)'s validation of the legacy Program Requirements and Staffing Model (PRSM v1.0-v1.3). The outdated model no longer accurately reflected the Army's programmatic landscape, showing an upward trend in outputs and lacking comprehensive coverage of all Army Acquisition organizations. Consequently, refinement was necessary to align with regulatory changes in the Acquisition Lifecycle Framework. In January 2023, ASA(ALT) front-loaded five single-point manpower studies for their HQ organizations before proceeding with the PRSM model build-out. These

studies aim to determine the workload-based manpower requirements for HQ ASA(ALT), USAASC, RCCTO, OCSE, and JPEO-CBRND, ensuring they can accomplish assigned steady-state missions.

c. Response to Changes. To address the challenges posed by the legacy model, ASA(ALT) contracted CALIBRE to collaborate with USAMAA in collecting and analyzing data for each manpower study. This partnership provided a refined and responsive approach that aligns with the evolving needs of the Army's programmatic environment. Approved by the Director of USAMAA on October 20, 2022, this collaborative effort is designed to ensure the accuracy and comprehensiveness of the studies, facilitating informed senior leader decision-making and optimizing organizational performance.

3. Study Purpose, Scope, Objectives, and End State.

a. Purpose. Conduct a workload-based manpower analysis to determine whether OCSE's Table of Distribution and Allowances (TDA) documents the correct number of minimum essential manpower requirements necessary for effective and efficient steady-state operations.

b. Scope. Analyze all mission-directed workload associated with OCSE.

c. Objectives. Determine the minimum essential manpower requirements needed to accomplish 100% of the assigned mission responsibilities within the subject work centers.

d. End State. Validate study findings, including workload-based manpower summaries by work center (enclosure 1), a proposed TDA document (enclosure 2), and observations and recommendations designed to assist senior leaders in making informed decisions to enhance the organization's efficiency (Enclosure 3).

4. Study Approach and Procedures.

a. The study assessed manpower requirements according to Army Regulation (AR) 570-4, Manpower Management, and AR 71-32, Force Development and Documentation Consolidated Policies. The approach aligned with USAMAA standard operating procedures to ensure a thorough and consistent evaluation of manpower needs. Uniform application of these guidelines across the generating force maintains consistency in workforce management practices, essential for addressing evolving mission requirements and ensuring readiness.

b. Analytical Approach. The study team collected data from OCSE work centers. The data collection period was defined as 1 Jan 2024 to 31 Dec 2024. Data collection focused on each work center's mission mandate, functions used to accomplish their assigned mission, and manpower reported. The study employed a standard data collection tool, the Workload Wizard (WLW), and used a strategic approach with uniform data collection across all work centers.

c. Workload Analysis. The study team employed a traditional single-point approach across all work centers for the manpower study. This method facilitated a comprehensive and focused examination of each work center's reported workload. USAMAA played a pivotal role, providing detailed analytical insights while working across all work centers with CALIBRE analysts. Their well-founded comments and recommendations significantly enhanced the depth and credibility of the overall workload analysis.

d. The study team followed the general study procedures outlined below:

(1) Familiarization and Training. The study team provided manpower study familiarization and Workload Wizard (WLW) training briefings to key OCSE stakeholders.

(2) Data Collection and Review. Post-WLW training, the study team conducted a review with respective points of contact (POCs) on their WLW Excel spreadsheets concerning their functional breakdown and data collection efforts. The team worked closely with all organizational POCs to collect and collaboratively review the data provided by each work center level of effort against their mission, functions, and outputs.

(3) Study Effort. The OCSE study involved the study team reviewing and analyzing 11 work centers, resulting in the findings and final recommendations contained herein.

5. Organization and Current Manpower.

a. The OCSE unit identification code W0FRAA, aligned with the latest approved TDA (CCNUM 0224), served as the study baseline. However, reliance on the organization's human resource database proved unreliable for determining on-hand numbers. To ensure accuracy, the on-hand number of personnel was provided by each work center POC, and the TDA was utilized as a supplementary reference. This approach involved addressing each work center individually, fostering a more precise evaluation of the current manpower within the organization.

b. OCSE participates in the Manage to Budget (M2B) Pilot Program, initiated by the Department of the Army on March 7, 2019. This program aims to explore innovative approaches to civilian manpower management, specifically assessing the feasibility and effectiveness of managing civilian resources based on budgetary considerations. Although the pilot concluded on September 30, 2021, ASA(ALT) advocated for the institutionalization of the program, securing an extension for limited UICs until an official request is submitted to HQDA for permanent implementation.

6. Overall Results of Analysis and Findings.

a. The study's findings provide a comprehensive insight into OCSE's existing manpower needs, offering a baseline that ensures effective and efficient mission execution.

b. The study validates the enduring workload across 11 work centers, encompassing a total of 29 Military and Department of the Army Civilian (DAC) requirements. This breakdown includes:

(1) 2 military requirements.

(2) 27 civilian requirements, reflecting a decrease of six (6).

c. The study identified the workload for 2 Military Acquisition Position List (MAPL) positions. These positions should continue to be managed within the MAPL program and will be documented in accordance with the Army Acquisition Corps Structure Message.

d. The study identified workload for 5 MATRIX positions intended to bring specialized outside expertise to OCSE, expanding resources available to the defense acquisition workforce. OCSE will continue to use MATRIX positions in accordance with ASA(ALT) Reimbursable Manpower Guidance. These positions will not be documented on the OCSE TDA, as they remain with the providing organizations.

e. The study found that OCSE relies heavily on contractor positions, emphasizing a significant dependence on contractors to execute mission-critical work. Given the fluidity of the workload, the number of contractors reported initially at 45 was validated at 39. USAMAA does not recommend insourcing or documenting these positions. Instead, OCSE should actively manage and reassess the utilization and size of contractor augmentation.

f. The study identified 3 Over-Hire (OH) positions executing enduring workload. Over-hires are defined as non-enduring manpower requirements filled by Department of the Army Civilians (DAC), where no valid authorization exists. USAMAA recommended that the current over-hires be reviewed to determine a permanent solution and to assess the feasibility of continuing these positions by utilizing the identified decrement of 6 Civilian positions.

7. Way Ahead. SAAL-ZRH will coordinate with USAMAA to review and validate the findings from this study. Within 30 days of USAMAA's approval/validation memorandum, SAAL-ZRH will coordinate with DAMO-FM to schedule an out-brief to the Deputy Director, Force Management. The read-ahead, including the TDA crosswalk and Schedule 8 (SAMAS format), will be submitted to G-37/FMP three working days prior to the scheduled briefing.

8. Conclusion. The U.S. Army Office of the Chief Systems Engineer (OCSE) study has provided valuable insights into the organization's manpower and operational needs, validating 69 positions across 11 work centers, including 2 military and 27 civilian requirements. However, the study revealed discrepancies in the reported numbers for contractors. This discrepancy underscores the need for OCSE to reassess its contractor employment strategies to ensure alignment with actual workload requirements. By addressing these discrepancies and making the necessary adjustments, OCSE can enhance its ability to effectively and efficiently achieve its mission objectives, thereby improving overall organizational performance and mission execution. Additionally, these adjustments can lead to significant cost savings, optimizing resource allocation and reducing unnecessary expenditures.

9. [CONTACT INFORMATION REDACTED]

3 Encls

[NAME REDACTED]

Director, Human Capital Resource

Integration Directorate (SAAL-ZRH)

This document has been redacted to remove personally identifiable information.

Organizational and analytical content preserved for demonstration purposes.

Office of the Chief Systems Engineer (OCSE)

Observation: Mission Statement - There was an absence of clearly defined mission statements, which are critical for aligning personnel efforts with organizational objectives. Without a clear mission statement, teams may lack direction, resulting in inconsistent priorities and reduced operational effectiveness. Establishing a codified mission is not a formality, it is foundational to any credible manpower assessment.

Recommendation: Develop a concise and clearly articulated mission statement that aligns with Army doctrinal standards. The mission statement should be structured around measurable outcomes, validated core functions, and strategic objectives. A well-structured and effective mission statement improves task and purpose clarity, aligns functions with army modernization objectives, and reinforces decision-making and governance.

Observation: Functions - Several functions lacked clear definitions, which hindered effective workflow validation. The absence of well-defined functions introduced ambiguity, making it difficult to accurately assess workload distribution, task ownership, internal coordination, and overall efficiency. Functional clarity is essential to enable consistent communication, traceable responsibility, and accurate task evaluation. Clear functional definitions tied to mission outcomes are mandatory before progressing to any resource determination.

Recommendation: Establish clearly articulated, defined, and structured functions that are measurable, deliverable-driven, and aligned with Army objectives. This will enhance interdepartmental coordination, increase transparency and efficiency, prevent redundancy and mission creep, and ensure workload supports valid personnel requirements and mission execution.

Observation: Frequency and Workload Rationalization - Unreliable frequency counts or duration metrics tied to core outputs, undermines any attempt at quantification. Without standardized workload tracking mechanisms—such as process maps, time studies, and frequency logs — reported task data remains anecdotal and lacks analytical rigor. Additionally, frequency inconsistencies and redundant workload entries inflated perceived resource requirements without substantive justification, complicating accurate manpower validation.

Recommendation: Workload rationalization is critical for accurately determining manpower requirements. Implement measurable tracking methods for hours, task frequencies, and outcomes to ensure workload legitimacy. Ensure these tools are consistently applied across all functions to capture accurate and repeatable task frequency and duration data. Link enduring workload to army objectives through policy mandates or operational directives. Establish clear measurement standards to improve transparency and accuracy in workload

reporting. Additionally, provide training to responsible personnel on proper workload documentation practices to eliminate redundant or inflated entries. This foundation is essential for supporting data-driven manpower validation and resource allocation decisions.

Observation: Indirect workload - Without a clearly stated purpose linked to authoritative guidance, it is impossible to reliably distinguish between direct and indirect workload. High Levels of Indirect Workload across OCSE were identified. A substantial portion of the reported workload involved repetitive, indirect supervisory tasks, administrative tasks, and non-available time. This high level of indirect workload reduces focus on core work activities and creates inefficiencies.

Recommendation: Streamline and delineate workload more effectively by distinguishing between direct (mission-critical) and indirect tasks. Prioritizing mission-critical tasks and minimizing time spent on administrative duties can enhance overall efficiency. Implementing more efficient internal coordination and data validation processes can help reduce the administrative burden. This might involve automating tools for repetitive tasks or virtual training, delegating administrative work to OCSE support staff, or improving workflows to ensure that mission-critical activities are not overshadowed by administrative responsibilities, reduce manual intervention, streamline workflows, and decrease the potential for human error.

Observation: Organizational Structure – The manpower study identified structural inefficiencies and inconsistent workforce utilization across multiple work centers, including Software Modernization (SW), Cyber Focal (CF), Business Resource and Operations Management (BROM), Independent Test and Risk Assessment (ITRA), and Artificial Intelligence (AI).

In the Software Modernization (SW) work center, approximately 75% of the technical workload is handled by contractors. However, this work center lacks clear documentation of its core functions, outputs, and deliverables. This absence of transparency undermines accountability and limits the ability to validate resource needs, potentially resulting in inefficient resource allocation and elevated personnel costs.

The Cyber Focal (CF) work center similarly relies on contractor support, but its workload is developmental and non-enduring in nature, which currently does not justify permanent positions. CF lacks sufficient recurring workload data and exhibits unclear delineation of roles relative to external stakeholders, including the Army CIO, ASA(ALT), USAASC, and PEOs. Without clearly defined functional boundaries and traceable workload metrics, future validation and staffing decisions will remain speculative.

In the Business Resource and Operations Management (BROM) work center, structural inefficiencies include redundant supervisory roles. Two NH-04-level supervisors are in place despite the workload being adequately managed by a single supervisor, supported by a certified Team Lead. With both holding FML 3 certification, financial management expertise is well-distributed, supporting complex budgeting and compliance. The NH-04 Operations Officer role is underutilized and misaligned with the strategic responsibilities expected of that grade. Additionally, a contractor performing overlapping duties in the front office reflects redundant labor and potential misallocation of resources.

The Independent Test and Risk Assessment (ITRA) work center presents a unique challenge: it relies on a "unified" workforce model rather than a team of dedicated full-time equivalents (FTEs). Many of its personnel also support other functions and are not solely assigned to ITRA responsibilities. This distributed workload model makes it difficult to distinguish and quantify ITRA-specific contributions, limiting accurate manpower validation and effective resource planning.

The Artificial Intelligence (AI) work center is newly established and was operational for less than a year during data collection. Its workload and mission remain undefined, with the work center still assessing its purpose and contributions within OCSE.

Collectively, these findings reveal a pattern of under-documented functions, overlapping roles, and staffing models that blur accountability and reduce organizational efficiency.

Recommendation: Tie all contractor roles to specific, measurable outputs, and conduct regular audits to validate workload justification. Document workload across all work centers using process maps, time studies, and frequency logs—especially in developmental areas like CF—to support future manpower validation.

Streamline supervisory structures by eliminating redundant roles. In BROM, reduce to one NH-04 supervisor, reclassify the underutilized NH-04 Operations Officer to NH-02, and reassign it to the Front Office. Reallocate or eliminate overlapping contractor positions.

Clarify CF’s organizational role relative to external stakeholders (e.g., Army CIO, ASA(ALT), USAASC) to avoid duplication and enhance coordination. Maintain flexible staffing (e.g., contractors, interns) only with documented, outcome-based justification. Temporary roles should not become permanent without approval. Do not recommend insourcing or documenting contract positions at this time. Conduct a revalidation within three years to reassess CF staffing needs based on actual workload execution.

Evaluate consolidation of ITRA with Digital Capabilities (DC) due to shared workforce. ITRA must begin documenting its unique workload to support potential future validation as a distinct function.

For AI, maintain a single position and consolidate with Digital Transformation-DC (DTD-DC) in the short term. After sufficient workload data is collected, reassess whether AI should remain consolidated or stand-alone based on demonstrated workload needs.

Observation: Deputy - Deputy positions should only be established when no subordinate can serve in an acting capacity and when workload volume clearly demands an additional leadership layer. Per wartime structuring principles, if a billet would not be created today in wartime, it should not exist in peacetime staffing.

Recommendation: Cyber Focal (CF): The deputy position is unnecessary. The current organizational structure does not justify a deputy role; therefore, the position should be eliminated or its duties consolidated within existing leadership.

Business Resource and Operations Management (BROM): The deputy position is unwarranted. Reclassify the underutilized NH-04 Operations Officer to NH-02 and reassign the role to the Front Office. Overlapping contractor positions should be eliminated or reassigned to reduce redundancy.

Digital Transformation Headquarters (DTD HQ): The deputy position is redundant. Leadership responsibilities should be absorbed into existing structures to remove supervisory overlap and comply with DoD efficiency directives.

Update the Table of Distribution and Allowances (TDA) to clearly define and optimize the role of any existing deputy position.

Observation: HRDB - The Human Resources Database (HRDB) is currently not aligned with the Army's authoritative document, the Table of Distribution and Allowances (TDA). This misalignment poses a significant challenge, as the HRDB should ideally be structured to align with the positions outlined on the TDA. The misalignment between the HRDB and the authoritative TDA document indicates a potential discrepancy in the organization's human resources management. The HRDB should serve as a reliable source for manning information, however, its structure should mirror the positions designated in the TDA. The misalignment can lead to inaccuracies in personnel data and hinder effective human resources management.

Recommendation: Conduct a thorough review and adjustment of the HRDB to ensure alignment with the TDA. The database should be structured to reflect positions outlined in the authoritative document, clearly and accurately representing the organization's human resources position information. Additionally, centralize the management of the database to enhance consistency and accuracy in data management. This centralized approach will facilitate better oversight and ensure that all human resources data is up-to-date and aligned with organizational needs.

Observation: Implement process improvements - The lack of standardized procedures and process maps results in inefficiencies and ineffective resource allocation.

Recommendation: Consider integrating financial streams more effectively to eliminate redundant data entry and streamline the reconciliation process. Develop standardized reporting templates or dashboards that integrate data from various systems to centralize data analytics and reporting functions while improving consistency and reducing duplicated efforts. A real-time data tracking and monitoring system will reduce the burden of manual updates and allow leadership to make informed decisions quickly.

Table 1. Work Center Manpower Summary Table.																				
UIC: W0FRAA	**TDA REQS**					**ONBOARD**					**VALIDATED**					**DELTA**				
WORK CENTER	**MIL***	**CIV**	**CTR**	**OTH**	**TOT**	**MIL**	**CIV**	**CTR**	**OTH**	**TOT**	**MIL**	**CIV****	**CTR**	**OTH*****	**TOT**	**MIL**	**CIV**	**CTR**	**OTH**	**TOT**
OCSE - FO	2	3	0	0	5	2.0	3.0	0.0	0.0	5.0	2	3	0	0	5	0	0	0	0	0
OCSE - BROM HR	0	4	0	0	4	0.0	3.9	1.3	0.0	5.2	0	2	1	0	3	0	-2	1	0	-1
OCSE - BROM CFO	0	4	0	0	4	0.0	4.0	0.0	0.0	4.0	0	4	0	0	4	0	0	0	0	0
OCSE - Cyber Focal	0	9	0	0	9	0.0	4.8	13.5	1.1	19.4	0	6	23	0	29	0	-3	23	0	20
OCSE - DTD HQ	0	2	0	0	2	0.0	2.0	1.5	0.8	4.3	0	2	1	0	3	0	0	1	0	1
OCSE - DTD AARP	0	3	0	0	3	0.0	1.4	1.8	0.0	3.2	0	2	0	0	2	0	-1	0	0	-1
OCSE - DTD AI	0	1	0	0	1	0.0	0.8	3.3	0.0	4.1	0	1	0	0	1	0	0	0	0	0
OCSE - DTD DC	0	2	0	0	2	0.0	1.1	8.0	0.8	9.8	0	2	6	0	8	0	0	6	0	6
OCSE - DTD DE	0	0	0	0	0	0.0	0.0	4.2	1.0	5.2	0	0	2	1	3	0	0	2	1	3
OCSE - DTD ITRA	0	2	0	0	2	0.0	1.3	1.3	1.2	3.8	0	2	0	0	2	0	0	0	0	0
OCSE - DTD SW	0	3	0	0	3	0.0	2.7	10.1	1.0	13.8	0	3	6	0	9	0	0	6	0	6
TDA Adjustment	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0	0	0	0	0	0.0	0	0	0	0	0
TOTAL	2	33	0	0	35	2.0	25.0	44.9	5.8	77.7	2	27	39	1	69	0	-6	39	1	34
Note: Includes *NONADD (22), **TDA (3) not reported, M2B (23), ***OH (3), MTX (5)																				

*NONADD (22)	This indicates 22 of the 39 REQs are Non-Add Positions
**M2B (23)	This indicates that 23 validated TDA CIV positions are under the M2B PARA/LN 800, the remaining 16 positions are under PARA/LN 001/003/005.
***OTH (OH (3), MTX (5)	This indicates the break down of the 1 validated Other (OTH) positions.

All on board contractors regardless of status
All on-board personal who are not assigned to a line number and are not a contractor

STAR OF THE SEA CONSULTING, LLC

Service-Disabled Veteran-Owned Small Business

MEMORANDUM

TO: Shelly Enderud, City Administrator
FROM: Jeremy Williams, Principal Consultant
DATE: March 24, 2026
RE: Supplemental Information — Streets Division Operational Efficiency Study

Please find attached the following supplemental documents in response to our recent discussions:

Project Timeline and Payment Structure
Peer City Benchmarking Framework (five validated cities)
Draft Scope of Work / Contract Exhibit A
Process Mapping Clarification (below)

Thank you for the opportunity to provide this additional information. I remain available to discuss any questions.

PROCESS MAPPING CLARIFICATION

Process mapping is a diagnostic technique used during the analytical phase of the study — it is not a separate deliverable or additional scope element.

During workload analysis, I use process mapping to document how specific tasks are currently performed — the sequence of steps, handoffs, equipment staging, and crew coordination involved in activities such as pothole repair, snow route clearance, or sign replacement. This documentation allows me to accurately quantify the labor hours required for each task and identify where time is consumed by value-added work versus delays, travel, or rework.

For the City, this means no additional burden beyond the staff engagement already described in the proposal. Process mapping is performed through a combination of work order data review, brief SME conversations, and operational observation where appropriate — all of which are already accounted for in the study methodology and City staff time estimates.

The output of process mapping feeds directly into the workload model; it is not delivered as a standalone document. The City receives the analytical conclusions and recommendations derived from this work, not raw process diagrams.

STAR OF THE SEA CONSULTING, LLC
Service-Disabled Veteran-Owned Small Business

MEMORANDUM

TO: Shelly Enderud, City Administrator
FROM: Jeremy Williams, Principal Consultant
DATE: March 24, 2026
RE: Peer City Benchmarking Framework — Streets Division Operational Efficiency Study

Executive Summary

This memorandum presents five validated peer cities for benchmarking Post Falls' Streets Division operations: Great Falls (MT), Logan (UT), Pocatello (ID), Sheboygan (WI), and Cheyenne (WY). These cities were selected through a rigorous screening of more than 50 candidates across eight states, applying criteria specifically designed to produce apples-to-apples comparisons that will withstand scrutiny.
The selection methodology prioritized: (1) organizational structure matching Post Falls' streets-only division model, (2) comparable lane miles and staffing levels, and (3) similar climate and geography. Three of the five cities are in the mountain west corridor; one is an in-state Idaho peer; and one is a northern-tier city with exceptional operational data.

Why Peer Selection Methodology Matters

Benchmarking is only as credible as the peers it compares. Previous consulting engagements across municipal government have been undermined by peer selections that failed basic comparability tests—cities with dramatically different climates, organizational structures, or operational scopes that make staffing and efficiency comparisons meaningless.
To avoid this failure mode, the peer selection for this study applied a structured screening process with clear, documented criteria. The goal was to identify cities where an efficiency comparison would be genuinely informative—not cities that merely appeared in a database or happened to have similar populations.

Selection Criteria and Screening Logic

The following criteria were applied in priority order. A city had to pass each filter to remain in consideration:

1. Organizational Structure (Mandatory) — Post Falls' Streets Division handles streets maintenance, signs, signals, striping, and snow removal as a dedicated unit. It does *not* include fleet maintenance (a separate city function) or engineering. Peer cities must match this structure. Cities that bundle fleet maintenance or engineering with streets operations—such as Coeur d'Alene, which combines streets with city-wide fleet and engineering—were eliminated because staffing comparisons would be meaningless.
2. Lane Miles (Primary) — Post Falls maintains approximately 482 lane miles (~200 centerline miles). Target range: 450–520 lane miles (±15%). This is the primary operational scale indicator.
3. Staffing Level (Primary) — Post Falls Streets Division: 23 FTEs. Target range: 18–28 FTEs (±25%). The FTE count must be isolable to streets-specific functions, not bundled with other departments.
4. Climate and Geography (Must Be Close) — Post Falls averages ~50 inches of annual snowfall at ~2,200 feet elevation. Target range: 40–70 inches snowfall, 1,500–3,500 feet elevation. Geographic priority: Pacific Northwest inland corridor first (eastern WA, northern ID, western MT), broader mountain west second (UT, CO, WY), northern tier third (only if mountain west options exhausted).
5. Population (Secondary) — Post Falls: 48,303. Target range: 36,000–60,000 (±25%).

6. Data Availability (Practical) — Cities must have accessible budget documents, identifiable staffing data, and preferably a contactable Public Works Director. Cities with no publicly accessible operational data were not useful regardless of geographic fit.Validated Peer Cities

The following five cities passed all screening criteria and represent the strongest available peer group:

City	Population	Centerline Mi	Snowfall	Streets FTEs	Asset System	Strength
Post Falls, ID	48,303	~200	~50"	23	iWorqs	*Baseline*
Great Falls, MT	60,442	~250–300*	58"	TBV	Cartegraph	**Strong**
Logan, UT	54,000	~150–250*	53"	18	ArcGIS/ Elements	**Strong**
Pocatello, ID	57,000	~265–316	~45"	32+	ArcGIS	**Strong**
Sheboygan, WI	50,000	~198	47"	30+	GIS/Tyler	Moderate-Strong
Cheyenne, WY	65,000	~353	60"	25	Cartegraph	Moderate

**** Centerline miles to be verified during direct outreach. TBV = To Be Verified.***

Great Falls, Montana

Strongest overall comparable in the mountain west corridor. Street Division handles streets, signs (14,667), signals (90), pavement markings, and snow removal—precisely matching Post Falls' scope. Fleet operates as a completely separate Central Garage Division; Engineering is a separate division with different physical address. Uses Cartegraph (OpenGov) for asset management with published pavement condition data (OCI 68.4, PCI 74). Funded through a dedicated Street Maintenance Assessment district.

Logan, Utah

Closest staffing match at 18 FTEs (vs. Post Falls' 23). Street Maintenance Division is organizationally separate from Fleet Services and Engineering, each with dedicated managers. Handles streets, signs, paint/striping, and snow removal. Population (54k), snowfall (53"), and scope are excellent matches. Uses ArcGIS Enterprise with Elements XS and operates a public-facing snowplow tracker.

Pocatello, Idaho

Only viable in-state Idaho peer—providing invaluable same-state regulatory, funding mechanism, and labor market comparisons. Street Services is a fully separate operational unit from Fleet Management (its own department) and Engineering. Publishes PCI data (current score: 75.28, "Very Good") assessed by Infrastructure Management Services. Operating budget: $10.3M (FY2024).

Sheboygan, Wisconsin

Tightest centerline-mile match (~198 vs. Post Falls' ~200) and richest published operational data. Streets & Traffic Division handles all functions matching Post Falls' scope, with fleet costs managed through a separate Motor Vehicle Fund. Published metrics include sign inventory

(30,000), signalized intersections (39), and streetlights (2,700+). Northern tier city with excellent snowfall match (47").

Cheyenne, Wyoming

Most transparent and well-documented organizational structure. Budget documents specify 25 FTEs in Street & Alley Division with clear separations from Traffic, Fleet Maintenance, and City Engineer (a separate department). Uses Cartegraph (same system as Great Falls), enabling direct workflow comparison. Higher elevation (6,062 ft) and larger network limit some comparisons, but valuable for process and staffing benchmarking.

Data Availability and Outreach Requirements

The RFP specified six benchmarking metrics: PCI/PASER scores, plow cycle duration, deferred pothole counts, deferred sidewalk repairs, pavement marking lifecycle percentages, and FTEs per lane mile. Research across all candidate cities confirms a consistent finding: these granular operational metrics are almost universally not published in publicly accessible documents.
This is not a limitation of the peer set—it reflects standard municipal practice nationwide. Operational data of this specificity exists internally within work order and asset management systems (Cartegraph, Cityworks, ArcGIS), but it is not published to city websites or included in budget documents. Obtaining it requires direct outreach: phone calls to public works directors, formal data-sharing requests, and often multiple follow-ups.
This outreach is standard professional practice in municipal benchmarking studies and is planned as Phase 4 (Peer Benchmarking) of the study methodology. It occurs during study execution, not before contract award. The peer city contacts identified below represent the groundwork laid to enable efficient outreach once the engagement begins.

Conclusion

The peer city framework presented above was developed specifically to address a common failure mode in municipal consulting: benchmarking against cities that are not genuinely comparable. Each of these five cities was validated against structured criteria, with documented rationale for inclusion. The selection prioritizes organizational structure matches, operational scale alignment, and climate similarity—the factors that make efficiency comparisons meaningful.
This framework is validated and ready for execution upon contract award. Direct outreach to peer city contacts will occur during Phase 4 of the study, when detailed operational data can be requested in the context of a formal benchmarking engagement.

Respectfully submitted,

Jeremy Williams
Owner / Principal Consultant
Star of the Sea Consulting, LLC
Service-Disabled Veteran-Owned Small Business

STAR OF THE SEA CONSULTING, LLC

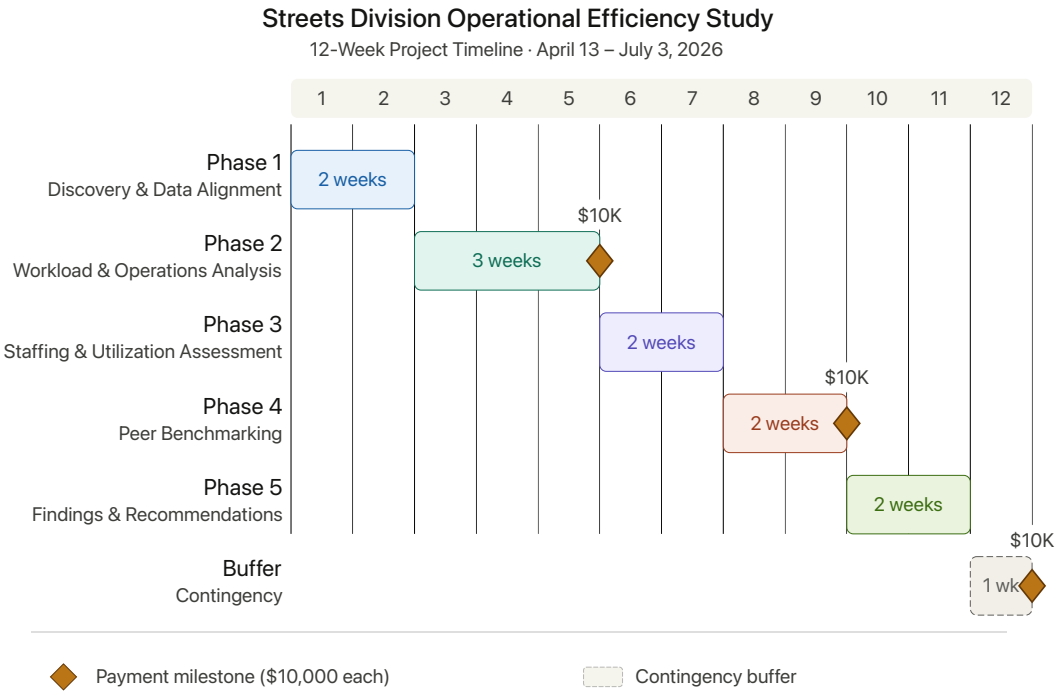
Task-Based Workload & Manpower Analysis
Service-Disabled Veteran-Owned Small Business

TO: Shelly Enderud, City Administrator
FROM: Jeremy Williams, Principal Consultant
DATE: March 24, 2026
RE: Supplemental Information: Streets Division Operational Efficiency Study

Thank you for the opportunity to provide supplemental information regarding the proposed Streets Division Operational Efficiency Study. Per your request, this memorandum provides a detailed project timeline with specific deliverable dates, along with clarification on the proposed payment milestone structure.

Project Timeline

Assuming contract execution on Monday, April 13, 2026, the study will be completed within twelve weeks.



Phase Schedule

Phase	Description	Duration	Dates
1	Discovery & Data Alignment	2 weeks	Mon Apr 13 – Fri Apr 24, 2026
2	Workload & Operations Analysis	3 weeks	Mon Apr 27 – Fri May 15, 2026

3	Staffing & Utilization Assessment	2 weeks	Mon May 18 – Fri May 29, 2026
4	Peer Benchmarking	2 weeks	Mon Jun 1 – Fri Jun 12, 2026
5	Findings & Recommendations	2 weeks	Mon Jun 15 – Fri Jun 26, 2026
—	*Contingency Buffer*	*1 week*	*Mon Jun 29 – Fri Jul 3, 2026*

Deliverable Schedule

Deliverable	Due Date	Notes
Study Plan	Wed Apr 15, 2026	Presented at kickoff meeting
Progress Report #1	Fri May 15, 2026	End of Phase 2; with billing milestone
Progress Report #2	Fri Jun 12, 2026	End of Phase 4; with billing milestone
Draft Written Report	Fri Jun 26, 2026	Submitted for City review
Final Written Report	Fri Jul 3, 2026	Incorporates City feedback; with billing milestone
Council Presentation	TBD	Scheduled separately if requested by City

Timeline Notes

- Memorial Day (Monday, May 25) falls during Phase 3. Please advise if key personnel will be unavailable during that week so we can adjust the schedule accordingly.
- Week 12 (June 29 – July 3) is reserved as contingency buffer if peer city data collection or City review requires additional time.
- This timeline assumes data system access (iWorqs, Tyler INCODE, GIS) is established within five business days of contract execution.

Payment Milestone Structure

I understand the City's standard is net 30 payment on completed milestones, and I am proposing a structure that aligns with that standard while reflecting the actual work distribution and capital constraints of a small consulting firm.

Milestone	Amount	Percentage	Date
Progress Report #1 Accepted	$10,000	33%	May 15, 2026
Progress Report #2 Accepted	$10,000	33%	Jun 12, 2026
Final Report Accepted	$10,000	34%	Jul 3, 2026
Total Contract Value	**$30,000**	**100%**	

Milestone Justification

By the Progress Report #1 milestone (May 15, 2026), the following work will be completed:

- **Phase 1: Discovery & Data Alignment** — kickoff meeting, data system access, organizational document review, initial data quality assessment
- **Phase 2: Workload & Operations Analysis** — task inventory mapping, seasonal workload pattern analysis, labor hour quantification

By the Progress Report #2 milestone (June 12, 2026), the following additional work will be completed:

- **Phase 3: Staffing & Utilization Assessment** — productive hours modeling, staffing ratio analysis
- **Phase 4: Peer Benchmarking** — peer city data collection and comparative analysis

The three-milestone structure distributes payments across the project timeline while ensuring each payment is tied to substantial, accepted deliverables. Two-thirds of the contract value remains contingent on work completed after the first milestone.

Small Business Consideration

As a Service-Disabled Veteran-Owned Small Business, Star of the Sea Consulting operates with limited working capital. Carrying 100% of engagement costs for twelve weeks creates cash flow risk that larger firms can absorb but smaller firms cannot.

The proposed three-milestone structure is standard practice in federal small business contracting precisely because it balances client protection (payment tied to completed, accepted deliverables) with vendor viability (reasonable cash flow timing). This structure:

- Complies fully with the City's net 30 milestone standard — no payment is requested before work is completed and accepted
- Protects the City — two-thirds of contract value remains contingent on work completed after the first milestone
- Reflects work distribution — milestones align with distinct phase completions
- Enables small business participation — consistent with federal procurement best practices for SDVOSB contractors

I am committed to delivering value at each milestone and remain open to discussing the payment structure further during contract negotiation if the City prefers to explore alternatives.

Respectfully submitted,

Jeremy Williams

Owner / Principal Consultant

Star of the Sea Consulting, LLC

EXHIBIT A
SCOPE OF SERVICES
City of Post Falls Streets Division Operational Efficiency Study

1.0 SCOPE OVERVIEW

Star of the Sea Consulting, LLC ("Consultant") shall conduct an Operational Efficiency Study of the City of Post Falls Streets Division ("Study"). The Study applies task-based workload and manpower analysis methodology, grounded in federal workforce analysis doctrine and adapted for municipal field operations, to evaluate the efficiency and effectiveness of the Streets Division.

1.1 Study Objectives. The Study will:

- Quantify Streets Division workload using asset-driven, event-driven, and demand-driven metrics
- Translate documented workload into annual labor hour requirements using established production rates and availability factors
- Identify staffing requirements necessary to sustain current service levels under documented operational conditions
- Benchmark operations and staffing against comparable peer municipalities
- Provide implementation-ready recommendations with estimated fiscal and operational impacts
- Assess in-house versus contracted service delivery at a conceptual level

1.2 Analytical Framework

The methodology is derived from federal manpower analysis doctrine (AR 570-4, DoDI 1100.4, DoDI 1100.22), adapted for a municipal, field-based operating environment. Core principles include: (a) workload drives manpower requirements, not budget targets or historical staffing; (b) service and performance objectives must be explicitly linked to staffing levels; (c) operational variability and surge events must be incorporated into staffing analysis; and (d) workforce mix decisions must consider continuity, risk, and control—not cost alone.

1.3 Analytical Mechanics

The methodology employs quantitative modeling that translates workload units into labor hours through multi-step conversion protocols including: production rate calibration, controlled variance banding, structural contingency factors, and support-to-direct work ratio derivation. Labor capacity is converted to fiscal terms using unit-consistent cost translation that distinguishes productive hours from paid hours—a critical distinction that prevents the common municipal error of equating budgeted positions with executable capacity.
Scenario modeling applies variable-level sensitivity analysis to identify structural tolerance boundaries and convergence risk conditions where multiple operational stressors produce amplified destabilization effects. All findings maintain full traceability from workload driver to fund-level appropriation.

1.4 Advisory Nature

This Study is advisory in nature. Findings and recommendations are intended to inform City management and Council deliberations. All decisions regarding staffing levels, organizational structure, contracting approaches, service standards, and budget allocations remain solely within the authority of City management and Council.

2.0 CONSULTANT TASKS

2.1 Administrative Tasks

2.1.1 Kickoff Meeting. Consultant shall conduct a kickoff meeting with City staff within five (5) business days of contract execution to confirm scope, methodology, timeline, data requirements, and expected outcomes. Consultant shall present a Study Plan documenting the approach and schedule.

2.1.2 Progress Reporting. Consultant shall provide monthly progress reports documenting work completed, findings to date, upcoming activities, and any issues or risks requiring City attention. Progress reports shall accompany monthly invoices.

2.2 Operational and Functional Review

2.2.1 Core Services Definition. Based on City leadership input and research of comparable municipalities, Consultant shall define the core services that should be provided by the Streets Division, distinguishing between direct mission work, support-to-mission activities, and overhead functions.

2.2.2 Service Inventory

Consultant shall inventory all services currently provided by the Streets Division, including identification of resources allocated to each service category (staffing, budget, equipment, technology). Workload will be evaluated across asset-driven work (street network, traffic control devices, pavement markings, snow routes), event-driven work (snow/ice events, emergency response, traffic incidents), and demand-driven work (service requests, interdepartmental support).

2.2.3 Operational Assessment

Consultant shall identify inefficiencies, redundancies, service gaps, risks, and improvement opportunities within current operations. Assessment shall include review of workflows, policies, procedures, and use of technology (including work order systems and fleet tracking).

2.2.4 Peer Benchmarking

Consultant shall benchmark Streets Division operations and performance against a minimum of four (4) comparable peer municipalities. Consultant will conduct direct outreach to peer city public works directors to obtain operational data. Benchmarking analysis will address the following metrics where data is obtainable:

- Most recent average Pavement Condition Index (PCI) or equivalent rating
- Average duration to complete citywide plow operations
- Deferred pothole repair backlog (where tracked)
- Deferred sidewalk repair backlog (where tracked)
- Pavement markings lifecycle compliance percentage (where tracked)
- Full-time equivalent (FTE) staffing per lane mile
-

NOTE: *Industry research indicates that granular operational metrics (deferred repair backlogs, plow cycle times, marking lifecycle data) are not publicly reported by most municipalities and require direct data-sharing requests. Benchmarking analysis will incorporate data obtained through outreach; where peer data is unavailable, Consultant will document data gaps and recommend future tracking methodology.*

2.2.5 SWOT Analysis

Consultant shall identify strengths, weaknesses, opportunities, and risks in current operations based on data analysis, staff input, and peer comparison.

2.2.6 Fiscal Stress Scenarios

Consultant shall identify services that may be reduced, restructured, or eliminated under various fiscal stress scenarios, with estimated impacts on service levels and operations.

2.2.7 Performance Metrics

Consultant shall identify recommended performance metrics for ongoing Streets Division management, including data sources and collection methodology where applicable.

2.3 Staffing and Financial Analysis

2.3.1 Organizational Review

Consultant shall review current organizational structure, reporting relationships, span of control, and alignment with service objectives.

2.3.2 Staffing Evaluation

Consultant shall evaluate staffing levels, position classifications, workload distribution, supervision ratios, current vacancies, and workforce risks including succession considerations. Evaluation shall address use of full-time, part-time, and seasonal staff.

2.3.3 Workload-to-Staffing Analysis

Consultant shall convert validated workload data into total annual labor hour requirements through a structured multi-step translation protocol:

Step 1 — Unit Confirmation: Each workload driver is anchored to a defined, measurable unit.

Step 2 — Production Rate Establishment: Average labor hours per unit are calibrated under documented operating conditions.

Step 3 — Volume Multiplication: Total labor hours = Workload Units × Hours per Unit.

Step 4 — Controlled Variance Application: Documented variance bands account for operational variability (weather, terrain, equipment, crew composition).

Step 5 — Bounded Structural Contingency: A capped, transparent contingency factor addresses surge displacement and minor inefficiencies.

Support-to-Mission hours are derived proportionally from Direct Work; Support-to-Self hours are treated as structural overhead. Integrity safeguards prevent duplication, premature averaging, and contingency inflation.

Labor hour requirements are expressed as total annual manpower demand and compared to productive capacity (not paid hours or authorized positions) to prevent overstating executable labor supply.

2.3.4 Overtime Analysis

Consultant shall review overtime utilization patterns, identify root causes, and recommend mitigation strategies where appropriate.

2.3.5 Cost Efficiency Assessment

Consultant shall assess cost efficiency and overhead allocation at a division level. Analysis will identify cost-saving opportunities including potential consolidation, shared services, regional partnerships, cross-training, and phased service adjustments consistent with City policy. Alternative service delivery models will be assessed at a conceptual level.

2.3.6 Structural Scenario Modeling

Consultant shall develop scenario models that test validated baseline conditions against foreseeable operational and fiscal stressors. Scenarios may include:

Demand increase conditions

Productivity adjustment conditions

Vacancy/staffing compression conditions

Revenue constraint conditions

Backlog recovery conditions

Scenario outputs may include: demand-capacity alignment margins, overtime reliance thresholds, backlog trajectory indicators, and fiscal exposure bands.

Sensitivity analysis will identify possible structural tolerance boundaries—the operating envelope within which the division remains stable—and quantify variable-level inflection points where single-digit percentage shifts convert operational surplus to structural deficit.

Convergence risk analysis will identify possible high-volatility conditions where multiple stressors compound to produce accelerated destabilization.
All scenario modeling preserves unit consistency and remains anchored to adopted FY25 fiscal authority. No probability assignments or policy preferences are embedded in scenario presentation.

2.3.7 Fiscal-Operational Alignment Analysis

Consultant shall evaluate alignment between validated workload demand and adopted budget authority within the City's legal level of control (fund level). Analysis will include:

- Reconstruction of the operating baseline from adopted appropriations
- Derivation of fully burdened unit labor cost per productive hour
- Demand-to-cost equivalency testing
- Fiscal stress breakpoint identification under seasonal and operational variance
- Financial transparency review assessing traceability from workload driver to fund-level appropriation

Analysis will distinguish recurring service delivery costs from episodic capital investment and will not conflate capital asset value with operating capacity.

2.4 Policies, Governance, and Best Practices

2.4.1 Policy Review

Consultant shall review existing Streets Division policies, procedures, and interdepartmental coordination practices. Review will identify opportunities to improve operational efficiency, transparency, accountability, and decision-making.

2.4.2 Process Evaluation

Consultant shall evaluate agenda preparation, purchasing, contracting, and approval processes as they affect Streets Division operations.

2.4.3 Best Practices Identification

Consultant shall identify applicable best practices from comparable local governments, APWA resources, and other sectors. Assessment will include applicability of private-sector or innovative public-sector practices to Post Falls operations.

2.4.4 Service Quality Considerations

Cost-saving opportunities identified will be evaluated against potential impacts on service quality; recommendations will distinguish between savings achievable without materially reducing service levels and those requiring service level tradeoffs.

2.5 Implementation Planning

2.5.1 Recommendations Development

Consultant shall develop implementation-ready recommendations addressing Study findings. Recommendations will include estimated fiscal and operational impacts where quantifiable.

2.5.2 Implementation Framework

Recommendations will include suggested implementation priorities, estimated timelines, identified responsible parties, and proposed performance measures for tracking implementation progress.

2.5.3 Administration and HR Coordination

Consultant will present findings to Administration and Human Resources representatives and incorporate feedback received during the Draft Report review period into Final Report recommendations. Coordination is limited to review meetings during the Draft Report phase; ongoing implementation support is excluded from this engagement.

3.0 DELIVERABLES

Consultant shall provide the following deliverables:

3.1 Study Plan

A document outlining the proposed methodology, data requirements, staff engagement schedule, timeline, and milestones. Due at kickoff meeting.

3.2 Monthly Progress Reports

Written summaries of work completed, preliminary findings, upcoming activities, and issues requiring City attention. Due with monthly invoices.

3.3 Draft Written Report

A comprehensive report addressing all scope elements, including executive summary, methodology description, findings, benchmarking analysis, and recommendations. City will have ten (10) business days to review and provide consolidated feedback.

3.4 Final Written Report

The Draft Report revised to incorporate City feedback, formatted as a Council-ready document.

3.5 Council Presentation (Optional)

If requested by City, Consultant will deliver a briefing to City Council summarizing Study methodology, key findings, and recommendations. Presentation materials will be provided in advance for City review.

Materials NOT Provided: *Proprietary analytical tools, models, or calculation engines; raw data submissions, intermediate datasets, or working files; interview recordings, notes, or field observation records.*

4.0 SCHEDULE

4.1 Duration

The engagement duration is approximately eleven (11) weeks from contract execution, with a one (1) week contingency buffer for data delays or scheduling constraints.

4.2 Deliverable Schedule

Specific deliverable due dates will be established in the Study Plan based on contract execution date.

Target deliverable timing:

–Study Plan: Within 5 business days of contract execution
— Progress Report #1: Approximately Week 5 (with first billing milestone)
— Progress Report #2: Approximately Week 9 (with second billing milestone)
— Draft Written Report: Approximately Week 11
— Final Written Report: Approximately Week 12

4.3 Schedule Adjustments

Material delays in City-provided data or staff availability may impact Consultant's delivery schedule. Consultant will notify City promptly of any anticipated schedule impacts and propose mitigation measures.

5.0 CITY RESPONSIBILITIES

To facilitate the Study, City shall:

5.1 Primary Contact

Designate a primary point of contact with authority to coordinate data access, staff scheduling, and communication across City departments.

5.2 Data Access

Provide requested data within five (5) business days of formal Consultant request, including but not limited to: iWorqs work order exports, Tyler INCODE financial data (via Finance), GIS asset data, GPS/fleet tracking data (to extent retained), and organizational documents.

5.3 Staff Availability

Make Streets Division personnel available for structured engagement sessions as outlined in the Study Plan. Estimated staff time commitment:

- Streets Manager: 8-12 hours
- Streets Supervisor: 6-10 hours
- Leads (3): 2-4 hours each
- Maintenance Workers: 1-2 hours each (representative sample)
- Administrative Assistant: 4-6 hours
- City Administration/HR Liaison: 4-8 hours

5.4 Workspace

Provide space for Consultant to meet with City staff during on-site work sessions.

5.5 Draft Review

Provide timely review of draft materials and consolidated feedback within ten (10) business days of Draft Report delivery.

6.0 ASSUMPTIONS

This Scope of Services is based on the following assumptions:

6.1 Data Availability

City will provide access to iWorqs, Tyler INCODE (via Finance-facilitated export), GIS, and other data systems identified in Section 5.2. Consultant's analysis is dependent on accuracy and completeness of City-provided data; Consultant will validate data through reconciliation checks where feasible but is not responsible for auditing or certifying source data integrity.

6.2 Data Limitations

City has indicated the following known data limitations: (a) no formally adopted service levels; (b) PCI data from 2022 with updates on 5-7 year cycle; (c) iWorqs historical data reliability is subjective; (d) GPS/fleet data retained for 90 days only. Consultant will work within these constraints; analysis and recommendations will reflect documented limitations.

6.3 Peer City Response

Benchmarking requires direct outreach to peer city public works directors. Response rates from peer cities are outside Consultant's control. Where peer data is unavailable, Consultant will document data gaps and provide alternative analysis approaches.

6.4 Normal Operations

The Study assumes normal operational conditions during the engagement period. Major emergencies, severe weather events, or other disruptions affecting staff availability may require schedule adjustments.

6.5 Cooperation

City staff will participate in good faith in data collection, validation, and structured engagement activities. Consultant cannot compel staff participation.

7.0 EXCLUSIONS

The following are expressly excluded from this engagement:

7.1 Human Resources Consulting

This engagement is task-based workload analysis, not HR consulting. Excluded activities include: compensation studies, position classification analysis, individual employee

performance evaluations, personnel grievance matters, disciplinary proceedings, and collective bargaining considerations.

7.2 Implementation Services

Consultant's role concludes upon City acceptance of the Final Report. Excluded activities include: implementation of recommendations, organizational change management, project management for identified initiatives, and ongoing advisory services beyond the engagement period.

7.3 Software and Technology

Selection, procurement, configuration, or implementation of software systems, work order platforms, or technology solutions.

7.4 Asset Management and Capital Planning

Pavement management system development, capital improvement program development, asset lifecycle analysis, or infrastructure condition assessment beyond operational review purposes.

7.5 Legal, Financial, or Compliance Advice

Legal opinions, audit services, financial advisory services, or regulatory compliance certification. Consultant is not a law firm, CPA firm, or licensed financial advisor.

7.6 Other City Divisions

This Study is limited to the Streets Division. Other Public Works divisions and City departments are outside scope, except where coordination or shared constraints directly affect Streets operations.

7.7 Staffing Reduction Exercise

This Study is not a staffing cut or workforce reduction exercise. Findings will objectively document workload-to-staffing relationships; staffing decisions remain with City management and Council.

7.8 Methodology Transfer

This engagement does not include transfer of proprietary analytical tools, production rate libraries, conversion factors, or calculation engines. Deliverables provide findings and recommendations; underlying modeling architecture and calibration data remain Consultant intellectual property.

8.0 DATA HANDLING AND CONFIDENTIALITY

8.1 Data Collection

Consultant will collect data through review of City records, structured staff engagement sessions, and peer city outreach. Consultant will not collect sensitive personal information beyond employee names, position identifiers, and pay band classifications necessary for analysis.

8.2 Confidentiality

Draft materials, working files, and interview notes will be treated as confidential. Final Report will present aggregated findings; individual employee observations will not be attributed by name without express permission.

8.3 Document Retention

Consultant will retain project files for a period of three (3) years following engagement completion, after which files may be destroyed unless otherwise required by law.

8.4 Analytical Integrity Controls

Consultant applies internal governance protocols to ensure analytical defensibility:

Unit Discipline: Hours remain hours; dollars remain dollars; FTE equivalents are derived only from validated productive capacity

Assumption Transparency: All modeling assumptions are documented in an Assumptions Register appended to the Final Report

Reconciliation Checkpoints: Key data elements are reconciled to authoritative City records at defined milestones

Non-Prescriptive Neutrality: Scenario modeling presents structural conditions without embedded policy preferences; staffing decisions remain solely within City authority

9.0 COMPENSATION

9.1 Fixed Fee
Consultant shall be compensated a fixed fee of Thirty Thousand Dollars ($30,000.00) for the complete Scope of Services described herein.

9.2 Payment Schedule
Payment shall be invoiced on a milestone basis as follows:

- Thirty-three percent (33%) of the fixed fee ($10,000) upon City acceptance of Progress Report #1;
- Thirty-three percent (33%) of the fixed fee ($10,000) upon City acceptance of Progress Report #2;
- Thirty-four percent (34%) of the fixed fee ($10,000) upon City acceptance of the Final Written Report.

City pays net 30 on completed milestones.

9.3 Out-of-Scope Work
Work requested by City beyond this Scope of Services requires written authorization and will be invoiced separately at mutually agreed rates.

— END OF EXHIBIT A —

CITY OF POST FALLS
OPERATIONAL EFFICIENCY STUDY ON STREETS DIVISION

1. PURPOSE

The City of Post Falls, Idaho ("City") requests a proposal to conduct an Operational Efficiency Study on the City's Streets Division, including a proposed scope of work and proposed fee. The objectives of this study are to identify core service functions, evaluate the efficiency and effectiveness of the division in meeting those functions, benchmark operations against comparable municipalities, and provide implementation-ready recommendations with estimated impacts.

The study is intended to provide City leadership and the City Council with data-driven, practical, and implementable recommendations grounded in municipal best practices and comparable peer city benchmarks.

2. BACKGROUND

Post Falls is a growing municipality in Kootenai County, Idaho, operating under a Mayor–Council form of government with a population of approximately 50,000. The City provides a broad range of municipal services, including but not limited to public safety, public works, community development, parks and recreation, and general administrative services.

The Streets Division is a 23 person (including management) operational unit within the Public Works Department. The division includes 17 streets maintenance workers, 3 leads, 1 supervisor, 1 administrative assistant, and 1 manager. The division is responsible for the maintenance of city-owned streets, signs, and traffic signals.

Continued growth, service demands, workforce challenges, and fiscal stewardship goals have prompted the City to undertake a specific operational review of the Streets Division to ensure that organizational structures, staffing levels, and business processes are aligned with current and anticipated community needs.

3. PROPOSAL

The proposal should include:

- General information on the proposer's firm and qualifications.

- A proposed methodology for the study which includes the requirements outlined in the Methodology section below.
- A draft scope of work, to be included in a finalized contract and which includes the requirements outlined in the Scope of Work section below and any additions or modifications suggested by the proposer.
- A proposed fee, outlining the cost to perform the study and the proposed payment process (lump sum, hourly, etc.).
- A proposed timeline for the project, including projected dates for required deliverables.

4. PROJECT METHODOLOGY

The proposed methodology should incorporate:

- A description of how the elements of the scope will be accomplished.
- Validation that the proposed methodology is effective in evaluating a municipal street division.
- Examples illustrating how the effectiveness of the streets division will be measured.
- Examples of previous projects using the same methodology including copies of the reports and other deliverables provided at the end of the project.
- An estimate of the necessary City staff time to support the project.
- Proposed peer cities of comparable size and service profile for benchmarking.

5. SCOPE OF SERVICES

The scope described below represents key areas of focus but is not intended to be exhaustive. The proposer is encouraged to recommend additional areas of analysis that would further advance the study goals.

Consultant Responsibilities:

Administrative

- Conduct a kickoff meeting to confirm scope, methodology, timeline, and expected outcomes.
- Provide monthly billing and progress reports.

Operational and Functional Review

- Define core services which should be provided by the Streets Division, based on city leadership input and research of comparable cities.
- Inventory all services provided by the division, including identification of resources (staffing, budget, technology, and assets) allocated to each service.
- Identify inefficiencies, redundancies, service gaps, risks, and improvement opportunities.
- Review, workflows, policies, and use of technology.

- Benchmark operations and performance against comparable municipalities using the following metrics and others recommended by the consultant:
    - Most recent average Pavement Condition Index.
    - Average duration to plow entire city.
    - Current number of deferred pothole repairs.
    - Current number of deferred sidewalk repairs.
    - Percent of arterials and collectors with pavement markings in current lifecycle.
    - FTEs per lane mile.
- Identify strengths, weaknesses, opportunities, and risks in current operations.
- Identify services that may be reduced, restructured, or eliminated under various fiscal stress scenarios.
- Identify recommended performance metrics.

Staffing and Financial Analysis

- Review current organizational structures, reporting relationships, span of control, and alignment with service objectives
- Evaluate staffing levels, classifications, workloads, supervision, vacancies, and workforce risks including succession planning.
- Review use of overtime and identify root causes and mitigation strategies.
- Assess cost efficiency, overhead allocation, and alternative service delivery models.
- Analyze cost-saving opportunities including consolidation, shared services, regional partnerships, cross-training, and phased service reductions consistent with City policy.
- Evaluate use of full-time, part-time, and seasonal staff.

Policies, Governance, and Best Practices

- Review existing policies, procedures, and interdepartmental coordination.
- Identify opportunities to improve processes and improve transparency, accountability, and decision-making.
- Evaluate agenda preparation, purchasing, contracting, and approval processes.
- Identify applicable best practices from comparable local governments and other sectors.
    - Assess applicability of private-sector or innovative public-sector practices
- Identify cost-saving opportunities that do not materially reduce service quality.

Implementation Planning

- Provide implementation-ready recommendations with estimated fiscal and operational impacts, in collaboration with Administration and Human Resources.
- Define recommended implementation priorities, timelines, responsible parties, and performance measures.

<u>City Responsibilities</u>

To facilitate the study, the City will:

- Dedicate staffing as outlined in the project methodology.

- Provide space for the consultant to meet with city staff.
- Provide timely reviews of draft materials.

6. EXPECTED DELIVERABLES

The consultant shall provide the following deliverables:

- Study Plan to implement the proposed methodology, due at the time of the kickoff meeting.
- Draft Written Report addressing the required items outlined in the scope of work.
- Final Written Report addressing city feedback.

7. GENERAL TERMS AND CONDITIONS

- The City reserves the right to reject any or all proposals.
- All costs associated with proposal preparation are the responsibility of the proposer.
- The consultant will be required to enter into a professional services agreement with the City of Post Falls.
- Insurance, indemnification, and contractual terms will be consistent with City requirements and Idaho law.

Data Systems and Access:
Could you help me understand what systems and data sources are available for the Streets Division?

1. **Work Order/Asset Management System:**
    - What system does the division use to track work orders, service requests, and maintenance activities? (e.g., Tyler/Munis, Cartegraph, CityWorks, Lucity, other)

We track work by the Streets division in a cloud-based software called iWorqs.

    - Can historical work order data be exported, and if so, what is the typical approval process and timeline for access?

This is possible but is not a process in which city employees are proficient. We can grant read-access within 24-hours and approval would be given by the Public Works Director.

    - How far back does reliable data extend?

Looking at historical data, the furthest entries appear to be from 2010. "Reliable data" would be subjective in my mind. There are only a couple of employees that are still working here from that timeframe. It would be hard to verify.

2. **GPS/Fleet Tracking:**
    - Does the Streets Division have GPS or AVL (Automatic Vehicle Location) tracking on its vehicles?

Streets has some capability to track our vehicles. This only applies to our fleet of dump trucks & loaders (for the snow operations program). We also have GPS tracking on our two sweepers.

    - If yes, what system is used, and what data elements are captured (routes, timestamps, idle time, etc.)?

We utilize US Fleet tracking as a vendor for this. They capture routes, speed, and time stamps. However, their data is only good for 90 days I believe. After that, it is purged from their system. I've asked to data to be kept longer, but at the time they indicated that they did not have that capability.

    - What is the process for exporting this data, and does it require IT or vendor assistance?

Website can run reports and be exported. No requirement other than login.

3. **Financial and Budgeting Systems:**
    - What system is used for budget tracking and expenditure reporting? (e.g., Munis, Tyler, other)

Tyler INCODE

    - Can division-level expense data be segmented by category (labor, materials, equipment, contracted services, overtime)?

Yes, I'll attach a report showing the categories we track. This does not include overtime explicitly but that can be obtained elsewhere.

4. **GIS and Infrastructure Data:**
    - Does the City have GIS data on street network, lane miles, pavement condition index (PCI), signs, signals, and other maintained assets?

Our GIS data includes streets, lane miles, PCI, and signs. Signals are not imported into GIS. Our PCI data is from 2022; updates are commonly on a 5-7 years cycle.

    - Is there an asset inventory that tracks quantities and condition ratings?

I am not aware of anything that can track quantities or condition. We have only had one survey competed since 2022.
Not really. iWorqs has some of this for signs.

5. **Timekeeping and Scheduling:**

- What system is used for employee timekeeping, leave tracking, and shift scheduling?

Tyler INCODE

- Can overtime data be extracted by employee and work category?

Yes

6. **Performance and Service Level Data:**
    - Are there existing performance metrics or service level targets (e.g., average plow time, pothole repair response time, pavement marking replacement cycles)?

There are no formally adopted service levels. We formally track the chipseal and overlay accomplished annually.

- Are there records of deferred maintenance backlogs?

No, not exactly. We have a few lists of items to be addressed and we have the PCI report which indicates which roads need maintenance.

Personnel Access and Availability:

To validate operational realities and ensure findings are grounded in the division's actual experience, I'll need structured engagement with Streets Division staff:

- **Division Manager:** Availability for kickoff meeting, periodic check-ins, and review sessions
- **Supervisor and Leads:** Availability for interviews and workflow validation
- **Maintenance Workers:** Availability for task-level data collection (surveys, interviews, or ride-alongs, depending on methodology)
- **Administrative Assistant:** Assistance with scheduling and document access

We will ensure staff are available to assist with this study. A key element of the proposal we wish to understand is the requested time commitment for the various employee classifications.

Are there any planned vacations, training events, or operational peaks (e.g., winter storm season) during the study period that would limit staff availability?

Summer (June through September) is a very busy time for Streets. Once we have a more defined schedule, we can address more detailed schedules such as vacations and trainings. Generally speaking, those should not impede the study, however.

Physical and Operational Access:

- Will I have access to Streets Division facilities for tours, equipment review, and on-site meetings?

Yes, we can schedule this access. We do not allow non-employees unrestricted access to our facility.

- Are there any union considerations, notification requirements, or protocols I should be aware of when engaging with division staff?

We do not have unions.

IT and Security Protocols:

- Does data access require IT security review, confidentiality agreements, or VPN setup?

Access to iWorqs is cloud based and would not require these items. GIS access can also be arranged via the web or specific data can be retrieved by our GIS team. Access to Tyler INCODE would not be permitted but data exporting would be facilitated by our Finance department.

- What is the typical timeline for granting external consultant access to city systems?

24-hours, when applicable

Document and Policy Review:

- Are the following documents readily available for review?
    - Current organizational chart for Streets Division

Attached

- Job descriptions for all positions

Available

- Standard operating procedures (SOPs)

Available

- Equipment inventory and replacement schedules

Fleet equipment available

- Capital improvement plans related to streets

No formal plans beyond the PCI study, which we can share

- Any prior operational assessments or studies

We are not aware of any

City of Post Falls

Streets Division Operational Efficiency & Workforce Analysis

To: Mayor and City Council, City of Post Falls
From: Star of the Sea Consulting, LLC (Jeremy Williams)
Date: February 5, 2026
Subject: Council Overview – Streets Division Operational Efficiency & Workforce Analysis

---

Purpose

This memorandum provides a concise, decision-focused overview of the proposed Streets Division Operational Efficiency & Workforce Analysis. The intent is to equip the Mayor and City Council with clear, actionable information to support an informed authorization decision regarding scope, safeguards, cost, schedule, and next steps.

Background

The Streets Division delivers mission-critical public services that directly affect safety, mobility, and infrastructure preservation across the City of Post Falls. As the City continues to grow and operational complexity increases, leadership has identified the need for a validated, objective workload and staffing baseline to ensure resources are aligned with actual service demands and to support defensible planning and budgeting decisions.

Use of Benchmarking (Guardrails)

Benchmarking is used strictly as a **contextual reference**, not as a prescriptive staffing tool. Specifically:

- Benchmark data is used to inform questions and validate analytical assumptions, not to import staffing levels.
- No peer city staffing numbers are applied directly to Post Falls.
- Local workload data and operational context govern all findings.

Benchmarking Rule

Any peer comparison must align across **at least fifteen (15) operational and governance variables**, such as service responsibilities, lane miles, asset mix, climate, organizational structure, and funding model. Peer data not meeting this threshold is excluded.

Benchmarking Gates

Benchmarking is only applied when:

- Post Falls–specific workload data is incomplete or inconclusive; and

- Peer context clarifies operational questions without implying outcomes.

Scope

- Streets Division operations only
- No expansion to other departments or divisions

Cost, Schedule, and Administration

- **Fixed Cost:** \$30,000
- **Schedule:** Approximately 8–12 weeks
- **Billing Structure:** 50% at project initiation; 50% upon delivery of study products
- **Reporting:** Monthly status reporting to City Administration

Recommended Action

Authorize Star of the Sea Consulting, LLC to conduct the Streets Division Operational Efficiency & Workforce Analysis as scoped.

City of Post Falls

Streets Division Operational Efficiency Study Proposal for Professional Services

Prepared for: City of Post Falls
Prepared by: Star of the Sea Consulting, LLC
Prepared by: Jeremy Williams
Date: February 5, 2026

Introduction and Purpose

The City of Post Falls continues to experience growth, increasing service demands, and heightened expectations for infrastructure maintenance and operational responsiveness. As one of the City's most asset-intensive and operationally complex departments, the Streets Division plays a critical role in sustaining public safety, mobility, and overall quality of life.

This proposal outlines a pilot engagement focused on conducting a **task-based workload and manpower analysis** of the Streets Division. The purpose of the study is to establish a validated, defensible baseline of workload demand and staffing alignment—grounded in how work is actually performed—rather than relying on generalized ratios, anecdotal observations, or informal benchmarks.

The resulting analysis is intended to support informed decision-making by City leadership, provide clarity regarding current operational capacity, and create a scalable analytical framework that can be applied to additional departments in the future, should the City elect to do so.

Methodology Overview

The study will employ a structured, task-based methodology designed to quantify workload, validate staffing requirements, and assess alignment between operational demand and available resources. The approach emphasizes analytical rigor, transparency, and minimal disruption to day-to-day operations.

At a high level, the methodology consists of four integrated phases:

Project Initiation and Data Confirmation – Confirmation of scope, data sources, access pathways, study assumptions, and City readiness materials; coordination with City leadership and designated points of contact; development of a formal Study Plan.

Workload Identification and Task Structuring – Identification of core services, recurring and non-recurring tasks, seasonal activities, and operational drivers that define Streets Division workload; alignment of tasks to the City's mission, major lines of effort, and applicable position descriptions.

Workload Quantification and Staffing Analysis – Quantification of workload volumes, task frequencies, and labor requirements; development of a service inventory and mapping of staffing and other resources to each service; assessment of staffing alignment relative to documented workload demand.

Validation, Findings, and Reporting – Validation of analytical results through data cross-checks and subject-matter review; development of findings, observations, fiscal and operational impact considerations, and implementation-ready recommendations for leadership consideration.

This methodology is designed to operate effectively within real-world municipal data environments while producing results that are objective, traceable, and defensible.

Effectiveness Measurement Examples (Illustrative)

To illustrate how operational effectiveness will be assessed, the study may apply the workload model to measures such as:

- Lane miles maintained per assigned FTE, evaluated against service expectations and asset condition
- Pavement condition trends (e.g., PCI data) in relation to preventive versus reactive maintenance workload
- Duration and labor requirements of seasonal operations (e.g., snow response, chip sealing) relative to staffing availability
- Overtime usage by activity category to distinguish workload-driven versus structural contributors
- Deferred maintenance or backlog indicators for activities such as pothole repair, markings, or signage

These examples are illustrative; final measures will be confirmed during project initiation.

Data Sources and City Readiness Expectations

The analysis will leverage existing City data systems, documentation, and operational knowledge to the maximum extent practicable. Anticipated data sources include, but are not limited to:

- Work order and maintenance records
- Financial and expenditure data (via established City export processes)
- GIS-based asset and lane-mile information
- Organizational charts, position descriptions, and staffing rosters
- Operational schedules, policies, and procedures

To support an efficient and minimally disruptive engagement, the City’s preparation and timely provision of agreed-upon data and documentation prior to or at project initiation is essential. Establishing data readiness at the outset allows analytical effort to focus on validation and assessment rather than data collection delays, protecting both schedule and study quality.

Project Schedule and Deliverables

The anticipated duration of the engagement is **8 to 12 weeks**, commencing upon City authorization and receipt of required readiness materials.

Key deliverables include:

- Study Plan (kickoff deliverable)
- Streets Division Workload and Staffing Analysis Report
- Validated workload baseline and staffing alignment assessment
- Service inventory and resource mapping summary
- Operational findings and observations, including workflow, policy, and technology considerations
- Fiscal stress and service trade-off scenario analysis
- Implementation-ready recommendations with estimated operational and fiscal impacts
- Executive summary suitable for leadership and Council review
- Briefing materials to support internal discussion or formal presentation

The schedule is designed to remain flexible enough to accommodate operational realities while maintaining momentum toward completion.

Roles and Responsibilities

City Responsibilities - Designate executive sponsorship and a primary point of contact - Provide access to agreed-upon data and documentation - Facilitate coordination with subject-matter experts - Participate in review and validation discussions

Consultant Responsibilities - Manage project execution and analytical activities - Design and conduct workload analysis and validation - Coordinate interviews, data review, and findings development - Prepare reports and briefing materials

Both parties will collaborate to ensure alignment, transparency, and timely issue resolution.

Project Management and Communications

The engagement will be managed through a coordinated project management approach, including a kickoff meeting, periodic status updates, and scheduled touchpoints with City leadership as appropriate. Communication will be maintained with the designated City point of contact to ensure alignment and visibility throughout the study.

Monthly status reporting will be provided consistent with City expectations.

The proposed schedule assumes normal business operations and availability of City staff and data resources. Minor delays or extensions resulting from data availability, staff scheduling, or validation

requirements are considered a normal part of analytical engagements of this nature and will be addressed collaboratively.

Where Streets Division workload drivers intersect with processes owned by other City functions, the study will document observed impacts while limiting detailed analysis to activities within the Streets Division's direct scope unless otherwise directed.

Fee and Payment Terms

The total fixed fee for the Streets Division Operational Efficiency Study is **$30,000**.

Payment is proposed as follows: - 50% due upon execution / project initiation - 50% due upon delivery of study products

The fee is inclusive of all work described in this proposal and is limited to the Streets Division scope.

Governance, Legal, and HR Guardrails

This study is based on the availability and quality of existing City data, staff participation, and operational information. The analysis is **not** a financial audit, **not** a performance evaluation of individual employees, and **not** a determination of compliance with labor or personnel policies. The study does **not** conduct human resources classification or compensation analysis and does **not** mandate staffing or organizational actions. Findings are intended to inform leadership decision-making and support policy discretion.

Data Handling and System Access

All system access remains under City control. Analysis will be conducted using City-provided data extracts, reports, and documentation. No direct manipulation of City systems is required or assumed, and data is used solely for purposes of conducting the Streets Division study.

Qualifications and Experience

Star of the Sea Consulting, LLC is a boutique analytical consulting firm specializing in task-based workload analysis, manpower modeling, and operational efficiency studies. The firm's work is grounded in methodologies historically used to determine mission-capable staffing, validate workload drivers, and support defensible resource decisions.

This type of analysis is distinct from traditional human resources consulting. Rather than focusing on classification, compensation, or policy administration, the work centers on quantifying operational demand and validating staffing alignment using objective, task-level data.

The firm’s principal consultant brings experience from environments where workload analysis is subject to independent review, formal validation standards, and budgetary consequence. Independence from internal personnel functions is intentional and supports objective data collection and findings that can be reviewed and relied upon by leadership.

Star of the Sea Consulting is locally based in North Idaho, is a Service-Disabled Veteran-Owned Business (SDVOB), and is positioned to serve as a long-term analytical partner to the City.

Workload Modeling as an Ongoing Management Tool

This engagement is designed not only to establish a point-in-time assessment of the Streets Division, but to create a validated, repeatable workload and manpower model that can be maintained over time.

Once a defensible baseline is established, best practice is to periodically refresh key inputs rather than repeatedly rebuild studies from the ground up. In operational environments comparable to the Streets Division, such models are typically refreshed no more frequently than every other year or when material conditions change.

Conclusion and Recommendation

The Streets Division pilot engagement provides the City with an opportunity to establish a validated, objective understanding of workload demand and staffing alignment within a critical operational department. The study will deliver actionable, implementation-ready insights while creating a scalable framework suitable for future application.

Star of the Sea Consulting, LLC recommends proceeding with the Streets Division Operational Efficiency Study as proposed.

Acceptance and Next Steps

Upon City authorization to proceed, the engagement will begin with a coordinated project kickoff meeting to confirm scope, review readiness materials, and finalize the study schedule. Final reports and briefing materials will be delivered for City leadership consideration and, if desired, presentation to elected officials.

Appendix A

Streets Division Operational Efficiency & Workforce Analysis

Prepared by: Star of the Sea Consulting, LLC
Prepared by: Jeremy Williams
Date: February 5, 2026

Purpose of Appendix A

This appendix provides **illustrative examples of study outputs and reporting artifacts** that the City of Post Falls will receive as part of the Streets Division Operational Efficiency & Workforce Analysis. The examples below are **representative templates** using fabricated data for demonstration purposes only. Final products will be populated with validated City-specific data.

This appendix is intentionally visual and practical, showing *what the deliverables look like*, not restating methodology already contained in the proposal.

A.1 Workload Inventory Output (Sample)

Streets Division – Task-Level Workload Inventory (Excerpt)

Task ID	Functional Area	Task Description	Type of Work	Workload Driver	Annual Volume	Notes
ST-01	Street Maintenance	Pothole repair (asphalt)	Direct	Service requests	1,240	Seasonal variability
ST-02	Street Maintenance	Crack sealing	Direct	Lane miles	320 lane-mi	Weather dependent
ST-03	Snow & Ice	Snow plowing (primary routes)	Direct	Snow events	18 events	Priority routes
ST-04	Support	Crew scheduling & dispatch	Support to Mission	Crew size	Continuous	Non-discretionary

This inventory documents all mission-essential tasks performed by the Streets Division and explicitly distinguishes between direct, support-to-mission, and support-to-self activities. Presenting workload at this level of detail allows City leadership to understand what work is being performed, what drives that work, and how volume and variability affect staffing requirements without relying on assumptions or peer comparisons.

A.2 Workload Driver Validation Summary (Sample)

Validated Workload Drivers – Streets Division (Excerpt)

Workload Area	Primary Driver	Secondary Driver	Validation Source
Pothole Repair	Service requests	Lane condition	Work order data
Snow Plowing	Snowfall events	Route miles	Historical records
Street Sweeping	Lane miles	Seasonal schedule	Operations logs

Workload drivers are validated through cross-checks against independent data sources, historical records, and subject-matter expert confirmation. This validation step ensures that staffing calculations are tied to observable operational demand rather than anecdotal reporting or perceived workload pressure.

A.3 Staffing Requirement Model Output (Sample)

Staffing Requirement Summary – Streets Division (Illustrative)

Functional Area	Annual Workload (hrs)	Available Productive Hours	Calculated FTE Requirement
Street Maintenance	18,400	1,760	10.5
Snow & Ice Control	6,200	1,760	3.5
Support Functions	4,100	1,760	2.3

Staffing requirements are calculated by translating observed workload volumes into labor hours using validated productivity assumptions and City operating calendars. Results are advisory in nature and are intended to inform planning discussions; they do not mandate staffing changes or predetermine budget outcomes.

A.4 Assumptions & Constraints Register (Sample)

Key Analytical Assumptions (Excerpt)

ID	Assumption	Rationale	Impact if Incorrect
A-01	Average snow events per year = 18	5-year historical avg	Moderate
A-02	Standard productive hours = 1,760	City calendar	Low
A-03	Service request data completeness >95%	System validation	High

All analytical assumptions are explicitly documented, reviewed with City leadership, and tested for sensitivity. This register allows decision-makers to understand how results may change if conditions, policies, or operational practices differ from those assumed during the study.

A.5 Executive Findings Summary (Sample)

Streets Division – Key Observations (Illustrative)

- Workload demand is concentrated in seasonal maintenance and snow operations.
- Support-to-mission activities represent approximately 18–22% of total observed workload.
- Staffing pressure is driven primarily by service demand variability rather than baseline inefficiency.

Findings are framed to support leadership decision-making by highlighting patterns, constraints, and operational pressures observed in the data. The intent is to provide clarity and context, not to prescribe organizational changes or staffing outcomes.

A.6 Scope Boundaries Reminder

The outputs shown in this appendix: - Do **not** evaluate individual employee performance - Do **not** conduct HR classification or compensation analysis - Do **not** mandate staffing or organizational changes

---

Note: All tables and figures shown are illustrative only. Final deliverables will reflect validated City of Post Falls data.

City of Post Falls

ICMA / GFOA Alignment Memorandum

Subject: Streets Division Operational Efficiency & Workforce Analysis
Prepared for: City of Post Falls
Prepared by: Star of the Sea Consulting, LLC
Prepared by: Jeremy Williams
Date: February 5, 2026

Purpose

This memorandum documents how the proposed Streets Division Operational Efficiency & Workforce Analysis aligns with generally recognized best-practice principles reflected in guidance from the International City/County Management Association (ICMA) and the Government Finance Officers Association (GFOA).

The intent of this memorandum is to provide assurance regarding analytical posture, governance safeguards, and decision-support orientation. It is not intended to certify compliance with any specific ICMA or GFOA standard.

ICMA Alignment

ICMA guidance emphasizes the use of data-informed analysis to support service delivery decisions, operational transparency, and responsible stewardship of public resources. The proposed study aligns with these principles by:

- Evaluating services and workload in their full operational context rather than relying on staffing ratios or generalized benchmarks
- Focusing on service demand, asset responsibility, and operational variability as primary drivers of resource need
- Providing decision-ready information that supports managerial judgment rather than prescribing outcomes

The study approach reflects ICMA's emphasis on contextual analysis, professional discretion, and adaptability to local conditions.

GFOA Alignment

GFOA guidance stresses the importance of defensible analysis, clarity of assumptions, and linkage between operational demand and fiscal decision-making. The proposed engagement aligns with these principles through:

- Explicit documentation of workload drivers, assumptions, and analytical constraints
- Use of validated data sources and cross-checks to support reliability of results
- Framing findings to inform budgetary and service-level trade-off discussions rather than dictate fiscal actions

The study is designed to strengthen the City's ability to evaluate resource alignment in a fiscally responsible and transparent manner.

Governance and Scope Safeguards

Consistent with ICMA and GFOA best practices, the study includes clear governance boundaries:

- The analysis is **not** a financial audit, performance evaluation, or compliance review
- Individual employee performance is not assessed
- Human resources classification, compensation, and labor-relations matters are excluded
- Findings are advisory and do not mandate staffing or organizational changes

These safeguards ensure the analysis supports leadership decision-making without creating unintended policy or personnel implications.

Conclusion

Based on a review of the proposed methodology, scope, and analytical safeguards, no material gaps were identified between the Streets Division Operational Efficiency & Workforce Analysis and the principles reflected in ICMA and GFOA best-practice guidance.

This memorandum is provided as an alignment and assurance reference to accompany the study proposal and related materials.

Star of the Sea Consulting

Navigating Growth:

Streets Division Operational Efficiency & Workforce Analysis

The Analytical Journey



Phase 1: Initiation & Data Confirmation

Establishing the study plan, confirming data access pathways (GIS, work orders, financial records), and aligning with City leadership on core assumptions.

Phase 2: Workload Identification & Task Structuring

Identifying all mission-essential tasks (Direct Service vs. Support) and aligning them with position descriptions and City goals.



Phase 3: Workload Quantification & Staffing Analysis

Translating workload volumes (e.g., 1,240 pothole repairs, 18 snow events) into calculated labor hours using validated productivity assumptions.

Task Category	Primary Driver	Sample Volume (Annual)
Street Maintenance	Service Requests / Lane Miles	1,240 Pothole Repairs
Snow & ice Control	Snowfall Events / Route Miles	18 Snow Events
Street Sweeping	Lane Miles	Scheduled Seasonal Cycles



Phase 4: Validation, Findings, & Reporting

Conducting data cross-checks and delivering implementation-ready recommendations and fiscal stress scenarios for Council review.

Study Economics & Timeline



$30,000
Fixed Cost

Transparent billing structure with 50% due at project initiation and 50% upon delivery of the final study products.



8–12 Week
Duration

A streamlined engagement designed to produce a scalable analytical framework with minimal disruption to day-to-day Streets Division operations.



Service-Disabled Veteran-Owned Business (SDVOB)

Star of the Sea Consulting is a locally-based North Idaho firm certified as a Service-Disabled Veteran-Owned Business.

Governance Guardrails & Alignment



15-Variable Benchmarking Rule

Peer comparisons are only used if the peer city aligns across 15 operational variables (e.g , lane miles, climate, asset mix).



Advisory, Not Mandated

Results are intended to inform planning and budget trade-offs; the study does not mandate staffing changes or evaluate individual performance.



ICMA & GFOA Alignment

The methodology aligns with best practices from the international City/County Management Association and the Government Finance Officers Association.

STAR OF THE SEA
CONSULTING

PROPOSAL FOR PROFESSIONAL SERVICES

Streets Division Operational Efficiency & Workforce Analysis

A Task-Based Workload Baseline for the City of Post Falls

Prepared for the Mayor and City Council | Date: February 5, 2026

Executive Summary & Authorization Overview

The Objective

To establish a validated, objective workload and staffing baseline for the Streets Division using task-based analysis. This moves the City from anecdotal observations to defensible, data-driven planning.

The Scope

Focused exclusively on Streets Division operations. Includes workload quantification, driver validation, and staffing alignment.

Key Logistics

- **Fixed Fee:** $30,000 (Professional Services)
- **Timeline:** 8–12 Weeks
- **Method:** Alignment with ICMA/GFOA best practices; distinct from a financial audit or HR performance review.

Recommended Action

Authorize Star of the Sea Consulting, LLC to conduct the analysis as scoped.

Operational Context: Navigating Growth & Complexity

The Streets Division delivers mission-critical services affecting safety, mobility, and infrastructure preservation. As Post Falls grows, operational complexity increases.

The Challenge:

Relying on intuition or historical inertia is no longer sufficient for an asset-intensive department.

The Need:

Leadership requires a "Workload Baseline." This means quantifying:

- What work is actually being performed?
- What drives that work (Volume vs. Variability)?
- How do service levels translate mathematically to staffing requirements?

"Navigate complexity with confidence."

Methodology: Task-Based Analysis vs. Generic Ratios



The SOSC Approach (Task-Based)

Quantifies actual work performed (e.g., specific pothole repair volumes, snow events).

Validates "Productive Hours" (1,760 annual baseline).

Builds staffing requirements from the bottom up based on local realities.

Result: Defensible, City-specific data.



The Traditional Approach (Avoided)

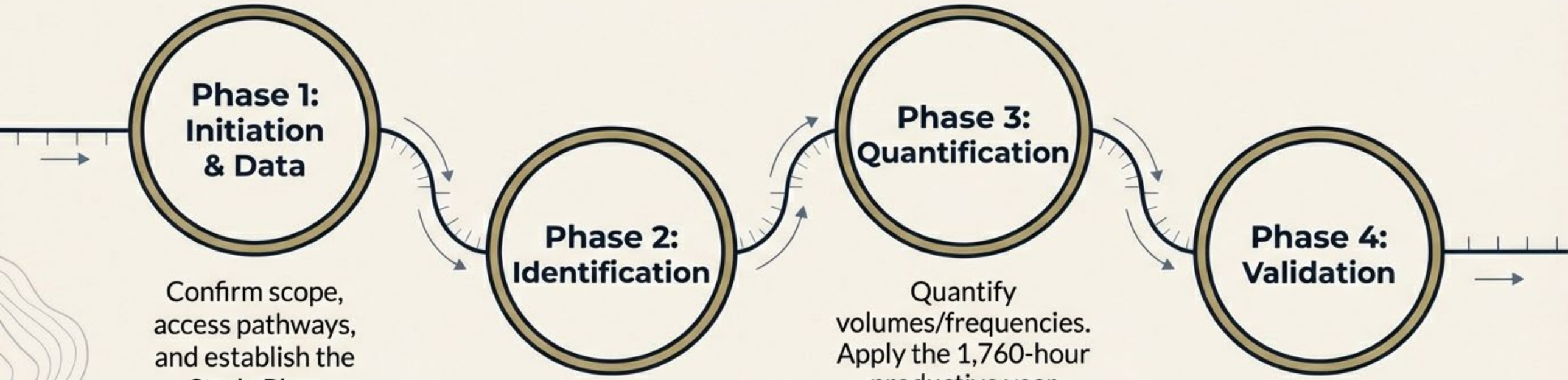
Relies on "FTE per 1,000 population" or generic peer ratios.

Ignores local service level expectations and asset conditions.

Result: Vulnerable to criticism and disconnect from operational reality.

We do not import staffing numbers from other cities; we calculate them based on Post Falls' specific demands.

The Analytical Process: Four Integrated Phases



The Role of Benchmarking: Context, Not Prescription

Benchmarking is used strictly as a reference to inform questions, never to dictate staffing levels.

The “15-Variable” Rule

SOSC only applies peer comparisons if the peer aligns across at least 15 operational variables (e.g., lane miles, climate, asset mix, funding model).

Usage Gates:
Peer data is only introduced if Post Falls-specific data is inconclusive or to clarify operational context.

Strategic Alignment: ICMA & GFOA Best Practices

ICMA Alignment (Management)

- Focuses on data-informed analysis over intuition.
- Evaluates services in full operational context (Asset Responsibility + Service Demand).
- Supports professional discretion and adaptability.

GFOA Alignment (Finance)

- Emphasizes defensible analysis for fiscal stewardship.
- Requires explicit documentation of assumptions and drivers.
- Links operational demand directly to budgetary decision-making.

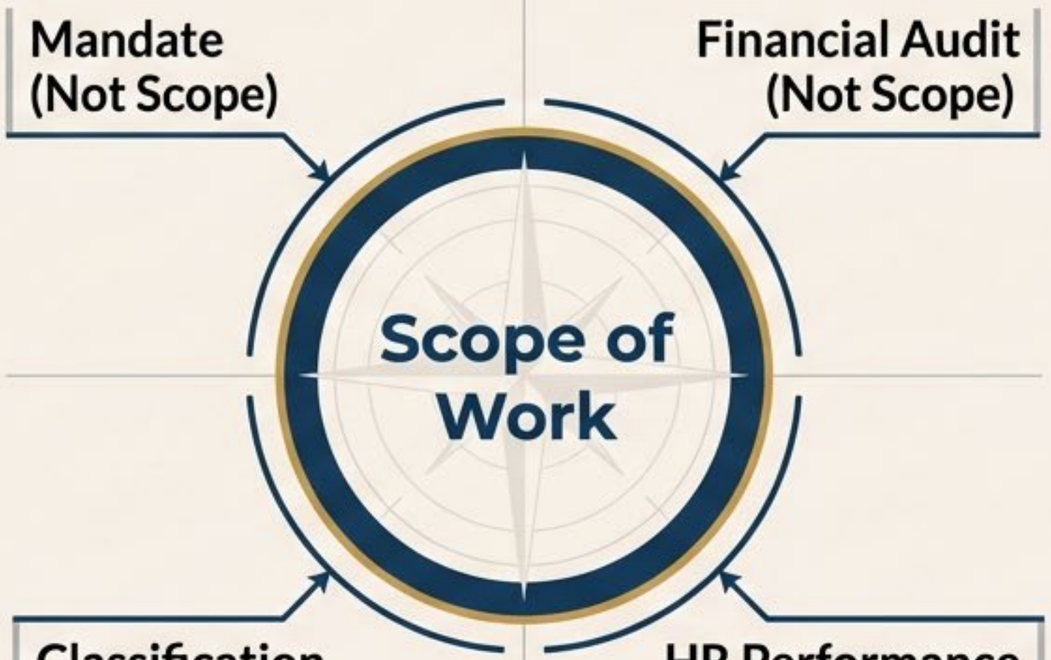
No material gaps exist between this methodology and the best-practice guidance of these national bodies.

Governance & Scope Safeguards

Defining Boundaries to Protect Organizational Health

What This Study Is **NOT**

- **Not a Financial Audit:** We are analyzing operations, not balancing the ledger.
- **Not an HR Performance Review:** We evaluate systems and tasks, not individual employee performance.
- **Not a Classification Study:** We do not assess compensation or job descriptions.
- **Not a Mandate:** All findings are advisory to support leadership discretion.



Deliverable Preview: Workload Inventory

This inventory documents all mission-essential tasks, distinguishing between direct service and support functions.

Task ID	Functional Area	Task Description	Workload Driver	Annual Volume
ST-01	Street Maintenance	Pothole repair (asphalt)	Service requests	1,240 (Seasonal variability)
ST-02	Street Maintenance	Crack sealing	Lane miles	320 lane-mi
ST-03	Snow & Ice	Snow plowing (primary)	Snow events	18 events
ST-04	Support	Crew scheduling	Crew size	Continuous

We move beyond assumptions to document exactly what drives the division's day.

Deliverable Preview: Driver Validation

Staffing calculations are tied to observable operational demand, validated against independent records to remove anecdotal bias.

Workload Area	Primary Driver	Secondary Driver	Validation Source
Pothole Repair	Service requests	Lane condition	Work order data
Snow Plowing	Snowfall events	Route miles	Historical records / Weather data
Street Sweeping	Lane miles	Seasonal schedule	Operations logs

Validation ensures the model reflects reality, not just “perceived workload pressure.”

Deliverable Preview: Staffing Requirement Model

Operational volumes are translated into labor hours using City-specific productivity assumptions.

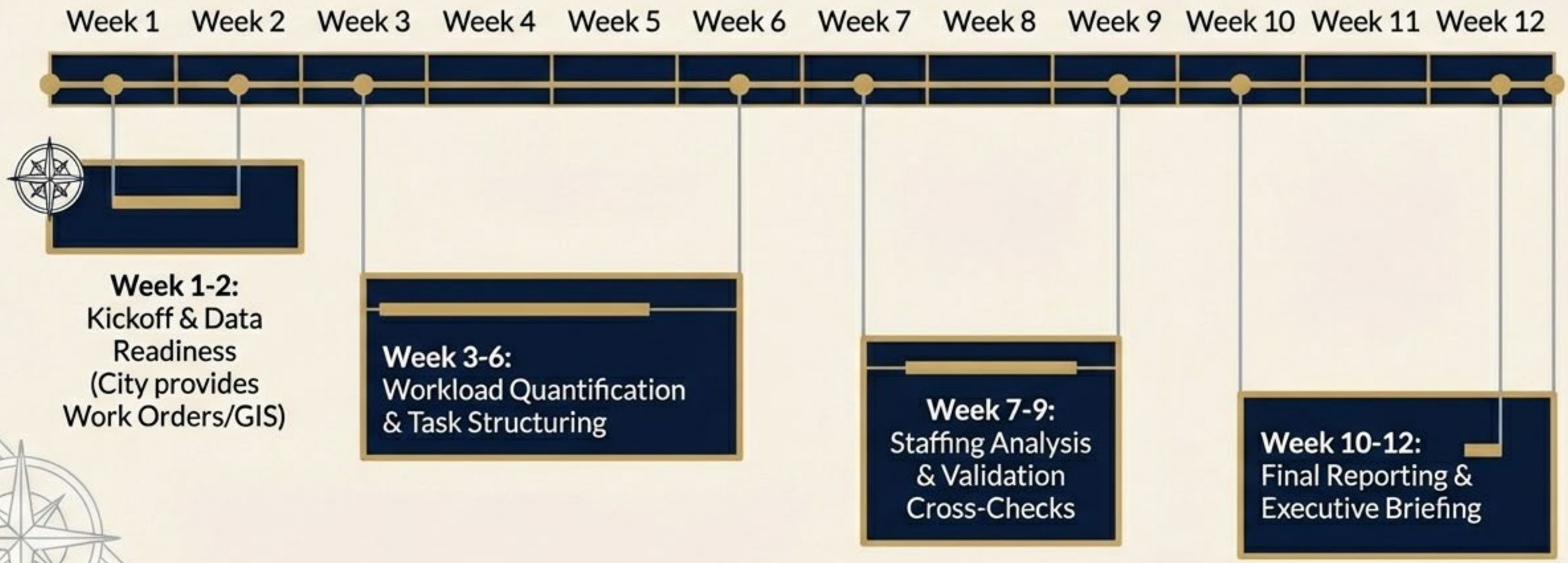
Functional Area	Annual Workload (hrs)	Available Productive Hours	Calculated FTE Requirement
Street Maintenance	18,400	1,760	10.5
Snow & Ice Control	6,200	1,760	3.5
Support Functions	4,100	1,760	2.3

Assumptions Box

- A-02: Standard productive hours = 1,760 (aligned with City calendar).
- A-01: Average snow events = 18 (5-year historical average).

Project Schedule & Milestones

Total Duration: 8–12 Weeks



Note: Schedule relies on timely access to data and subject matter experts.

Investment & Fee Structure

Professional Services Fee

$30,000 (Fixed Cost)

Inclusions: All analytical labor, reporting, and presentations for the Streets Division scope.

Payment Terms: 50% at Project Initiation | 50% upon Delivery of Study Products.

City Readiness Requirements

To maintain this schedule and cost structure, the City provides access to:

- Work order/maintenance records
- GIS/Asset lane-mile data
- Financial expenditure data

About Star of the Sea Consulting

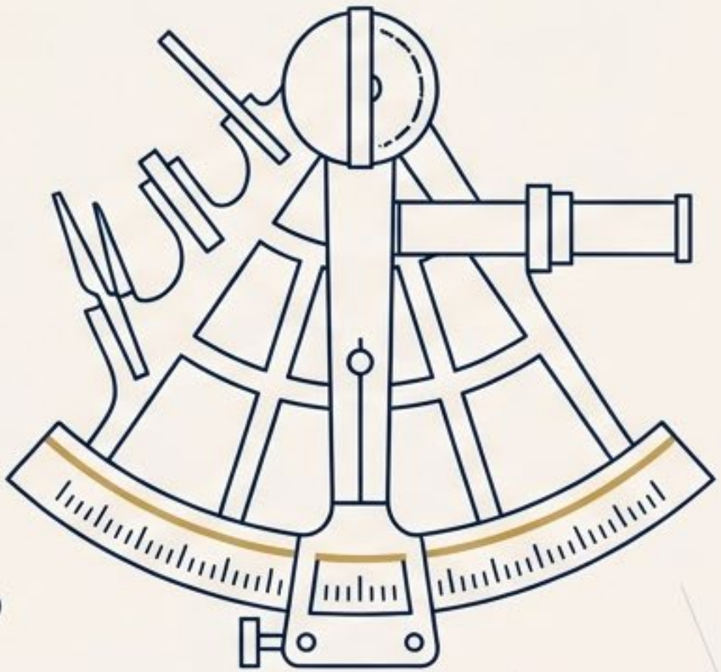
SBA
U.S. Small Business Administration
SERVICE-DISABLED VETERAN-OWNED CERTIFIED

Firm Profile: A boutique analytical consulting firm based in North Idaho.

Designation: Service-Disabled Veteran-Owned Small Business (**SDVOB**).

Core Competency: Specializing in task-based workload analysis and manpower modeling.

The Difference: We bring 'federal-grade precision' to municipal governance. We do not use 'cookie-cutter' templates; we build models that respect your specific operational reality.



Conclusion & Recommended Action

The Streets Division requires a validated baseline to manage growth effectively. This study provides the data, the defense, and the direction needed for **responsibile** fiscal planning.

Authorize Star of the Sea Consulting, LLC to conduct the Streets Division Operational Efficiency & Workforce Analysis.

Navigate complexity with confidence.

Jeremy Williams | Jeremy@StarOfTheSeaConsulting.com | www.staroftheseaconsulting.com

Next Steps: Authorization

- [x] City Council Authorization of Contract
- [ ] Schedule Kickoff Meeting
- [ ] Data Access Provisioning
- [ ] Project Start

Thank you for your consideration.

CITY OF POST FALLS
AGENDA REPORT
CEREMONIES, ANNOUNCEMENTS, APPOINTMENTS, PRESENTATION:
MEETING DATE: 4/21/2026

TO: HONORABLE MAYOR AND CITY COUNCIL

FROM:

SUBJECT: Proclamation - Arbor Day 2026

ITEM AND RECOMMENDED ACTION:

.

DISCUSSION:

.

ITEM / PROJECT PREVIOUSLY REVIEWED BY COUNCIL ON:

APPROVED OR DIRECTION GIVEN:

FISCAL IMPACT OR OTHER SOURCE OF FUNDING:

.

BUDGET CODE:

ATTACHMENTS:

1. 20260213144858728

Proclamation

Arbor Day 2026

Whereas, in 1872, J. Sterling Morton proposed to the Nebraska Board of Agriculture that a special day be set aside for the planting of trees, and a holiday called Arbor Day, was first observed with the planting of more than a million trees in Nebraska.

Arbor Day is now observed throughout the nation and world.

Trees can reduce the erosion of our precious topsoil, lower heating and cooling costs, clean the air, produce oxygen and provide habitat for wildlife. Trees are a renewable resource giving us paper, wood for our homes, fuel for our fires, and countless wood products. Trees in our city increase property values and beautify our community. Trees, wherever they are planted, are a source of joy and spiritual renewal.

Now, therefore, I, Randy Westlund, Mayor of the City of Post Falls, Idaho, do hereby proclaim April 24, 2026 as Arbor Day in Post Falls, and urge all citizens to plant and care for trees to gladden the heart and promote the wellbeing of this and future generations.

Dated this 21st of April, 2026.

Randy Westlund

Mayor City of Post Falls

CITY OF POST FALLS
AGENDA REPORT
CEREMONIES, ANNOUNCEMENTS, APPOINTMENTS, PRESENTATION:
MEETING DATE: 4/21/2026

TO: HONORABLE MAYOR AND CITY COUNCIL

FROM:

SUBJECT: Proclamation - Military Child Month

ITEM AND RECOMMENDED ACTION:

DISCUSSION:

ITEM / PROJECT PREVIOUSLY REVIEWED BY COUNCIL ON:

APPROVED OR DIRECTION GIVEN:

FISCAL IMPACT OR OTHER SOURCE OF FUNDING:

BUDGET CODE:

ATTACHMENTS:
1. 20260324123300770

Proclamation

Military Child Month

Whereas, April is the Month of the Military Child, an opportunity to recognize military children for their resilient spirits, personal sacrifices, strong character and courage; and

Whereas, military children are part of the strength of our nation as they support and encourage their service members with a fierce patriotic spirit; and

Whereas, these children are a source of pride for the great State of Idaho and to us all, and it is only fitting that we take time to recognize their contributions; and

Whereas, military children continue to make significant contributions to family, community, and their nation as they endure prolonged and repeated absences of one or both parents; and

Whereas, a month-long salute will recognize that military children serve too and citizens of Idaho will be afforded the opportunity to don the color purple every Friday of April in support of these children;

Now, therefore, I, Randy Westlund, Mayor of the City of Post Falls, Idaho, do hereby proclaim April 2026 to be

Month of the Military Child

IN WITNESS WHEREOF, I have hereunto set my hand and caused to be affixed the Great Seal of the City of Post Falls, Idaho on this seventh day of April in the year of our Lord, two thousand and twenty-six.

Dated this 7th of April, 2026.

Mayor City of Post Falls

CITY OF POST FALLS
AGENDA REPORT
CEREMONIES, ANNOUNCEMENTS, APPOINTMENTS, PRESENTATION:
MEETING DATE: 4/21/2026

TO: HONORABLE MAYOR AND CITY COUNCIL

FROM:

SUBJECT: Proclamation- National Fallen Firefighters Memorial Day

---

ITEM AND RECOMMENDED ACTION:

.

DISCUSSION:

.

ITEM / PROJECT PREVIOUSLY REVIEWED BY COUNCIL ON:

APPROVED OR DIRECTION GIVEN:

FISCAL IMPACT OR OTHER SOURCE OF FUNDING:

.

BUDGET CODE:

ATTACHMENTS:

1. 20260417120204800

Proclamation

National Fallen Firefighters Memorial

Whereas, the United States Congress and the President of the United States have designated the day of the annual National Fallen Firefighters Memorial Service as a day to honor firefighters and emergency services personnel who have sacrificed their lives to save others by lowering the American flag on all federal buildings to half-staff; and

Whereas, an average of eighty firefighters courageously make the ultimate sacrifice in the line of duty each year; and

Whereas, Whereas, firefighters and emergency services personnel play an essential role in the protection of lives and property in our local community; and

Whereas, it is of great importance that we increase and support efforts to reduce deaths, injuries, and property losses from fire; and

Whereas, on June 29, 2025 Kootenai County Fire & Rescue Battalion Chief Frank J. Harwood and Coeur d'Alene Fire Department Battalion Chief John G. Morrison lost their lives in the line of duty.

Now, therefore, I, Randy Westlund, Mayor of the City of Post Falls, do hereby proclaim that Post Falls observes National Fallen Firefighters Memorial Day on May 3, 2026, in recognition of the patriotic service and dedicated efforts of our fire and emergency services personnel by lowering American flags on all buildings to half-staff. I encourage residents and businesses to pay respect to the survivors of our fallen heroes by participating in Light The Night for Fallen Firefighters from April 26 – May 3, 2026 by lighting, glowing, or shining red lights on their landmarks, businesses, firehouses, and homes.

In witness whereof, I have hereunto set my hand and caused to be affixed the Great Seal of the City of Post Falls, Idaho on this 21st day of April in the year of our Lord, two thousand and twenty six.

Dated this____of_____, 2026.

_____
Mayor City of Post Falls

CITY OF POST FALLS

CITY COUNCIL MEETING MINUTES

April 7, 2026 6:00 PM

Location: City Council Chambers, 408 N. Spokane Street, Post Falls, ID 83854

WORKSHOP – 5:00 pm 2nd Floor Conference Room

a. Procurement and Surplus Property Policies

Roll Call: Plew, Mosby, Steigleder, Ziegler, Malloy, Lucca, Mayor Westlund - Present

Warren Wilson, Deputy City Administrator, and Chris Gabbert, Deputy City Attorney Presenting:
This workshop is to discuss the updated procurement and surplus property disposal policies.
Procurement purposes: To ensure responsible use of public funds, promote fair and open competition, maintain transparency and accountability, and achieve the best value for residents.
Surplus property disposal purposes: Establish a consistent procedure for disposing of surplus assets, ensure transparency and accountability, maximize value to residents, and to maintain accurate city asset records.
Surplus property scope applies to all surplus personal property owned by the city and fixtures removed from city properties. It does not apply to disposal of real property owned by the city; this is governed by Idaho Code Title 50, Chapter 14.
Surplus: No longer needed or maintenance or other costs exceed the economic or useful life of property.
Personal Property: Equipment, vehicles, computers, or other movable property.
Fixture: Personal property attached to land or structure that is not readily removable. Example: HVAC system.
Employees and family members or representatives are prohibited from: purchasing surplus property - includes auctions/sealed bids. Transferring property to an Associated Entity. Violations can result in disciplinary action.
Associated Entity: Entity where the employee/volunteer or household member is a director, officer, employee etc.
There are four main disposal categories:
- Nominal value property. The Department determines if the asset is surplus and assesses the value. They determine the best disposal method. Discard, recycle, donate to another government agency or non-profit. They dispose of the asset and complete a fixed asset disposal form and send it to the Finance Department. Finance removes the asset from the tracking system and the records are retained for 4 years.
- Property valued at $10,000 or less. The Department submits a disposal form to Finance with the reason for disposing of the asset, established value, and proposed disposal method included. Finance then reviews/approved the estimated value and disposal method and removes the asset from the tracking system. The Department disposes of the asset as approved, caution, sal, trade-in, donation to another government agency or non-profit with city administration approval. Finance retains the disposal form and makes an annual report to City Council.
- Property valued over $10,000. The Department submits a disposal form with the reason for disposing of the asset, the established value, and proposed disposal method. Finance seeks City

Council approval of the disposal and disposal method: auction, sal, trade-in, dotation to another government agency or non-profit with council approval. Finance removes the asset from the tracking system and retains the form for four years. The Department disposes of the asset as approved.
- Fixtures. A staff memo to council is written seeking approval of the public works project outlining anticipated fixture types to be removed during the project and proposed disposal methods. Council authorization of the project approves removing fixtures from the asset tracking system. At the project conclusion, the Department submits an asset disposal form listing all disposed of fixtures. Finance removes listed fixtures from the tracking system and retains the form for four years.
There are a few special cases, such as retiring K-9s. The Chief request the city council to transfer ownership to current/former employee or employee of another Police Department who can care for the dog. A preference is given to the current handler. Council approved the agreement transferring ownership of the dog and kennel. The new owner assumes liability and responsibility to care for the dog.
Another special case is retiring officer recognition. Police officers who retire in good standing after 10 years of service to the city are given their badge and handgun, rendered intolerable, which are affixed to a commemorative plaque. Based on I.C. 31-830, this authorizes sheriffs to award handgun to retiring deputies but does not address city police departments.
Procurement — Scope. Applies to goods, services, and public works construction. Includes both professional and general services. This is guided by the Idaho Code and city policy. Separate policies address real property and surplus disposals. Procurement - Guiding Principles. Fair and open competition, transparency in all transactions. Avoids favoritism and conflicts. Supports local and qualified vendors.
Departments manage their own procurement. They follow policy and seek guidance when needed. Legal Services provides support. Finance and Clerk ensure documentation and compliance.
Spending Authority: <$100,000 Department Director authority is required. >$100,000 City Council approval is required. All contracts are reviewed by Legal Services. This ensures oversight on larger expenditures.
Procurement Methods: Competitive Bidding: Used for goods or services, when price is the primary factor. It is awarded to the lowest responsive bidder. Formal or informal, depending on cost estimates. This promotes fairness and cost control.
Request for Proposals (RFP): This is used when solutions may vary. It evaluates approach, experience and cost. It looks for the best overall value — not just the lowest price. This is common for complex services.
Request for Qualifications (RFQ): This is used for professional services. The focus is on qualifications and expertise. Price is negotiated after selection. This is common for engineering or architecture.
The method depends on the type and complexity of the procurement. Staff will identify what is being purchased. Cost estimate determines the level of formality. Less than $100K: no formal process is required by state law (but in the best interest of the city). Generally, staff will get three estimates. If expenditure is in the budget, the department director is authorized to sign. Documentation is retained.
$100K-$250K The city must either 1) solicit bids or 2) use the RFP process. Bids solicited from at least three vendors. Selection is made of responsive bid proposing the lowest price. The contract is approved by council and executed by the Mayor. RFP provides instructions for proposals to address the city's needs. Invites solutions to complexities. Award may not be based only on prive. The contract is approved by council and executed by the Mayor.

+$250K There is a formal bidding process or RFP process. Formal bids solicited via advertisement. Selection is made of responsive bid proposing the lowest price. The contract is approved by council and executed by the Mayor.
There are exceptions and special cases. Emergency purchases, sole source vendors, cooperative purchasing agreements. All must be justified and documented. All procurement is public record, department document decisions, contracts and records are retained. This ensures accountability to the public.
Policy modifications: This restructured existing policy to reduce redundancy and reorganize, update it to reflect statutory changes and limits, increased department head spending limits to coincide with higher statutory procurement requirements, cleaned up directions on which processes are utilized, and updated licensing requirements on public works contracts.

REGULAR MEETING – 6:00 pm City Council Chambers

The regular agenda is scheduled to start at 6:00 PM, but may start earlier depending on the completion of any preceding workshop.

CALL TO ORDER BY MAYOR WESTLUND

INVOCATION

The Mayor will offer a brief invocation intended to solemnize the Council's proceedings. Attendance and participation are voluntary. The invocation is not intended to require or encourage participation by members of the public, nor to advocate or proselytize for any particular religion or belief. No Council action is influenced by participation or non-participation.

PLEDGE OF ALLEGIANCE

ROLL CALL OF CITY COUNCIL MEMBERS

Samantha Steigleder, Aaron Plew, Joe Malloy, Nathan Ziegler, Jack Mosby, Marc Lucca

All Present

CEREMONIES, ANNOUNCEMENTS, APPOINTMENTS, PRESENTATION: ACTION ITEM

There will be a Budget workshop on April 14th at 5:30 PM in the 2nd floor conference room.

a. Proclamation - Fair Housing Month

AMENDMENTS TO THE AGENDA

Final action cannot be taken on an item added to the agenda after the start of the meeting unless an emergency is declared that requires action at the meeting. The declaration and justification must be approved by motion of the Council.

None

DECLARATION OF CONFLICT, EX-PARTE CONTACTS AND SITE VISITS

The Mayor and members of the City Council have a duty to serve honestly and in the public interest. Where the Mayor or a member of the City Council have a conflict of interest, they may need to disclose the conflict and in certain circumstances, including land use decisions, they cannot participate in the decision-making process. Similarly, ex-parte contacts and site visits in most land use decisions must also be disclosed.

None

1. CONSENT CALENDAR

The consent calendar includes items which require formal Council action, but which are typically routine or not of great controversy. Individual Council members may ask that any specific item be removed from the consent calendar in order that it be discussed in greater detail. Explanatory information is included in the Council agenda packet regarding these items and any contingencies are part of the approval.

ACTION ITEMS:

a. Minutes – March 17th, 2026, City Council Meeting

b. Payables 03/18/2026 - 04/08/2026

c. Computer equipment disposal

d. School Resource Officer Agreement Renewal with Post Falls School District

e. City Vehicles/Equipment Disposal

f. Public Hearing Notification

Motion by Malloy to accept the Consent Calendar as presented.
Second by Ziegler.
Vote: Malloy-Aye, Lucca-Aye, Steigleder-Aye, Mosby-Aye, Plew-Aye, Ziegler-Aye
Motion Carried

2. PUBLIC HEARINGS

There are generally two types of public hearings. In a legislative hearing, such as adopting an ordinance amending the zoning code or Comprehensive Plan amendments, the Mayor and City Council may consider any input provided by the public. In quasi-judicial hearings, such as subdivisions, special use permits and zone change requests, the Mayor and City Council must follow procedures similar to those used in court to ensure the fairness of the hearing. Additionally, the Mayor and City Council can only consider testimony that relates to the adopted approval criteria for each matter. Residents or visitors wishing to testify upon an item before the Council must sign up in advance and provide enough information to allow the Clerk to properly record their testimony in the official record of the City Council. Hearing procedures call for submission of information from City staff, then presentation by the applicant (15 min.), followed by public testimony (4 min. each) and finally the applicant's rebuttal testimony (8 min.). Testimony should be addressed to the City Council, only address the relevant approval criteria (in quasi-judicial matters) and not be unduly repetitious.

ACTION ITEMS:

a. Mullan Annexation (ANNX-25-7)

Public Hearing opened at 6:06 PM.

Staff Report

Justin Sauder — Associate Planner: The Applicant is requesting the City Council to approve a request to annex approximately 4.39 acres with the Community Commercial Services (CCS) zoning into the City of Post Falls. Both parcels contain a single-family home. Water would be provided by the Ross Point Water District and wastewater by the City of Post Falls. The City has the capacity to provide service and is willing to serve the property at the requested density. /Mullan Avenue is a Minor Arterial. Additional rights-of way and easement would need to be provided as part of the annexation. Is the proposed zoning district consistent with the Future Land Use Map and Focus Area contained in the currently adopted Post Falls Comprehensive

Plan? The Future Land Use Map classifies this property with the land use designation of Business/Commercial. This designation provides a wide variety of general service, retail, professional office, light industrial, artisan manufacturing and mixed-uses that serve local and regional residents as well as the traveling public. This category promotes a mixture of moderate/high density housing types as within walking distance to the city center, neighborhood center and corridor commercial uses, as well as civic uses and other amenities within Post Falls. The implementing zoning district details the breadth and types of uses that would be permitted within the Business/Commercial area. The subject site is adjacent to properties with a land use designation of business/commercial to the east and west with low density residential to the north, and commercial to the south across East Mullan Avenue. The CCS zone is an implementing zoning district within the Business/Commercial land use designation. The proposed annexation is located within the Central Island Focus Area, which states the following: A particular challenger for Post Falls has been the incorporation of "county islands" into City Limits, particularly in this portion of town. A mix of agricultural uses and large-lot single-family uses has remained in place for decades, resistant to surrounding development pressures. As it transforms over time, challenges will include struggles to match and blend street network design and connections, ensure land use compatibility, and orchestrating improvements to utility systems. Successful development of this area and incorporation into City Limits will likely rely on incentives rewarding developers with higher density or modified design standards in exchange for forward-thinking integration of the land into its surrounding context. This area could benefit from a sub-area transition plan to ease the incorporation of these "county islands" into City Limits. Upon approval of annexation and zoning request to CCS, the applicant intends to market the property for sale as commercial zones to create opportunities for future commercial or mixed-use development.

Testimony
Tyler Smithson, In Favor: Submitted community comments from residents on Wildrose Land on landscaping and building height and setbacks and parking.

Public Hearing closed at 6:21 PM.

Motion by Malloy to approve the Mullan Annexation with the CCS zoning.
Second by Ziegler.
Vote: Iucca-Aye, Steigleder-Aye, Mosby-Aye, Plew-Aye, Ziegler-Aye, Malloy-Aye
Motion Carried

b. Powderhorn Vacation (VAC-25-5)

Public Hearing opened at 6:31 PM.

Staff Report Justin Sauder, Associate Planner: The owner requests the vacation of the 10-foot utility easement that runs along the southern property line of 2503 North Powderhorn, to construct a garage. There are no utilities within the easement and Avista has provided a comment confirming they are agreeable to vacate the utility easement. Staff has no concerns with the proposed vacation of the easement on the plat. No other properties would be affected by the proposed vacation.

Applicant Logan Dyckhoff: I am asking for the 10 foot wide utilities easement lying adjacent to south interior side lot line to be vacated for the purpose of building a garage to be built in accordance with set back table 18.20.040.

Testimony None
Public Hearing closed at 6:37 PM.

Motion by Ziegler to approve the Powderhorn Vacation.
Second by Lucca.
Vote: Steigleder-Aye, Mosby-Aye, Plew-Aye, Ziegler-Aye, Malloy-Aye, Lucca-Aye
Motion Carried

c. Millworx Vacation (VAC-26-1)

The Public Hearing opened at 6:38 PM.

Staff Report Jon Manley, Planning Manager: The owner/applicant requests the vacation of three different right-of-way areas. These areas would be a portion of N. Lincoln Street being brought off E. Railroad Avenue, the remaining alley portion east of N. Lincoln Street, and a portion of the south side of E. 4th Avenue being east of N. Lincoln Street. Staff has no concerns about the proposed vacations. City sanitary sewer mains and water mains exist within the vacation areas. An easement should be retained by the City for the identified utilities. These utilities would be removed from service with site development, which would allow for vacation of the easements at that time. Future phases of the project will provide the necessary utility extensions and dedicate the appropriate rights-of-way needed to support the planned transportation network, rather than relying on existing rights-of-way that do not align with the planned project or do not exist.

Applicant: The applicant is seeking to continue development of the Millworx mixed-use project located in Post Falls, Idaho. The next phase of the project consists of an infill redevelopment of the Veneer site, known west of the existing Millworx Phase 1 development. This phase of redevelopment will include a mix of senior housing, two-and three-story mixed-use buildings with ground-floor commercial uses and residential units above, as well as traditional apartment buildings. As part of this redevelopment, the applicant is requesting the vacation of limited portions of historic rights-of-way within the project area. Through redevelopment, the south side of East 4th Avenue and the East side of North Lincoln Street will be reconstructed with frontage improvements including infill paving, curb, gutter, dwale, and sidewalk. In addition, Railroad Avenue will be extended from North Idhao Street to North Lincoln Street, constructed to City standards, and dedicated to the City. Any existing City or private utilities located within the rights-of-way will be removed, relocated, or replaced as necessary, and new utilities will be constructed within the newly dedicated rights-of-way.

Testimony Ted Pettibone, ICC Chapel, Requesting clarification on their comments that were submitted.

Public Hearing closed at 7:29 PM.

Motion by Malloy to approve the Millworx Vacation.
Second by Ziegler.
Vote: Mosby-Aye, Plew-Aye, Ziegler-Aye, Malloy-Aye, Lucca-Aye, Steigleder-Aye
Motion Carried

3. UNFINISHED BUSINESS/RETURNING ORDINANCES AND RESOLUTIONS

This section of the agenda is to continue consideration of items that have been previously discussed by the City Council and to formally adopt ordinances and resolutions that were previously approved by the Council. Ordinances and resolutions are formal measures considered by the City Council to implement policy which the Council has considered. Resolutions govern internal matters to establish fees and charges pursuant to existing ordinances. Ordinances are laws which govern general public conduct. Certain procedures must be followed in the adoption of both ordinances and resolutions; state law often establishes those requirements.

ACTION ITEMS:

a. Westwood Water Distribution Replacement Phase 1 - Recommendation of Award

Jaxon Fleshman, Project Manager, Public Works presenting: This is in the area of Pine Villa Subdivision, East of Ponderose Elementary. Phase 1 includes 5,680 ft of pipe replacement. Includes service and meter replacements. Phase 1 construction in 2026 with Phase 2 in the future. The lowest responsive bidder was La Riviere at $1,230,895.00 with a requested contingency of $123,089.50. Also, tonight, this would approve the Construction Management Services Agreement with Century West. A community open house is set for April 16th from 5 to 7 pm in City Hall Rotunda. Phase I construction is anticipated to start on May 15th. Phase II Design would go out for bid in the winter of 2026–27 with Phase II construction in the summer of 2027.

Motion by Malloy to approve the Westwood Water Distribution Replacement Phase 1 - Recommendation of Award.
Second by Steigleder.
Vote: Plew-Aye, Ziegler-Aye, Malloy-Aye, Lucca-Aye, Steigleder-Aye, Mosby-Aye
Motion Carried

b. Westwood Water Distribution Replacement Phase 1 - Construction Management Services Agreement

Motion by Malloy to approve the Westwood Water Distribution Replacement Phase 1 - Construction Management Service Agreement.
Second by Mosby.
Vote: Ziegler-Aye, Malloy-Aye, Lucca-Aye, Steigleder-Aye, Mosby-Aye, Plew-Aye
Motion Carried

4. NEW BUSINESS

This portion of the agenda is for City Council consideration of items that have not been previously discussed by the Council. Ordinances and Resolutions are generally added to a subsequent agenda for adoption under Unfinished Business, however, the Council may consider adoption of an ordinance or resolution under New Business if timely approval is necessary.

ACTION ITEMS:

a. Contract with Matrix for an Americans with Disabilities Act Transition Plan

John Beacham, Public Works Director presenting: 1990 Americans with Disabilities Act. Title II applies to State and Local Governments. All programs, services, and activities must be accessible. Immediate, continued, perfect compliance is unlikely. Therefore, transition plans are allowed to prioritize and resources. The City's prior plan was completed in 2008. Many items were completed, and the plan needs updating. $40K was requested for FY25, and carried over to FY26 to more closely match funding requirements. Proposals were requested late in the end of 2025. Contract negotiations with Matrix were completed. The project is broken into phases for budgetary reasons. Phase 1 (under consideration) has data integration planning, field investigations, community outreach, and off-ramp in case Phase 2 is not funded. Phase 2 (future

work) Policy review, community outreach, plan development and completion. Deliverables (currently Phase 2) are Policy Review Report, Self Evaluation Report, Community and Stakeholder Engagement Report, GIS database of mitigation needs, and ADA Transition Plan. Cost Phase 1: $93,948. Budget allocation: $80,000 will reprioritize other expenses for the balance. Full Project Cost: $190.000. Staff recommends City Council awarding Matrix the contract to complete the first phase of the ADA transition plan work. Next Steps, Phase 1 work. Consider Phase 2 Budget Request. Timeline: Phase 1 complete by September 30. Phase 2 (if awarded) by the end of the year.

Motion by Ziegler to approve the contract with Matrix for an Americans with Disabilities Act Transition Plan.
Second by Malloy.
Vote: Malloy-Aye, Lucca-Aye, Steigleder-Aye, Mosby-Aye, Plew-Aye, Zlegler-Aye
Motion Carried

b. Park Naming Policy

Kris Ammerman, Parks and Recreation Director, presenting: The purpose of this policy is to establish a consistent mechanism for evaluating and selecting names for City-owned parks. This policy applies to naming and requests to rename all City-owned Parks. City Staff would solicit suggested park names from the community. The Parks, Recreation, and Urban Forestry Commission will evaluate and select names and recommend to the City Council. The ultimate decision is made by City Council. Suggested criteria: neighborhood, planned usage, proposed naming rights agreement (sponsorship), natural or geographic features, historical or cultural significance, common name of the park or surrounding area, in honor of a person who has made a significant land and/or monetary contribution, in honor of a person who died more than two years prior who contributed exceptional community service, in honor of living person who has provided exceptional community service. Exceptional community service is defined as: sustained civic leadership, active community involvement — 5 or more years, assistance to the underprivileged, economically disadvantaged, physically and/or mentally handicapped, active promotion/direction of quality of life enriching community event, active promotion/direction of effective youth programs, active promotion/direction of effective senior programs. Naming Rights Agreements, paid naming rights (sponsorship) cannot be permanent and may not last longer than ten years without renewal. Naming rights agreements may apply to the full park, a portion of a park, such as a ball field, or to an amenity in a park. Park names are intended to be permanent (with the exception of sponsorship). A name change could occur ... it would need to follow this same process.

Motion by Malloy to table this discussion for more information at a future council meeting.
Second by Mosby.
Vote: Lucca-Aye, Steigleder-Aye, Mosby-Aye, Plew-Aye, Ziegler-Aye, Malloy-Aye
Motion Carried

c. Update to City Social Media Policy

Field Herrington, City Attorney presenting: The proposed update makes minor refinements to the City's Social Media Policy originally adopted in 2021. The update maintains the City's approach of using social media as a limited public forum for conveying information related to City programs, services, and activities. Consistent with the existing policy, the City's official website remains the primary source of information, with social media serving as a supplemental communication tool. Updates include revising the City's web address to the current .gov domain

and providing additional clarification on how social media platforms are managed. This includes guidance on the use of interactive features to secure consistency with the City's intended use of social media as an informational outreach tool. The policy continues to state that social media sites are not intended for formal public comment or official submissions. Established channels, including the city website, public meetings, and direct contact with City departments, are the appropriate avenues for public input.

Motion by Malloy to approve the Update to the City Social Media Policy.
Second by Plew.
Vote: Steigleder-Aye, Mosby-Aye, Plew-Aye, Ziegler-Aye, Malloy-Aye, Lucca-Nay
Motion Carried

5. CITIZEN ISSUES

This section of the agenda is reserved for citizens wishing to address the Council regarding City-related issues that are not on the agenda. Persons wishing to speak will have 5 minutes. Comments related to pending public hearings, including decisions that may be appealed to the City Council, are out of order and should be held for the public hearing. Repeated comments regarding the same or similar topics previously addressed are out of order and will not be allowed. Comments regarding performance by city employees are inappropriate at this time and should be directed to the Mayor, either by subsequent appointment or after tonight's meeting, if time permits. In order to ensure adequate public notice, Idaho Law provides that any item, other than emergencies, requiring Council action must be placed on the agenda of an upcoming Council meeting. As such, the City Council can't take action on items raised during citizens issues at the same meeting but may request additional information or that the item be placed on a future agenda.

None

6. ADMINISTRATIVE / STAFF REPORTS

This portion of the agenda is for City staff members to provide reports and updates to the Mayor and City Council regarding City business as well as responses to public comments. These items are for information only and no final action will be taken.

a. Post Falls Little League Report

Bryan Myers, Parks Manager: Community Concerns Fees of $12,000 per year impacting Post Falls youth access to programs. Neighboring communities do not charge Little League. Significant volunteer efforts are needed. There is a desire to prioritize local youth access over adults. There is a desire for more and better fields. The city has 5 city-managed baseball/softball diamonds: 1—full size at Brett James Field and 4 youth fields. Sportsman Park has Saturday evening—Sunday morning restrictions. The School District provides 3 full-sized and 8 youth-sized fields. The memorandum summary gives a 2-week early reservation window, 50% hourly rate reduction. Post Falls Little League is responsible for field prep - waived prep fees, exclusive use of concessions and storage facilities, and donation-based credit opportunities. Credits and Donations: 2019 there was a scoreboard replacement, 2021 a pitching mound, 2023 equipment donation, 2024 pitching mound, 2025 pitching mound. The Quarry Sports Complex Master Plan includes 5 youth baseball fields constructed with a synthetic infield and natural grass outfield fields. 2020 operational and maintenance estimate fields only — $94,715.00.

b. 2026 Post Falls Parade Update

Shelly Enderud, City Administrator: In December 2025, the Post Falls Community Ambassadors (PFCA) notified the Administration of their desire to step away as the parade host. The parade requires a lot of coordination and time. This, along with the hard costs, were the main reasons cited for stepping away. They did offer to assist with the transitioning of the parade to a new host.

During January and February, the Administration and the Mayor's office worked to secure a new host for the 2026 parade. All agencies approached were willing to assist, but no one wanted to take the lead as the host. Considering the timeline needed to meet the steps necessary to host a parade, the recommendation is for the City to host this year's parade. The theme of the parade this year is America 250. Staff will work to put together a package for a new host to take on the parade for future years. There has been some interest in putting together a committee to host future parades, similar to Post Falls Community Ambassadors. A draft Parade Host Request for Proposals (RFP) has been formulated. The PFCA has provided estimated hard costs for the last parade. It was approximately $4,200. They have also provided sponsor information, to assist with covering these costs. City staff time has not been covered by sponsors for past parades. The Mayor and staff are desiring Council to provide input prior to moving forward with the final steps for the 2026 parade.
Council was in agreement to move forward with this especially since it is the America 250 celebration.

7. MAYOR AND COUNCIL COMMENTS

This section of the agenda is provided to allow the Mayor and City Councilors to make announcements and general comments relevant to City business and to request that items be added to future agendas for discussion. No final action or in-depth discussion of issues will occur.

None

8. EXECUTIVE SESSION

Certain City-related matters may need to be discussed confidentially subject to applicable legal requirements; the Council may enter executive session to discuss such matters. The motion to enter into executive session must reference the specific statutory section that authorizes the executive session. No final decision or action may be taken in executive session.

ACTION ITEMS:

a. 74-206 (a) To consider hiring a public officer, employee, staff member or individual agent, wherein the respective qualities of individuals are to be evaluated in order to fill a particular vacancy or need. This paragraph does not apply to filling a vacancy in an elective office or deliberations about staffing needs in general.

Motion by Malloy to enter into Executive Session pursuant to Idaho Code 74-206(a) To consider hiring a public officer, employee, staff member or individual agent, wherein the respective qualities of individuals are to be evaluated in order to fill a particular vacancy or need. This paragraph does not apply to filing a vacancy in an elective office or deliberations about staffing needs in general, further that no action will be taken during the session and that the session will last approximately one hour.
Second by Ziegler.
Vote: Mosby-Aye, Plew-Aye, Ziegler-Aye, Malloy-Aye, Lucca-Aye, Stiegleder-Aye.
Motion Carried

Entered into Executive Session at 9:52 PM.
Exited Executive Session at 10:52 PM

RETURN TO REGULAR SESSION

ADJOURNMENT

_____
Randy Westlund, Mayor

_____
Shannon Howard, City Clerk

Questions concerning items appearing on this Agenda or requests for accommodation of special needs to participate in the meeting should be addressed to the Office of the City Clerk, 408 N. Spokane Street or call 208-773-3511. City Council and City commission meetings are broadcast live on Post Falls City Cable on cable channel 1300 (formerly 97.103) as well as the City's YouTube Channel (https://www.youtube.com/c/CityofPostFallsIdaho).

Mayor Randy Westlund
Councilors: Samantha Steigleder, Aaron Plew, Joe Malloy, Nathan Ziegler, Jack Mosby, Marc Lucca

Mission
Building Community.

CITY OF POST FALLS
AGENDA REPORT
CONSENT CALENDAR
MEETING DATE: 4/21/2026

TO: HONORABLE MAYOR AND CITY COUNCIL

FROM: Grace Strickland, CSR/AP

SUBJECT: Payables 04/08/2026 - 04/22/2026

ITEM AND RECOMMENDED ACTION:
The Finance Department recommends that the City Council review, and approve, the Post Falls Check Approval and Check Run Accountability reports dated 4.22.26. Approval of the reports acknowledges receipt of the required reports and approves making the payments. No presentation is planned on this item.

DISCUSSION:
As required by Idaho Code 50-1017 *Presentation of Claims* and 50-1018 *Payment of Claims*, the Finance Department provides a report at each council meeting detailing payments to be made on all accounts payable received during the prior two weeks. Generally, claims are presented prior to payment being issued. However, at times it is necessary for payment to be issued prior to approval (i.e. to avoid late fees), these checks are presented in the Check Run Accountability Report for ratification at the next council meeting. The attached Post Falls Check Approval reports checks totaling $555,614.05 to be dated 4.22.26. The Hand Check Accountability is for Hand Checks issued 4.03.26-4.10.26 and total $100,229.39.

ITEM / PROJECT PREVIOUSLY REVIEWED BY COUNCIL ON:

APPROVED OR DIRECTION GIVEN:

FISCAL IMPACT OR OTHER SOURCE OF FUNDING:
$655,843.44

BUDGET CODE:
Various

ATTACHMENTS:
1. Check Run for Council 4.22.26
2. Hand Checks for Council 4.22.26

City of Post Falls

Packet: APPKT23750 - Check Run for Council 4.22.26
Vendor Set: 01 - Vendor Set 01
Check Date: 4/14/2026

Vendor Number / Bank Code	Vendor Name / Payment Type	Invoice #	Invoice Description	Account Number	Distribution Amount
Fund: 001 - GENERAL FUND					
Dept: 412 Information Systems					
VEN15225	Agileblue Security				
APMWB	Check	206207	Agile Blue Monitoring FY26	001-412.0000.66043	762.20
D070	Dell Marketing LP				
APMWB	Check	10869214762	Dell Pro 24 Plus Monitor P2425H System Se	001-412.0000.66040	367.48
VEN14584	Sylint, LLC				
APMWB	Electronic Funds Transf	20940	Monthly Sylint charges through FY2026	001-412.0000.66043	2,557.43
				Dept 412 Total:	3,687.11
Dept: 414 Finance					
VEN14240	ACRAnet- CBS Branch				
APMWB	Electronic Funds Transf	30586	Merry - Package price for THE ESPEEDY P.	001-414.0000.62080	59.00
B091	BDS				
APMWB	Electronic Funds Transf	105354	Utility Billing	001-414.1445.62170	6,871.94
				001-414.1445.62190	3,993.08
VEN15091	Simpliverified, LLC				
APMWB	Electronic Funds Transf	83494	Background Checks March 2026	001-414.0000.62080	33.00
VEN02035	Staples, Inc				
APMWB	Check	6059724797	Office supplies-Finance	001-414.0000.63060	331.13
		6059724796		001-414.0000.63060	40.22
				Dept 414 Total:	11,328.37
Dept: 418 Human Resources					
D09750	DeVries Info Management				
APMWB	Check	0204939	- On-Site Record Destruction Lg	001-418.0000.63060	62.00
V040	ODP Business Solutions				
APMWB	Check	465815070001	Office Supplies-Police	001-418.0000.63060	13.36
VEN14735	Optimal Talent Dynamics				
APMWB	Electronic Funds Transf	22-355	Comp Survey	001-418.0000.62134	10,050.00
				Dept 418 Total:	10,125.36
Dept: 421 Police					
VEN15225	Agileblue Security				
APMWB	Check	206207	Agile Blue Monitoring FY26	001-421.0000.66041	247.20
C220	Coleman Oil Co				
APMWB	Electronic Funds Transf	CP-0377525	PD Gasoline	001-421.0000.64030	9,379.12
C440	Culligan LLC				
APMWB	Check	0023960	Substation Water Unit & Jug Refills	001-421.0000.68010	90.45
VEN14867	CW Signs				
APMWB	Check	4124	PD Business Cards - x6	001-421.0000.63210	450.00
VEN14950	Dynamic Designs				
APMWB	Check	11338-Q	Car 140 Wrap	001-421.0000.67170	1,935.00
VEN06546	Findlay Chrysler Dodge Jeep Ram				
APMWB	Check	261352	PFPD127 Trim Clips	001-421.0000.67100	22.08
		187660	PFPD142 Engine Repairs	001-421.0000.67170	599.85
G020	Galls, LLC				
APMWB	Electronic Funds Transf	034631336	New Hire Mask & Carriers - Green, Gift	001-421.0000.67020	1,095.04
		034619622	Uniform Jacket - Fowles	001-421.4000.72000	72.90
		034589439	Uniform Tailoring - Mealer	001-421.4000.72000	277.00
		034360936	Flexible badges	001-421.4000.72000	1,790.62
VEN14044	Glacier Bay Electric LLC				
APMWB	Check	033026	PD Lobby TV Recess Boxes Installation	001-421.0000.68010	850.00
VEN15231	Idaho Network of Children's Advocacy Centers				

Vendor Number / Bank Code	Vendor Name / Payment Type	Invoice #	Invoice Description	Account Number	Distribution Amount
APMWB	Check	032526	Forensic Interview Training Registrations	001-421.0000.64020	1,950.00
VEN07726	Jon Dekeles				
APMWB	Check	040126	Chaplain Stipend - March	001-421.0000.62370	100.00
VEN14955	Lake City Roofing & Construction				
APMWB	Check	2323-1	PD Roof Leak Maintenance	001-421.0000.68010	475.00
VEN14850	Legacy Heating and Cooling				
APMWB	Check	36775078	PD Vehicle Barn Annual Maintenance	001-421.0000.68030	550.00
VEN15164	Miller Mendel, Inc				
APMWB	Check	13951	Applicant Testing	001-421.0000.62040	12.00
N001	Napa Auto Parts				
APMWB	Check	386221	PD Stock - Batteries	001-421.0000.67030	25.98
		385113	PD Shop - Star Bit Socket	001-421.0000.67090	7.61
		386031	PD Tool - Adjustable Wrench	001-421.0000.67090	47.99
		385647	PFPD125 Air Door Actuator	001-421.0000.67100	35.91
		384912	PFPD129 Brake Pads & Rotors	001-421.0000.67100	231.93
		385745	PD Stock - Battery Cleaner	001-421.0000.67100	19.20
		385680	PD Stock - Oil Filters	001-421.0000.67100	43.20
		385666	PFPD125 Fluid Reservoir	001-421.0000.67100	125.05
		385877	PFPD122 Fuel Pressure Sensor	001-421.0000.67100	63.47
		385720	PFPD125 - Air Door Actuator	001-421.0000.67100	34.98
		385779	PFPD125 Air Door Actuator	001-421.0000.67100	35.91
		385740	PFPD125 Heater Hose Assemblies	001-421.0000.67100	74.98
VEN15052	North Idaho Decks & Interiors				
APMWB	Check	INV-1083	Detectives Office Carpet Repairs	001-421.0000.68010	571.43
V040	ODP Business Solutions				
APMWB	Check	465815070001	Office Supplies-Police	001-421.0000.66042	404.23
VEN04390	Personnel Evaluation, Inc.				
APMWB	Check	57401	Applicant Testing - March	001-421.0000.62040	25.00
VEN14880	Public Safety Testing, Inc				
APMWB	Check	PST26-236	PST Quarterly Fees, Jan-Mar	001-421.0000.62040	730.00
VEN15219	Public Safety UAS LLC				
APMWB	Check	2026	Drone Course Registrations x2 - Crigger	001-421.0000.64020	1,125.00
VEN04236	Ramey's Yard Care				
APMWB	Check	901269	PD Seasonal Pest Control	001-421.0000.68010	115.00
VEN02035	Staples, Inc				
APMWB	Check	6059724795	Office Supplies-Police	001-421.0000.63060	394.90
VEN14584	Sylint, LLC				
APMWB	Electronic Funds Transf	20940	Monthly Sylint charges through FY2026	001-421.0000.66043	838.50
VEN14902	The Bunker Tri-Cities LLC				
APMWB	Electronic Funds Transf	INV/2026/00940	New Hire Uniforms - Abshire	001-421.4000.72000	804.84
VEN07714	Uniforms2gear, Inc				
APMWB	Electronic Funds Transf	INV/2026/03/0877	Chief Hard Badge	001-421.4000.72000	138.32
		INV/2026/04/0245	ECO Uniform Pants	001-421.4000.72000	154.82
W0226	Walter E Nelson Co				
APMWB	Electronic Funds Transf	569251	Substation Cleaning Supplies	001-421.0000.63060	174.61
				Dept 421 Total:	26,119.12
Dept: 423 Oasis					
VEN15077	Strong Family Law, PLLC				
APMWB	Check	CV28-26-0000	VSU Client Legal Services	001-423.1153.68400	1,495.00
VEN14365	Valiant Law				
APMWB	Check	CV28-26-0955	VSU Client Legal Services	001-423.1153.68400	1,495.00
		CV28-26-0120a		001-423.1153.68400	1,495.00
				Dept 423 Total:	4,485.00
Dept: 424 Legal					
C220	Coleman Oil Co				
APMWB	Electronic Funds Transf	CP-0372577	Fuel Usage - March 2026	001-424.0000.64030	55.75
D09750	DeVries Info Management				
APMWB	Check	0205983	- On-Site Record Destruction Lg	001-424.0000.63060	62.00
		0204939		001-424.0000.63060	62.00

Vendor Number / Bank Code	Vendor Name / Payment Type	Invoice #	Invoice Description	Account Number	Distribution Amount
Dept: 427 Animal Control					
C220	Coleman Oil Co				
APMWB	Electronic Funds Transf	CP-0377525	PD Gasoline	001-427.0000.64030	226.71
				Dept 427 Total:	226.71
Dept: 431 Streets					
C220	Coleman Oil Co				
APMWB	Electronic Funds Transf	CP-0372577 CM	Credit for Sales Tax Charged	001-431.0000.64030	-65.17
		CP-0372577	Fuel Usage - March 2026	001-431.0000.64030	6,259.34
L109	Lowe's Credit Services				
APMWB	Check	88909	Lowes - 92 OZ CLOROX	001-431.0000.63000	19.98
VEN05363	North 40 Outfitters				
APMWB	Check	054782/E	SCREWDRIVER SET 6PC & Ball Valve	001-431.0000.67090	66.98
R251	Serights Ace Hardware				
APMWB	Check	374665/1	Scrub Brush	001-431.0000.63000	7.19
		374549/1	GARDEN SPRAYER, VALVES, ADAPTERS	001-431.0000.63000	114.87
		374616/1	SPRAY BOTTLES & SCOURING PADS	001-431.0000.63000	10.76
		374638/1	54 pc Driver Bit set	001-431.0000.67090	32.39
		374531/1	CONCRETE CRACK SEALANT	001-431.0000.68150	4.13
		374668/1	Parts for Concrete Water tank	001-431.0000.68150	36.77
VEN15091	Simpliverified, LLC				
APMWB	Electronic Funds Transf	83494	Background Checks March 2026	001-431.0000.62080	52.80
VEN13988	Tacoma Screw Products, Inc				
APMWB	Check	240176791-00	Nuts, Bolts & Screws - Stock order	001-431.0000.63260	430.72
VEN14310	US Fleet Tracking LLC				
APMWB	Check	517239	Monthly vehicle tracking service	001-431.0000.66016	592.68
W180	Western States Equipment				
APMWB	Check	IN003544314	Higate Cutting Edge	001-431.0000.63525	925.92
Z026	Ziegler Lumber Co #017				
APMWB	Check	1089757	Concrete Addititve	001-431.0000.68150	34.99
				Dept 431 Total:	8,524.35
Dept: 433 Facility Maintenance					
C220	Coleman Oil Co				
APMWB	Electronic Funds Transf	CP-0372577	Fuel Usage - March 2026	001-433.0000.64030	131.89
P310	Platt Electric Supply				
APMWB	Check	21Z8502	light bulbs	001-433.0000.63720	777.79
		21Z8457	FLU T5-600 ELECTRICAL TESTER 037220	001-433.0000.63730	226.42
VEN04236	Ramey's Yard Care				
APMWB	Check	901188	SEASONAL PEST CONTROL - City Hall	001-433.0000.68010	115.00
R251	Serights Ace Hardware				
APMWB	Check	374528/1	GIFT WRAP TAPE3/4X650"	001-433.0000.63730	59.90
		374499/1	GORILLA MOUNTG TAPE CLR	001-433.0000.68010	8.63
W0226	Walter E Nelson Co				
APMWB	Electronic Funds Transf	569249	TOWEL, MULTIFOLD WHITE 4000/CS PAC	001-433.0000.63140	1,182.55
		569250	EXCELON POMEBERRY FOAM SOAP E1	001-433.0000.63150	341.20
		569506	20" WHITE FLOOR PAD 5/CS SUPER POL	001-433.0000.63150	50.56
				Dept 433 Total:	2,893.94
Dept: 434 Fleet Maintenance					
VEN14736	Cintas Corporation No. 3				
APMWB	Check	4264200361	Fleet Laundry & Rug Service	001-434.0000.63160	155.69
C220	Coleman Oil Co				
APMWB	Electronic Funds Transf	CP-0372577	Fuel Usage - March 2026	001-434.0000.64030	294.35
N001	Napa Auto Parts				
APMWB	Check	384696	Toggle switch - S228	001-434.0000.63011	17.33
		384612	Thermotec Sleeve - S228	001-434.0000.63011	26.74
		385111	Filters - S128	001-434.0000.63011	35.01
		385138	Batteries - S128	001-434.0000.63011	25.98

Vendor Number / Bank Code	Vendor Name / Payment Type	Invoice #	Invoice Description	Account Number	Distribution Amount
APMWB	Check	384924	FIlters - P147	001-434.0000.63012	23.93
		384844	Belts - P147	001-434.0000.63012	61.95
		384843	Belt - P147	001-434.0000.63012	17.05
		384984	Filters - fleet stock	001-434.0000.63012	54.93
		385173	Jump Starter - F102	001-434.0000.67090	419.88
B100	Owen Equipment Company				
APMWB	Check	00131837	Parts - S556	001-434.0000.63011	563.35
R251	Serights Ace Hardware				
APMWB	Check	374610/1	PIPING FIXTURES FOR WATER SYSTEM	001-434.0000.68010	32.01
				Dept 434 Total:	1,728.20
Dept: 441 Urban Forestry					
VEN13104	Bluejay Industrial Inc				
APMWB	Check	040624	Pot-in-pot nursery hardware	001-441.0000.68190	60.56
C220	Coleman Oil Co				
APMWB	Electronic Funds Transf	CP-0372577	Fuel Usage - March 2026	001-441.0000.64030	848.20
F020	Fastenal Company				
APMWB	Electronic Funds Transf	IDCOE232674	Hardware for Pot-In-Pot nursery	001-441.0000.68190	117.38
VEN01373	Intermountain Sign & Safety				
APMWB	Check	22319	No Parking Sign Blanks	001-441.0000.63210	31.50
R251	Serights Ace Hardware				
APMWB	Check	374249/1	Pot-in-pot nursery hardware	001-441.0000.68190	32.19
				Dept 441 Total:	1,089.83
Dept: 442 Cemetery					
C220	Coleman Oil Co				
APMWB	Electronic Funds Transf	CP-0372577	Fuel Usage - March 2026	001-442.0000.64030	242.82
VEN15232	Julia and Ralph Mower				
APMWB	Check	03.30.26	Lot BuyBack Blk 113, Lots 59 & 60	001-442.1670.33307	1,525.00
N001	Napa Auto Parts				
APMWB	Check	386155	Tire Gauge Dial	001-442.0000.67090	72.84
A565	SiteOne Landscape Supply, LLC				
APMWB	Check	163983738-001	Lesco fertilizer	001-442.0000.68200	3,847.36
W230	Wilbert Precast Inc.				
APMWB	Check	387171-1	Fanny Allen Memorial	001-442.0000.63760	783.72
		387227-1	Lanter memorial	001-442.0000.63760	452.36
		384651-1	Robbins Memorial	001-442.0000.63760	1,137.84
				Dept 442 Total:	8,061.94
Dept: 443 Parks					
VEN15174	Airgas USA, LLC				
APMWB	Check	5523927710	Acetylene for welder	001-443.0000.64030	9.08
A365	American On-Site Services				
APMWB	Check	I108305	Hilde Kellogg Portable Restroom	001-443.0000.65050	90.50
		I108303	Warren Portable Restroom	001-443.0000.65050	90.50
		I108304	Beck Park Portable Restroom	001-443.0000.65050	90.50
		I108306	Upper Corbin Portable Restroom	001-443.0000.65050	90.50
		I108265	Tullamore Park Portable Restroom	001-443.0000.65050	180.00
		I108234	Black Bay Portable Restroom	001-443.0000.65050	115.00
		I108300	Tennis Cts Portable Restrooms	001-443.0000.65050	173.04
		I108302	Sportsman's Portable Restroom	001-443.0000.65050	173.04
		I108291	Q'emiln Park Portable Restrooms	001-443.0000.65050	600.00
		I108268	Kiwanis Park Portable Restroom	001-443.0000.65050	180.00
		I108267	Falls Park Portable Restroom	001-443.0000.65050	448.00
		I108235	Corbin portable restrooms	001-443.0000.65050	295.00
		I108307	Singing Hills Portable Restroom	001-443.0000.65050	90.50
		I108266	White Pine Portable Restroom	001-443.0000.65050	180.00
		I108233	4th St Trailhead Portable Restroom	001-443.0000.65050	200.00
		I108261	Skate Park Portable Restroom	001-443.0000.65050	200.00
A017	A-Tec, Inc.				
APMWB	Check	6711	Updated mag locks for the season	001-443.0000.62180	390.00

Vendor Number / Bank Code	Vendor Name / Payment Type	Invoice #	Invoice Description	Account Number	Distribution Amount
VEN05261	CDA PAVING				
APMWB	Check	113508	Fine Sand for Horseshoe pits	001-443.0000.68170	405.50
C220	Coleman Oil Co				
APMWB	Electronic Funds Transf	CP-0372577	Fuel Usage - March 2026	001-443.0000.64030	3,983.06
C410	Country Lock & Key, Inc.				
APMWB	Electronic Funds Transf	9378494618	Keys for large TP Dispensers	001-443.0000.67030	41.65
F020	Fastenal Company				
APMWB	Electronic Funds Transf	IDCOE232985	Hardware for speed bumps	001-443.0000.67030	51.77
G098	Grainger				
APMWB	Check	9870885747	Batteries for Parks	001-443.0000.67030	109.07
VEN15073	Great North Fencing LLC				
APMWB	Check	1269	Move Chase Foul Ball Pole	001-443.0000.63530	1,200.00
VEN15233	Mary Carugati				
APMWB	Check	03.31.26	80% Refund for Canceled Park Shelter Rese	001-443.1654.33327	148.40
VEN05363	North 40 Outfitters				
APMWB	Check	054753/E	Gas pump for sprayer	001-443.0000.66190	74.98
VEN14065	North Idaho Pest				
APMWB	Check	2026-01	Pest Control in all Parks	001-443.0000.68215	2,234.10
S050	Saturday Night Inc.				
APMWB	Electronic Funds Transf	108897	Parks Construction Uniforms	001-443.4000.72000	1,432.71
R251	Serights Ace Hardware				
APMWB	Check	374474/1	Oil for small equipment	001-443.0000.66190	63.89
		374729/1	Hardware for Tullamore	001-443.0000.67030	34.30
		374510/1	Wheelbarrows and shovels for Parks	001-443.0000.67090	350.96
		374758/1	Tools for Q'emiln Park	001-443.0000.67090	134.05
		374704/1	Irrigation Parts for Black Bay Park & Nursery	001-443.0000.68230	47.67
		374724/1	Irrigation parts for Sportsman's Park	001-443.0000.68230	4.26
VEN15091	Simpliverified, LLC				
APMWB	Electronic Funds Transf	83494	Background Checks March 2026	001-443.0000.62080	126.80
A565	SiteOne Landscape Supply, LLC				
APMWB	Check	163449823-001	Mulch for City Hall	001-443.0000.68170	592.50
W0226	Walter E Nelson Co				
APMWB	Electronic Funds Transf	569454	Cleaning supplies for Parks	001-443.0000.63150	328.18
Z026	Ziegler Lumber Co #017				
APMWB	Check	1095597	Hole markers for Construction	001-443.0000.67090	73.90
				Dept 443 Total:	15,033.41
Dept: 444 Parks - Construction					
VEN07316	BC Engineers Inc				
APMWB	Check	2318	Structural Engineering for the Quarry fence.	001-444.0000.62040	1,800.00
VEN05261	CDA PAVING				
APMWB	Check	113299	Chase concrete disposal	001-444.1665.93180	62.50
C360	Consolidated Supply Co.				
APMWB	Electronic Funds Transf	S012867367.001	Pipe for Chase Re-build	001-444.1665.93180	162.06
H003	H.D. Fowler Company				
APMWB	Electronic Funds Transf	I7262423	Irrigation parts for Chase site work.	001-444.1665.93180	9.91
		I7251491	Irrigation for Chase Park	001-444.1665.93180	41.37
		I7257694	Irrigation parts for Chase site work	001-444.1665.93180	821.60
		I7275447	Valve boxes for Chase Site Work	001-444.1665.93180	290.76
		I7257696	Chase Site-Work parts	001-444.1665.93180	106.44
		C664768	Refund for double charge	001-444.1665.93180	-33.72
		C664369	Parts Return	001-444.1665.93180	-411.80
		I7251491	Irrigation for Chase Park	001-444.1665.93180	213.03
		I7262423	Irrigation parts for Chase site work.	001-444.1665.93180	3.16
		I7251491	Irrigation for Chase Park	001-444.1665.93180	1,452.15
		I7262423	Irrigation parts for Chase site work.	001-444.1665.93180	8.96
		I7251491	Irrigation for Chase Park	001-444.1665.93180	118.12
		I7262423	Irrigation parts for Chase site work.	001-444.1665.93180	75.24
		I7251491	Irrigation for Chase Park	001-444.1665.93180	48.40
		I7262423	Irrigation parts for Chase site work.	001-444.1665.93180	2,883.40
		I7251491	Irrigation for Chase Park	001-444.1665.93180	44.17

Vendor Number / Bank Code	Vendor Name / Payment Type	Invoice #	Invoice Description	Account Number	Distribution Amount
APMWB	Electronic Funds Transf	I7262423	Irrigation parts for Chase site work.	001-444.1665.93180	99.16
I340	Interstate Concrete & Asphalt				
APMWB	Electronic Funds Transf	1119840	Sand for Chase Re-build	001-444.1665.93180	285.54
J105	J-U-B Engineers, Inc.				
APMWB	Electronic Funds Transf	194622	Chase Park Survey & Grading	001-444.1665.93180	3,560.00
R251	Serights Ace Hardware				
APMWB	Check	374793/1	Hardware for Chase Park Rebuild	001-444.1665.93180	40.82
		374646/1	Irrigation Parts for Chase Site Work	001-444.1665.93180	10.79
				Dept 444 Total:	11,692.06
Dept: 445 Recreation					
VEN14549	DaySmart Recreation				
APMWB	Check	INV01658212	DashDaySmart Subscription Jan, Feb & Mar	001-445.1445.62190	3,450.99
V040	ODP Business Solutions				
APMWB	Check	465837056001	Office supplies- Recreation	001-445.0000.66050	93.59
		465838866001	Office Supplies-Recreation	001-445.0000.66050	93.59
S050	Saturday Night Inc.				
APMWB	Electronic Funds Transf	109010	Spring Flag Football Smart Start Shirts	001-445.0000.63080	337.90
		108904	Spring Football Shorts	001-445.0000.63080	2,548.92
		108879	Spring Football Coaches Shirts	001-445.0000.63080	895.88
		108947	Spring Volleyball T-Shirts	001-445.0000.63430	1,364.70
VEN15091	Simpliverified, LLC				
APMWB	Electronic Funds Transf	83494	Background Checks March 2026	001-445.0000.62080	2,914.85
				Dept 445 Total:	11,700.42
Dept: 451 Planning & Zoning					
C291	Coeur d' Alene Press				
APMWB	Check	0000047132-03132(	Public Notice Crown Reserve SUBD-25-6	001-451.0000.62000	239.14
		0000047136-03132(	Public Notice Public Works File No ANNX-26	001-451.0000.62000	190.83
		0000047404	Public Notice Millworx Vacation File No VAC	001-451.0000.62000	483.15
		0000047758-03282(	CDA#16073 NOPH Klondike Pl Subd File No	001-451.0000.62000	179.64
		0000047406	Public Notice Powderhorn Vacation VAC-25-	001-451.0000.62000	179.56
		0000047134-03132(	Public Notice Fisher Lift Station ANNX-26-1	001-451.0000.62000	172.47
		0000047130-03132(	Public Notice G2 Development File No SUB	001-451.0000.62000	254.40
		0000047761-03282(	Public Notice Genesis Land File No SUP-26-	001-451.0000.62000	220.89
VEN15085	International Minute Press				
APMWB	Check	6362	Public Hearing Notice Signs w/ Grommet (Jc	001-451.0000.63060	254.00
				Dept 451 Total:	2,174.08
Dept: 452 Building Inspector					
B091	BDS				
APMWB	Electronic Funds Transf	105354	Utility Billing	001-452.0000.62040	50.00
C220	Coleman Oil Co				
APMWB	Electronic Funds Transf	CP-0372577	Fuel Usage - March 2026	001-452.0000.64030	635.97
				Dept 452 Total:	685.97
Dept: 453 Engineering					
C220	Coleman Oil Co				
APMWB	Electronic Funds Transf	CP-0372577	Fuel Usage - March 2026	001-453.0000.64030	289.01
				Dept 453 Total:	289.01
Dept: 454 Community Development Admin					
VEN13318	OpenGov, Inc				
APMWB	Electronic Funds Transf	INV25458	OpenGov Renewal INV25458	001-454.0000.66016	11,389.35
				Dept 454 Total:	11,389.35
Dept: 481 Capital Improvements/Contracts					
T104	Tint Works				
APMWB	Check	27514	Window tinting City Hall	001-481.0000.68390	7,500.00
				Dept 482 Total:	7,500.00

Vendor Number / Bank Code	Vendor Name / Payment Type	Invoice #	Invoice Description	Account Number	Distribution Amount
Fund: 003 - PERSONNEL BENEFIT POOL					
Dept: 482 Personnel Pool					
VEN15087	Alliant Insurance Services, Inc				
APMWB	Electronic Funds Transf	3485350	April 2026 Benefits Consulting and Employe	003-482.0000.62040	3,232.00
VEN15121	BPA Health, Inc				
APMWB	Electronic Funds Transf	612420	June 2026 EAP Services	003-482.4000.73000	852.00
P079	Panhandle Health District				
APMWB	Check	5698-01.22.2026	Encounter 188781 Immunization	003-482.4000.73000	169.00
				Dept 482 Total:	4,253.00
				Fund 003 Total:	4,253.00
Fund: 008 - 911 SUPPORT					
Dept: 426 911 Support					
VEN15225	Agileblue Security				
APMWB	Check	206207	Agile Blue Monitoring FY26	008-426.0000.66043	1,050.60
VEN02416	Eaton Corporation				
APMWB	Check	957235071	Eaton UPS (2 ea.) Preventative Maint. Rene	008-426.0000.67020	16,352.15
VEN14776	Structured				
APMWB	Check	0263826-IN	Rubrik Hardware Support and Subscription 1	008-426.0000.66040	39,088.20
VEN14584	Sylint, LLC				
APMWB	Electronic Funds Transf	20940	Monthly Sylint charges through FY2026	008-426.0000.66043	3,591.57
				Dept 426 Total:	60,082.52
				Fund 008 Total:	60,082.52
Fund: 029 - CEMETERY CAPITAL IMPROVEMENT					
Dept: 442 Cemetery					
VEN15232	Julia and Ralph Mower				
APMWB	Check	03.30.26	Lot BuyBack Blk 113, Lots 59 & 60	029-442.1670.39315	1,525.00
				Dept 442 Total:	1,525.00
				Fund 029 Total:	1,525.00
Fund: 034 - KOOTENAI FIRE/EMS IMPACT FEES					
Dept: 428 Kootenai Fire/EMS Impact Fees					
VEN14739	Kootenai County Emergency Medical Services System				
APMWB	Electronic Funds Transf	March 2026 Impact	March 2026 Impact Fees	034-428.0000.33117	-340.00
				034-428.0000.62040	7,712.00
VEN06795	Kootenai County Fire & Rescue				
APMWB	Electronic Funds Transf	March 2026 Impact	March 2026 Impact Fees	034-428.0000.33117	-680.00
				034-428.0000.62040	70,504.00
				Dept 428 Total:	77,196.00
				Fund 034 Total:	77,196.00
Fund: 035 - PUBLIC SAFETY IMPACT FEES					
Dept: 420 Public Safety Impact Fees					
C210	City of Post Falls				
APMWB	Check	PL-25-6	PD Parking Lot Irrigation Fees	035-420.0000.95015	18,948.94
C291	Coeur d' Alene Press				
APMWB	Check	0000047129	PD Parking Lot Expansion- CDA #15977	035-420.0000.95015	202.40
VEN14481	HMH Engineering				
APMWB	Check	D25030-10	PD Parking Lot HMH Invoice March 2026	035-420.0000.95015	3,762.50
				Dept 420 Total:	22,913.84
				Fund 035 Total:	22,913.84
Fund: 038 - PARKS IMPACT FEES					

Vendor Number / Bank Code	Vendor Name / Payment Type	Invoice #	Invoice Description	Account Number	Distribution Amount
Dept: 443 Parks					
C291	Coeur d' Alene Press				
APMWB	Check	0000046999	Quarry bid invite	038-443.0000.94165	451.52
C3818	Cooper Fabrication, Inc.				
APMWB	Check	32500	Ladders for Black Bay Dock	038-443.0000.94070	4,317.48
VEN15223	Sportable Scoreboards				
APMWB	Check	289817	Scoreboard for the Montrose Sports Comple	038-443.0000.94230	13,590.00
				Dept 443 Total:	18,359.00
				Fund 038 Total:	18,359.00
Fund: 650 - RECLAIMED WATER OPERATING					
Dept: 463 Wastewater Operating					
A1395	Advanced Compressor & Hose Inc				
APMWB	Check	102971	WRF Supplies	650-463.0000.63000	29.21
VEN15174	Airgas USA, LLC				
APMWB	Check	5523927860	RRCYLILG-AR - Rent Cyl Ind Large Argon	650-463.0000.68025	9.08
VEN14736	Cintas Corporation No. 3				
APMWB	Check	4264200669	WWTP Uniforms	650-463.4000.72000	591.75
C220	Coleman Oil Co				
APMWB	Electronic Funds Transf	CP-0372577	Fuel Usage - March 2026	650-463.0000.65005	636.49
C3090	Columbia Electric Supply				
APMWB	Electronic Funds Transf	1120-1024453	WRF AUX CONTACT KIT	650-463.0000.68010	58.74
		1120-1024459	WRF Contactor 600V 9A	650-463.0000.68010	256.98
G098	Grainger				
APMWB	Check	9856341483	WRF Supplies	650-463.0000.63000	21.51
		9857312517	WRF PLEATED AIRFILTER 20INH x 25INW	650-463.0000.68010	330.00
H030	Hach Company				
APMWB	Check	14936935	Lab Supplies	650-463.0000.63400	854.10
J105	J-U-B Engineers, Inc.				
APMWB	Electronic Funds Transf	195087	Solids Handling JUB Invoice March 2026	650-463.3125.95520	159,530.40
VEN04172	Northwest Scientific, Inc.				
APMWB	Electronic Funds Transf	5200875	WRF Lab CHLORIDE STD 100PPM CHLOF	650-463.0000.63400	155.24
O050	Oxarc Inc.				
APMWB	Electronic Funds Transf	0032540044	Sodium Hypochlorite (Chlorine Bleach)	650-463.0000.68820	4,095.75
R1913	Rockhound Landscape Supply				
APMWB	Check	304	WRF Soil Base 2 yards	650-463.0000.68010	72.00
R251	Serights Ace Hardware				
APMWB	Check	374594/1	WRF Supplies	650-463.0000.63000	47.08
		374599/1	WRF Bldg Supplies	650-463.0000.68010	98.03
VEN06538	SGS AXYS Analytical Services Ltd				
APMWB	Electronic Funds Transf	11969094	PCB sampling	650-463.0000.68360	3,213.00
VEN02035	Staples, Inc				
APMWB	Check	6059724799	Office supplies-Wastewater	650-463.0000.63060	86.08
		6059724798	Office Supplies-Wastewater	650-463.0000.63060	178.16
		6059724800	Office supplies-Wastewater	650-463.0000.63060	41.98
		6059724798	Office Supplies-Wastewater	650-463.0000.63060	277.94
U1006	Univar Solutions USA, LLC				
APMWB	Electronic Funds Transf	53728541	Aluminum Sulfate for Tertiary Operations	650-463.0000.63008	7,869.04
		53771939		650-463.0000.63008	8,208.04
		53755214		650-463.0000.63008	7,354.24
		53746231	Caustic Soda Deliveris Tertiary Operations	650-463.0000.63008	4,274.35
				Dept 463 Total:	198,289.19
Dept: 466 Wastewater - Collections					
VEN14736	Cintas Corporation No. 3				
APMWB	Check	4264200669	WWTP Uniforms	650-466.4000.72000	591.76
C291	Coeur d' Alene Press				
APMWB	Check	0000047220	SH41 & Poleline Bid Ad - CDA #16001	650-466.3221.68400	219.68
C220	Coleman Oil Co				
APMWB	Electronic Funds Transf	CP-0372577	Fuel Usage - March 2026	650-466.0000.65005	2,337.76

Vendor Number / Bank Code	Vendor Name / Payment Type	Invoice #	Invoice Description	Account Number	Distribution Amount
C3090	Columbia Electric Supply				
APMWB	Electronic Funds Transf	1120-1024551	Lift Station Connector, Plug & Flashlight	650-466.0000.68021	253.97
C360	Consolidated Supply Co.				
APMWB	Electronic Funds Transf	S012851434.001	Lift Station POLYLOK - FLAT COVER W/ G/	650-466.0000.68021	163.43
VEN14559	One Call Concepts, Inc				
APMWB	Check	60322025	Wastewater & Water Locates	650-466.0000.62320	400.69
R251	Serights Ace Hardware				
APMWB	Check	374690/1	L/S Supplies	650-466.0000.63000	38.48
		374588/1	Lift Station O-RING ASST 14PK ACE	650-466.0000.63000	5.39
				Dept 466 Total:	4,011.16
Dept: 468 Wastewater - Surface Water					
C220	Coleman Oil Co				
APMWB	Electronic Funds Transf	CP-0372577	Fuel Usage - March 2026	650-468.0000.65005	570.99
F1275	Fox Trailer Sales				
APMWB	Check	CO-0001056	Repairs on W601 Trailer	650-468.0000.67170	488.00
N210	Northland Nursery				
APMWB	Check	220000076445	Soil Planting Mix	650-468.0000.68380	112.20
R1913	Rockhound Landscape Supply				
APMWB	Check	808	3 yards dirt	650-468.0000.68380	114.00
		320	Fine Soil 3yards	650-468.0000.68380	138.00
				Dept 468 Total:	1,423.19
				Fund 650 Total:	203,723.54
Fund: 700 - SANITATION					
Dept: 461 Sanitation					
VEN07913	CANNON HILL				
APMWB	Check	44703	Wood waste from Parks & UF	700-461.0000.65050	1,020.00
VEN04268	Coeur d'Alene Garbage Service				
APMWB	Check	3335618	Dumpster for Q'emiln	700-461.0000.65050	645.63
				Dept 461 Total:	1,665.63
				Fund 700 Total:	1,665.63
Fund: 750 - WATER OPERATING					
Dept: 462 Water Operating					
A1395	Advanced Compressor & Hose Inc				
APMWB	Check	102979	Water Supply Filling Station Supplies	750-462.0000.63280	203.79
A365	American On-Site Services				
APMWB	Check	I108092	Porta Potty for BFA Class	750-462.0000.65050	271.00
A424	Anatek Labs, Inc.				
APMWB	Electronic Funds Transf	2608351	PFC analysis LC/MS/MS by EPA 533	750-462.0000.68360	750.00
B025	Backflow Assembly Testing & Supply				
APMWB	Check	T316223	Backflow Refresher Course	750-462.0000.64020	600.00
		S4082601	Mid-west 845-5 Backflow Test Gauge	750-462.0000.66190	989.27
VEN14124	Badger Meter, Inc.				
APMWB	Electronic Funds Transf	80231223	Badger Hosting Unit Mar 2026	750-462.0000.66012	149.68
		80208603	Hosting Service Unit Aug 2025	750-462.0000.66012	114.38
		80196598	Badger Hosting Unit May 2025	750-462.0000.66012	108.92
		80190382	Badger Hosting Units Mar 2025	750-462.0000.66012	103.88
		80187373	Badger Hosting Units Feb 2025	750-462.0000.66012	102.83
		80184370	Badger Hosting Unit Jan 2025	750-462.0000.66012	101.29
		80205552	Badger Annual Support 2026	750-462.0000.66012	2,933.19
		80181399	Badger Hosting Units Dec 2024	750-462.0000.66012	96.46
		80193519	Badger Mobile Read	750-462.0000.66012	886.61
VEN04268	Coeur d'Alene Garbage Service				
APMWB	Check	3334874	RECYCLE 1Y PULL-RECYCLING	750-462.0000.65050	26.50
C220	Coleman Oil Co				
APMWB	Electronic Funds Transf	CP-0372577	Fuel Usage - March 2026	750-462.0000.64030	3,491.23
C360	Consolidated Supply Co.				

Vendor Number / Bank Code	Vendor Name / Payment Type	Invoice #	Invoice Description	Account Number	Distribution Amount
APMWB	Electronic Funds Transf	S012859484.001	METER BOX COVERS	750-462.0000.63280	1,127.81
		S012859484.002	DW MILLROSE 1" X 1429" PIPE THREAD T	750-462.0000.63280	62.81
VEN09744	Controlfreek Inc				
APMWB	Check	7265	Trouble Shoot & Well Repairs	750-462.3315.68382	1,665.25
H215	Core & Main LP				
APMWB	Check	Y704482	DW Supplies 1", 2" Tap Bits	750-462.0000.63280	501.72
VEN14305	General Pacific, Inc				
APMWB	Electronic Funds Transf	1539845	1 1/2 & 2" Replacement Meters	750-462.0000.63280	11,923.00
N001	Napa Auto Parts				
APMWB	Check	075059	DW Supply Tools	750-462.0000.67090	194.48
VEN14559	One Call Concepts, Inc				
APMWB	Check	60322025	Wastewater & Water Locates	750-462.0000.62320	400.68
R251	Serights Ace Hardware				
APMWB	Check	374633/1	DSP GLOVE NIT XL BLK PF	750-462.0000.63110	17.99
		374593/1	Water Shop Supplies	750-462.0000.63280	96.71
		374834/1		750-462.0000.63280	62.06
				Dept 462 Total:	26,981.54
				Fund 750 Total:	26,981.54
				Report Total:	555,614.05

Fund	Account	Amount
001 - GENERAL FUND		
	001-412.0000.66040	367.48
	001-412.0000.66043	3,319.63
	001-414.0000.62080	92.00
	001-414.0000.63060	371.35
	001-414.1445.62170	6,871.94
	001-414.1445.62190	3,993.08
	001-418.0000.62134	10,050.00
	001-418.0000.63060	75.36
	001-421.0000.62040	767.00
	001-421.0000.62370	100.00
	001-421.0000.63060	569.51
	001-421.0000.63210	450.00
	001-421.0000.64020	3,075.00
	001-421.0000.64030	9,379.12
	001-421.0000.66041	247.20
	001-421.0000.66042	404.23
	001-421.0000.66043	838.50
	001-421.0000.67020	1,095.04
	001-421.0000.67030	25.98
	001-421.0000.67090	55.60
	001-421.0000.67100	686.71
	001-421.0000.67170	2,534.85
	001-421.0000.68010	2,101.88
	001-421.0000.68030	550.00
	001-421.4000.72000	3,238.50
	001-423.1153.68400	4,485.00
	001-424.0000.63060	124.00
	001-424.0000.64030	55.75
	001-427.0000.64030	226.71
	001-431.0000.62080	52.80
	001-431.0000.63000	152.80
	001-431.0000.63260	430.72
	001-431.0000.63525	925.92
	001-431.0000.64030	6,194.17
	001-431.0000.66016	592.68
	001-431.0000.67090	99.37
	001-431.0000.68150	75.89
	001-433.0000.63140	1,182.55
	001-433.0000.63150	391.76
	001-433.0000.63720	777.79
	001-433.0000.63730	286.32
	001-433.0000.64030	131.89
	001-433.0000.68010	123.63
	001-434.0000.63011	668.41
	001-434.0000.63012	157.86
	001-434.0000.63160	155.69
	001-434.0000.64030	294.35
	001-434.0000.67090	419.88
	001-434.0000.68010	32.01
	001-441.0000.63210	31.50
	001-441.0000.64030	848.20
	001-441.0000.68190	210.13
	001-442.0000.63760	2,373.92
	001-442.0000.64030	242.82
	001-442.0000.67090	72.84
	001-442.0000.68200	3,847.36

001-442.1670.33307		1,525.00
001-443.0000.62080		126.80
001-443.0000.62180		390.00
001-443.0000.63150		328.18
001-443.0000.63530		1,200.00
001-443.0000.64030		3,992.14
001-443.0000.65050		3,196.58
001-443.0000.66190		138.87
001-443.0000.67030		236.79
001-443.0000.67090		558.91
001-443.0000.68170		998.00
001-443.0000.68215		2,234.10
001-443.0000.68230		51.93
001-443.1654.33327		148.40
001-443.4000.72000		1,432.71
001-444.0000.62040		1,800.00
001-444.1665.93180		9,892.06
001-445.0000.62080		2,914.85
001-445.0000.63080		3,782.70
001-445.0000.63430		1,364.70
001-445.0000.66050		187.18
001-445.1445.62190		3,450.99
001-451.0000.62000		1,920.08
001-451.0000.63060		254.00
001-452.0000.62040		50.00
001-452.0000.64030		635.97
001-453.0000.64030		289.01
001-454.0000.66016		11,389.35
001-481.0000.68390		7,500.00
	Fund 001 Total:	138,913.98
003 - PERSONNEL BENEFIT POOL		
003-482.0000.62040		3,232.00
003-482.4000.73000		1,021.00
	Fund 003 Total:	4,253.00
008 - 911 SUPPORT		
008-426.0000.66040		39,088.20
008-426.0000.66043		4,642.17
008-426.0000.67020		16,352.15
	Fund 008 Total:	60,082.52
029 - CEMETERY CAPITAL IMPROVEMENT		
029-442.1670.39315		1,525.00
	Fund 029 Total:	1,525.00
034 - KOOTENAI FIRE/EMS IMPACT FEES		
034-428.0000.33117		-1,020.00
034-428.0000.62040		78,216.00
	Fund 034 Total:	77,196.00
035 - PUBLIC SAFETY IMPACT FEES		
035-420.0000.95015		22,913.84
	Fund 035 Total:	22,913.84
038 - PARKS IMPACT FEES		
038-443.0000.94070		4,317.48
038-443.0000.94165		451.52
038-443.0000.94230		13,590.00
	Fund 038 Total:	18,359.00
650 - RECLAIMED WATER OPERATING		
650-463.0000.63000		97.80
650-463.0000.63008		27,705.67
650-463.0000.63060		584.16
650-463.0000.63400		1,009.34
650-463.0000.65005		636.49
650-463.0000.68010		815.75
650-463.0000.68025		9.08
650-463.0000.68360		3,213.00
650-463.0000.68820		4,095.75
650-463.3125.95520		159,530.40
650-463.4000.72000		591.75

650-466.0000.62320		400.69
650-466.0000.63000		43.87
650-466.0000.65005		2,337.76
650-466.0000.68021		417.40
650-466.3221.68400		219.68
650-466.4000.72000		591.76
650-468.0000.65005		570.99
650-468.0000.67170		488.00
650-468.0000.68380		364.20
	Fund 650 Total:	203,723.54
700 - SANITATION		
700-461.0000.65050		1,665.63
	Fund 700 Total:	1,665.63
750 - WATER OPERATING		
750-462.0000.62320		400.68
750-462.0000.63110		17.99
750-462.0000.63280		13,977.90
750-462.0000.64020		600.00
750-462.0000.64030		3,491.23
750-462.0000.65050		297.50
750-462.0000.66012		4,597.24
750-462.0000.66190		989.27
750-462.0000.67090		194.48
750-462.0000.68360		750.00
750-462.3315.68382		1,665.25
	Fund 750 Total:	26,981.54
	Report Total:	555,614.05

ACCOUNTS PAYABLE HANDCHECK ACCOUNTABILITY FOR

4/3/2026	$	3,301.25	APA002833	AT&T Mobility
4/3/2026	$	62.60	APA002834	Avista Utilities
4/3/2026	$	642.95	APA002835	Charter Communications
4/3/2026	$	600.00	APA002836	East Greenacres Irrigation Water Shutoffs
4/3/2026	$	361.87	APA002837	H & H Business Systems
4/3/2026	$	276.12	APA002838	Kootenai County Solid Waste
4/3/2026	$	37.00	APA002839	McGuire Estate Water Users Assn
4/3/2026	$	822.63	APA002840	Post Falls Food Bank
4/3/2026	$	738.00	APA002841	Ross Point Water
4/3/2026	$	202.30	APA002842	TDS
4/3/2026	$	300.21	APA002843	Verizon Wireless
4/3/2026	$	20.02	APA002844	Verizon Wireless
4/3/2026	$	40.01	APA002845	Verizon Wireless
4/3/2026	$	160.16	APA002846	Verizon Wireless
4/3/2026	$	148.68	APA002847	Verizon Wireless
4/10/2026	$	100.62	APA002977	AT&T Long Distance
4/10/2026	$	43,624.62	APA002978	Avista Utilities
4/10/2026	$	180.09	APA002979	Charter Communications
4/10/2026	$	169.88	APA002980	H & H Business Systems
4/10/2026	$	220.90	APA002981	Kootenai County Solid Waste
4/10/2026	$	42,553.24	APA002982	Kootenai Electric
4/10/2026	$	2,242.65	APA002983	Level 3 Communications
4/10/2026	$	1,010.37	APA002984	ODP
4/10/2026	$	232.98	APA002985	Ricoh USA Inc
4/10/2026	$	699.74	APA002986	SpectraSite Communications
4/10/2026	$	1,480.50	APA002987	Tetiri, LLC
	$	**100,229.39**		

CHECK RUN 4/21/26

Pay Before Due Date	Various
Pay Before Due Date	Various
Pay Before Due Date	Various
Pay Before Due Date	750-462.0000.62040
Pay Before Due Date	Various
Pay Before Due Date	Various
Pay Before Due Date	650-463.0000.65081
Pay Before Due Date	001-22110
Pay Before Due Date	Various
Pay Before Due Date	001-443.0000.65030
Pay Before Due Date	Various
Pay Before Due Date	001-452.0000.65030
Pay Before Due Date	001-424.0000.65030
Pay Before Due Date	Various
Pay Before Due Date	001-443.0000.65030
Pay Before Due Date	Various
Pay Before Due Date	Various
Pay Before Due Date	001-443.0000.65030
Pay Before Due Date	Various
Pay Before Due Date	700-461.0000.65050
Pay Before Due Date	Various
Pay Before Due Date	Various
Pay Before Due Date	Various
Pay Before Due Date	Various
Pay Before Due Date	001-421.0000.62040
Pay Before Due Date	001-421.0000.62040

CITY OF POST FALLS
AGENDA REPORT
PUBLIC HEARINGS
MEETING DATE: 4/21/2026

TO: HONORABLE MAYOR AND CITY COUNCIL

FROM: Robert Palus, City Engineer

SUBJECT: City of Post Falls - 2025 Transportation Master Plan

---

ITEM AND RECOMMENDED ACTION:
This item is a public hearing on the draft 2025 Transportation Master Plan. Council should listen to any public testimony that is received and make a motion to approve, amend, or reject the draft plan.

DISCUSSION:
The City of Post Falls currently manages transportation planning for vehicular and multi-modal transportation based on the City of Post Falls 2017 Transportation Master Plan. The 2017 Master Plan was built off traffic conditions and growth projections from 2014, and identified needs and priorities through 2035. In 2023, the City of Post Falls hired JUB Engineers to update the City's Transportation Master Plan utilizing 2023 traffic data, 2020 census data and updated growth projections coordinated with the Kootenai Metropolitian Planning Organization. The updated plan identifies projected system operations and needs to meet established levels of service through the year 2045.

To update the Transportation Master Plan, traffic counts were collected from 80 locations throughout the City to provide a calibrated local model focused on City operations and built off the regional model that is maintained by the Kooteani Metropolitian Planning Organization. Growth projections were coordinated with the Kooteani Metropolitian Planning Organization. Plan development included coordination with a Technical Advisory Group, collaboration with community stakeholders and consideration of regional planning efforts for the Rathdrum Prairie Area Transportation Plan and expansion of Interstate 90. Public outreach was conducted that included public surveys, two (2) public open houses and gathering community feedback at Post Falls Days in 2025. In 2025 two (2) workshops and one new business item were conducted with City Council to address the status of the Master Plan Update and preliminary results.

The updated model indicates that the transportation system is currently working within the adopted Level of Service (LOS) Standards for 2025. Areas that do not currently meet adopted LOS Standards have current mitigation under construction or are on the City's existing Impact Fee Capital Improvement Plan. The 2025 Transportation Master Plan establishes a recommended capital improvement plan and an anticipated implementation plan. Projects are categorized into Short-Term, Medium-Term and Long-Term. Actual implementation is dependent on the intensity and location of growth during the planning window.

Multi-modal projects were developed through an analysis of 7 characteristics that would influence successful implementation of the expansion for bicycle and pedestrian infrastructure. Proposed projects were coordinated with the City's Community Development, Parks and Public Works Departments. Some of the projects within the Multi-modal implementation plan will be incorporated into Parks Master Planning.

ITEM / PROJECT PREVIOUSLY REVIEWED BY COUNCIL ON:
Professional Services Agreement with JUB Engineering - April 10, 2023
Transportation Master Plan - Traffic Planning - March 18, 2025
City Council Workshop #1 - May 5, 2025
Contract Amendment #3 - October 10, 2025
City Council Workshop #2 - December 16, 2025

APPROVED OR DIRECTION GIVEN:
All items requiring City Council action were approved. Guidance from City Council during workshops was incorporated into the final documents.

FISCAL IMPACT OR OTHER SOURCE OF FUNDING:
The 2025 Transportation Master Plan identifies $362,783,000 of roadway and multi-modal transportation projects to be completed between 2025 and 2045. Funding for these projects would be completed through a combination of Impact Fees, Developer funding, collaboration with partner jurisdictions and grant funding. Revisions to Impact Fees will be resolved by a separate public hearing and City Council action.

BUDGET CODE:
N/A

ATTACHMENTS:
1. PF_TMP_AdoptionPresentation
2. 2025 Transportation Master Plan (final)



CITY OF POST FALLS

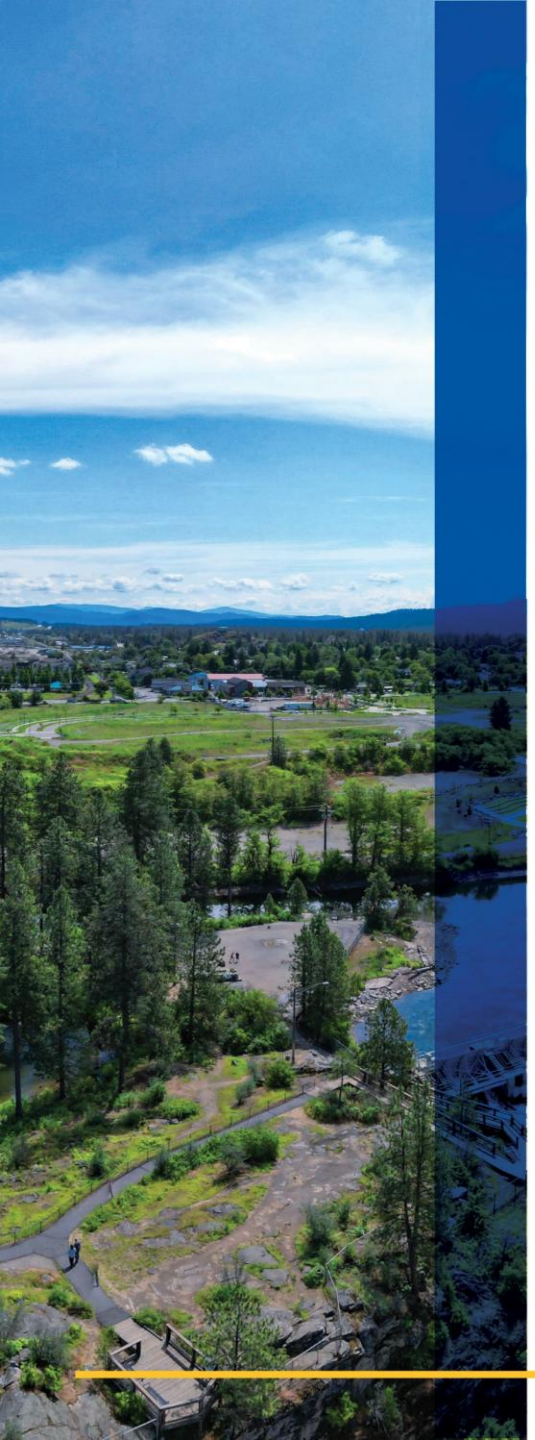
2025 Transportation Master Plan

City Council Adoption Hearing

April 21, 2026

J-U-B FAMILY OF COMPANIES

THE LANGDON GROUP | J-U-B ENGINEERS, Inc. | GATEWAY MAPPING INC.



Discussion Highlights …

Acknowledgement of Planning Partners

Transportation Goals

Plan Development Process

Overview of Results

Acknowledgement of Planning Partners

Technical Advisory Group

Post Falls Staff and City Council
Idaho Transportation Department
Kootenai Metropolitan Planning Organization
Post Falls Highway District
City of Coeur d Alene

Planning Consultants

J-U-B Engineers, Inc
The Langdon Group
Gateway Mapping, Inc.

Community Collaborators

Northwest Specialty Hospital
Disability Action Center NW
Kootenai County
Kootenai County Sherrif's Office
Kootenai County Fire and Rescue
Post Falls Chamber
Citylink Public Transit
North Idaho Centennial Trail Foundation
Orgill, Inc
Post Falls School District



GOALS FOR THE 2025 TRANSPORTATION PLAN UPDATE

GOAL 1:
Maintain access management standards that provide a balance between access to adjoining lands and safe and efficient traffic flows.

Comp Plan Goal Overlap: CP G.02, G.06, G.13

GOAL 2:
Improve and enhance safety and traffic circulation and preserve an acceptable level of service (LOS) on local street systems.

Comp Plan Goal Overlap: CP G.05

GOAL 3:
Protect existing and future transportation facilities, corridors, or sites during the development review process.

Comp Plan Goal Overlap: CP G.02, G.06, G.13

GOAL 4:
Balance effective movement of freight and the needs of the community.

Comp Plan Goal Overlap: CP G.02, G.05

GOAL 5:
Continue to coordinate opportunities to use alternative modes of transportation (walking, bicycling, rideshare/carpooling, and public transportation services) through improved access, safety, convenience, and service.

Comp Plan Goal Overlap: CP G.02, G.03

GOAL 6:
Promote wayfinding tools to support tourism, commercial, education and recreation needs to enhance user experience that will help travelers find parks, trails, services, hospitals and state routes.

Comp Plan Goal Overlap: CP G.02, G.05

GOAL 7:
Preserve adequate right-of-way for future roadway corridors and improvements.

Comp Plan Goal Overlap: CP G.06, G.07

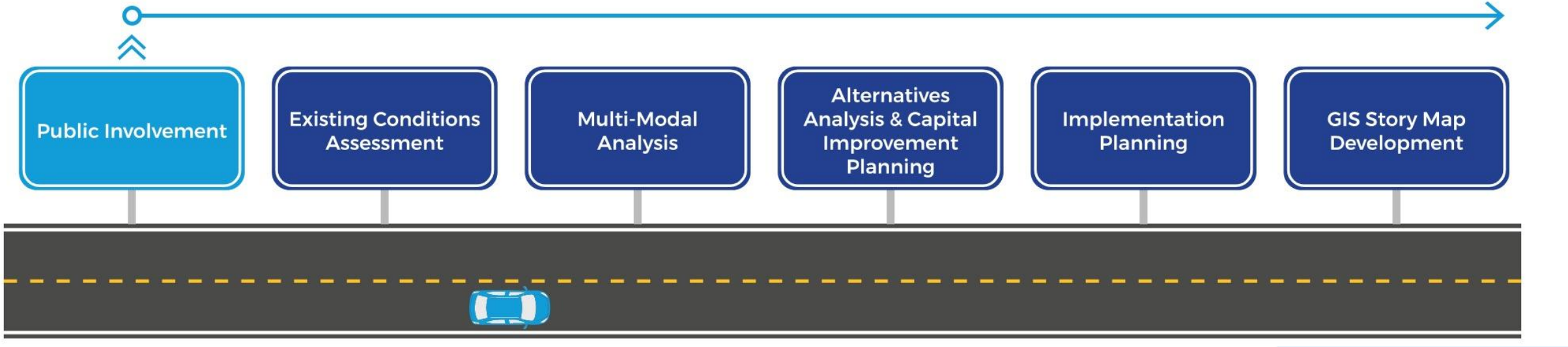
GOAL 8:
Evaluate available options to fund transportation projects.

Comp Plan Goal Overlap: CP G.06

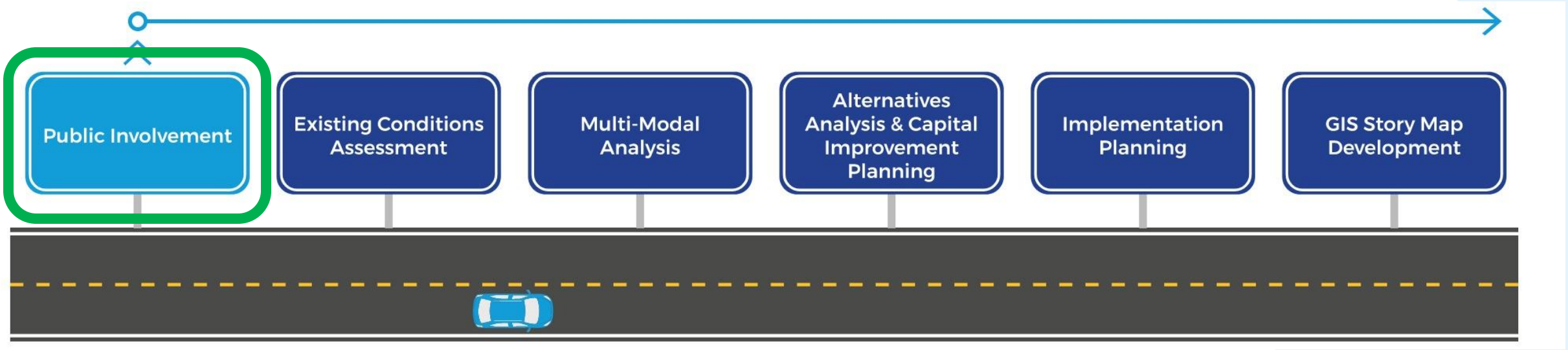
GOAL 9:
Continue coordination among agencies within the Kootenai Metropolitan Planning Organization (KMPO).

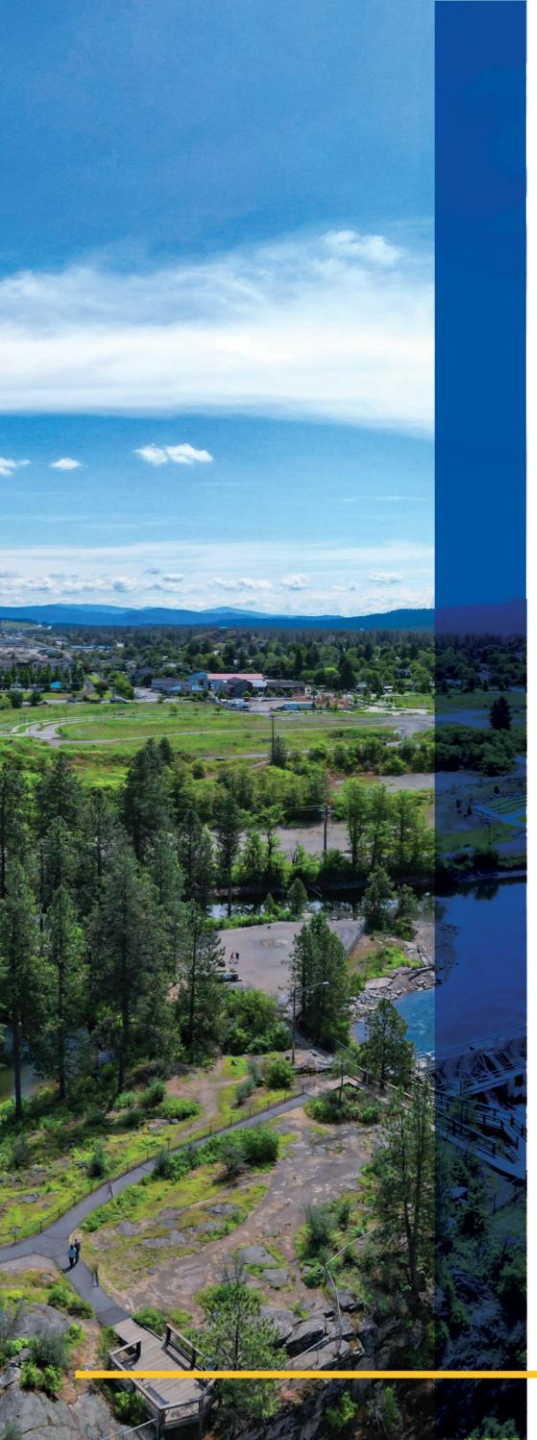
See 2020 Post Falls Comprehensive Plan, Appendix B, for Goals

Plan Development Process



Plan Development Process – Public Involvement





Public Involvement Goals

- Provide ***easily accessible information*** to the public on the master plan process and mitigation efforts to address impacts to infrastructure, traffic, schools, and other community services.
- Engage in ***meaningful public interaction*** with all impacted and interested members of the public
- **Gather feedback** to inform the development of the master plan
- Develop ***common community goals*** and support for the master plan
- **Inform stakeholders** and the public about project timeline and development

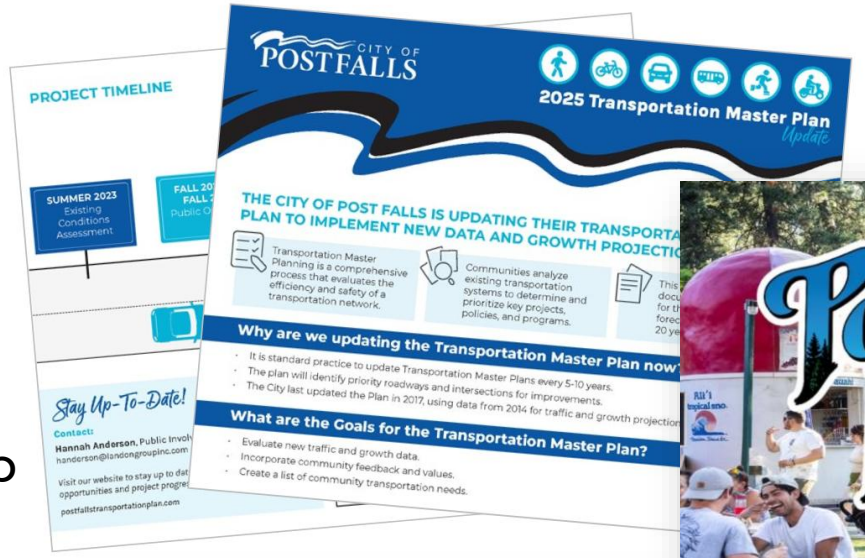
Public Involvement Activitiies

In coordination with the project team and City Staff, TLG implemented a public involvement strategy which lasted from May 2023 – December 2025, and included the following:

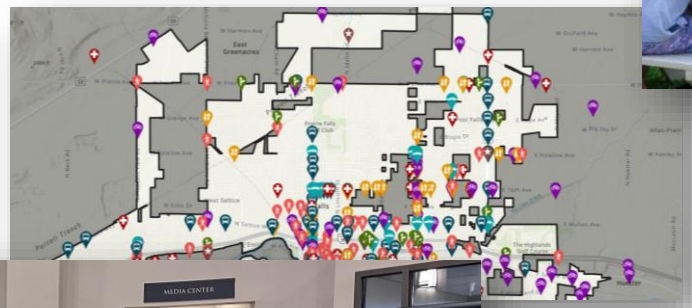
Kick-off meeting	MAY 2023
Key Stakeholder Interviews	SUMMER 2023
Informational Flier Distributed	JUNE 2023
Interactive Website Launched	SUMMER 2023
Public Open Houses	SUMMER 2023, SUMMER 2025
Technical Advisory Group Meetings	FALL 2023, SPRING 2025, FALL 2025
Goal Verification and Adoption Process	FALL 2025

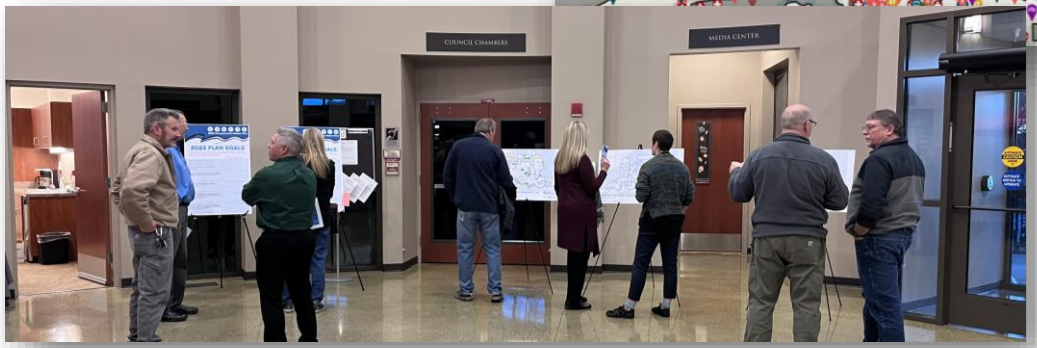
Public Involvement - Venues

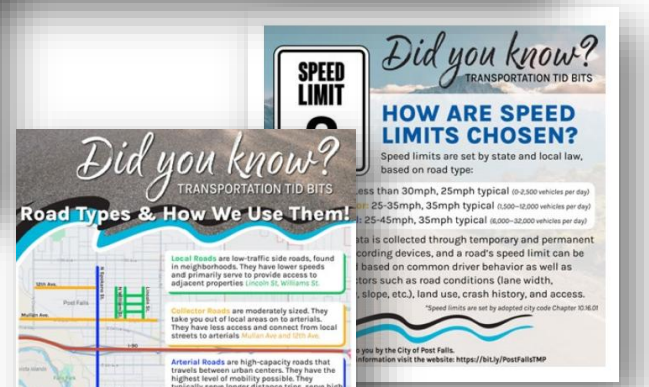
- Interactive Website
- Social Media Tidbits
- Open Houses
- Personal Interviews
- Technical Advisory Group
- Interactive Comment Map
- Post Falls Days
- Informational Fliers

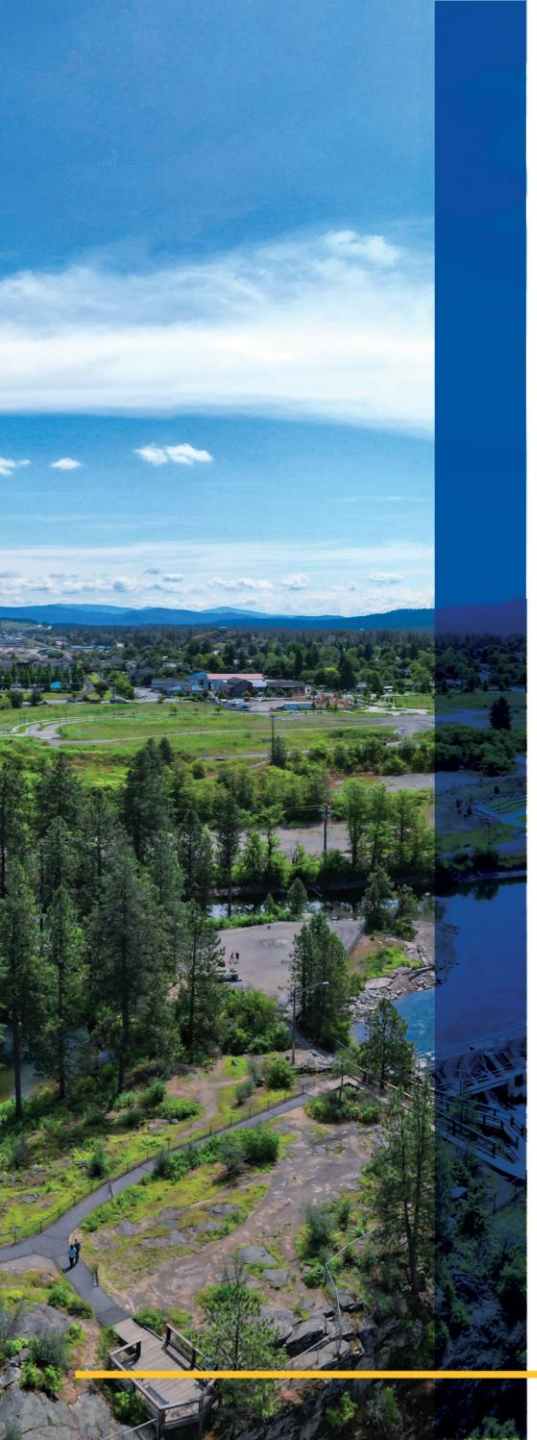












WE HEARD YOU!

883 COMMUNITY MEMBERS ENGAGED!

KEY FEEDBACK

PEDESTRIAN The public shared their experiences & safety concerns walking along Post Falls sidewalks. They provided suggestions to make the city more connected & increase user access & safety.

FREEWAY ACCESS Some community members discussed the I-90 interchange, including wanting more infrastructure and access points.

BICYCLIST Community members expressed their desire for possible trail connections & bike lane additions to make the city more accessible to non-car users.

ROADWAY Community members shared their infrastructure suggestions such as the addition of roundabouts, traffic signals, the widening of specific road lanes, and traffic calming suggestions.

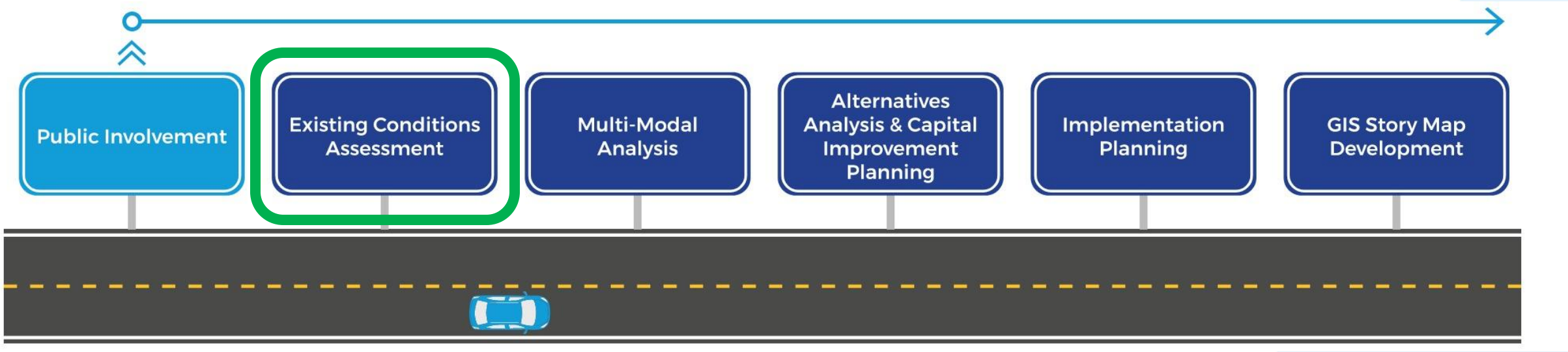
SAFETY A topic frequently discussed in community feedback was safety, related to community members' experiences, including suggestions for specific locations where accidents or the potential for accidents occur. The recommendations offered include infrastructure connections, locations for traffic calming, and pedestrian crossings.

CONGESTION The community identified locations where they experienced the most congestion and identified safety issues that are caused by congestion.

TRANSIT The community identified locations for transit routes and connections, ideal transit stops, and ADA accessibility challenges.

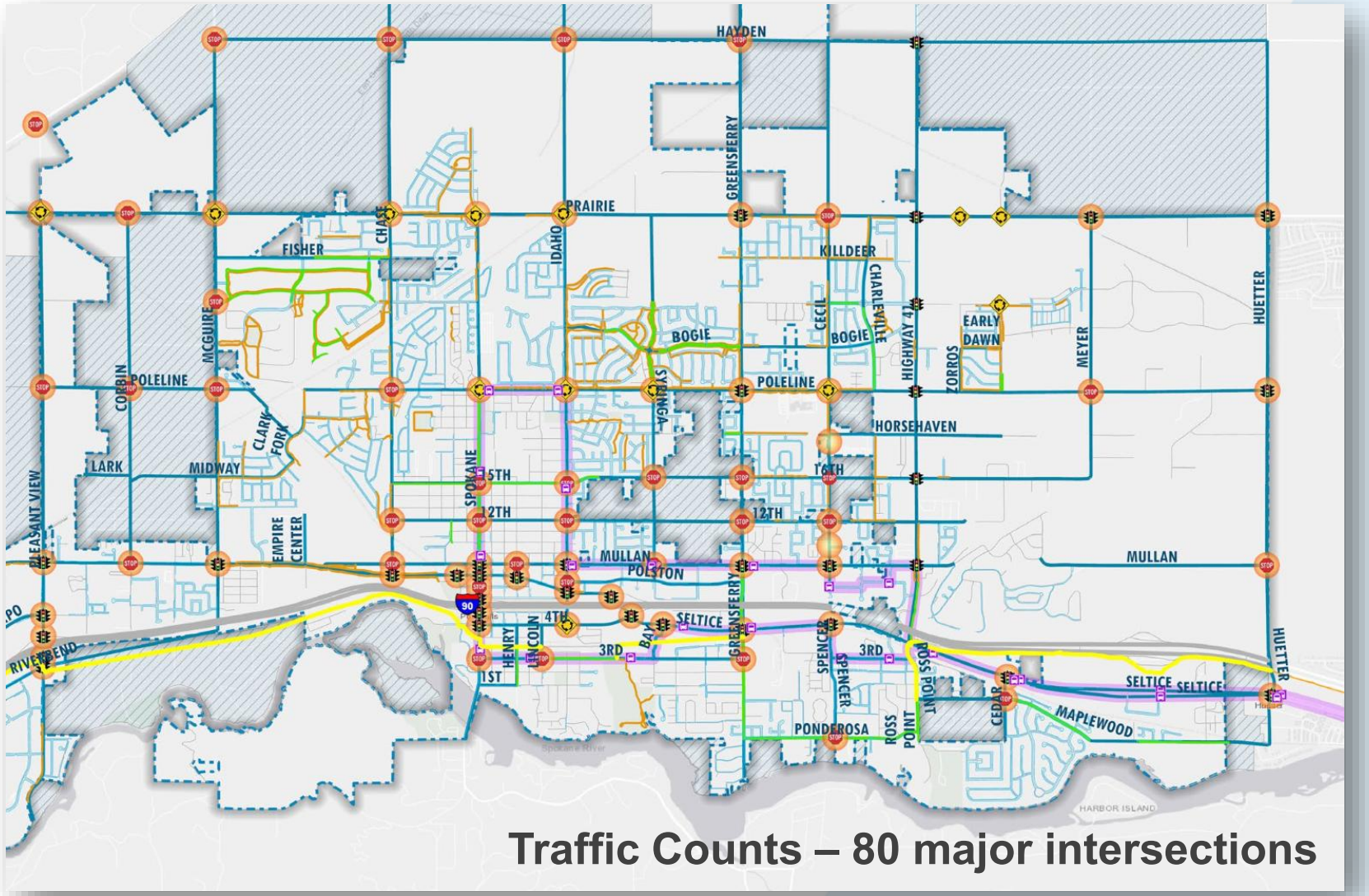
OTHER Community members discussed a range of topics from downtown experience and beautification to parking and environmental concerns

Plan Development Process – Existing Conditions

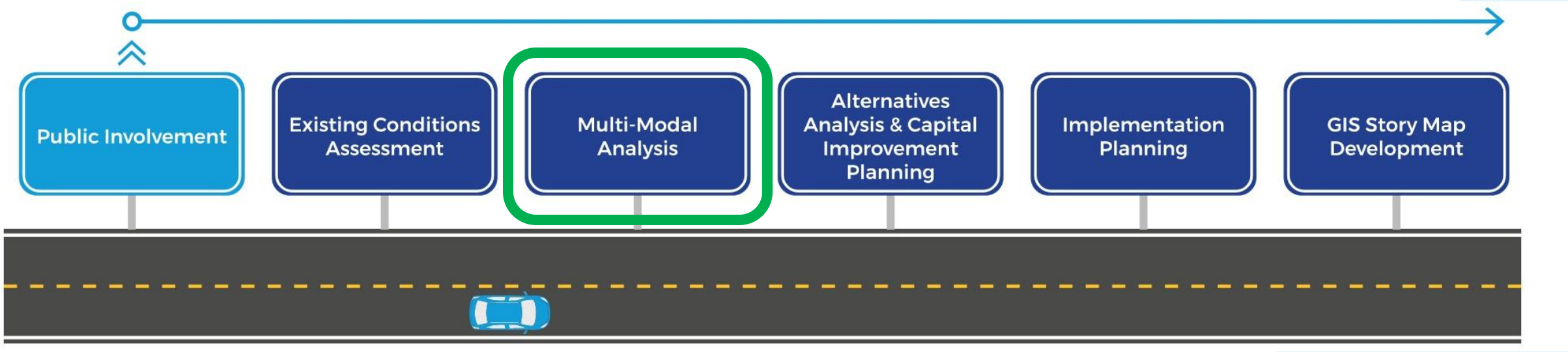


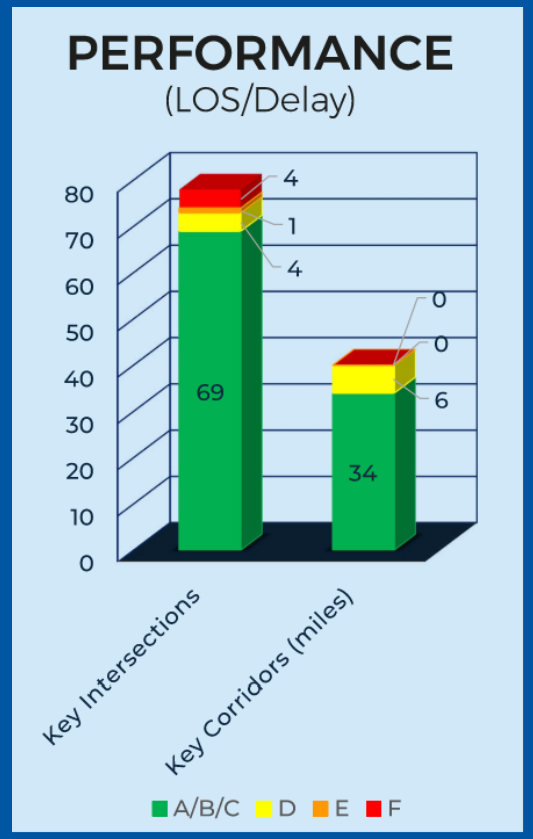
Existing Conditions Assessment – System Inventories

- Existing Land Use
- Future Land Use
- Existing Transportation Network
- Existing Transit Network
- Existing Bicycle Network
- Existing Pedestrian Network
- Sidewalk Gaps
- Freight Routes



Plan Development Process – Multimodal Analysis





Today's PM Peak Hour (~5–6 PM)

Among key study-area intersections (signal & stop):

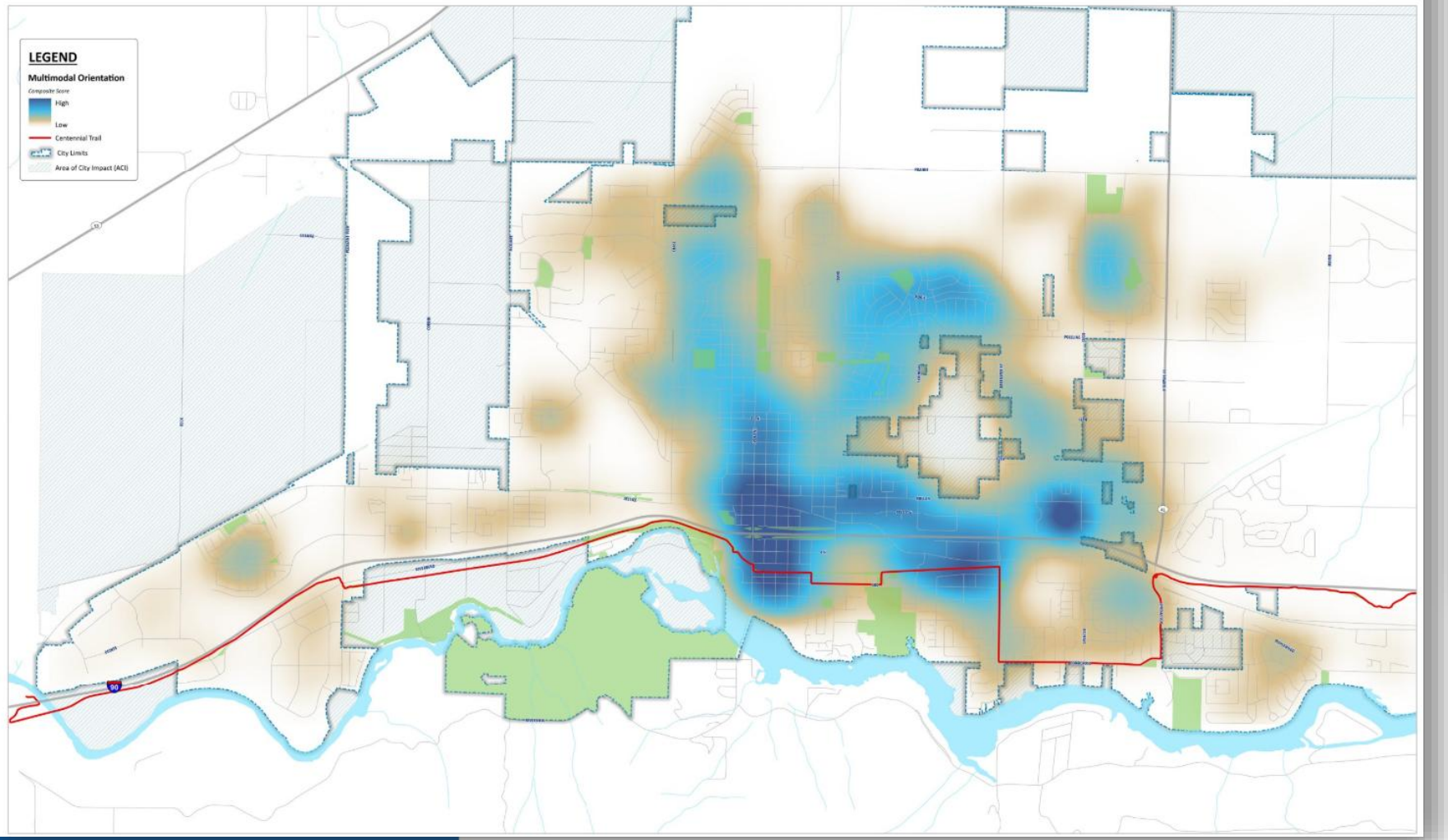
- 319 Hours of Delay
- 1,621 Gallons of Gas
- 44,550 Stops

Transportation Evaluations

- Transportation Performance
  - 2025 PM Peak LOS (Current Conditions)
  - 2030 PM Peak LOS (Without Improvements)
  - 2035 PM Peak LOS (Without Improvements)
  - 2045 PM Peak LOS (Without Improvements)
- Multi-Modal Potential
- Travel Demand Modeling and Traffic Analysis Zones (TAZs)
- Crash Severity

Focus Point - Multimodal Evaluations

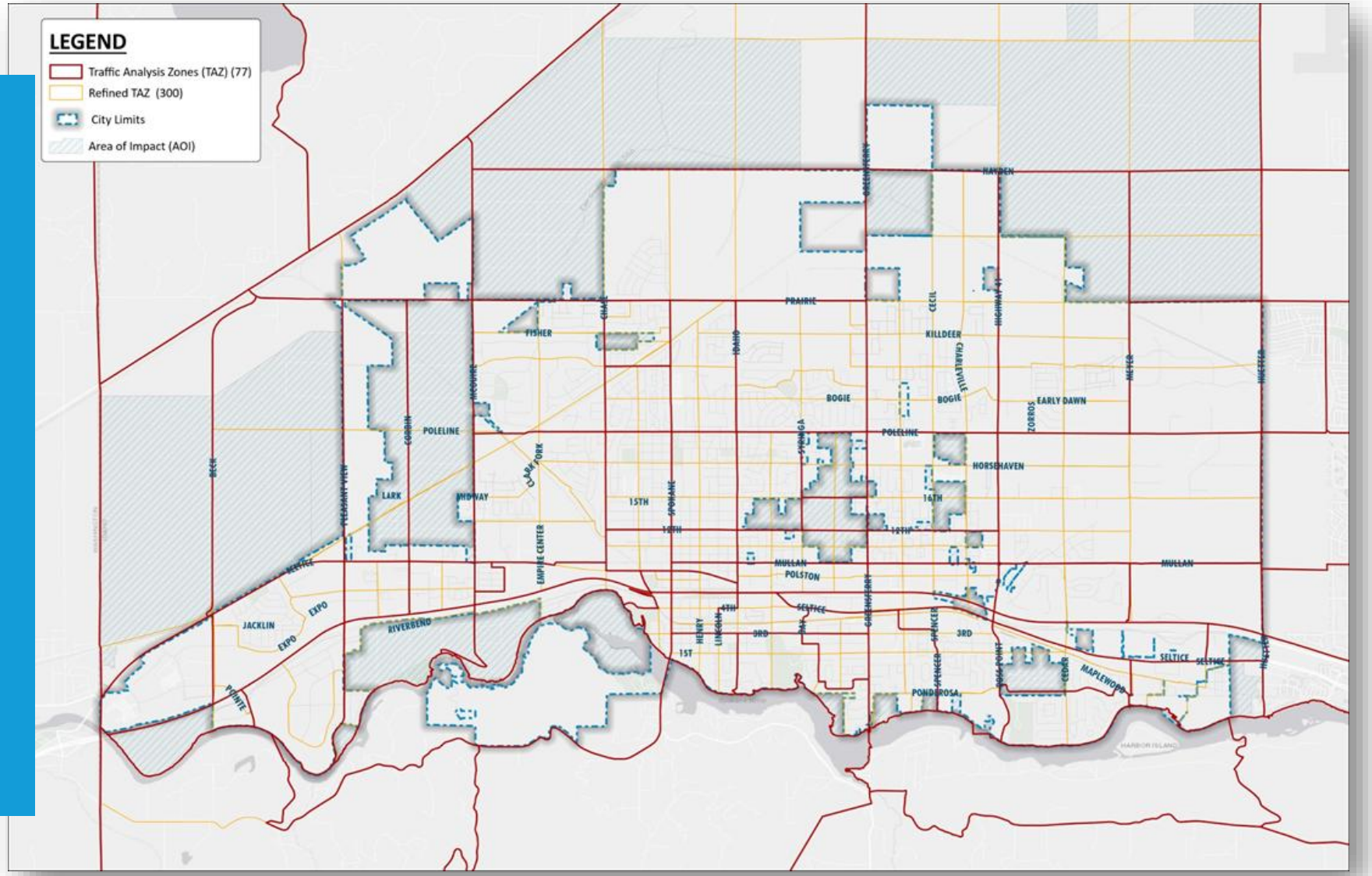
MULTI-MODAL POTENTIAL



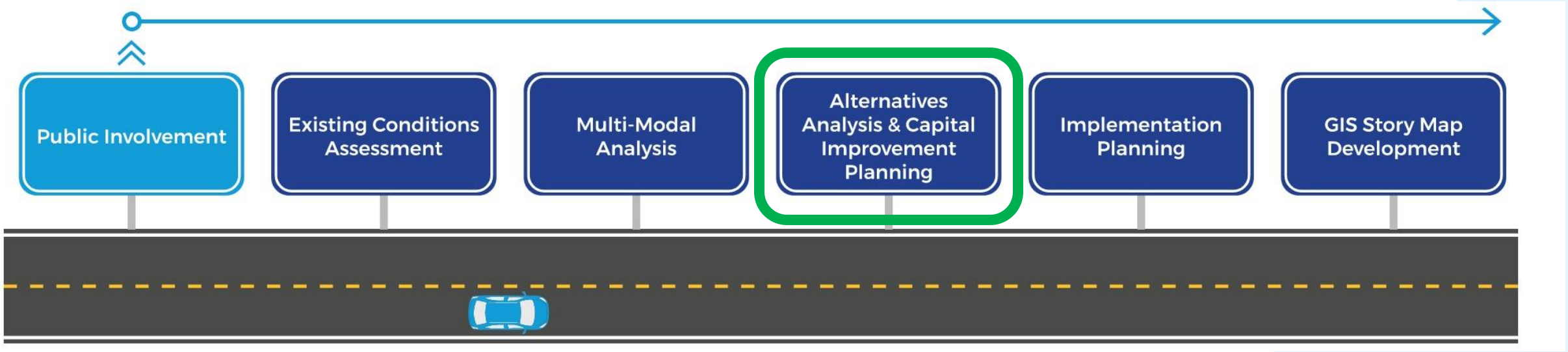
- Walking, Biking & Transit
- Population/Jobs
- Walkable Block Sizes
- Public Interest
- Sidewalks & Bike Routes
- Low Vehicle Ownership
- Mix of Uses

Focus Point - Travel Modeling (TAZs)

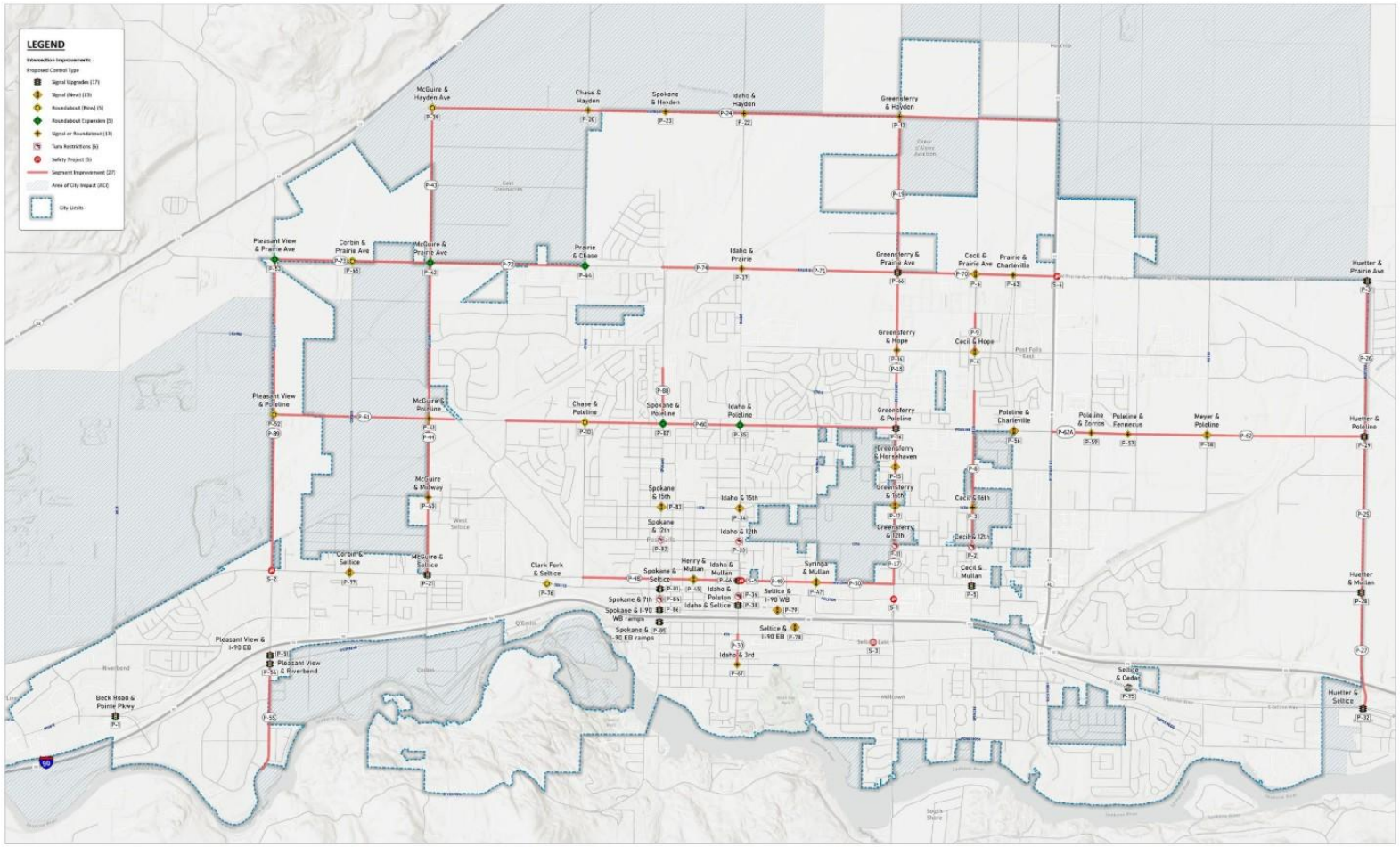
- KMPO model supports regional travel and growth analysis
- Widely used for long-range planning decisions
- Refined into smaller zones for Post Falls
- Improves alignment with local growth and investments



Plan Development Process - Planning



ANALYSIS-RECOMMENDED CAPITAL IMPROVEMENTS: COMPREHENSIVE



See following sheets for further project detail

91 PROJECTS (20 YRS)	
Short-Term by 2030	
Mid-Term by 2035	
Long-Term by 2045	
INTERSECTION PROJECTS	
17	Signal Upgrades
13	New Signals
5	New Roundabouts
5	Roundabout Expansions
13	New (S or R) Control
6	3/4 Turn Restrictions
5	Safety Actions
CORRIDOR EXPANSIONS	
27	Corridor projects (30 miles of Expansion)

Considering anticipated growth in traffic volumes, traffic analysis identified future years where each capital improvement would best serve to mitigate congestion. The results were categorized by short, medium and long term capital improvements as arranged in the following pages.



Recommended timing based on growth projections and development patters.

SHORT, MID, LONG TERM COSTS (for analysis-recommended capital improvements)

SHORT (2026-2030)

ID	Intersection/Corridor Name	Cost
P-2	CECIL RD AND 12TH AVE INTERSECTION	$332,000
P-5	CECIL RD AND MULLAN AVE INTERSECTION	$1,455,000
P-11	GREENSFERRY RD AND 12TH AVE INTERSECTION	$230,000
P-13	GREENSFERRY RD AND HAYDEN AVE INTERSECTION	$4,254,000
P-20	HAYDEN AVE AND CHASE RD INTERSECTION	$1,813,000
P-22	HAYDEN AVE AND IDAHO ST INTERSECTION	$1,966,000
P-23	HAYDEN AVE AND SPOKANE ST INTERSECTION	$2,045,000
P-24	HAYDEN AVE CORRIDOR - MCGUIRE RD TO SH-41	$26,850,000
P-25	HUETTER RD CORRIDOR - MULLAN AVE TO POLELINE AVE	$10,534,000
P-26	HUETTER RD CORRIDOR - POLELINE AVE TO PRAIRIE AVE	$6,718,000
P-27	HUETTER RD CORRIDOR - SELTICE AVE TO MULLAN AVE	$8,173,000
P-28	HUETTER RD AND MULLAN AVE INTERSECTION	$1,601,000
P-29	HUETTER RD AND POLELINE AVE INTERSECTION	$1,525,000
P-30	IDAHO ST CORRIDOR - 3RD AVE TO 4TH AVE	$1,794,000
P-33	IDAHO ST AND 12TH AVE INTERSECTION	$125,000
P-34	IDAHO ST AND 15TH AVE INTERSECTION	$1,097,000
P-36	IDAHO ST AND POLSTON AVE INTERSECTION	$24,000
P-38	IDAHO ST AND SELTICE WAY INTERSECTION	$1,101,000
P-39	MCGUIRE RD AND HAYDEN AVE INTERSECTION	$1,776,000
P-47	MULLAN AVE AND SYRINGA ST INTERSECTION	$1,143,000
P-51	PLEASANT VIEW RD AND I-90 EB RAMP INTERSECTION	$687,000
P-67	IDAHO ST AND 3RD AVE INTERSECTION	$1,806,000
P-77	SELTICE WAY AND CORBIN RD INTERSECTION	$738,000
P-78	SELTICE WAY AND I-90 EB RAMP INTERSECTION	$629,000
P-79	SELTICE WAY AND I-90 WB RAMP INTERSECTION	$623,000
P-82	SPOKANE ST AND 12TH AVE INTERSECTION	$202,000
P-83	SPOKANE ST AND 15TH AVE INTERSECTION	$1,136,000
P-84	SPOKANE ST AND 7TH AVE INTERSECTION	$156,000
S-3	GRAFFITI ST AND SELTICE WAY INTERSECTION	$25,000
S-5	IDAHO RD/SUPER 1 FOODS DRIVEWAY INTERSECTION	$60,000

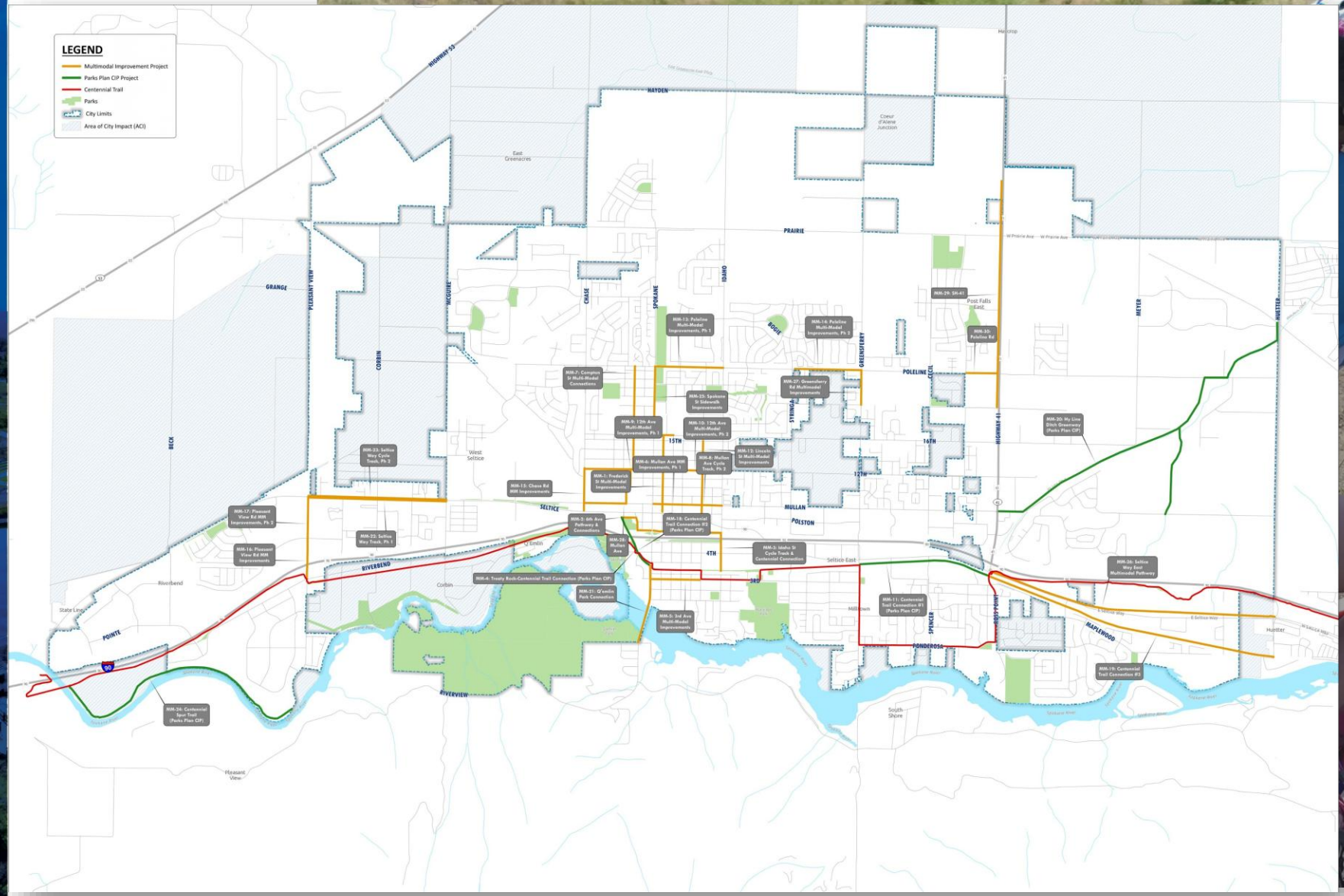
MID (2031-2035)

ID	Intersection/Corridor Name	Cost
P-3	CECIL RD AND 16TH AVE INTERSECTION	$1,879,000
P-4	CECIL RD AND HOPE AVE INTERSECTION	$878,000
P-6	CECIL RD AND PRAIRIE AVE INTERSECTION	$1,140,000
P-8	CECIL RD CORRIDOR - BOGIE DR TO 12TH AVE	$4,077,000
P-9	CECIL RD CORRIDOR - KILLDEER AVE TO HOPE AVE	$737,000
P-10	CHASE RD AND POLELINE AVE INTERSECTION	$1,889,000
P-12	GREENSFERRY RD AND 16TH AVE INTERSECTION	$1,090,000
P-14	GREENSFERRY RD AND HOPE AVE INTERSECTION	$4,391,000
P-15	GREENSFERRY RD AND HORSEHAVEN RD INTERSECTION	$1,120,000
P-16	GREENSFERRY RD AND POLELINE AVE INTERSECTION	$660,000
P-17	GREENSFERRY RD CORRIDOR - MULLAN AVE TO POLELINE AVE	$5,917,000
P-18	GREENSFERRY RD CORRIDOR - POLELINE AVE TO PRAIRIE AVE	$3,458,000
P-31	HUETTER RD AND PRAIRIE AVE INTERSECTION	$283,000
P-32	HUETTER RD AND SELTICE WAY INTERSECTION	$2,872,000
P-35	IDAHO ST AND POLELINE AVE INTERSECTION	$571,000
P-37	IDAHO ST AND PRAIRIE AVE INTERSECTION	$5,608,000
P-45	MULLAN AVE AND HENRY ST INTERSECTION	$902,000
P-53	PLEASANT VIEW RD AND PRAIRIE AVE INTERSECTION	$7,112,000
P-56	POLELINE AVE AND CHARLEVILLE RD INTERSECTION	$1,124,000
P-60	POLELINE AVE CORRIDOR - CLARK FORK PKWY TO GREENSFERRY RD	$8,507,000
P-61	POLELINE AVE CORRIDOR - PLEASANT VIEW RD TO ROSLYN DR	$7,388,000
P-62	POLELINE AVE CORRIDOR - FENNECUS TO HUETTER RD	$24,074,000
P-62A	POLELINE AVE CORRIDOR - SH-41 TO FENNECUS RD	$1,751,000
P-64	PRAIRIE AVE AND CHASE RD INTERSECTION	$4,138,000
P-66	PRAIRIE AVE AND GREENSFERRY RD INTERSECTION	$818,000
P-70	PRAIRIE AVE CORRIDOR - GREENSFERRY RD TO SH-41	$3,419,000
P-71	PRAIRIE AVE CORRIDOR - IDAHO ST TO GREENSFERRY RD	$5,718,000
P-72	PRAIRIE AVE CORRIDOR - MCGUIRE RD TO CHASE RD	$14,368,000
P-73	PRAIRIE AVE CORRIDOR - PLEASANT VIEW RD TO MCGUIRE RD	$6,021,000
P-74	PRAIRIE AVE CORRIDOR - SPOKANE ST TO IDAHO ST	$5,205,000
P-81	SELTICE WAY AND SPOKANE ST INTERSECTION	$826,000

LONG 2036-2045)

ID	Intersection/Corridor Name	Cost
P-1	BECK RD AND POINTE PKWY INTERSECTION	$1,036,000
P-19	GREENSFERRY RD CORRIDOR - PRAIRIE AVE TO HAYDEN AVE	$8,050,000
P-21	MCGUIRE RD AND SELTICE WAY INTERSECTION	$279,000
P-40	MCGUIRE RD AND MIDWAY AVE INTERSECTION	$5,001,000
P-41	MCGUIRE RD AND POLELINE AVE INTERSECTION	$4,648,000
P-42	MCGUIRE RD AND PRAIRIE AVE INTERSECTION	$4,224,000
P-43	MCGUIRE RD CORRIDOR - PRAIRIE AVE TO HAYDEN AVE	$8,743,000
P-44	MCGUIRE RD CORRIDOR - PRAIRIE AVE TO SELTICE WAY	$20,003,000
P-46	MULLAN AVE AND IDAHO ST INTERSECTION	$1,423,000
P-48	MULLAN AVE CORRIDOR - IDAHO ST TO CHASE RD	$12,141,000
P-49	MULLAN AVE CORRIDOR - IDAHO ST TO SYRINGA ST	$391,000
P-50	MULLAN AVE CORRIDOR - SYRINGA ST TO GREENSFERRY RD	$5,438,000
P-52	PLEASANT VIEW RD AND POLELINE AVE INTERSECTION	$4,198,000
P-54	PLEASANT VIEW RD AND RIVERBEND AVE INTERSECTION	$955,000
P-55	PLEASANT VIEW RD CORRIDOR - RIVERBEND AVE TO OWYHEE ST	$2,821,000
P-57	POLELINE AVE AND FENNECUS RD INTERSECTION	$4,510,000
P-58	POLELINE AVE AND MEYER RD INTERSECTION	$628,000
P-59	POLELINE AVE AND ZORROS ST INTERSECTION	$5,918,000
P-63	PRAIRIE AVE AND CHARLEVILLE RD INTERSECTION	$4,061,000
P-65	PRAIRIE AVE AND CORBIN RD INTERSECTION	$4,906,000
P-75	SELTICE WAY AND CEDAR ST INTERSECTION	$650,000
P-76	SELTICE WAY AND CLARK FORK PKWY INTERSECTION	$4,060,000
P-85	SPOKANE ST AND I-90 EB INTERSECTION	$659,000
P-86	SPOKANE ST AND I-90 WB INTERSECTION	$859,000
P-87	SPOKANE ST AND POLELINE AVE INTERSECTION	$570,000
P-88	SPOKANE ST CORRIDOR - CRESTVIEW DR TO ROSE AVE	$257,000
P-89	PLEASANT VIEW RD CORRIDOR - INTERSTATE/UPRR TO HWY 53	$11,173,000

30 Multimodal Projects



Plan Development Process - Planning

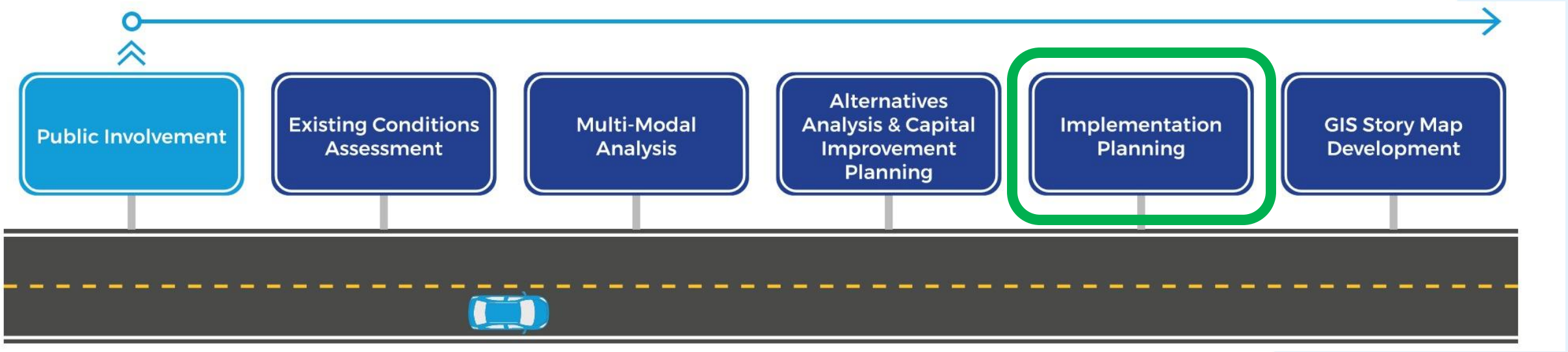
- Street Standards
- Operational Standards
- Access Management Standards
- Traffic Impact Study Standards

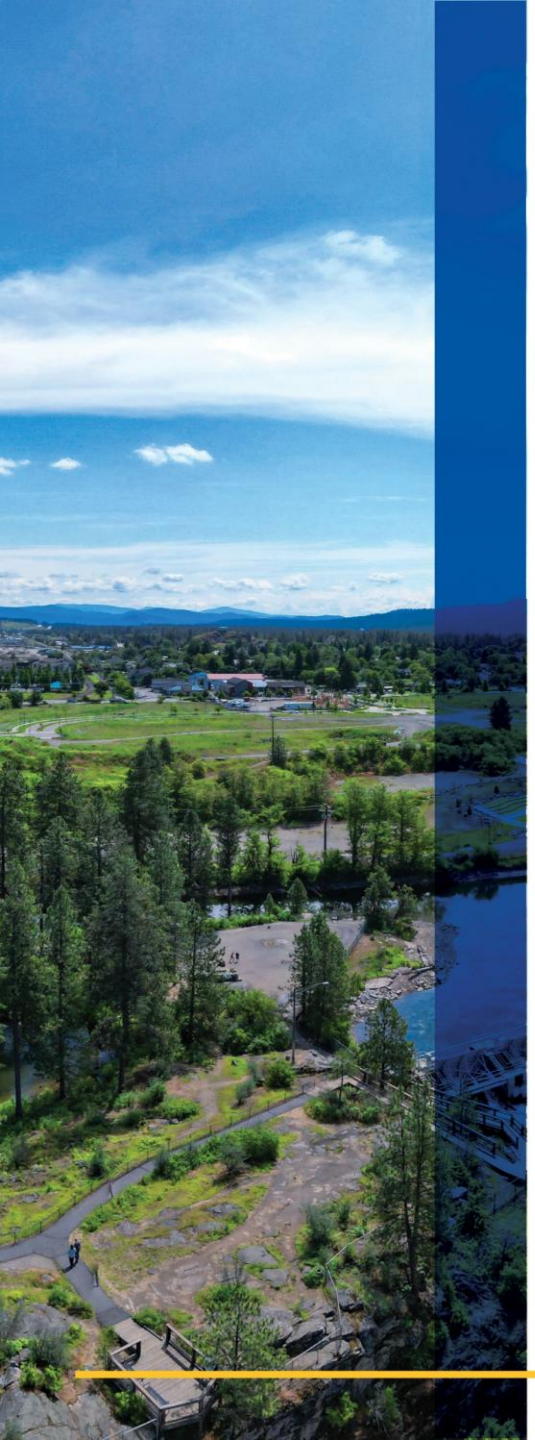
Classification	Location	Signalized LOS	Unsigna-lized LOS	Low Volume Approach V/C	Queue Length
Principal Arterial	CBD	LOS D for overall intersection; no major movements below LOS E	LOS E	For failing minor appraoches with very low volumes, alternative measures such as v/c ratio and queue length will be evaluated	200'
	non-CBD				300'
Minor Arterial	CBD				150'
	non-CBD				300'
Major Collector	CBD				150'
	non-CBD				250'
Minor Collector+	CBD				150'
	non-CBD				250'

Note: Non-intersection locations LOS E or better

Functional Classification	Spacing Between Approaches	Spacing Between Intersection
Principal Arterial	300 feet	1320 feet (1/4 mile)
Minor Arterial	200 feet	500 feet
Major Collector	150 feet	250 feet
Minor Collector	75 feet	250 feet
Local (residential)	Each Lot	250 feet
Local (commercial/industrial)	50 feet	250 feet

Plan Development Process - Implementation

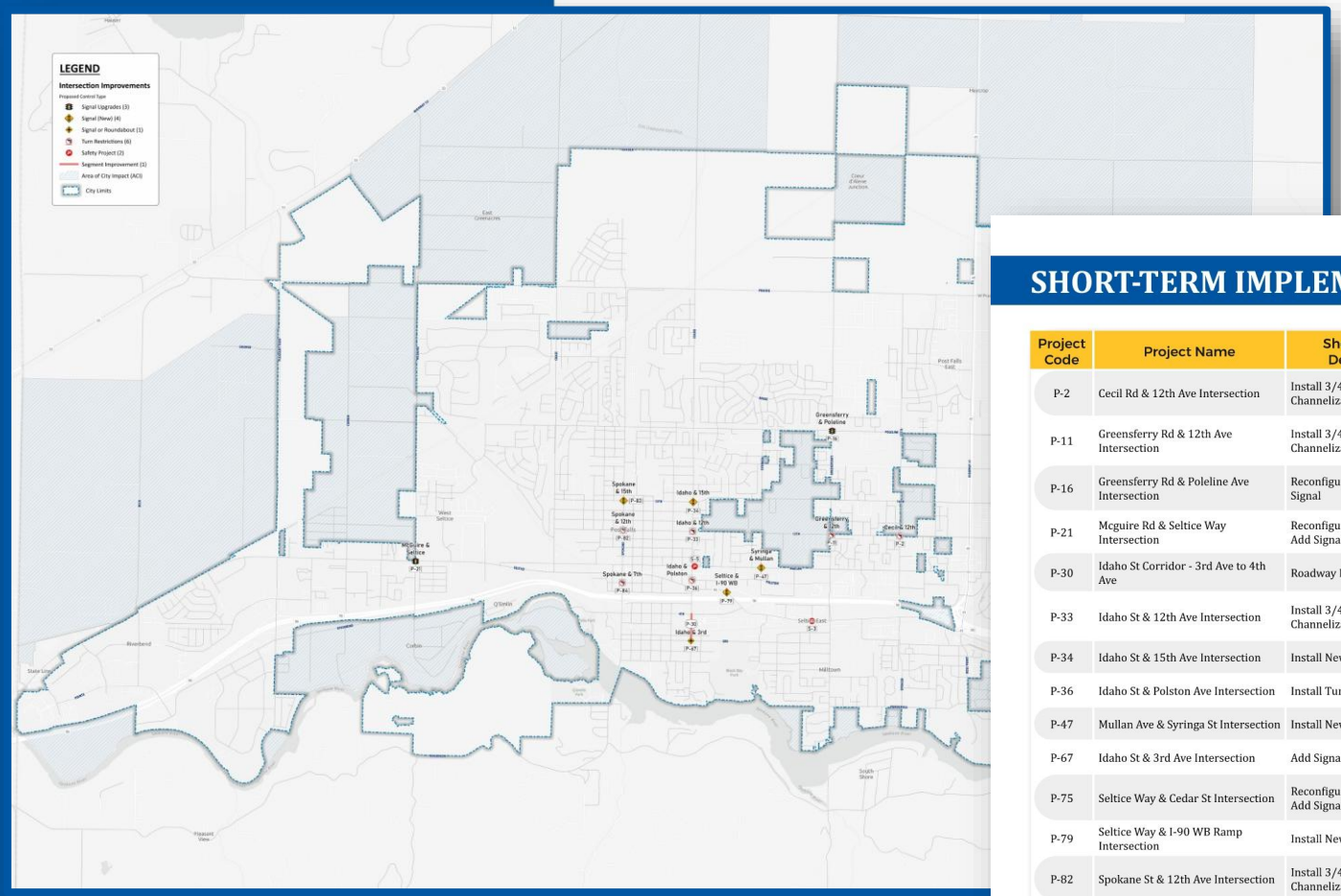




Implementation Planning – *Timing is everything …*

- Analysis-recommended projects based on modeling and expected growth patterns
- Actual timing depends on circumstances (development, funding, and coordination)
- Some projects shift or phased, with short-term impacts
- Implementation Plan reflects a practical, long-term approach informed by analysis

Short-Term Implementation



SHORT-TERM IMPLEMENTATION TABLE

GRAND TOTAL (2025 Dollars): $10,342,000

Project Code	Project Name	Short Project Description	2025 Costs	Developer	Impact Fees	Other	Impact Fees	Detailed Project Description
P-2	Cecil Rd & 12th Ave Intersection	Install 3/4 Turn Movement Channelization	$332,000		100%		$332,000.00	Install ¾ turn movement channelization with center island, restricting east-west through and left turning 12th Ave traffic. Include signage, striping, and pedestrian safety features.
P-11	Greensferry Rd & 12th Ave Intersection	Install 3/4 Turn Movement Channelization	$230,000		100%		$230,000.00	Install ¾ turn movement channelization with center island, restricting east-west through and left turning 12th Ave traffic. Include signage, striping, and pedestrian safety features.
P-16	Greensferry Rd & Poleline Ave Intersection	Reconfigure Intersection & Signal	$660,000		100%		$660,000.00	Relocate existing signal in northeast corner to accommodate 5-lane greensferry Road Section, provide northbound right turn pocket, upgrade traffic signal electronics, provide ADA modifications.
P-21	Mcguire Rd & Seltice Way Intersection	Reconfigure Intersection & Add Signal	$279,000		100%		$279,000.00	Reconfigure intersection and upgrade signal. Include ADA-compliant ramps and pedestrian crossings. Coordinate with corridor improvements.
P-30	Idaho St Corridor - 3rd Ave to 4th Ave	Roadway Extension (3 lanes)	$1,794,000		20%	80%	$358,800.00	Widen to three lanes. Include sidewalks, bike lanes, and stormwater facilities. Assume railroad crossing to be abandoned.
P-33	Idaho St & 12th Ave Intersection	Install 3/4 Turn Movement Channelization	$125,000		100%		$125,000.00	Install ¾ turn movement channelization with center island, restricting east-west through and left turning 12th Ave traffic. Include signage, striping, and pedestrian safety features.
P-34	Idaho St & 15th Ave Intersection	Install New Signal	$1,097,000		100%		$1,097,000.00	Install traffic signal. Include ADA ramps and pedestrian facilities. Coordinate with corridor improvements.
P-36	Idaho St & Polston Ave Intersection	Install Turn Restrictions	$24,000		100%		$24,000.00	Install splitter island on Polston Ave restricting westbound left and through trips. Allow southbound left onto Polston Ave from Idaho Street.
P-47	Mullan Ave & Syringa St Intersection	Install New Signal	$1,143,000		100%		$1,143,000	Install traffic signal. Include ADA ramps and pedestrian facilities. Coordinate with corridor improvements.
P-67	Idaho St & 3rd Ave Intersection	Add Signal or Roundabout	$1,806,000		75%	25%	$1,354,500.00	Install a signal or roundabout. Include ADA ramps and pedestrian facilities. Coordinate with corridor improvements.
P-75	Seltice Way & Cedar St Intersection	Reconfigure Intersection & Add Signal	$650,000	75%	25%		$162,500.00	Reconfigure intersection and add north leg. Developer to add necessary signal pole, construct road improvements, and relocate signal control cabinet. City will update signal electronics and include pedestrian signal heads, ADA ramps, and push buttons.
P-79	Seltice Way & I-90 WB Ramp Intersection	Install New Signal	$623,000		33%	67%	$205,590.00	Install a new signal. Include ADA ramps and pedestrian facilities. ITD lead project and participate at 67%.
P-82	Spokane St & 12th Ave Intersection	Install 3/4 Turn Movement Channelization	$202,000		100%		$202,000.00	Install ¾ turn movement channelization with center island, restricting east-west through and left turning 12th Ave traffic. Include signage, striping, and pedestrian safety features.
P-83	Spokane St & 15th Ave Intersection	Install New Signal	$1,136,000		100%		$1,136,000.00	Reconfigure intersection and install signal. Include ADA ramps and pedestrian facilities. Include roadway improvements from Seltice Way to 660 feet north.
P-84	Spokane St & 7th Ave Intersection	Install 3/4 Turn Movement Channelization	$156,000		100%		$156,000.00	Install ¾ turn movement channelization restricting through and left turns from 7th Ave in the east and west directions. Include signage, striping, and pedestrian safety features.
S-3	Graffiti St & Seltice Way Intersection	Install Right Turn Only Movement Channelization	$25,000			100%	$25,000	Install right turn only channelization on Seltice Way to prevent left turns from Graffiti St onto Seltice Way
S-5	Idaho St & Super1 Foods Driveway Intersection	Install 3/4 Turn Movement Channelization	$60,000			100%	$60,000	Install 3/4 turn movement channelization with center island on Idaho Street restricting EB driveway to right-in/right-out

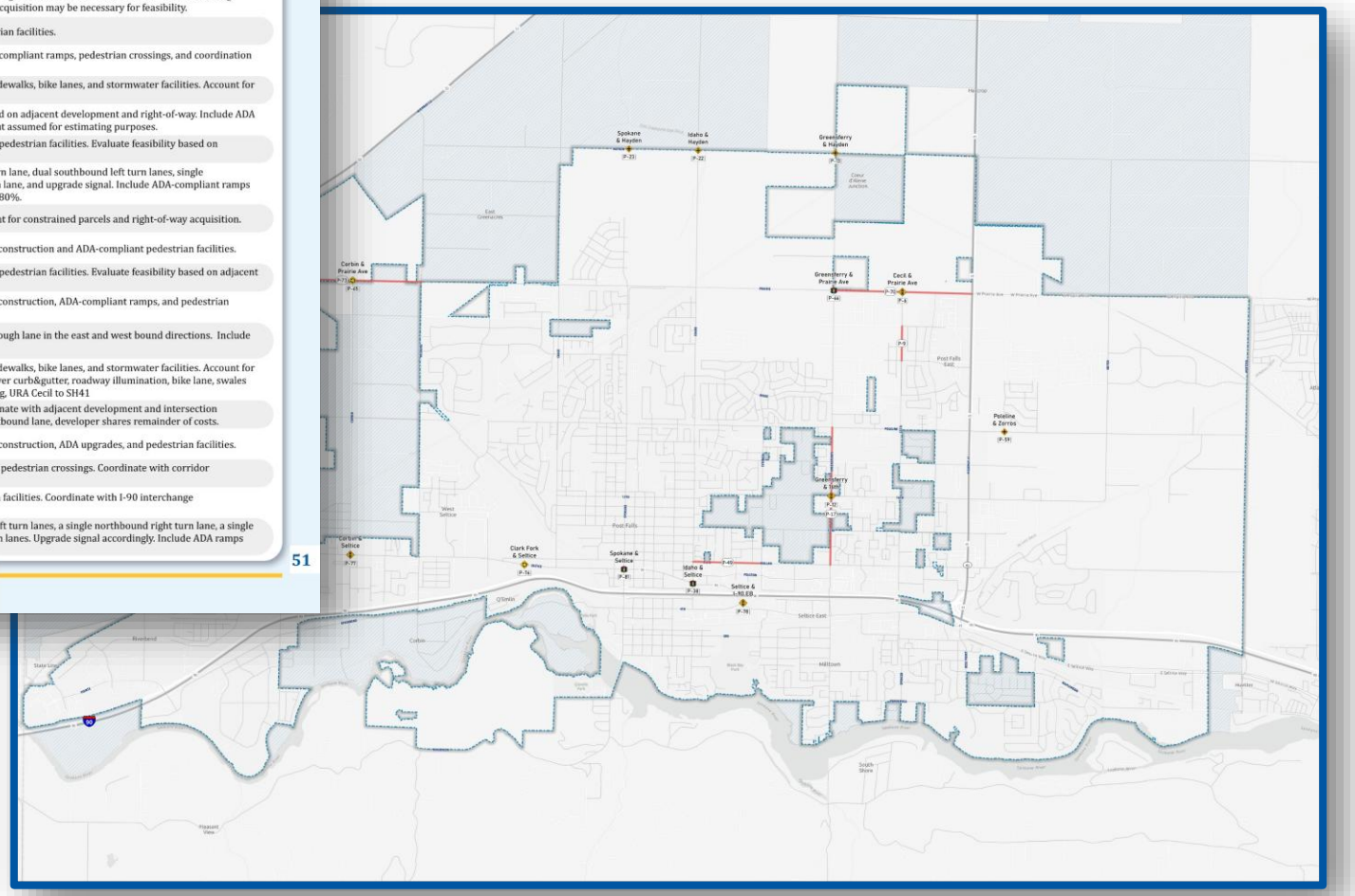
Medium-Term Implementation

MEDIUM-TERM IMPLEMENTATION TABLE

GRAND TOTAL (2025 Dollars): $53,088,000

Project Code	Project Name	Short Project Description	2025 Costs	Developer	Impact Fees	Other	Impact Fees	Detailed Project Description
P-6	Cecil Rd & Prairie Ave Intersection	Install New Signal	$1,140,000		20%	80%	$228,000.00	Install a new traffic signal at the intersection of Cecil Road and Prairie Avenue. The corridor is already a three-lane facility, so no widening is required at this location. The signal installation should include ADA-compliant curb ramps, pedestrian crossings, and signal interconnect capability with adjacent signals. A future fourth north leg is anticipated; therefore, 50 feet of northbound approach should be constructed to accommodate future development access. URA participation at 80%.
P-9	Cecil Rd Corridor - Killdeer Ave to Hope Ave	Widen to Accomodate 3-lanes	$737,000	80%	20%		$147,400.00	Widen to extend retaining wall, multi-use pathway, curb, gutter and swale on west side from end of existing infrastructure north to Killdeer Avenue. Right-of-way acquisition may be necessary for feasibility.
P-12	Greensferry Rd & 16th Ave Intersection	Install New Signal	$1,090,000	20%	80%		$872,000	Install traffic signal. Include ADA upgrades and pedestrian facilities.
P-13	Greensferry Rd & Hayden Ave Intersection	Add Signal or Multi-Lane Roundabout	$4,254,000		50%	50%	$2,127,000.00	Install a signal or multi-lane roundabout. Include ADA-compliant ramps, pedestrian crossings, and coordination with corridor improvements.
P-17	Greensferry Rd Corridor - Mullan Ave to Poleline Ave	Widen to Accomodate 5-lanes	$5,917,000	100%			$0	Widen to five lanes. Include full arterial section with sidewalks, bike lanes, and stormwater facilities. Account for right-of-way acquisition and utility impacts.
P-22	Hayden Ave & Idaho St Interection	Add Signal or Roundabout	$1,966,000		50%	50%	$983,000.00	Install a signal or roundabout. Evaluate feasibility based on adjacent development and right-of-way. Include ADA ramps and pedestrian crossings. Single lane roundabout assumed for estimating purposes.
P-23	Hayden Ave & Spokane St Intersection	Add Signal or Roundabout	$2,045,000	50%	50%		$1,022,500.00	Install a signal or roundabout. Include ADA ramps and pedestrian facilities. Evaluate feasibility based on intersection geometry.
P-38	Idaho St & Seltice Way Intersection	Reconfigure Intersection & Signal	$1,101,000		20%	80%	$220,200.00	Reconfigure intersection to include eastbound right turn lane, dual southbound left turn lanes, single southbound through lane, single southbound right turn lane, and upgrade signal. Include ADA-compliant ramps and pedestrian facilities. ITD participation assumed at 80%.
P-49	Mullan Ave Corridor - Idaho St to Syringa St	Widen to Accomodate 5-lanes	$391,000		100%		$391,000	Widen to five lanes. Include full arterial section. Account for constrained parcels and right-of-way acquisition.
P-53	Pleasant View Rd & Prairie Ave Intersection	Reconstruct to New Multi-Lane Roundabout	$7,112,000		100%		$7,112,000.00	Construct a new multi-lane roundabout. Include full reconstruction and ADA-compliant pedestrian facilities.
P-59	Poleline Ave & Zorros St Intersection	Add Signal or Roundabout	$5,918,000		100%		$5,918,000.00	Install a signal or roundabout. Include ADA ramps and pedestrian facilities. Evaluate feasibility based on adjacent development.
P-65	Prairie Ave & Corbin Rd Intersection	Add New Multi-Lane Roundabout	$4,906,000		100%		$4,906,000.00	Construct a new multi-lane roundabout. Include full reconstruction, ADA-compliant ramps, and pedestrian crossings.
P-66	Prairie Ave & Greensferry Rd Interstion	Reconfigure Intersection & Signal	$818,000		100%		$818,000.00	Reconfigure intersection and signal adding a single through lane in the east and west bound directions. Include ADA-compliant ramps and pedestrian facilities.
P-70	Prairie Ave Corridor - Greensferry Rd to SH-41	Widen to Accomodate 5-lanes	$3,419,000	25%	25%	50%	$854,750.00	Widen to five lanes. Include full arterial section with sidewalks, bike lanes, and stormwater facilities. Account for constrained parcels and acquisitions. Developers to cover curb&gutter, roadway illumination, bike lane, swales and multi-use path, Impact fees for traffic lane widening, URA Cecil to SH41
P-73	Prairie Ave Corridor - Pleasant View Rd to McGuire Rd	Widen to Accomodate 5-lanes	$6,021,000	80%	20%		$1,204,200.00	Widen to five lanes. Include full arterial section. Coordinate with adjacent development and intersection upgrades. Impact Fee costs for 1 east bound and 1 westbound lane, developer shares remainder of costs.
P-76	Seltice Way & Clark Fork PKWY Intersection	Add New Multi-Lane Roundabout	$4,060,000		100%		$4,060,000.00	Construct a new multi-lane roundabout. Include full reconstruction, ADA upgrades, and pedestrian facilities.
P-77	Seltice Way & Corbin Rd Intersection	Install New Signal	$738,000		100%		$738,000.00	Install a new signal. Include ADA-compliant ramps and pedestrian crossings. Coordinate with corridor improvements.
P-78	Seltice Way & I-90 EB Ramp Intersection	Install New Signal	$629,000			100%	$0	Install a new signal. Include ADA ramps and pedestrian facilities. Coordinate with I-90 interchange improvements.
P-81	Seltice Way & Spokane St Intersection	Reconfigure Intersection & Signal	$826,000			100%	$0	Reconfigure intersection to include dual northbound left turn lanes, a single northbound right turn lane, a single eastbound right turn lane, and dual westbound left turn lanes. Upgrade signal accordingly. Include ADA ramps and pedestrian facilities.

51



Long-Term Implementation

LONG-TERM IMPLEMENTATION TABLE

Project Code	Project Name	Short Project Description	2025 Costs	Developer	Impact Fees	Other	Impact Fees	Detailed Project Description
P-1	Beck Rd & Pointe PKWY Intersection	Reconfigure Intersection & Signal	$1,036,000		50%	50%	$518,000	Reconfigure the existing intersection adding a northbound right turn lane and upgrade traffic signal. ADA-compliant curb ramps and pedestrian crossings are required. Adjacent signal timing coordination is recommended.
P-3	Cecil Rd & 16th Ave Intersection	Add Signal or Roundabout	$1,879,000		100%		$1,879,000	Install either a signal or a roundabout at Cecil Road and 16th Avenue. ADA upgrades and pedestrian facilities are required. Single-lane roundabout assumed for estimating purposes.
P-4	Cecil Rd & Hope Ave Intersection	Install New Signal	$878,000		100%		$878,000	Install a new traffic signal at Cecil Road and Hope Avenue. Although roundabouts are generally preferred by the city, the intersection is constrained on all four corners, making a roundabout infeasible. The signal installation should include ADA-compliant curb ramps, pedestrian crossings, and signal coordination with adjacent intersections.
P-5	Cecil Rd & Mullan Ave Intersection	Reconfigure Intersection & Signal	$1,455,000		100%		$1,455,000	Reconfigure the intersection and upgrade the existing signal at Cecil Road and Mullan Avenue. Improvements include adding turn lanes, modifying signal phasing, and reconstructing ADA ramps. The intersection must accommodate future corridor widening to three lanes. Adjacent school and residential properties limit expansion options, requiring careful design to avoid significant impacts.
P-8	Cecil Rd Corridor - Bugle Dr to 12th Ave	Widen to Accomodate 3-lanes	$4,077,000	100%			$0	Widen Cecil Road from Bugle Drive to 12th Avenue to a three-lane section. Existing pavement width is approximately 30 feet; widening to 46 feet is required. The corridor includes constrained areas with existing curb and gutter and adjacent residential development. The corridor transitions to three lanes near 12th Avenue, so tapering and transition design must be incorporated.
P-10	Chase Rd & Poleline Ave Intersection	Add New Single-Lane Roundabout	$1,889,000		100%		$1,889,000	Construct a single-lane roundabout at the intersection of Chase Road and Poleline Avenue. The geometry supports feasibility. The roundabout should include full intersection reconstruction, ADA-compliant ramps, pedestrian crossings, and appropriate signage.
P-14	Greensferry Rd & Hope Ave Intersection	Add Signal or Roundabout	$4,391,000	20%	80%		$3,512,800	Install a signal or roundabout and extend Hope Ave west to the western boundary of Greensferry Elementary. Consider constraints on all corners. Include ADA upgrades and pedestrian facilities. Assumed 2 lane roundabout for estimating purposes.
P-15	Greensferry Rd & Horsehaven Rd Intersection	Install New Signal	$1,120,000		100%		$1,120,000	Install new traffic signal. Include ADA ramps and pedestrian crossings.
P-18	Greensferry Rd Corridor - Poleline Ave to Prairie Ave	Widen to Accomodate 3-lanes	$3,458,000	100%			$0	Widen to three lanes. Include ADA-compliant features, stormwater swales, and pedestrian improvements. Coordinate with adjacent intersection upgrades.
P-19	Greensferry Rd Corridor - Prairie Ave to Hayden Ave	Widen to Accomodate 3-lanes	$8,050,000	100%			$0	Widen to three lanes. Include ADA ramps, sidewalks, and stormwater improvements. Consider future development and right-of-way needs.
P-20	Hayden Ave & C... Intersection							
P-24	Hayden Ave Ea... to SH-41							
P-25	Huetter Rd Cor... to Poleline Ave							
P-26	Huetter Rd Cor... to Prairie Ave							
P-27	Huetter Rd Cor... to Mullan Ave							
P-28	Huetter Rd & W... Intersection							
P-29	Huetter Rd & Pr... Intersection							

LONG-TERM IMPLEMENTATION TABLE *(continued)*

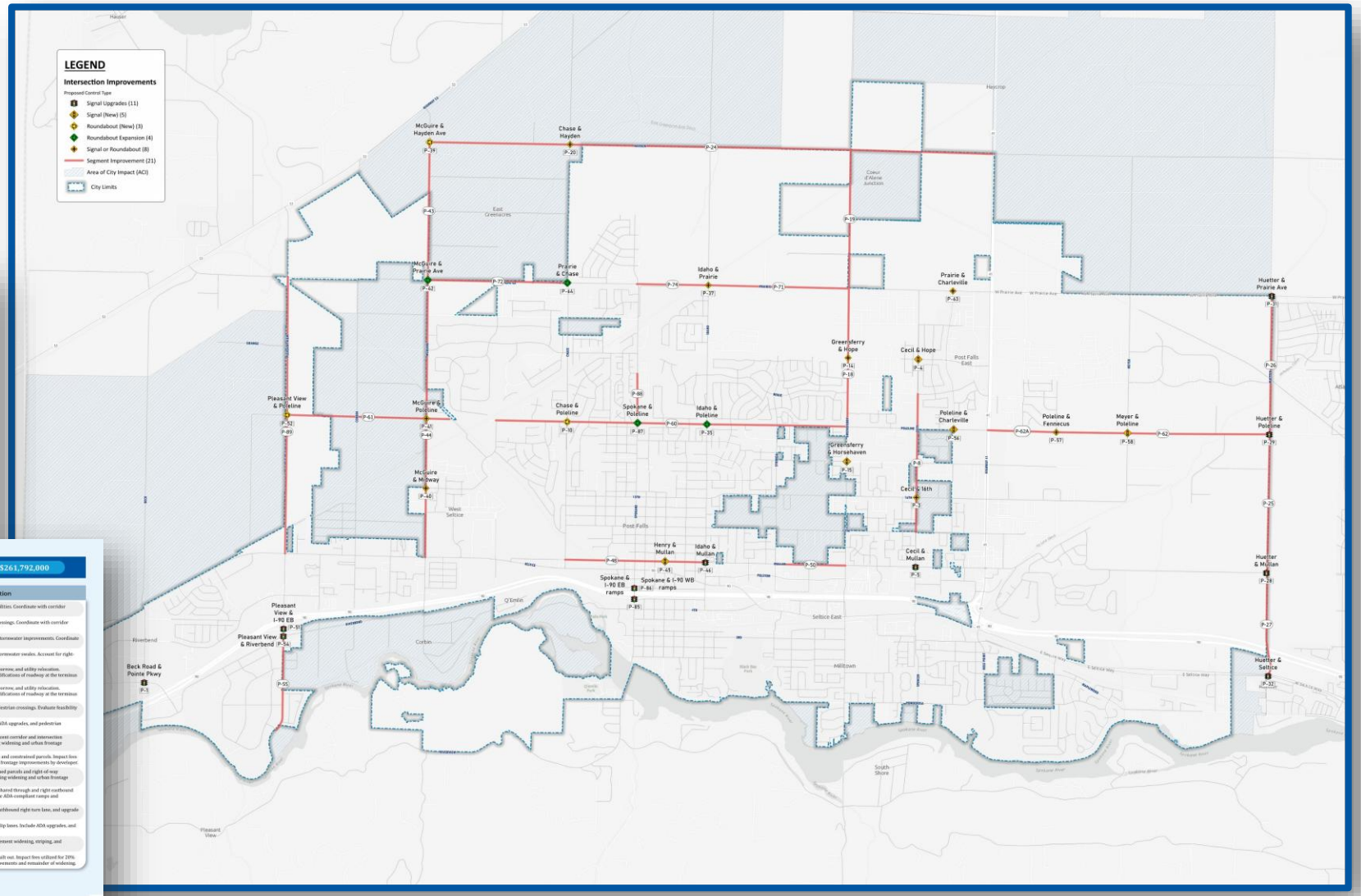
Project Code	Project Name	Short Project Description	2025 Costs	Developer	Impact Fees	Other	Impact Fees	Detailed Project Description
P-31	Huetter Rd & Prairie Ave Intersection	Reconfigure Intersection & Signal	$547,000			100%	$0	Reconfigure intersection to include separate right turn lanes in each direction and dual northbound right turns and upgrade signal. Include ADA ramps and pedestrian crossings. Coordinate with corridor widening.
P-32	Huetter Rd & Seltice Way Intersection	Reconfigure Intersection & Signal	$2,872,000			100%	$0	Reconfigure intersection adding dual eastbound lefts, dual southbound lefts, separate westbound right turn lanes and upgrade signal. Include ADA-compliant ramps and pedestrian facilities.
P-35	Idaho St & Poleline Ave Intersection	Add Slip Lanes	$571,000		100%		$571,000.00	Construct slip lanes on remaining three legs, adjust pedestrian facilities.
P-37	Idaho St & Prairie Ave Intersection	Add Signal or Multi-Lane Roundabout	$5,608,000		100%		$5,608,000	Install signal or multi-lane roundabout. Evaluate feasibility based on traffic volumes and corridor consistency. Include ADA upgrades.
P-39	McGuire Rd & Hayden Ave Intersection	Add Single Lane Roadabout	$1,776,000			100%	$0	Add single lane roundabout.
P-40	McGuire Rd & Midway Ave Intersection	Add Signal or Multi-Lane Roundabout	$5,001,000		100%		$5,001,000	Install a signal or roundabout. Include ADA-compliant ramps and pedestrian facilities. Evaluate feasibility based on adjacent development.
P-41	McGuire Rd & Poleline Ave Intersection	Add Signal or Multi-Lane Roundabout	$4,648,000		100%		$4,648,000	Install a signal or roundabout. Include ADA ramps and pedestrian crossings. Coordinate with corridor improvements.
P-42	McGuire Rd & Prairie Ave Intersection	Reconstruct to Multi-Lane Roundabout	$4,224,000		100%		$4,224,000	Reconstruct to a multi-lane roundabout. Include full reconstruction, ADA upgrades, and pedestrian facilities.
P-43	McGuire Rd Corridor - Prairie Ave to Hayden Ave	Widen to Accommodate 5-lanes	$8,745,000	100%			$0	Widen to three lanes. Include full reconstruction due to pavement distress. Include curb, gutter, sidewalk, bike lanes, and stormwater facilities.
P-44	McGuire Rd Corridor - Prairie Ave to Seltice Way	Widen to Accommodate 5-lanes	$20,003,000	50%	50%		$10,001,500	Widen to five lanes. Include full arterial section. Account for railroad crossing costs and right-of-way acquisition. 50% Impact fee for costs of replacing existing curb locations and widening along sections of roadway with urban improvements.
P-45	Mullan Ave & Henry St Intersection	Install New Signal	$902,000		100%		$902,000	Reconfigure intersection and upgrade signal. Include ADA-compliant ramps and pedestrian crossings.
P-46	Mullan Ave & Idaho St Intersection	Reconfigure Intersection & Signal	$1,423,000		100%		$1,423,000	Reconfigure intersection adding dual westbound lefts, a separate northbound right, and upgrade signal. Include ADA ramps and pedestrian facilities. Coordinate with corridor improvements.
P-48	Mullan Ave Corridor - Idaho St to Chase Rd	Widen to Accommodate 3-lanes	$12,141,000	40%	60%	-	$7,284,600	Widen to three lanes. Include full reconstruction, ADA upgrades, and stormwater improvements. Remove and replace sections of urban improvements that do not comply with 3-lane section by impact fees. Developers are responsible for frontage improvements along sections that have no existing improvements.
P-50	Mullan Ave Corridor - Syringa St to Greensferry Rd	Widen to Accommodate						
P-51	Pleasant View Rd & I-90 EB Ramp Intersection							
P-52	Pleasant View Rd & Poleline Ave Intersection							
P-54	Pleasant View Rd & Riverbend Av Intersection							
P-55	Pleasant View Rd Corridor - Riverbend Ave to Deyber St							
P-56	Poleline Ave & Charleville Rd Intersection							

LONG-TERM IMPLEMENTATION TABLE *(continued)*

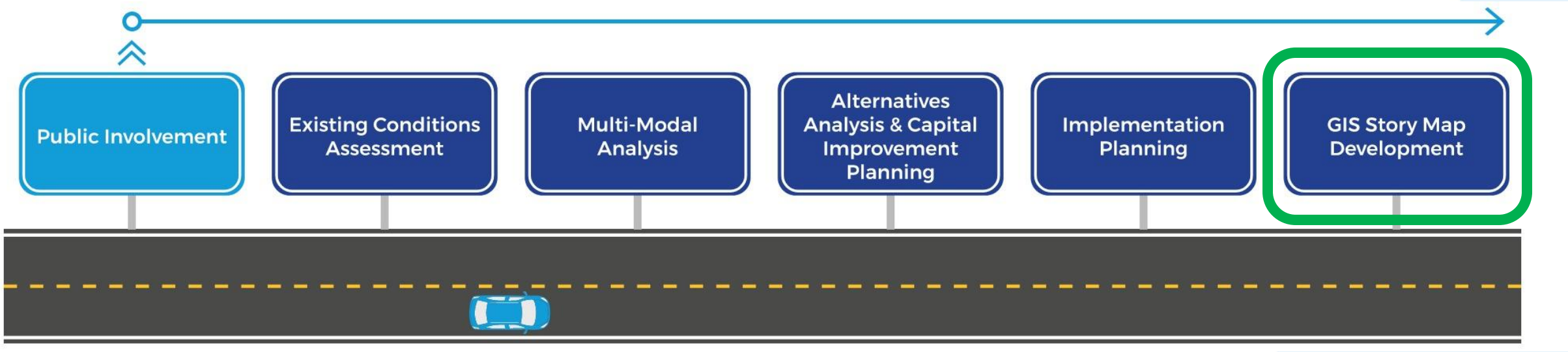
GRAND TOTAL (2025 Dollars): $261,792,000

Project Code	Project Name	Short Project Description	2025 Costs	Developer	Impact Fees	Other	Impact Fees	Detailed Project Description
P-57	Poleline Ave & Fennecus Rd Intersection	Add Signal or Roundabout	$4,510,000		100%		$4,510,000	Install a signal or roundabout. Include ADA ramps and pedestrian facilities. Coordinate with corridor improvements.
P-58	Poleline Ave & Meyer Rd Intersection	Install New Signal	$628,000			100%	$0	Install a new signal. Include ADA-compliant ramps and pedestrian crossings. Coordinate with corridor widening.
P-60	Poleline Ave Corridor - Clark Fork PKWY to Greensferry Rd	Widen to Accommodate 3-lanes	$8,507,000	50%	50%		$4,253,500	Widen to three lanes. Include ADA-compliant ramps, sidewalks, and stormwater improvements. Coordinate with adjacent intersection upgrades and multimodal project.
P-61	Poleline Ave Corridor - Pleasant View Rd to Roslyn Dr	Widen to Accommodate 3-lanes	$7,388,000	100%			$0	Widen to three lanes. Include ADA ramps, pedestrian facilities, and stormwater swales. Account for right-of-way acquisition.
P-62	Poleline Ave Corridor - Fennecus to Huetter Rd	Widen to Accommodate 5-lanes	$24,074,000	80%	10%	10%	$2,407,400	Widen to five lanes. Include full arterial section. Account for cut/fill, borrow, and utility relocation. Coordinate with adjacent corridor projects. 10% Impact Fees for modifications of roadway at the terminus of SH41 improvements (2032).
P-62A	Poleline Ave Corridor-SH-41 to Fennecus Rd	Widen to Accommodate 5-Lanes	$1,751,000	80%	10%	10%	$175,100	Widen to five lanes. Include full arterial section. Account for cut/fill, borrow, and utility relocation. Coordinate with adjacent corridor projects. 10% Impact Fees for modifications of roadway at the terminus of SH41 improvements (2032).
P-63	Prairie Ave & Charleville Rd Intersection	Add Signal or Roundabout	$4,061,000		10%	90%	$406,100	Install a signal or roundabout. Include ADA-compliant ramps and pedestrian crossings. Evaluate feasibility based on corridor consistency. This is an Urban Renewal project.
P-64	Prairie Ave & Chase Rd Intersection	Reconstruct to Multi-Lane Roundabout	$4,138,000		100%		$4,138,000	Reconstruct to a multi-lane roundabout. Include full reconstruction, ADA upgrades, and pedestrian facilities.
P-71	Prairie Ave Corridor - Idaho St to Greenferry Rd	Widen to Accommodate 5-lanes	$5,718,000	75%	25%		$1,429,500	Widen to five lanes. Include full arterial section. Coordinate with adjacent corridor and intersection projects. Impact fees utilized for center 36 feet of roadway, remaining widening and urban frontage improvements by developer.
P-72	Prairie Ave Corridor - McGuire Rd to Chase Rd	Widen to Accommodate 5-lanes	$14,368,000	75%	25%		$3,592,000	Widen to five lanes. Include full arterial section. Address pinch points and constrained parcels. Impact fees utilized for center 36 feet of roadway, remaining widening and urban frontage improvements by developer.
P-74	Prairie Ave Corridor - Spokane St to Idaho St	Widen to Accommodate 5-lanes	$5,205,000	75%	25%		$1,301,250	Widen to five lanes. Include full arterial section. Account for constrained parcels and right-of-way acquisition. Impact fees utilized for center 36 feet of roadway, remaining widening and urban frontage improvements by developer.
P-85	Spokane St & I-90 EB Intersection	Reconfigure Intersection & Signal	$659,000			100%	$0	Reconfigure intersection to include dual eastbound left turn lanes, a shared through and right eastbound lane, a separate eastbound right turn lane, and upgrade signal. Include ADA-compliant ramps and pedestrian facilities.
P-86	Spokane St & I-90 WB Intersection	Reconfigure Intersection & Signal	$859,000			100%	$0	Reconfigure intersection adding dual northbound lefts, a separate southbound right turn lane, and upgrade signal. Include ADA ramps and pedestrian facilities.
P-87	Spokane St & Poleline Ave Intersection	Modify Existing Roundabout	$570,000		100%		$570,000	Modify single lane roundabout adding north bound and west bound slip lanes. Include ADA upgrades, and pedestrian crossings adjustments.
P-88	Spokane St Corridor - Crestview Dr to Rose Ave	Install Left Turn Pockets at Rose Ave & Crestview Ct	$257,000		100%		$257,000	Install left turn pockets at Rose Ave and Crestview Court. Include pavement widening, striping, and coordination with corridor improvements.
P-89	Pleasant View Rd Corridor - Interstate/UPRR to Hwy 53	Widen to Accommodate 5-lanes	$11,173,000	80%	20%		$2,234,600	Widen to five lanes. Match existing arterial section where it is fully built out. Impact fees utilized for 20% of roadway of widening costs, developer responsible for urban improvements and remainder of widening.

55

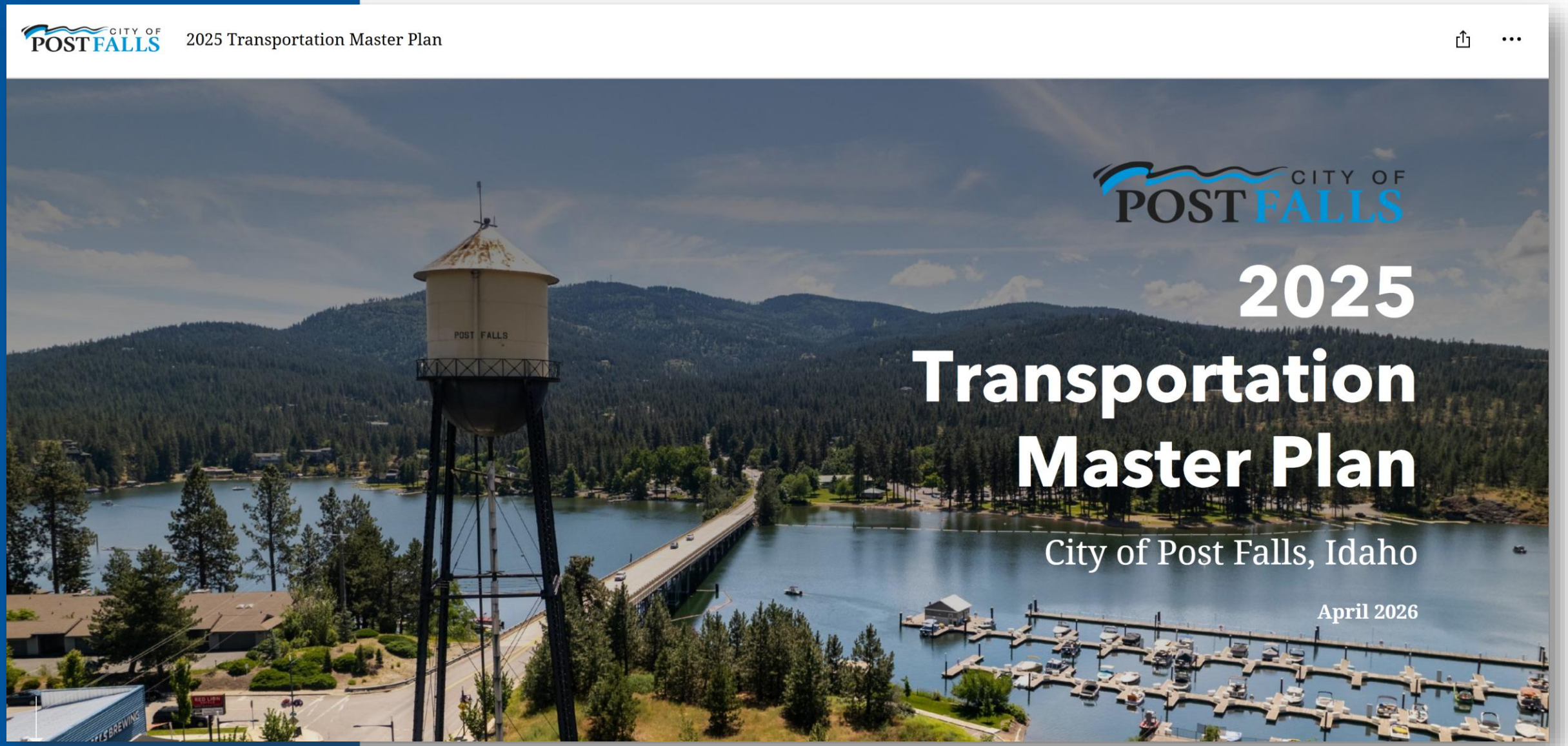


Plan Development Process

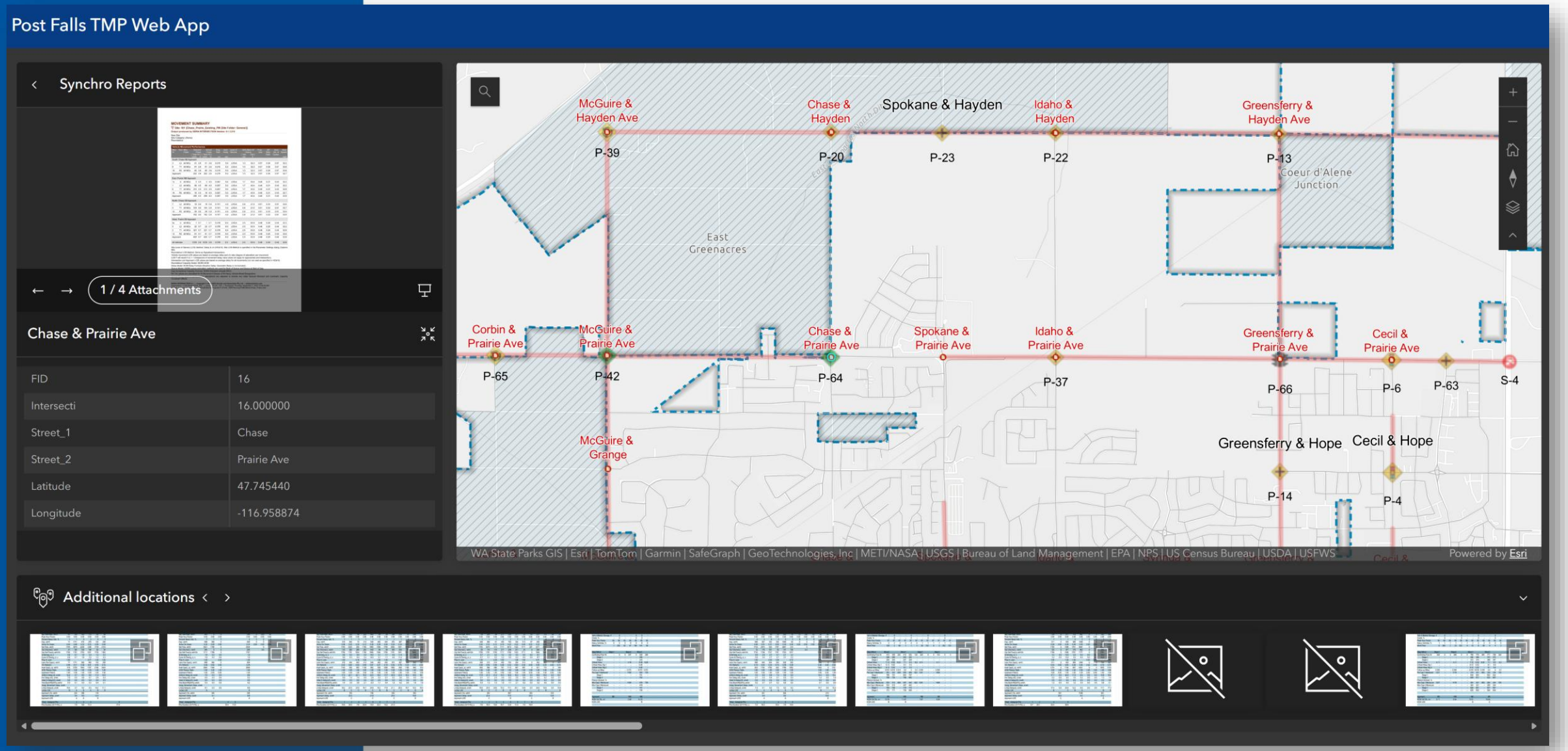


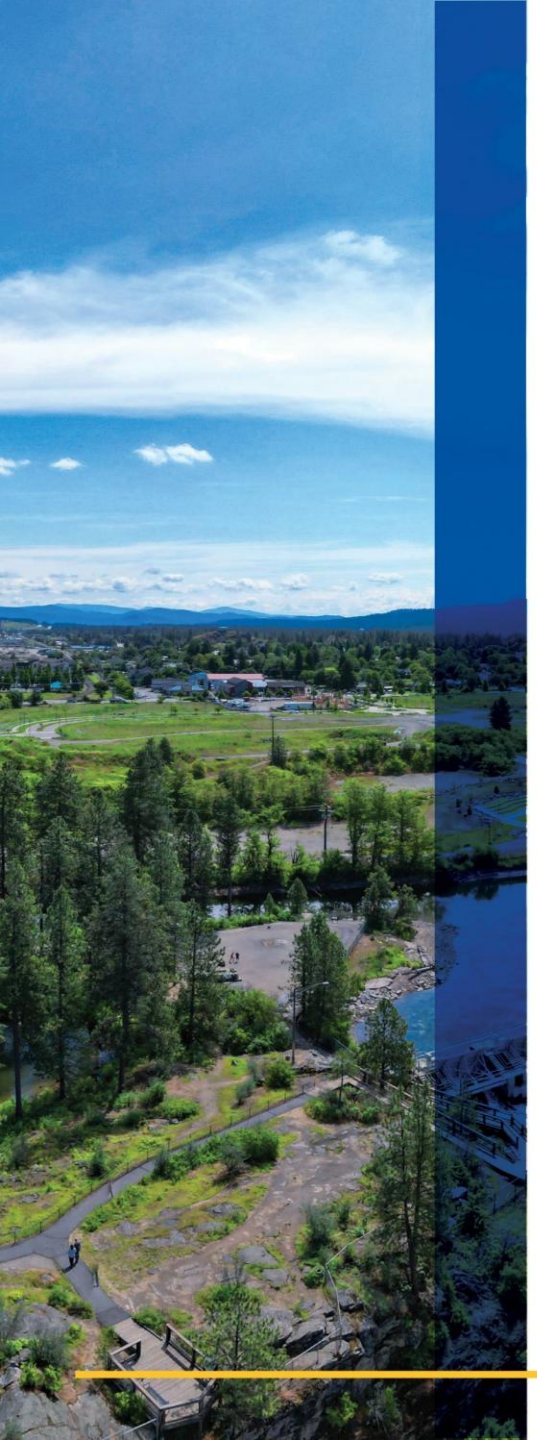
GIS Storymap – Community Tool

2025 Transportation Master Plan



TMP Web App – Staff Tool





Thank you!

Questions?

J-U-B ENGINEERS, INC.

THE LANGDON GROUP

GATEWAY MAPPING INC.

J-U-B FAMILY OF COMPANIES



CITY OF POST FALLS

2025 TRANSPORTATION MASTER PLAN

Click here or scan QR for online content

J-U-B FAMILY OF COMPANIES

THE LANGDON GROUP | J-U-B ENGINEERS, INC. | GATEWAY MAPPING INC.

J-U-B ENGINEERS, Inc.
April 2026

ACKNOWLEDGMENTS AND CERTIFICATION

The Technical Advisory Group played a valuable role in the planning and design process. Collectively, the group's local and professional knowledge encompassed a variety of important perspectives. As members, participants had the opportunity and responsibility to provide initial guidance, review the Draft Transportation Master Plan and Capital Improvement Program materials, and offer feedback and input to the City and the Consultant.

TECHNICAL ADVISORY GROUP:

- Robert Palus, PE, Post Falls, City Engineer
- Robbie Quinn, Post Falls, Parks Planner
- Ross Junkin, Post Falls Public Works
- Jon Manley, Post Falls Planning Manager
- Nathan Ziegler, Post Falls, City Council
- Chris Bosley, PE, City of Coeur d'Alene
- Nathan Herbst, PE, Idaho Transportation Department
- Robert Beachler, Idaho Transportation Department (ITD)
- Michael Lenz, Post Falls Highway District
- Ali Marienau, Kootenai Metropolitan Planning Organization (KMPO)

CONSULTANTS:

J-U-B ENGINEERS, Inc.

- Jay Hassell, PE, Project Manager
- Riannon Zender, PE, Traffic Engineer
- Hannah Grimm, EI, Traffic Engineer
- Spencer Montgomery, Transportation Planner
- Sean Hoisington, PE, PTP, Transportation Planner

The Langdon Group

- Hannah Anderson, MURP, Public Involvement Lead
- Tracy Ortiz, Public Involvement Support

Gateway Mapping, Inc.

- Chris Yake, GIS Specialist

COMMUNITY COLLABORATORS:

- Northwest Specialty Hospital
- Disability Action Center NW
- Kootenai County
- Kootenai County Sherrif's Office
- Kootenai County Fire and Rescue
- Post Falls Chamber
- City Link Public Transit
- North Idaho Centennial Trail Foundation
- Orgill, Inc
- Post Falls School District

PROFESSIONAL CERTIFICATION



TABLE OF CONTENTS

PLANNING BACKGROUND 4
- RATHDRUM PRAIRIE SETTING 4
- RATHDRUM PRAIRIE PEL STUDY 4
- I-90 CORRIDOR EXPANSION AND POST FALLS 5
- PAST PLANNING STUDIES RELEVANT TO THE 2025 TRANSPORTATION MASTER PLAN UPDATE 5

2025 TRANSPORTATION PLAN UPDATE GOALS 6

TRANSPORTATION PLAN DEVELOPMENT PROCESS 7

PUBLIC INVOLVEMENT 8
- PUBLIC INVOLVEMENT GOALS 8
- SITUATION ASSESSMENT 9
- PROJECT WEBSITE AND INFORMATIONAL MATERIALS 9
- SOCIAL MEDIA – TRANSPORTATION TIDBITS SERIES 9
- FLIER 9
- PUBLIC SURVEYS 9
- INTERACTIVE COMMENT MAP 9
- PUBLIC EVENTS 10
- TECHNICAL ADVISORY GROUP FACILITATION 10

EXISTING CONDITIONS 11
- EXISTING LAND USE 12
- FUTURE LAND USE 13
- EXISTING TRANSPORTATION NETWORK 14
- EXISTING TRANSIT NETWORK 15
- EXISTING & PLANNED BICYCLE NETWORK 16
- EXISTING PEDESTRIAN NETWORK 17
- SIDEWALK GAPS 18
- FREIGHT ROUTES 19

TRANSPORTATION EVALUATIONS 20
- TRANSPORTATION PERFORMANCE 21
- WHAT IS LEVEL OF SERVICE (LOS)? 21
- 2025 PM PEAK LOS 22
- 2030 PM PEAK LOS 23
- 2035 PM PEAK LOS 24
- 2045 PM PEAK LOS 25
- MULTI-MODAL POTENTIAL 26
- TRAVEL DEMAND MODELING AND TRAFFIC ANALYSIS ZONES 27
- CRASH SEVERITY 28

TRANSPORTATION PLANNING 29
- 2026 KMPO FUNCTIONAL CLASSIFICATION 30
- PLANNED FUNCTIONAL CLASSIFICATION, ACCESS, & MOBILITY 31

PLANNING APPROACH 32
- ANALYSIS-RECOMMENDED CAPITAL IMPROVEMENTS: COMPREHENSIVE 33
- 2030 SHORT-TERM ANALYSIS-RECOMMENDED CAPITAL IMPROVEMENTS 34
- 2030 PERFORMANCE RESULTS WITH SHORT-TERM PROJECTS INSTALLED 35
- 2035 MID-TERM ANALYSIS-RECOMMENDED CAPITAL IMPROVEMENTS 36
- 2035 PERFORMANCE RESULTS WITH MID-TERM PROJECTS INSTALLED 37
- 2045 LONG-TERM ANALYSIS-RECOMMENDED CAPITAL IMPROVEMENTS 38
- 2045 PERFORMANCE RESULTS WITH LONG-TERM PROJECTS INSTALLED 39
- SHORT, MID, LONG TERM COSTS 40
- MULTIMODAL PROJECT LOCATIONS 41
- MULTIMODAL PROJECTS 42
- MULTIMODAL PROJECTS *(CONTINUED)* *43*

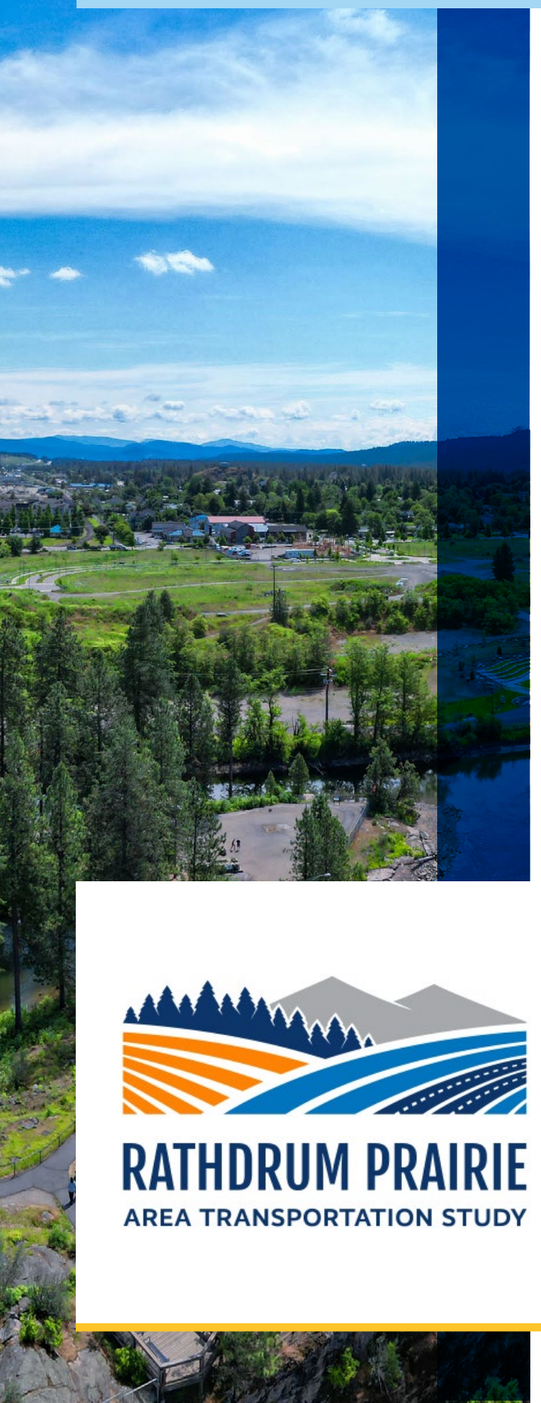
TRANSPORTATION SYSTEM STANDARDS 44
- STREET STANDARDS 45
- ARTERIAL STREETS 45
- COLLECTOR STREETS 46
- LOCAL STREETS 46
- OPERATIONAL STANDARDS 47
- ACCESS MANAGEMENT STANDARDS 47
- TRAFFIC IMPACT STUDY STANDARDS 47

TRANSPORTATION IMPLEMENTATION PLAN 48
- SHORT-TERM IMPLEMENTATION TABLE 49
- SHORT-TERM IMPLEMENTATION PROJECTS 50
- MEDIUM-TERM IMPLEMENTATION TABLE 51
- MEDIUM-TERM IMPLEMENTATION PROJECTS 52
- LONG-TERM IMPLEMENTATION TABLE 53
- LONG-TERM IMPLEMENTATION PROJECTS 56
- MULTIMODAL IMPLEMENTATION TABLE 57
- MULTIMODAL IMPLEMENTATION PROJECTS 59

RELATED DOCUMENTATION

- ITERIS TRAVEL DEMAND MODEL DOCUMENTATION
- ITEMIZED VEHICULAR PROJECT COST OPINIONS
- ITEMIZED MULTIMODAL PROJECT COST OPINIONS
- CAPACITY ANALYSIS REPORTS
- OPEN HOUSE 1 & 2 SIGN-IN AND COMMENTS

PLANNING BACKGROUND



RATHDRUM PRAIRIE SETTING

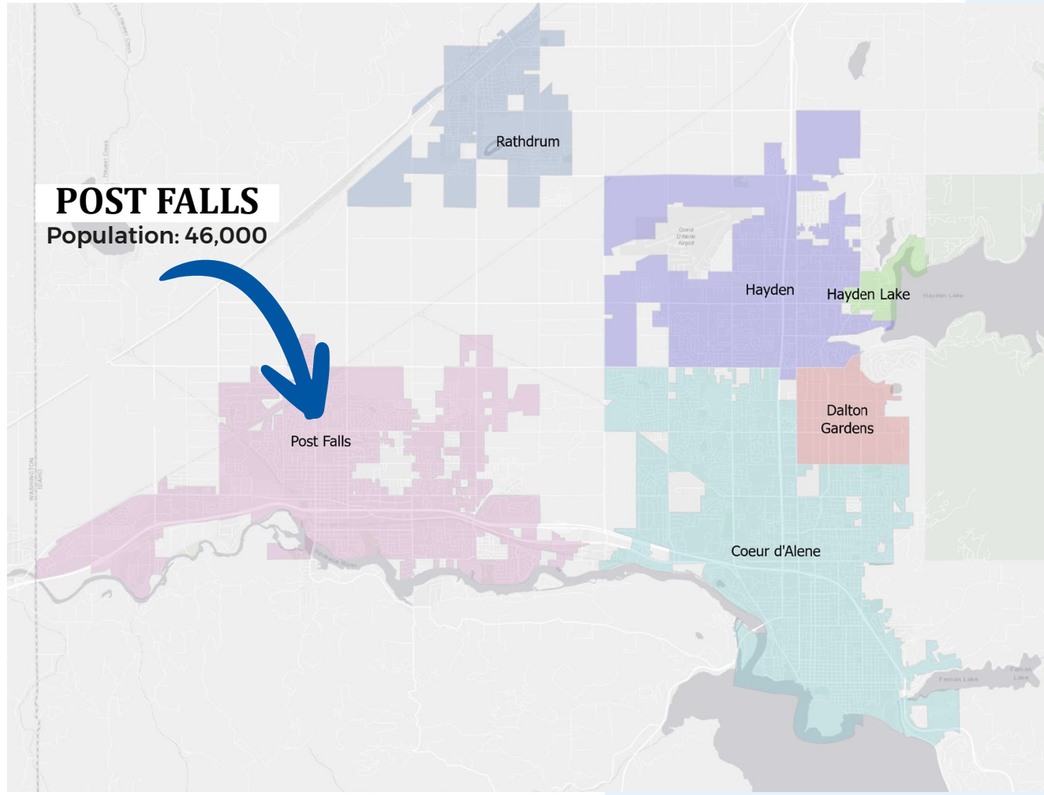
Post Falls lies at the center of the Rathdrum Prairie (the Prairie), a broad glacial plain that anchors northern Kootenai County communities and transportation networks. The Prairie stretches from Lake Coeur d'Alene to the Selkirk foothills, with the Spokane River flowing through its heart and I-90 serving as its primary east-west spine. Beneath it lies the Rathdrum Prairie Aquifer - the region's critical drinking water source - requiring careful management of roadway runoff and development impacts.

Once primarily agricultural, the Prairie has rapidly evolved into one of Idaho's fastest-growing urbanized areas. Post Falls, together with Coeur d'Alene, Hayden, and Rathdrum, now forms a nearly continuous urban corridor extending into eastern Washington.

This growth has intensified travel demand on I-90, SH-41, and major east–west arterials such as Prairie and Poleline Avenues.

For Post Falls, this setting creates both opportunity and responsibility. The City serves as a regional connector for commuters, freight, and recreation, while also protecting environmental resources and neighborhood livability. Coordinated planning with ITD, KMPO, and surrounding jurisdictions is essential to ensure that transportation investments keep pace with growth, support multimodal travel, and preserve the Prairie's environmental integrity.

The Rathdrum Prairie defines the physical and strategic context for the City's Transportation Master Plan.



RATHDRUM PRAIRIE PEL STUDY AND RELEVANCE TO POST FALLS

The Idaho Transportation Department (ITD), in partnership with KMPO and local jurisdictions, conducted the Rathdrum Prairie Planning and Environmental Linkages (PEL) Study to address rapid growth and increasing transportation pressures across northern Kootenai County. This regional effort is highly relevant to Post Falls, as the City sits at the center of Rathdrum Prairie travel patterns and continues to experience some of the highest growth in the state.

RATHDRUM PRAIRIE
AREA TRANSPORTATION STUDY

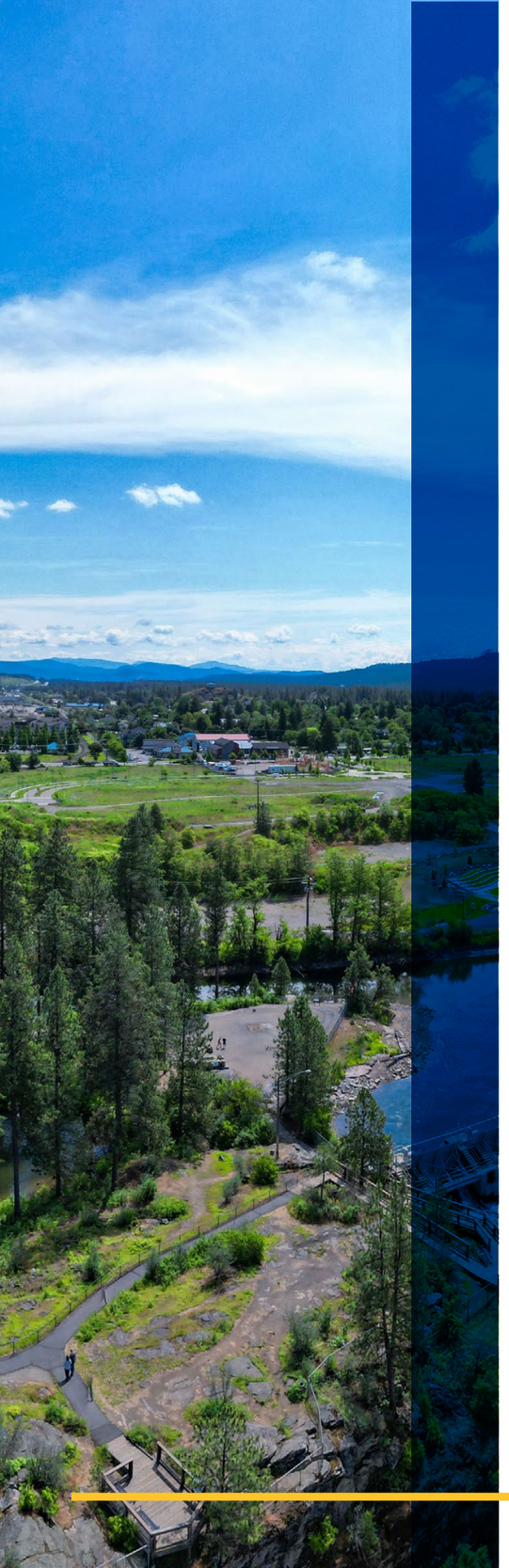
Purpose and Focus

- **Growth Pressures:** The Rathdrum Prairie is one of Idaho's fastest-growing areas, and Post Falls is a key driver of that growth. The PEL study established a long-term framework to ensure transportation investments keep pace with rising development.
- **Mobility and Safety:** Within Post Falls, congestion and safety issues along I-90, SH-41, and the arterial system are directly influenced by regional travel demands studied in the PEL.
- **Multimodal Integration:** The study recognized walking, bicycling, and transit as integral components of the regional network, consistent with the City's goals for multimodal access and connectivity.
- **Regional Connectivity:** East–west corridors through Post Falls (e.g., Prairie Avenue, Poleline Avenue) provide vital links between Rathdrum, Hayden, and Coeur d'Alene. The PEL emphasized the importance of these connections to overall mobility on the Prairie.
- **Environmental Stewardship:** Protecting the Rathdrum Prairie Aquifer and minimizing impacts to open space were central themes, aligning with Post Falls' commitment to preserving environmental quality while accommodating growth.

Relevance to the TMP

The Rathdrum Prairie Area Transportation Study (RPATS) PEL is a coordinated regional planning effort in which Post Falls participated. At the time of this Transportation Master Plan, the RPATS study was still in development; however, its preliminary findings informed this plan. While the City is not incorporating the RPATS capital improvement program into this TMP, the study provides important regional context. The TMP aligns local goals with the broader regional vision, allowing Post Falls' transportation planning to advance with emerging regional priorities.

1. Collect information about the transportation system, local communities, and environment.
2. Use information to develop a range of potential transportation solutions called alternatives.
3. Categorize alternatives into potential short-, mid-, and long-term transportation improvement projects in the study area.
4. Develop a plan for funding and delivering recommended projects.

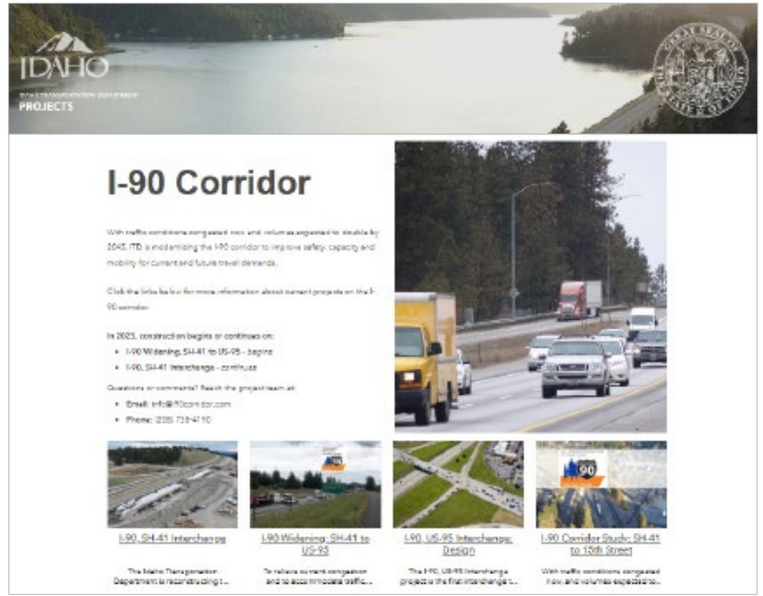


I-90 CORRIDOR EXPANSION AND POST FALLS

Interstate 90 is the primary east–west transportation spine in northern Idaho and a critical facility for the City of Post Falls. As the community has experienced rapid population and employment growth, I-90 has faced increasing congestion, particularly during peak periods and at key interchanges. Analyses completed through the Idaho Transportation Department (ITD), Kootenai Metropolitan Planning Organization (KMPO), and supporting corridor studies have consistently highlighted the Post Falls segment of I-90 as one of the most constrained portions of the regional system.

The I-90 corridor expansion analysis identified recurring congestion at the Spokane Street, SH-41, and Pleasant View interchanges, with volumes routinely exceeding capacity during peak hours. Growth projections show traffic volumes increasing by more than 50 percent in the next 20 years, leading to unacceptable levels of service if no improvements are made. Freight mobility is another critical concern. I-90 is the region's designated freight corridor, connecting Washington to Montana, through Idaho and serving as the primary route for heavy truck movements accessing Post Falls' industrial areas. Maintaining reliable travel times for freight is essential for the City's economic competitiveness.

Approved expansion alternatives include widening the freeway to three lanes in each direction through Post Falls, reconstructing interchanges to improve capacity and safety, and adding auxiliary lanes to improve merging and weaving operations. Coordination with local jurisdictions is necessary to ensure interchange improvements align with local circulation, land use patterns, and access needs. Non-motorized connectivity and transit access have also been discussed as complementary strategies to reduce vehicle demand on the corridor.



For Post Falls, the I-90 expansion is both a regional and local priority. It directly affects the City's ability to accommodate growth, support downtown redevelopment, and provide safe and efficient mobility for residents, businesses, and visitors. The Transportation Master Plan update continues to integrate I-90 corridor improvements into the City's long-term strategy, recognizing the freeway's central role in shaping Post Falls' future transportation system.



PAST PLANNING STUDIES RELEVANT TO THE 2025 TRANSPORTATION MASTER PLAN UPDATE

Over the past two decades, the City of Post Falls has completed several studies that guide the 2025 Transportation Master Plan (TMP) update. Collectively, they reflect a shift from roadway expansion toward multimodal connectivity, downtown revitalization, and coordinated growth.

- **2005 City Center Plan –** Established the downtown vision focused on walkability, Spokane River access, and streetscape enhancements along Spokane Street and 4th Avenue.
- **City Center Parking Plan** (circa 2006–2007) – Identified shared and public parking opportunities to support downtown redevelopment.
- **2017 Transportation Master Plan** – Updated the 2004 TMP with stronger emphasis on multimodal planning, access management, safety, and a fiscally constrained Capital Improvement Plan.
- **2020 Parks and Recreation Master Plan –** Recommended expanding greenways and trails to link neighborhoods, parks, and the Centennial Trail.
- **2020 Downtown Public Space Feasibility Study –** Explored civic gathering spaces and placemaking elements to strengthen the downtown core.
- **2020 Comprehensive Plan –** Set the citywide framework for growth, mobility, and land use integration, emphasizing small-town character and multimodal access.
- **2021 City Center Master Plan Addendum –** Reaffirmed the 2005 vision, expanded boundaries to include Seltice Way and the Idaho Veneer site, and prioritized connectivity and identity improvements.
- **2021 Capital Improvement and Impact Fee Plan –** Updated funding strategies for transportation, parks, and multimodal facilities, supporting coordinated investment.

Together, these plans provide an integrated foundation for the 2025 TMP—aligning land use, transportation, and community design to guide Post Falls' next phase of growth.



GOALS FOR THE 2025 TRANSPORTATION PLAN UPDATE

GOAL 1:

Maintain access management standards that provide a balance between access to adjoining lands and safe and efficient traffic flows.

Comp Plan Goal Overlap: CP G.02, G.06, G.13

GOAL 2:

Improve and enhance safety and traffic circulation and preserve an acceptable level of service (LOS) on local street systems.

Comp Plan Goal Overlap: CP G.05

GOAL 3:

Protect existing and future transportation facilities, corridors, or sites during the development review process.

Comp Plan Goal Overlap: CP G.02, G.06, G.13

GOAL 4:

Balance effective movement of freight and the needs of the community.

Comp Plan Goal Overlap: CP G.02, G.05

GOAL 5:

Continue to coordinate opportunities to use alternative modes of transportation (walking, bicycling, rideshare/carpooling, and public transportation services) through improved access, safety, convenience, and service.

Comp Plan Goal Overlap: CP G.02, G.03

GOAL 6:

Promote wayfinding tools to support tourism, commercial, education and recreation needs to enhance user experience that will help travelers find parks, trails, services, hospitals and state routes.

Comp Plan Goal Overlap: CP G.02, G.05

GOAL 7:

Preserve adequate right-of-way for future roadway corridors and improvements.

Comp Plan Goal Overlap: CP G.06, G.07

GOAL 8:

Evaluate available options to fund transportation projects.

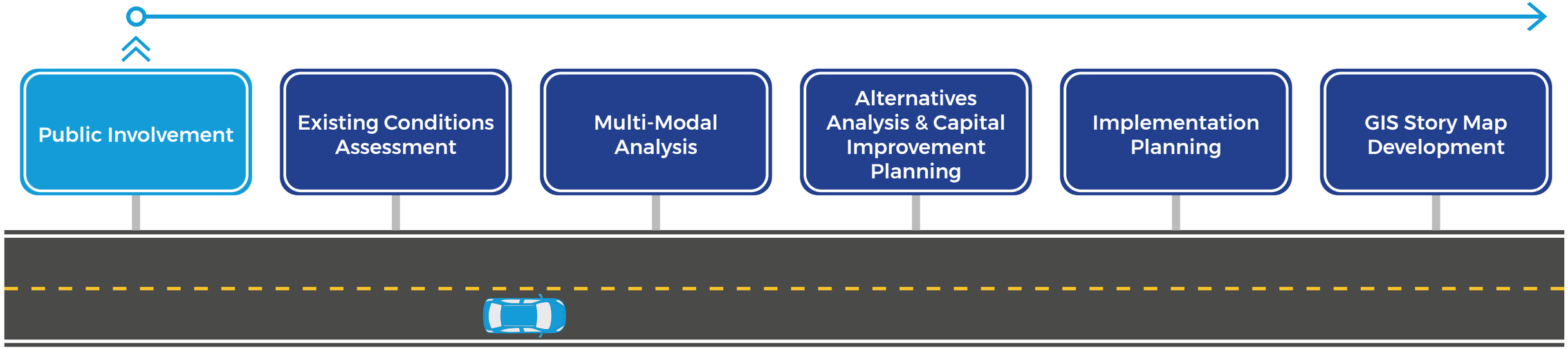
Comp Plan Goal Overlap: CP G.06

GOAL 9:

Continue coordination among agencies within the Kootenai Metropolitan Planning Organization (KMPO).

See 2020 Post Falls Comprehensive Plan, Appendix B, for Goals

TRANSPORTATION PLAN DEVELOPMENT PROCESS



The Public Involvement Process was a key component of this study, ensuring meaningful participation throughout plan development by:

- Following a Public Involvement Plan led by The Langdon Group from 2023 to 2025
- Engaging the community through stakeholder interviews, open houses, surveys, social media, and a project website
- Convening a Technical Advisory Group to provide input at key milestones
- Gathering feedback from more than 800 community members on safety, connectivity, and multimodal access
- Ensuring the Transportation Master Plan reflected community priorities and built broad understanding and support for the plan

The Existing Conditions Assessment established a baseline understanding of the transportation system by:

- Compiling data on roadways, traffic, safety, and multimodal facilities to identify issues and opportunities
- Conducting field reviews and GIS mapping to document system performance and planned improvements
- Summarizing findings in maps and tables to describe how the system functioned
- Providing the foundation for identifying future needs and evaluating improvement alternatives

The Multi-Modal Analysis evaluated how effectively the transportation system serves all modes of travel by:

- Reviewing existing and planned facilities, connectivity, accessibility, and overall system performance using verified data
- Conducting traffic capacity analysis to assess roadway and intersection operations under existing and forecast conditions
- Identifying key activity centers, system gaps, and safety concerns through GIS mapping, field review, and public input
- Developing recommendations to improve capacity, safety, and multimodal connectivity
- Supporting future investments that promote a balanced and efficient transportation system for the City of Post Falls

The Alternatives Analysis and Capital Improvement Planning phase identified and evaluated transportation improvements to meet current and future needs by:

- Developing roadway and intersection alternatives based on existing conditions and multimodal analyses
- Assessing each alternative for safety, operations, connectivity, and consistency with City goals
- Applying planning-level cost and benefit considerations to compare and prioritize projects
- Organizing preferred improvements into a financially constrained Capital Improvement Plan
- Outlining short-, mid-, and long-term projects with associated costs, timelines, and responsibilities aligned with other adopted City plans

The Implementation Planning phase translated recommended improvements into an actionable program to guide the City's transportation investments by:

- Prioritizing projects based on need, cost, benefit, and alignment with City goals and funding opportunities
- Organizing improvements into short-, mid-, and long-term timeframes to support phased implementation
- Identifying planning-level cost estimates, potential funding sources, and responsible parties for each project
- Providing a practical roadmap for advancing priority improvements
- Ensuring coordination with other City plans, capital programs, and development activities

A GIS-based Story Map was developed to present the Transportation Master Plan in an accessible, interactive format by:

- Combining narrative text, maps, and graphics to communicate key findings and proposed improvements
- Allowing users to explore project locations, data layers, and recommendations through a web-based interface
- Supporting transparency and ongoing public engagement throughout plan implementation
- Providing City staff with a dynamic, updatable tool to track progress and incorporate new information over time



PUBLIC INVOLVEMENT

Fundamental to the integrity of the Transportation Master Plan is that the planning process includes meaningful public participation, early and often. To that end, The Langdon Group, a J-U-B ENGINEERS, Inc. subsidiary company specializing in public involvement and facilitation, was contracted to assist in the planning, preparation, and facilitation of the public involvement process. Acting as a neutral third party, The Langdon Group curated a strategy to provide clear and transparent information and assist in obtaining honest and meaningful feedback from the public and key stakeholders.

The planning process for the City of Post Falls updated plan began with a formal kickoff meeting with City Staff to discuss the purpose and goals of the plan and determine the best approach to public participation. A Public Involvement Plan (PIP) was assembled to ensure that engagement tasks were intentional, considering the varied needs of the public and key stakeholders, and consistent with the project's goals. The PIP also helped to ensure that tasks were conducted keeping key project milestones in mind, so that information provided to the public could be timely, and feedback received would inform the planning process as the project progressed.

Public involvement milestones included: key stakeholder interviews, the launch of a project website and public survey, distribution of informational materials, social media engagement, public open house events, and the active participation of a Technical Advisory Group. Gathering input using these methods ensures that the plan reflects the community's needs and aspirations, facilitating the development of a plan tailored specifically to Post Falls' transportation needs. This section provides an overview of the public involvement goals, tasks, and feedback received.

PUBLIC INVOLVEMENT GOALS

- **Provide easily accessible information to the public on the master plan process and mitigation efforts to address impacts to infrastructure, traffic, schools, and other community services.**
- **Engage in meaningful public interaction with all impacted and interested members of the public.**
- **Gather feedback to inform the development of the master plan.**
- **Develop common community goals and support for the master plan.**
- **Inform stakeholders and the public about project timeline and development.**

In coordination with the project team and City Staff, TLG implemented a public involvement strategy which lasted from May 2023 – December 2025, and included the following:

Kick-off meeting	MAY 2023
Key Stakeholder Interviews	SUMMER 2023
Informational Flier Distributed	JUNE 2023
Interactive Website Launched	SUMMER 2023
Public Open Houses	SUMMER 2023, SUMMER 2025
Technical Advisory Group Meetings	FALL 2023, SPRING 2025, FALL 2025
Goal Verification and Adoption Process	FALL 2025

WE HEARD YOU!

883 COMMUNITY MEMBERS ENGAGED!

KEY FEEDBACK

PEDESTRIAN The public shared their experiences & safety concerns walking along Post Falls sidewalks. They provided suggestions to make the city more connected & increase user access & safety.

FREEWAY ACCESS Some community members discussed the I-90 interchange, including wanting more infrastructure and access points.

BICYCLIST Community members expressed their desire for possible trail connections & bike lane additions to make the city more accessible to non-car users.

ROADWAY Community members shared their infrastructure suggestions such as the addition of roundabouts, traffic signals, the widening of specific road lanes, and traffic calming suggestions.

SAFETY A topic frequently discussed in community feedback was safety, related to community members' experiences, including suggestions for specific locations where accidents or the potential for accidents occur. The recommendations offered include infrastructure connections, locations for traffic calming, and pedestrian crossings.

CONGESTION The community identified locations where they experienced the most congestion and identified safety issues that are caused by congestion.

TRANSIT The community identified locations for transit routes and connections, ideal transit stops, and ADA accessibility challenges.

OTHER Community members discussed a range of topics from downtown experience and beautification to parking and environmental concerns

SITUATION ASSESSMENT

In July of 2023, The Langdon Group (TLG) conducted a series of nine stakeholder interviews to collect targeted, local, expert feedback on the community's transportation needs. Stakeholders were selected to provide a holistic representation of perspectives including county agencies, emergency service providers, community services, local businesses, and transportation-oriented groups. Interviews focused on identifying opportunities and preferences for road improvements, vehicle and pedestrian experience, public outreach methods, and overall community effects.

Discussions focused on population growth and thoughtful long-term planning. Stakeholders agreed that planning for growth is necessary for ensuring the city is developed responsibly, and that the Transportation Master Plan creates the opportunity to do that. A common theme across stakeholder interviews was safety, citing the need for improvements along high use collector and arterial roads. Participants expressed the need to see improvements that would benefit both the daily driver as well as support the delivery of public safety services (police, fire, rescue).

PROJECT WEBSITE AND INFORMATIONAL MATERIALS

Project Website

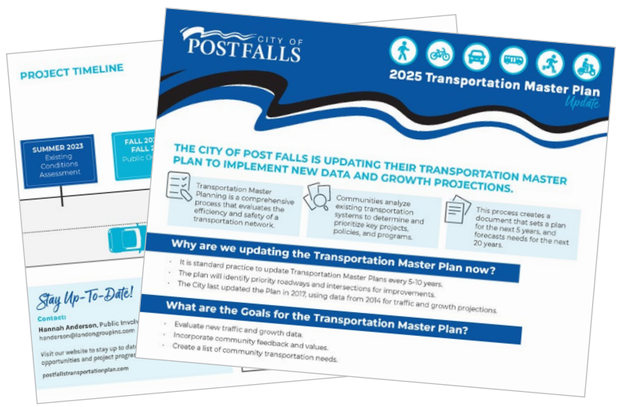
A project website was developed to serve as a central location for up-to-date information on the project, which was linked on the City's website and distributed via QR code and web-address (URL) on public informational materials. TLG worked in coordination with the project team to develop clear information about the planning process, including project overview information, background, goals, funding, timeline, and public involvement opportunities. Contact information was provided on the site for direct public inquiries. In addition to providing information about the Transportation Master Plan project, the public survey was hosted on the website, providing a user-friendly digital option for the public to submit community feedback. The website was active for the duration of the project and content was updated at key planning milestones.

Social Media – Transportation Tidbits Series

A social media "Transportation Tidbits" series was published to the City's Facebook account to encourage information sharing, education, and community dialogue about how transportation systems work and to highlight the importance of a City Transportation Master Plan. Each month, a new topic was presented in the form of a social media square. Each of the social media squares were additionally published to the project website.





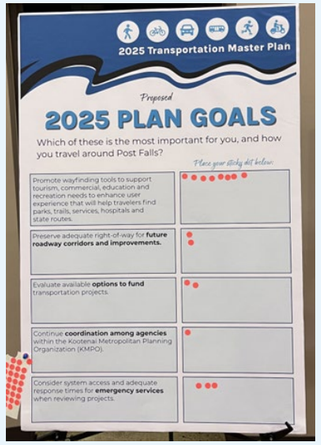


Flier

A project flier was developed to provide overview information about the Transportation Master Plan project, and to assist in advertising the public involvement opportunities. A QR code and URL were provided on the back of the flier to direct people to the project website for up-to-date information, and contact information was listed for members of the community to reach out directly with any questions or feedback. The flier was posted at key locations around town, passed out at public events, and provided at the City Hall front desk.

All public communication and outreach materials for this project were developed using the following key messages:

- Master planning processes are integral to the long-range success of transportation systems.
- The Post Falls TMP is consistent and complementary to area and regional goals for transportation planning.
- The TMP is part of the City's larger comprehensive planning effort.
- The TMP considers a comprehensive study of the whole transportation system, beyond just vehicular modes, incorporating a focused approach on multimodal transportation methods.



PUBLIC SURVEYS

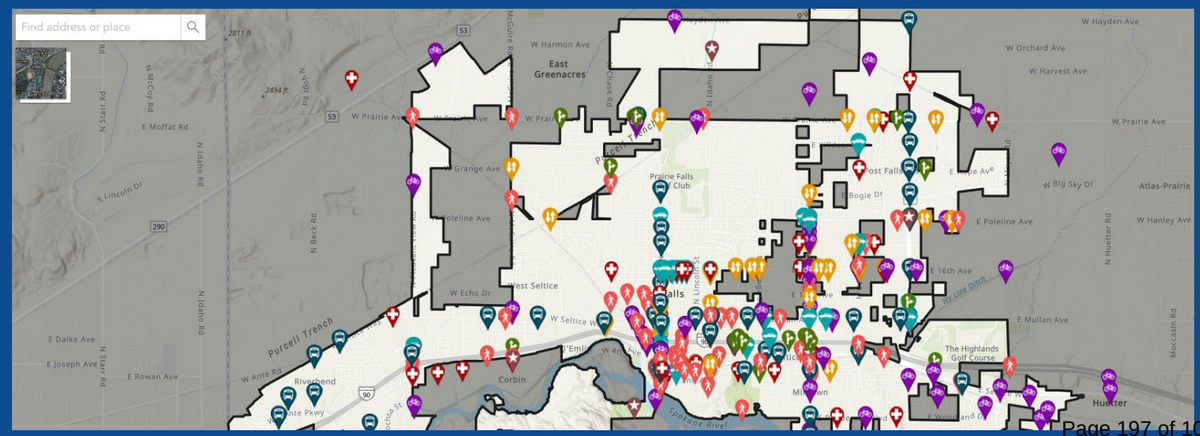
Public Survey – Transportation Goals

In the Fall of 2023 the City of Post Falls provided the opportunity for the public to share their feedback on the City's transportation goals through a SurveyMonkey survey. The survey was available online on the project website and the City's website. The survey was advertised in the CDA Press, shared on the City's social media, and available via QR code on project fliers which were distributed at the City Hall and various locations around Post Falls. The survey received 134 total responses.

Interactive Comment Map – Location Specific Feedback

From November 2023 – February 2024, the City of Post Falls provided the opportunity for the public to comment on the current Post Falls transportation network through an online, interactive mapping software. Within the comment mapping software, members of the public were able to leave specific geo-located comments on a map, categorizing their comments by topic. Once submitted, the comments remained visible to anyone viewing the website and survey, allowing for the community to understand the interests of one another.

The Post Falls Transportation Master Plan interactive comment map survey was released on November 13th, 2023 at the Post Falls Transportation Master plan open house. The survey was advertised on the City of Post Falls' social media, the City's website, the project website, and the CDA Press. The public submitted 330 total comments.



PUBLIC EVENTS

Two public open houses and one pop-up tabling event were hosted to provide the opportunity for members of the community to come in person to learn about the Transportation Master Plan project, provide feedback, and engage in dialogue with members of the project team. Each of the events were advertised on the City's website and social media accounts, the project website, and in the newspaper. Direct invitations were sent to key individuals and community organizations including those who participated in stakeholder interviews. Each of these events were hosted in a "drop-in" style to provide flexibility for the public to attend at their convenience.

The open houses were each held at the City of Post Falls City Hall atrium. Upon arrival, attendees were greeted at a welcome table and were given the option to sign in, and offered printed materials including a project overview flier and project timeline. Additionally, attendees were directed to take a comment card to record their feedback, as well as participate in the project surveys. At each event, City Staff members and project team members were available to explain content and answer any questions.



Public Open House #1 – Fall 2023

On November 13, 2023, from 4-6pm, the City of Post Falls held a public open house to present information on the effort to update the City's Transportation Master Plan. 10 display boards were arranged around the room, providing information about the City's current transportation system and forecasted needs. The proposed Plan Goals were listed on an interactive board, and participants were encouraged to place a sticky dot next to the two goals they felt were most important.



Public Open House #2 – Summer 2025

On August 28th 2025, from 4-7pm, the City of Post Falls held a public open house to present information on the effort to update the City's Transportation Master Plan. 22 display boards were arranged around the room, providing additional information about the project, including proposed project maps, Build and no-Build scenario future maps, as well as informational boards that shared different types of speed mitigations. An online "Virtual Open House" was hosted in tandem with this event to provide the opportunity for community members to view the same information on the project website and to provide their feedback online.



Post Falls Days – Summer 2025

On July 12 and 13, 2025, The Langdon Group hosted a booth at the popular and well-attended Post Falls Days community event to present the project to the public. The booth included a display board providing overview information about the planning process and project goals, and system maps for collecting location specific feedback. A marble-voting activity was provided to collect feedback on community transportation priorities. The Langdon group engaged members of the public in conversation, and passed out project fliers, advertising the importance of community feedback in the planning process. Over 300 members of the public visited the booth over the course of the event.

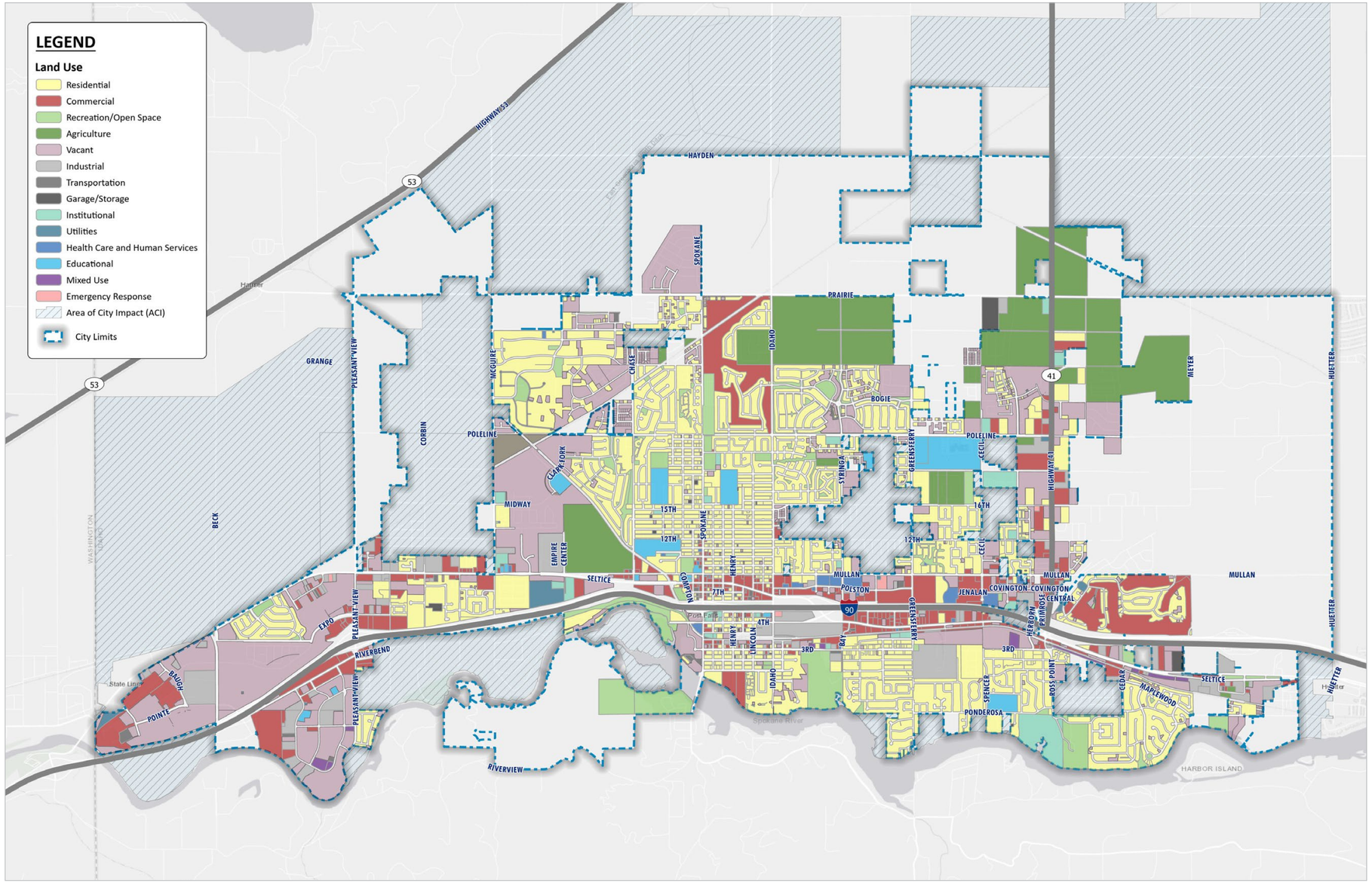
TECHNICAL ADVISORY GROUP FACILITATION

A team of ten key technical experts were asked to join the project team as a Technical Advisory Group (TAG) for three facilitated meetings to help guide the development of the Transportation Master Plan. TAG members were selected based on their expertise and representation of key community groups. The role of the advisory group was to review project progress and provide feedback on refinement of the Plan elements. The group met in May 2023, April 2025, and October 2025. The TAG played a key role in providing feedback to the project team at multiple points within the planning process. At each of these meetings, the project team first presented information, followed by group discussion. This consultative process resulted in bringing key and relevant community voices together, producing rich dialogue and meaningful community insight, while identifying opportunities and challenges for the project.

EXISTING CONDITIONS

- Existing Land Use
- Future Land Use
- Existing Transportation Network
- Existing Transit Network
- Existing Bicycle Network
- Existing Pedestrian Network
- Sidewalk Gaps
- Freight Routes

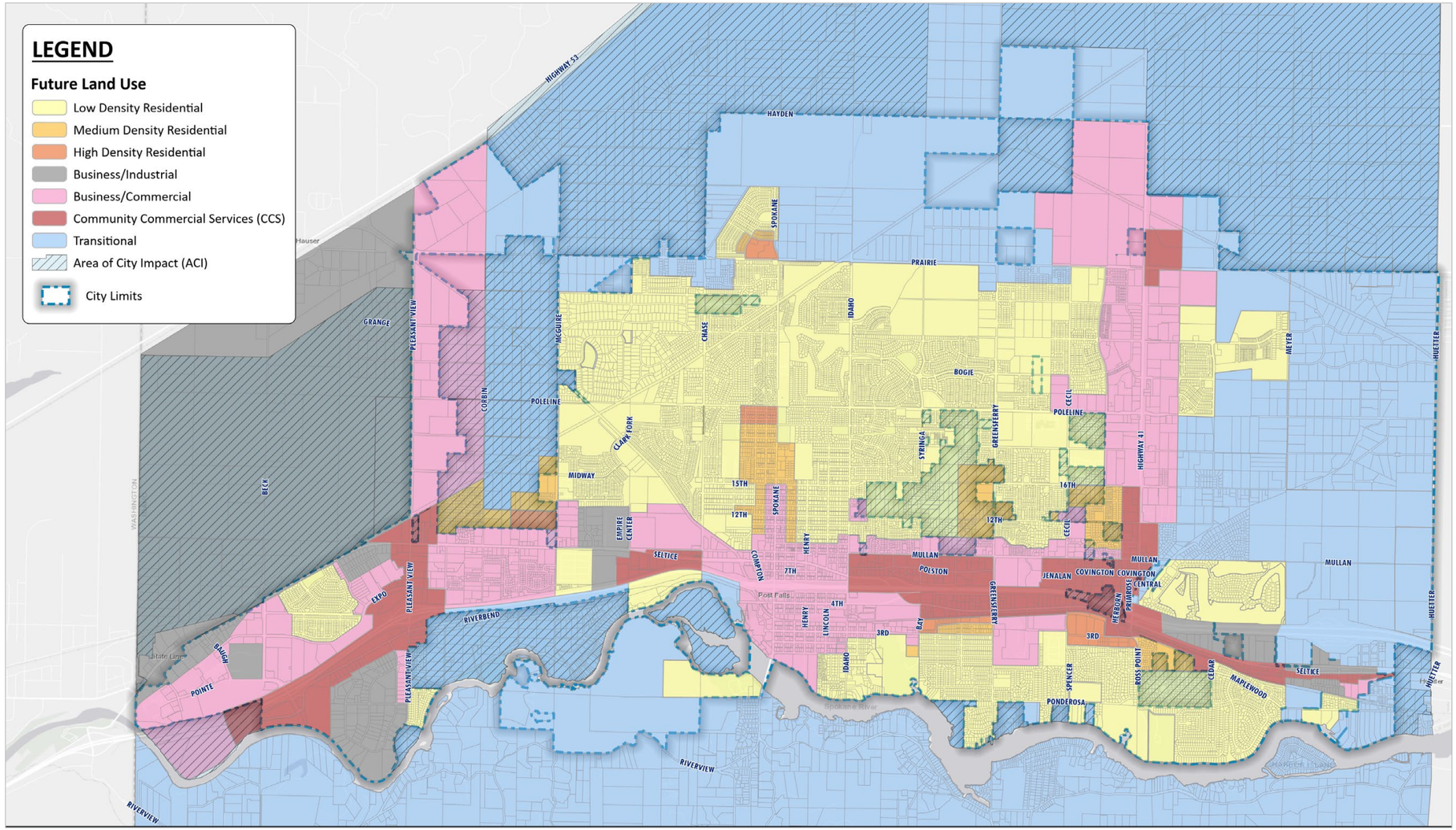
EXISTING LAND USE



Post Falls exhibits a mix of land uses, with residential development accounting for the largest share of the city at approximately 34 percent of total land area. Agricultural lands (14 percent) and commercial uses (12 percent) are the only other land use categories representing more than ten percent of the city. The city continues to strengthen its employment base, with growing job centers along the SH-41 corridor, Riverbend Commerce Park, and through downtown revitalization and infill.

Land use patterns directly influence how people and goods move throughout the city. Residential areas generate daily commuting, school, and local service trips, while commercial and employment centers attract higher traffic volumes and require reliable access for customers, employees, and freight. Agricultural and industrial areas place additional demands on the transportation system, including heavy vehicle movements and seasonal activity. Understanding the distribution and intensity of land uses provides the foundation for identifying transportation needs and informing the roadway, freight, and multimodal improvements evaluated later in this plan.

FUTURE LAND USE

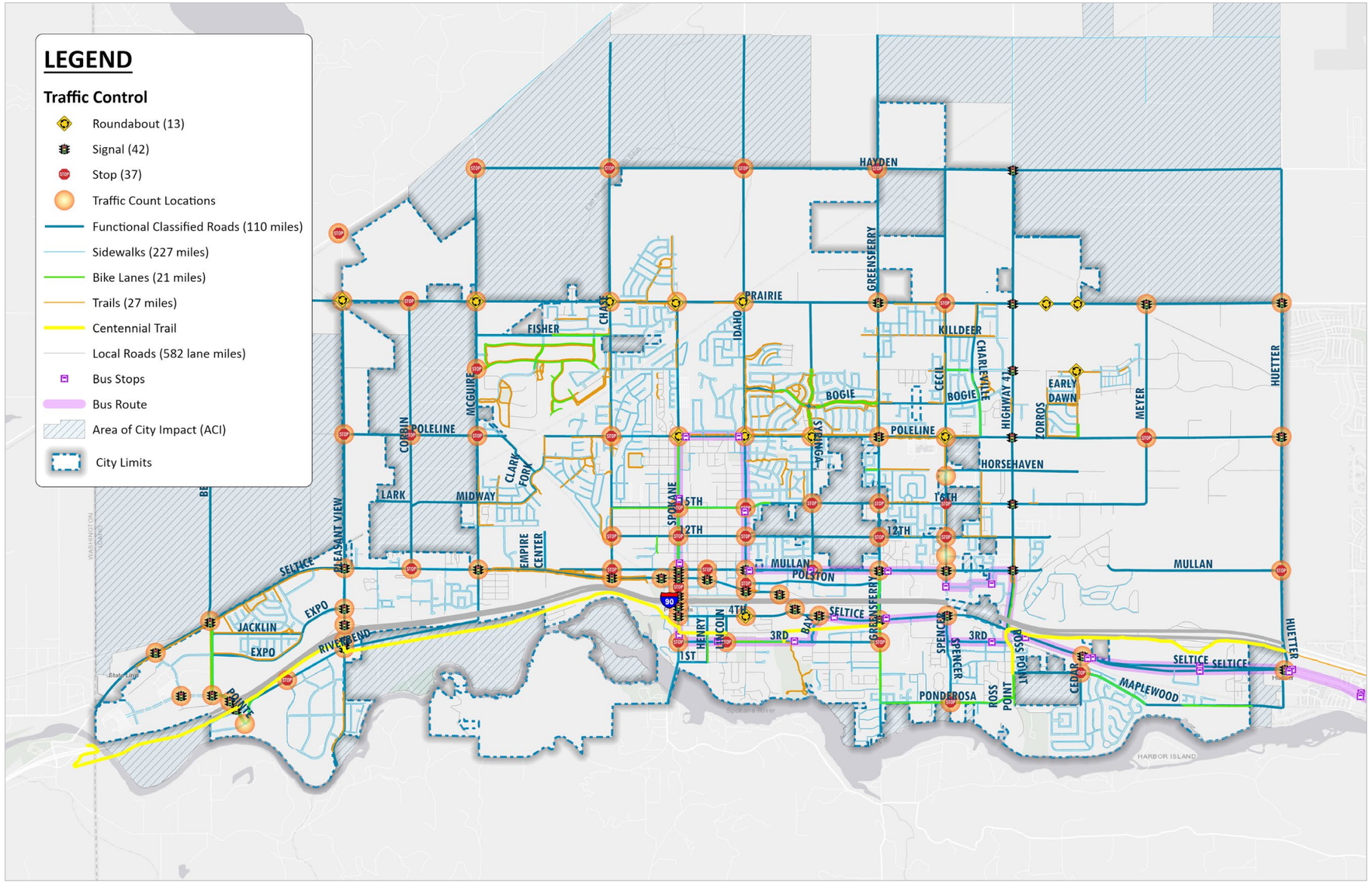


This Future Land Use framework was used as the basis for forecasting travel demand and identifying transportation improvements throughout the Transportation Master Plan. Planned growth areas, employment centers, and major activity corridors were evaluated to understand how future development will influence travel patterns, traffic volumes, freight movement, and multimodal needs. The roadway, intersection, and multimodal improvements identified in this plan are intended to help the transportation system accommodate the development patterns envisioned in the Future Land Use map while maintaining safe and efficient mobility throughout the city.

The Future Land Use map identifies how Post Falls is expected to grow over the planning horizon and provides the foundation for the transportation planning analysis completed for this plan. Residential development will continue to represent the largest share of land use, particularly in areas north and east of the current urban core. Medium and higher density residential areas are generally located closer to commercial corridors and activity centers to support more compact development and improved access to jobs, services, and daily destinations.

Commercial and mixed-use areas are concentrated along major transportation corridors such as Seltice Way, SH-41, and Spokane Street, reinforcing these routes as the city's primary travel and economic activity corridors. Business and industrial uses remain focused near the river, rail corridor, and key freight routes, supporting regional employment and goods movement.

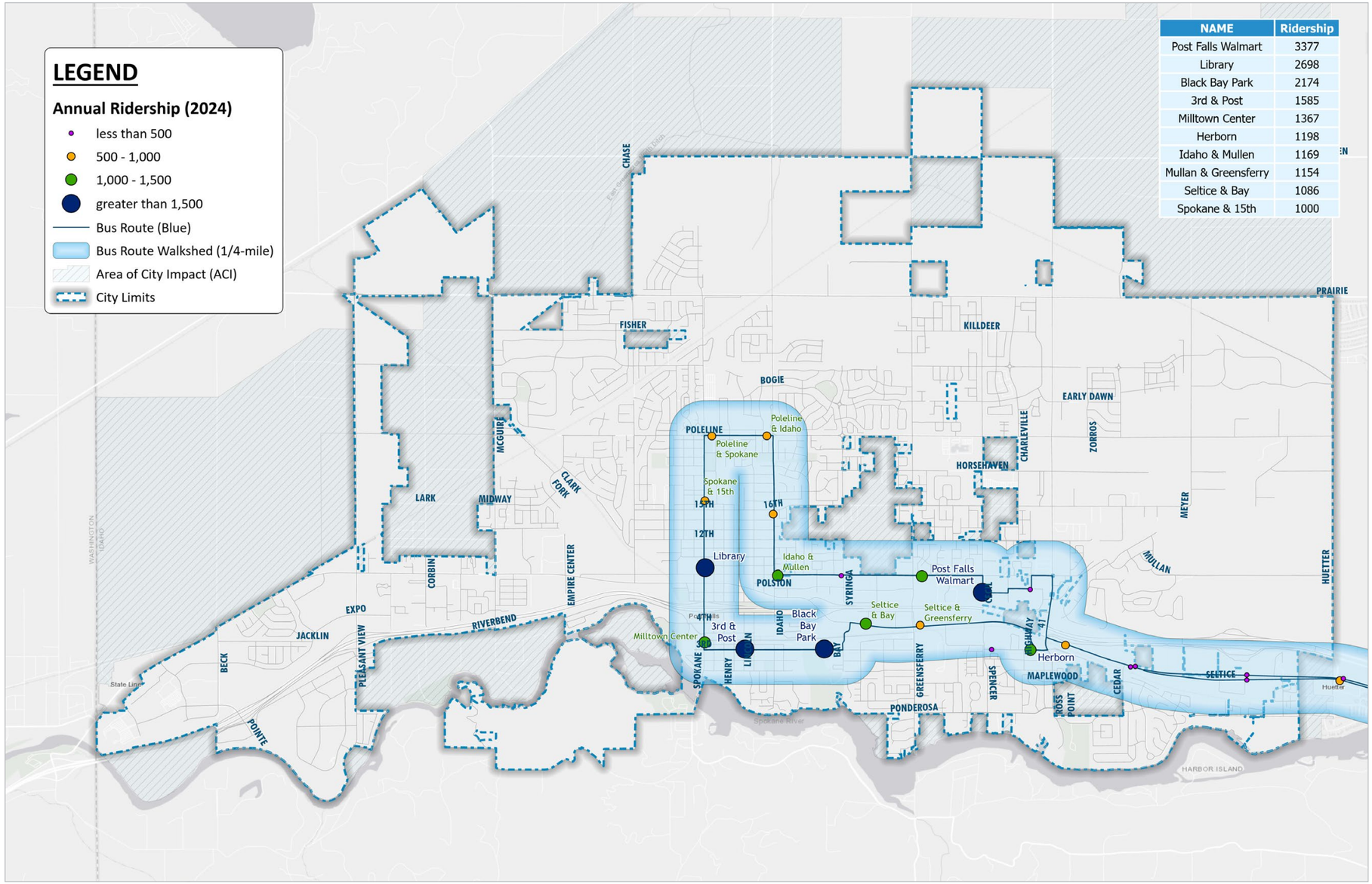
EXISTING TRANSPORTATION NETWORK



Post Falls' transportation system includes a combination of major streets, neighborhood roads, and critical locations that support daily travel for residents, businesses, freight, and visitors. Throughout this document, the most important locations for moving people and goods are referred to as key intersections and key corridors. These locations form the backbone of the city's transportation network and play a central role in overall system performance.

To understand how well the system is operating today, the City focused its traffic analysis on these key intersections and corridors. Turning movement counts were collected at approximately 80 major intersections across Post Falls, selected based on their importance to traffic flow, access to activity centers, and connection to the broader street network. Rather than studying every intersection, this targeted approach provides a reliable, citywide understanding of existing conditions and helps identify where improvements may be most beneficial, while making efficient use of available resources.

EXISTING TRANSIT NETWORK

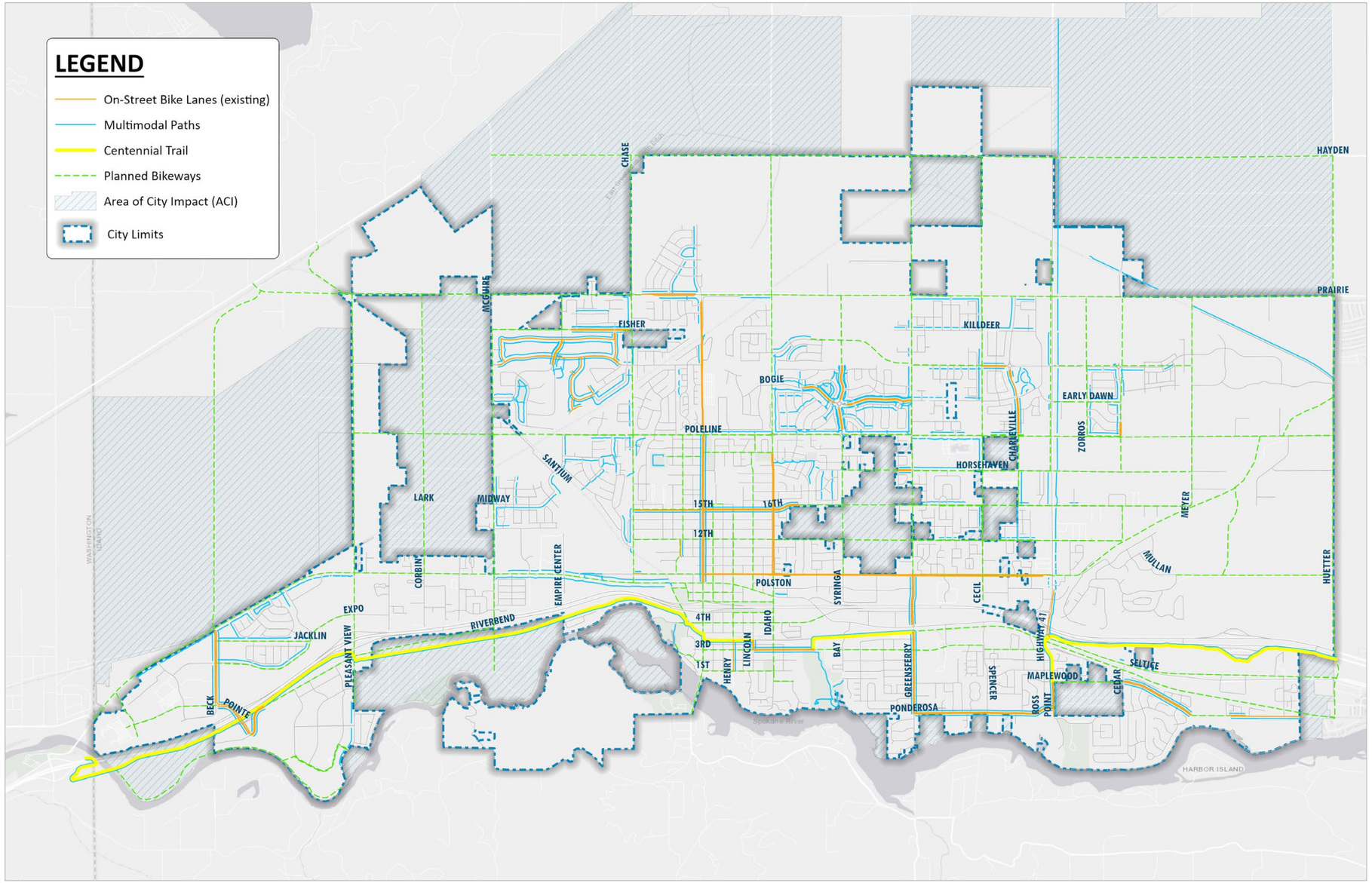


Citylink's transit routes align with the multimodal heat map to identify high potential use areas.

STOP LOCATIONS	2024 RIDERSHIP
Post Falls Walmart	3377
Library	2698
Black Bay Park	2174
3rd & Post	1585
Milltown Center	1367
Heborn	1198
Idaho & Mullen	1169
Mullan & Greensferry	1154
Seltice & Bay	1086
Spokane & 15th	1000

Though the improvements suggested in this transportation plan don't include recommendations for Citylink, the multimodal and vehicular improvements strive to complement regional transit services.

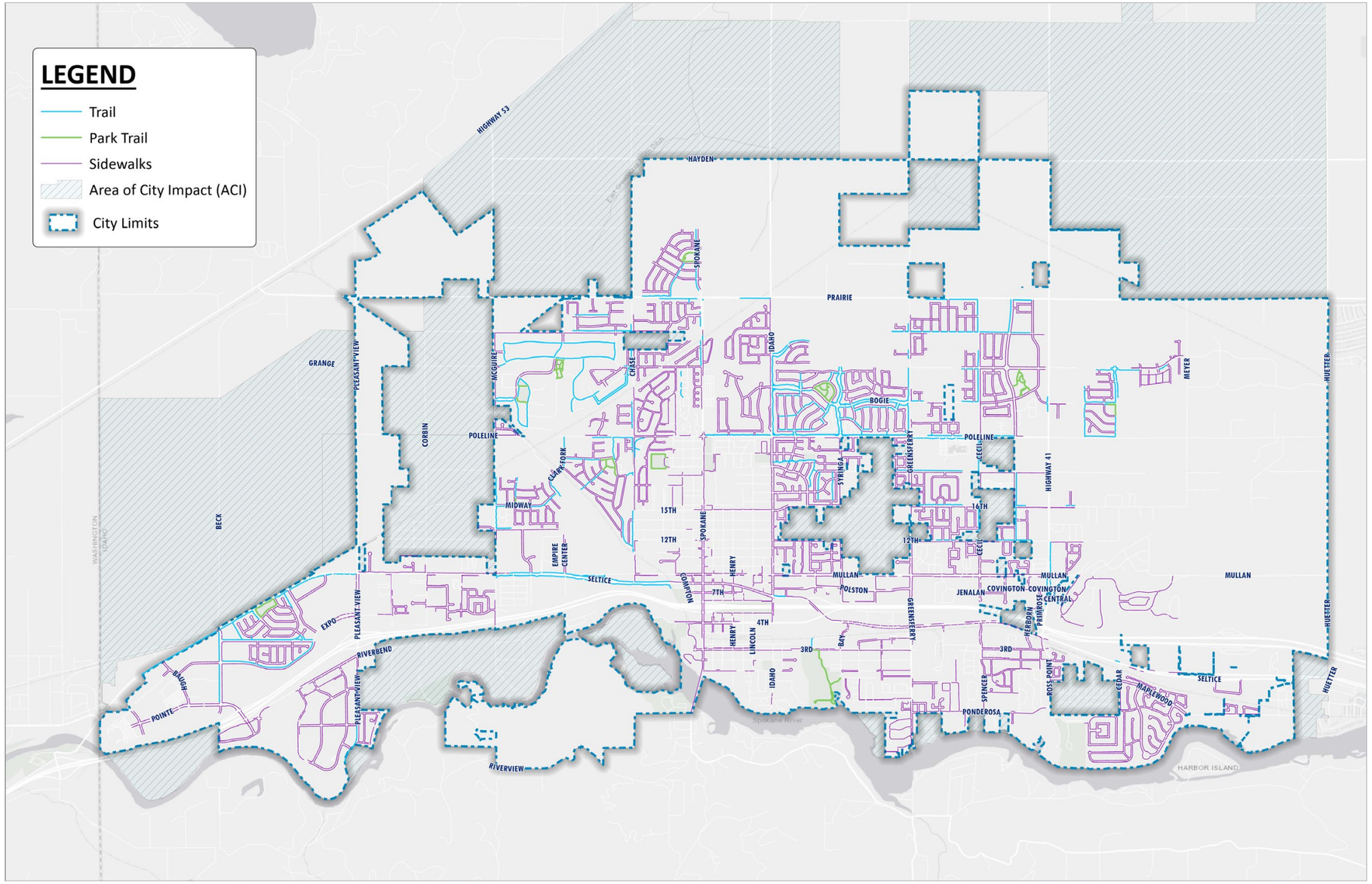
EXISTING & PLANNED BICYCLE NETWORK



Post Falls' bicycle network includes on-street bike lanes, shared-use paths, and regional trail connections that support both daily travel and recreation. The map shows existing and planned facilities that improve connectivity between neighborhoods, schools, parks, employment centers, and commercial areas. Regional corridors such as the North Idaho Centennial Trail provide important east-west and north-south links, while local routes help complete the citywide network.

This plan prioritizes safer, lower-stress bicycle connections that improve comfort and accessibility for users of all ages and abilities. Planned improvements focus on closing gaps, improving crossings at major barriers, and enhancing connections to key destinations. Additional detail on multimodal priorities, project locations, and implementation strategies is provided in the Multimodal Planning section near the end of this document.

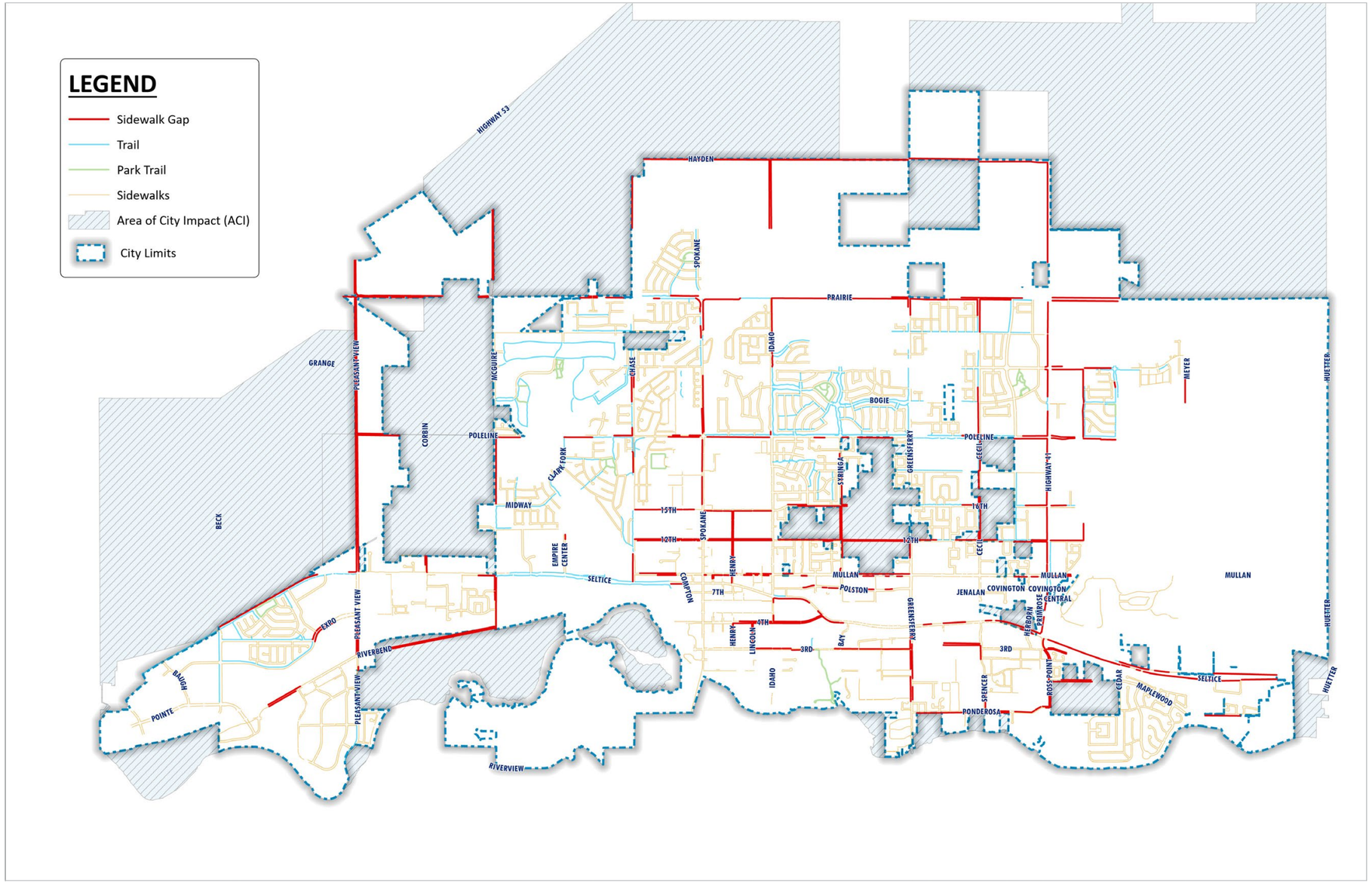
EXISTING PEDESTRIAN NETWORK



Post Falls' pedestrian network includes sidewalks, shared-use paths, and trail connections that support everyday walking trips and recreational use. This map illustrates where pedestrian facilities currently exist and how they connect neighborhoods to schools, parks, transit stops, and commercial areas. While many parts of the city are served by sidewalks and pathways, coverage and continuity vary, particularly along collector and arterial roadways.

Understanding the extent and connectivity of the existing pedestrian network provides the foundation for identifying where improvements are most needed. The following Sidewalk Gaps map builds on this information by highlighting locations where missing or incomplete sidewalks create barriers to safe and comfortable walking. Together, these maps help guide future pedestrian investments, which are further discussed in the Multimodal Planning section at the end of this document.

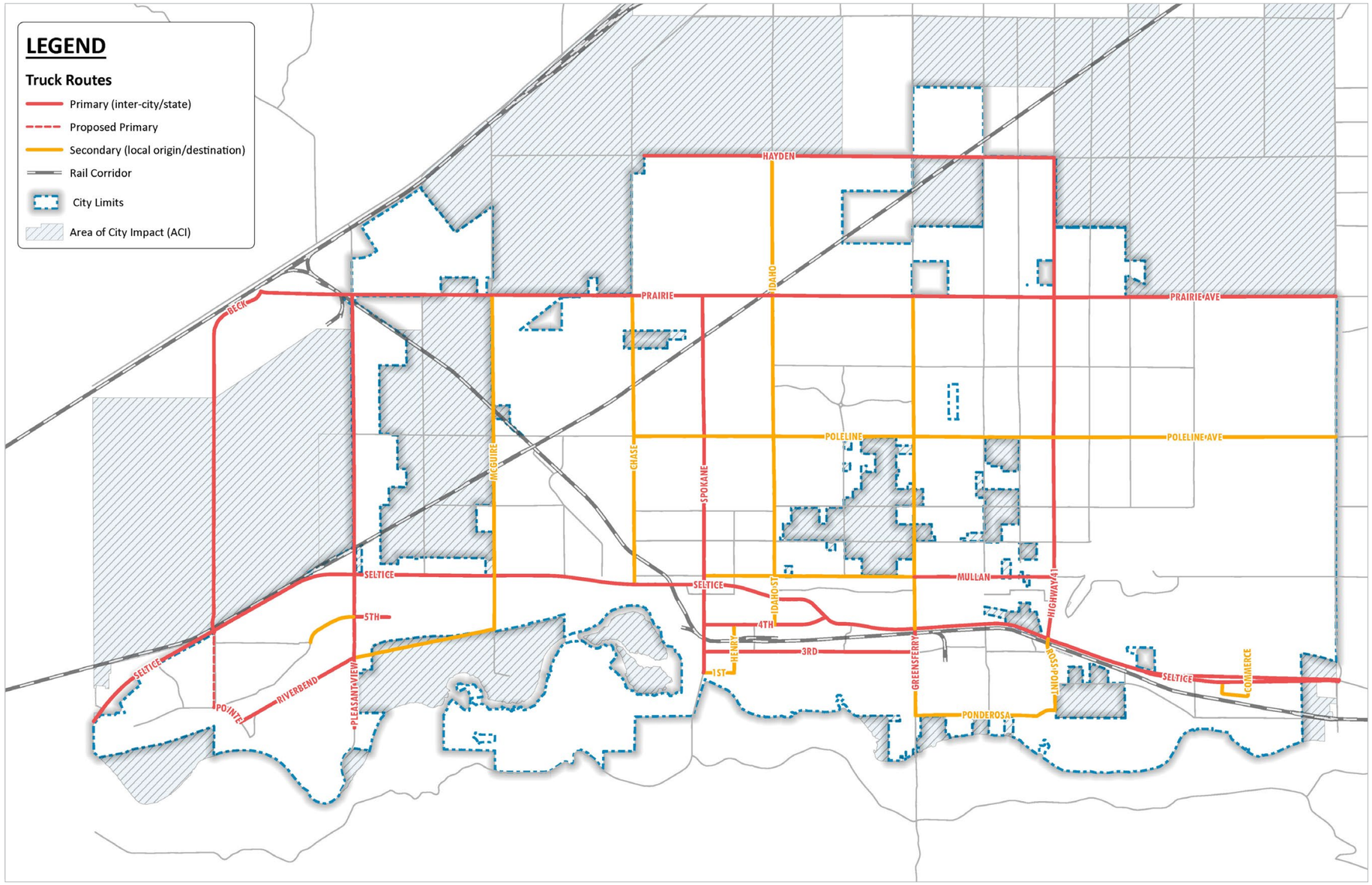
SIDEWALK GAPS



Sidewalk gaps are locations where pedestrian facilities are missing, incomplete, or discontinuous along streets that serve daily walking needs. This map highlights gaps along the City's more major roadways, including collector and arterial routes, where pedestrian travel is more likely to occur and where higher traffic volumes can create barriers between neighborhoods and key destinations such as schools, parks, commercial areas, and community services. Local access and residential streets are not comprehensively represented on this map, meaning additional neighborhood-level gaps may exist that are not depicted here.

Addressing sidewalk gaps is a consistent objective throughout this Transportation Master Plan. Each proposed vehicular-related capital improvement project endeavors to complete relevant missing sections of sidewalk where feasible, improving pedestrian safety and network continuity as roadway investments are made. In addition, the standalone multimodal improvement projects are intended to close remaining gaps and strengthen connections beyond roadway corridors. Together, these approaches support a more complete pedestrian network and are further detailed in the CIP and Multimodal Planning sections near the end of this document.

FREIGHT ROUTES

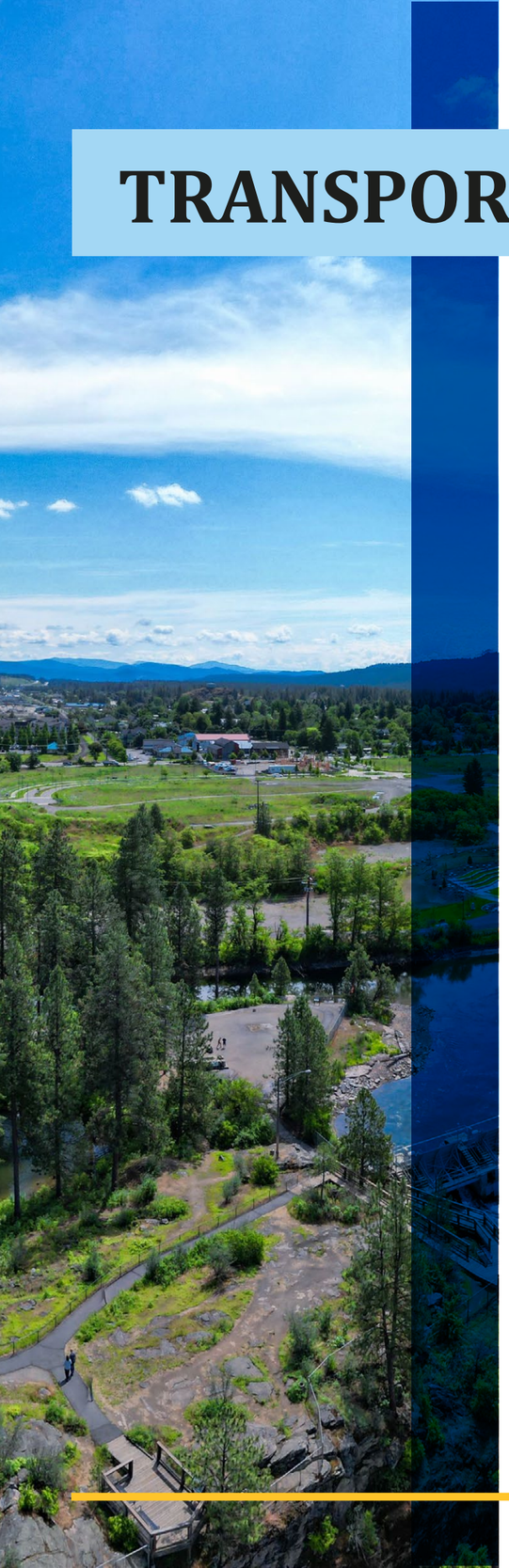


Post Falls' freight routes support the movement of goods between industrial areas, commercial centers, and regional markets. This map highlights the primary corridors used by trucks, including connections to I-90, SH-41, rail facilities, and major employment areas. These routes are essential to the local economy and play a critical role in supporting industry, construction, and everyday goods movement throughout the city.

Freight mobility was a primary consideration in the development of vehicular-related capital improvement projects identified in this Transportation Master Plan. Recognizing and preserving the function of key freight corridors helps guide roadway investments that improve safety, reliability, and operational efficiency for trucks. At the same time, understanding where freight activity is concentrated allows multimodal improvements to be planned along lower-stress corridors where pressure form heavy vehicles can be minimized. Together, these strategies support efficient freight movement while improving safety and comfort for pedestrians and bicyclists, as further discussed in the vehicular and multimodal sections later in this document.

TRANSPORTATION EVALUATIONS

- Transportation Performance
- 2025 PM Peak LOS (Current Conditions)
- 2030 PM Peak LOS (Without Improvements)
- 2035 PM Peak LOS (Without Improvements)
- 2045 PM Peak LOS (Without Improvements)
- Multi-Modal Potential
- Travel Demand Modeling and Traffic Analysis Zones (TAZs)
- Crash Severity

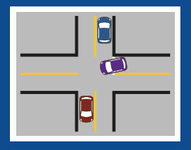
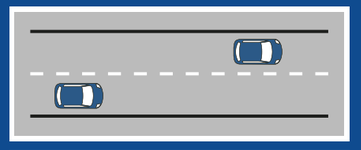
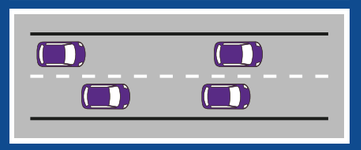
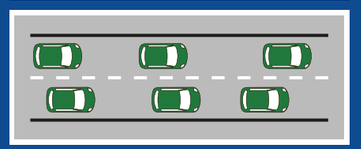
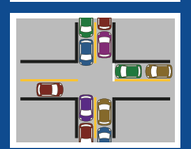
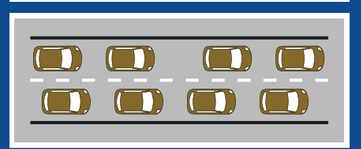
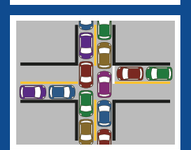
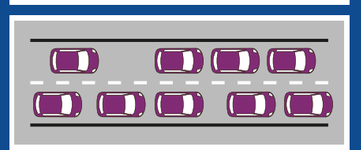
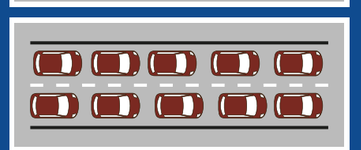


TRANSPORTATION PERFORMANCE

WHAT IS LEVEL OF SERVICE (LOS)?

Level of Service is a quantitative measure of traffic operational conditions. Ranges of operation are defined for each type of roadway section (signalized intersections, freeways, ramp junctions and weaving sections) and are related to the amount of traffic demand at a given time as compared to the capacity of that type of roadway section.

Six levels of service are defined for each type of roadway section and are given letter designations from A to F, with A representing good operating conditions and F representing unsatisfactory operating conditions.

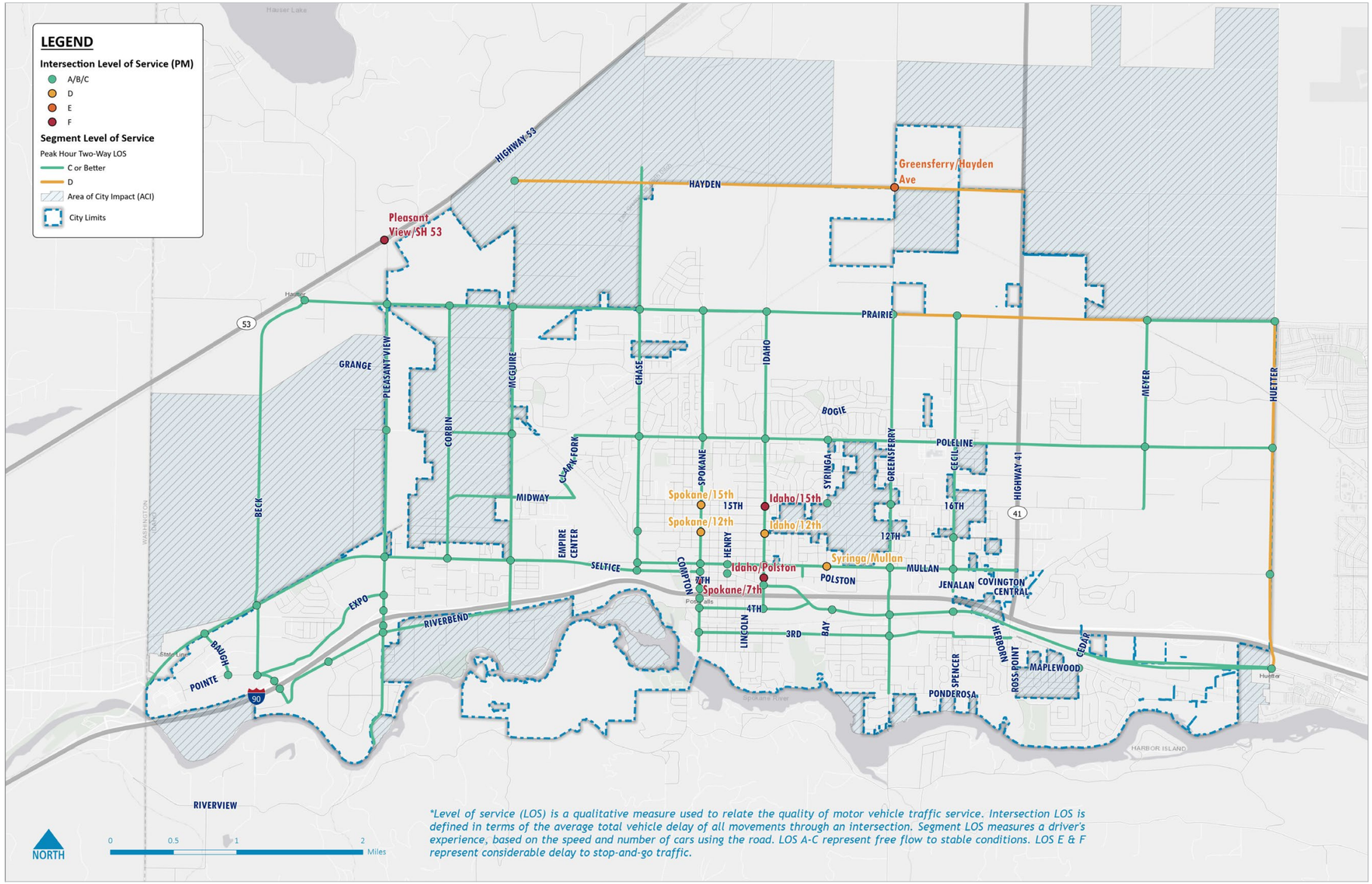
INTERSECTION			ROADWAY
• Highly stable, free-flow condition with little or no congestion • Delay: <10 seconds/vehicle		LOS A	 • Free flowing • Uninterrupted vehicle
• Stable, free-flow condition with little congestion • Delay: 10 to 20 seconds/vehicle		LOS B	 • Stable flow • Other vehicles are more noticeable
• Free-flow condition with moderate congestion • Delay: 20 to 35 seconds/vehicle		LOS C	 • Stable flow • Vehicle operations affected by other vehicles
• Approaching unstable condition with increasing congestion • Delay: 35 to 55 seconds/vehicle		LOS D	 • High density free flow • Operation of vehicle is affected by other vehicles
• Unstable, congested condition • Delay: 55 to 80 seconds/vehicle		LOS E	 • High density traffic flow, nearing capacity • Operating conditions are extremely poor
• Stop and go • Delay: >80 seconds/vehicle		LOS F	 • Forced or breakdown flow • Amount of traffic exceeds capacity

POST FALLS MITIGATES:

← Signalized Intersections

← Corridors and Unsignalized Intersections

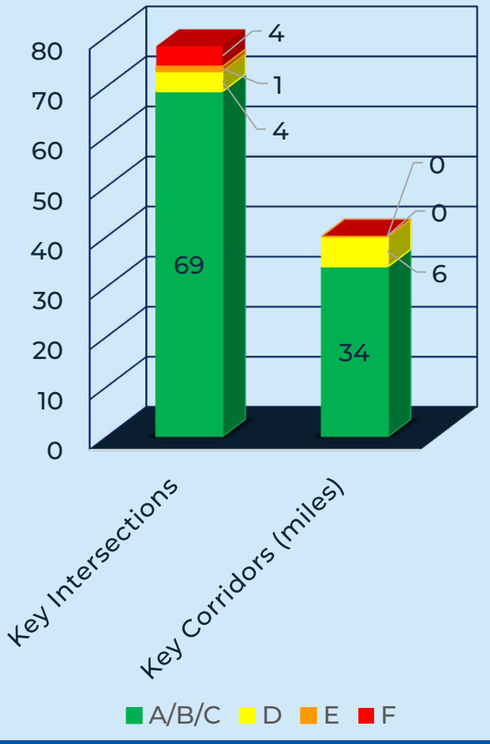
2025 PM PEAK LOS (CURRENT CONDITIONS)



Level of service (LOS) is a qualitative measure used to relate the quality of motor vehicle traffic service. Intersection LOS is defined in terms of the average total vehicle delay of all movements through an intersection. Segment LOS measures a driver's experience, based on the speed and number of cars using the road. LOS A-C represent free flow to stable conditions. LOS E & F represent considerable delay to stop-and-go traffic.

The results depicted on the 2025 PM Peak LOS map, the city's roadway system is generally operating within the City's adopted performance standards. Most roadway segments and intersections operate at LOS A-C during the PM peak period, indicating stable traffic flow and relatively low delay, with only a few locations experiencing LOS D-F along key corridors and signalized intersections. These results show the transportation network is performing well and reflects how the City's past roadway investments have supported mobility as growth has occurred. This plan builds on that success by identifying improvements intended to maintain reliable system performance as the city continues to grow.

PERFORMANCE
(LOS/Delay)

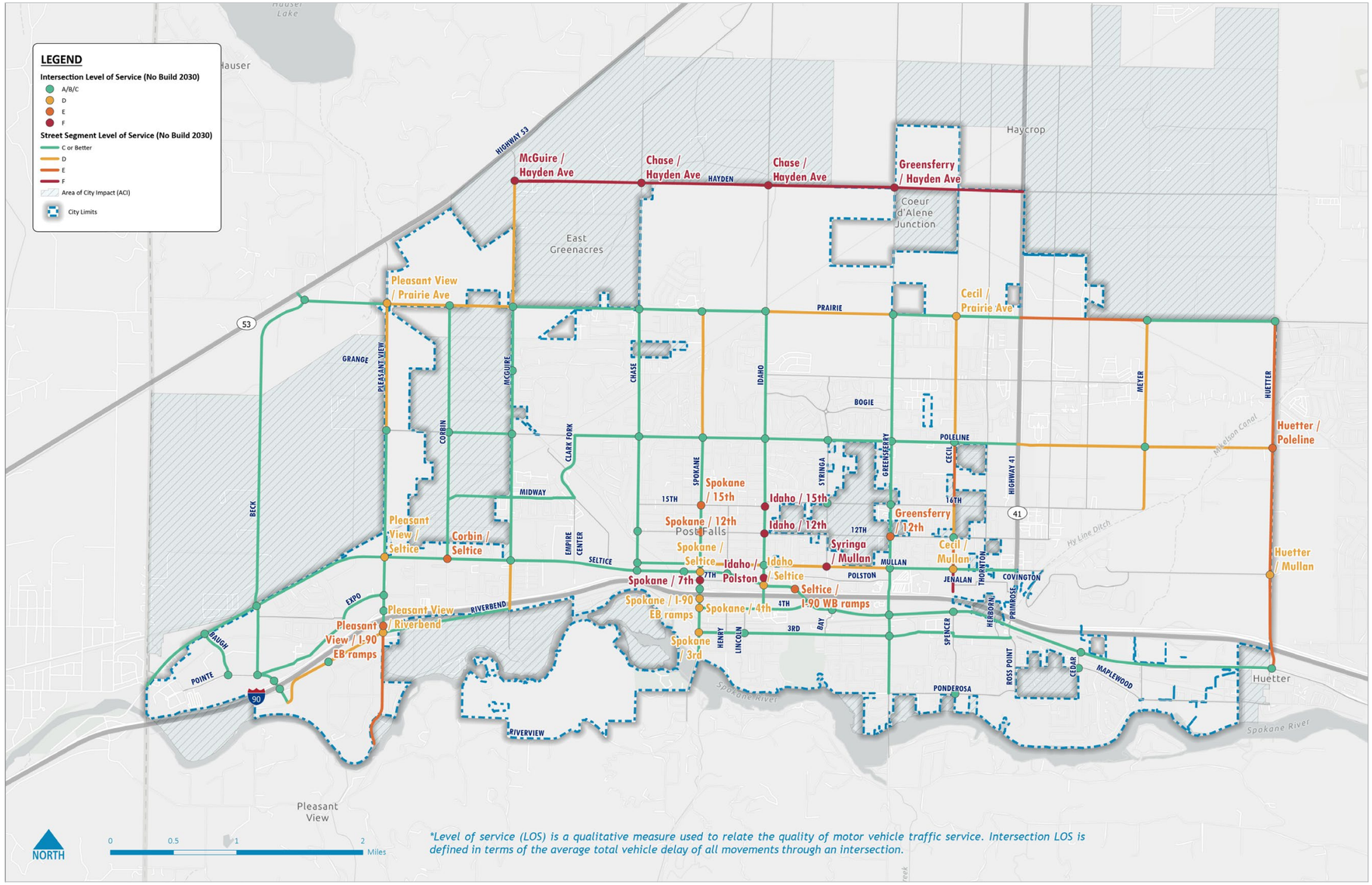


Today's PM Peak Hour (~5–6 PM)

Among key study-area intersections (signal & stop):

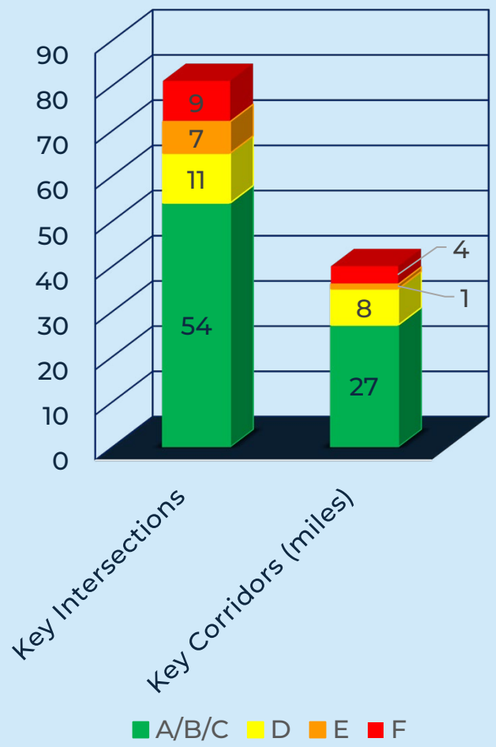
- 319 Hours of Delay
- 1,621 Gallons of Gas
- 44,550 Stops

2030 PM PEAK LOS (WITHOUT IMPROVEMENTS)



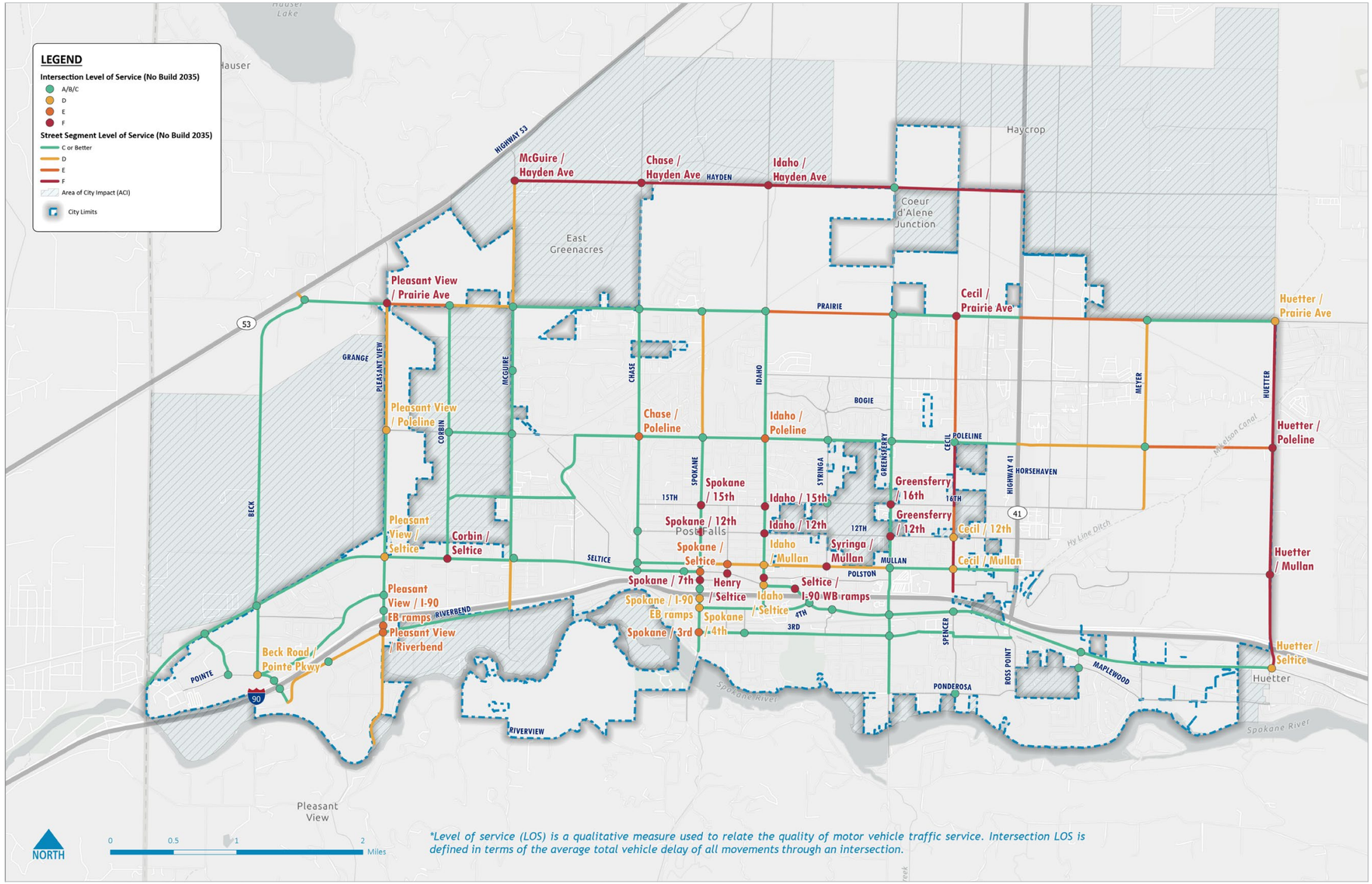
*Level of service (LOS) is a qualitative measure used to relate the quality of motor vehicle traffic service. Intersection LOS is defined in terms of the average total vehicle delay of all movements through an intersection.

PERFORMANCE
(LOS/Delay)



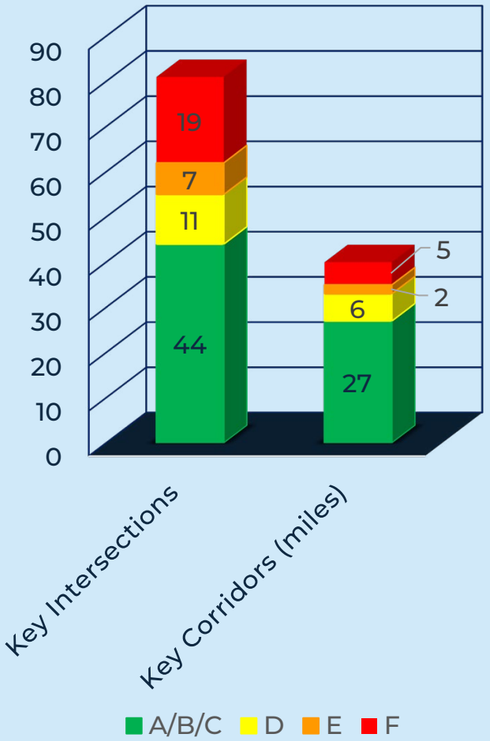
Compared to existing conditions (previous page) 5 years of growth across the transportation system realizes significant increases in congestion and delay by 2030. The map shows significantly more yellow and red, indicating reduced levels of service in various locations, also reflected in the key intersections and corridors chart shown above. Doing nothing would result in significant system-wide congestion with tangible community impacts.

2035 PM PEAK LOS (WITHOUT IMPROVEMENTS)



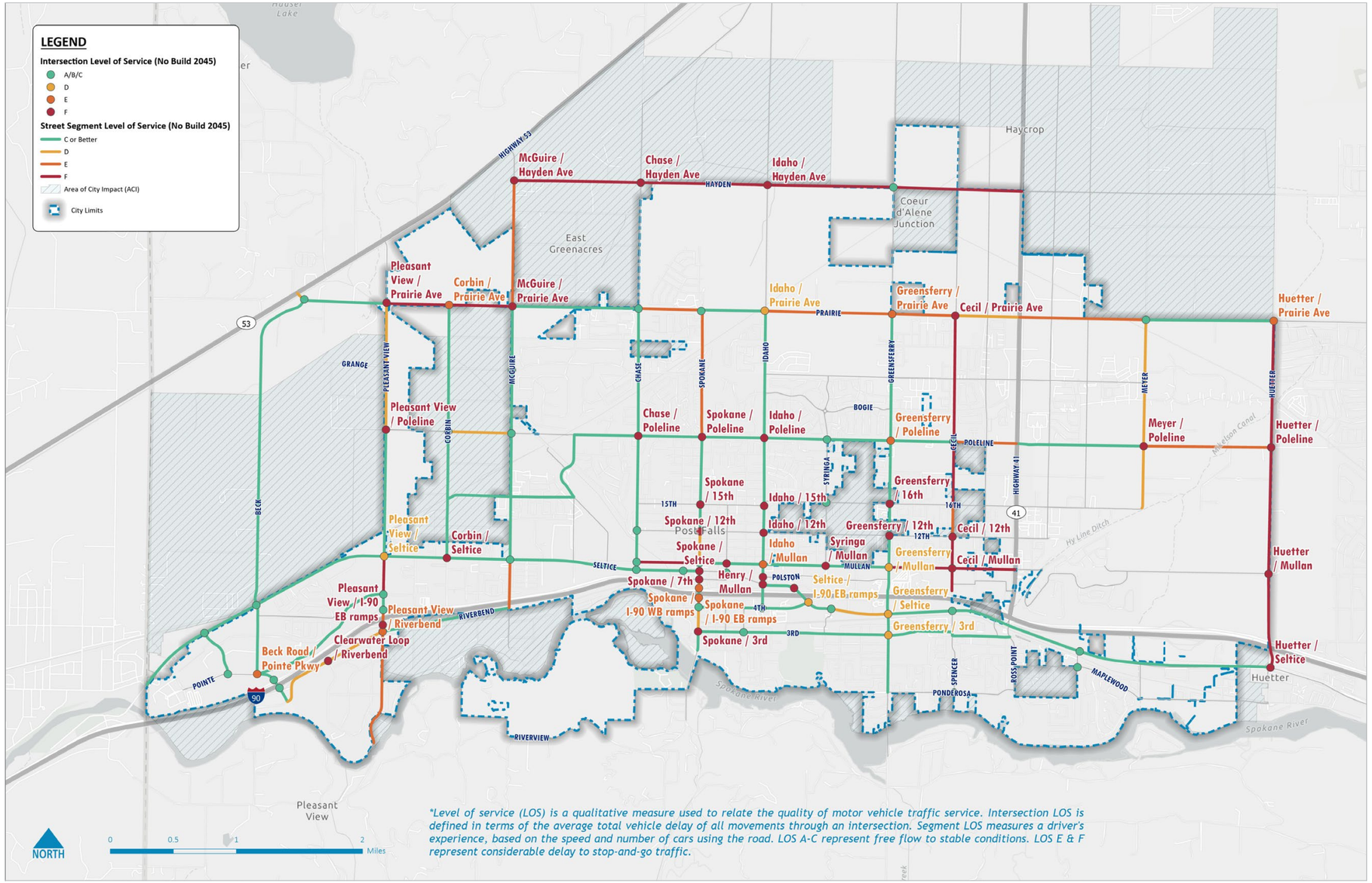
*Level of service (LOS) is a qualitative measure used to relate the quality of motor vehicle traffic service. Intersection LOS is defined in terms of the average total vehicle delay of all movements through an intersection.

PERFORMANCE
(LOS/Delay)



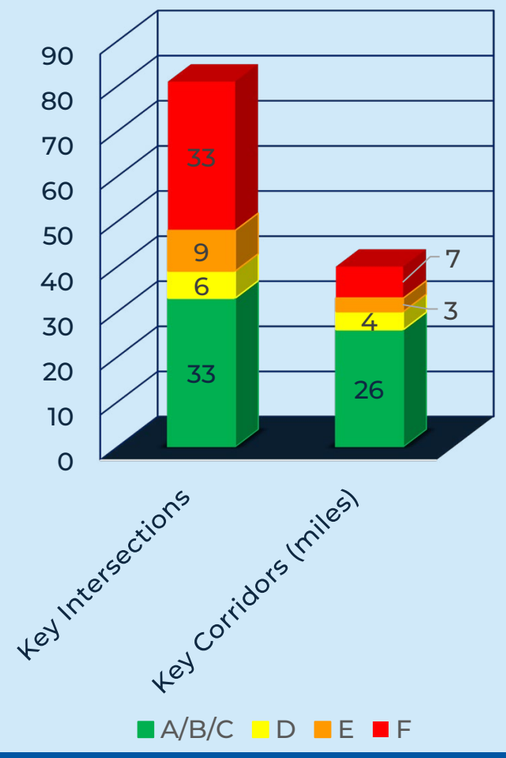
Allowing traffic to grow beyond existing conditions to 2035 (without mitigation) shows further degradation of travel conditions. The map indicates worsening delay and congestion (depicted in yellow and red) in most locations also depicted on the key intersections and corridors chart shown above. Ten years of inactivity in response to growing congestion with accompanying delay suggest that significant improvements will be necessary to mitigate the substantial needs.

2045 PM PEAK LOS (WITHOUT IMPROVEMENTS)



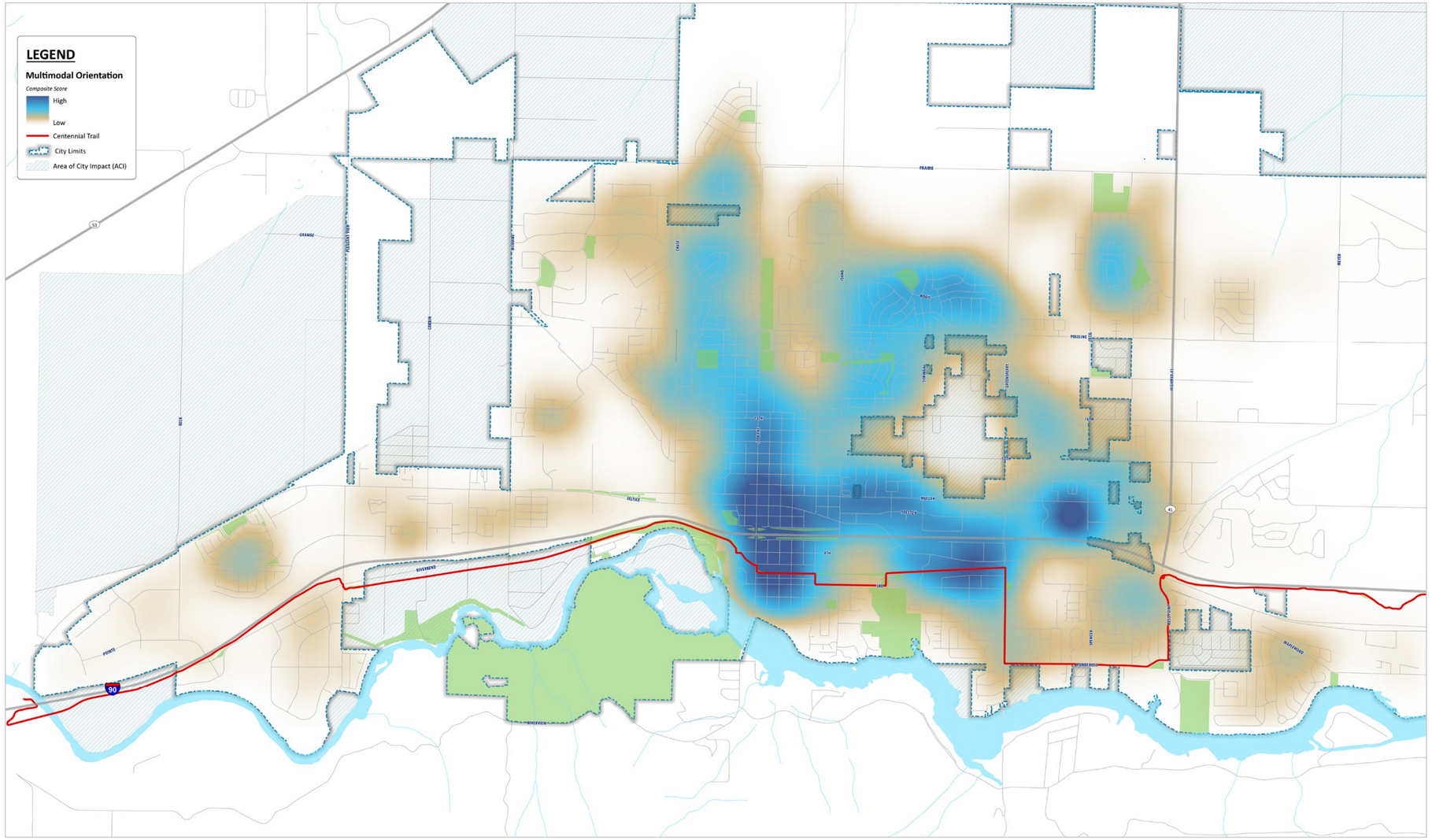
Level of service (LOS) is a qualitative measure used to relate the quality of motor vehicle traffic service. Intersection LOS is defined in terms of the average total vehicle delay of all movements through an intersection. Segment LOS measures a driver's experience, based on the speed and number of cars using the road. LOS A-C represent free flow to stable conditions. LOS E & F represent considerable delay to stop-and-go traffic.

PERFORMANCE
(LOS/Delay)



Travel conditions estimated to 2045 continue the previous patterns of more failing intersections and overly congested corridors. Without mitigation, many areas of the city would be gridlocked during peak travel times. As can be seen above, well over half of the study intersections, and miles of key corridors, will be in desperate need of help. The depictions of future conditions plainly demonstrate the need for the city's continued investment in transportation improvements.

MULTI-MODAL POTENTIAL



NORTH IDAHO CENTENNIAL TRAIL FOUNDATION

The North Idaho Centennial Trail is 23 miles long, extending from the Idaho/Washington state line to Higgens Point, 6 miles east of Coeur d'Alene at the end of Coeur d'Alene Lake Drive. You can walk, jog, or bicycle on a Class I & II paved trail. At state line, it connects with the Spokane River Centennial Trail, which extends through Riverfront Park and on to Nine Mile Falls.

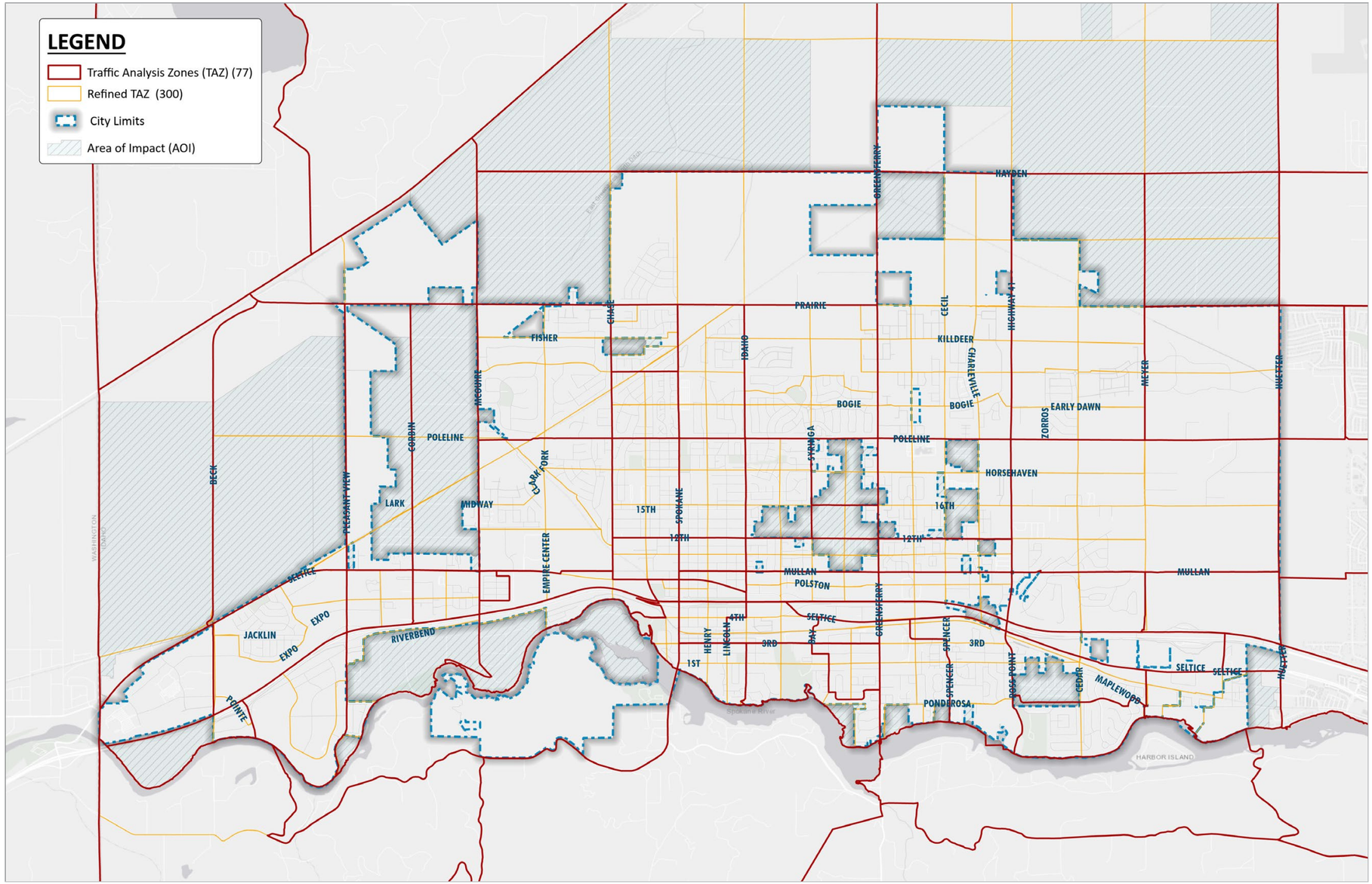
The Multi-Modal Potential heat map combines 7 characteristics of system favorability toward success in implementation of bicycle and pedestrian infrastructure:

- Walking, Biking & Transit
- Population/Jobs
- Walkable Block Sizes
- Public Interest
- Sidewalks & Bike Routes
- Low Vehicle Ownership
- Mix of Uses

The higher density, deeper blue areas, represent locations where multimodal investments have a high likelihood or potential of being most utilized. Multimodal capital improvement planning focuses on these areas first while also considering outlying regional connectivity. See Multimodal Project Locations map.

TRAVEL DEMAND MODELING AND TRAFFIC ANALYSIS ZONES (TAZS)

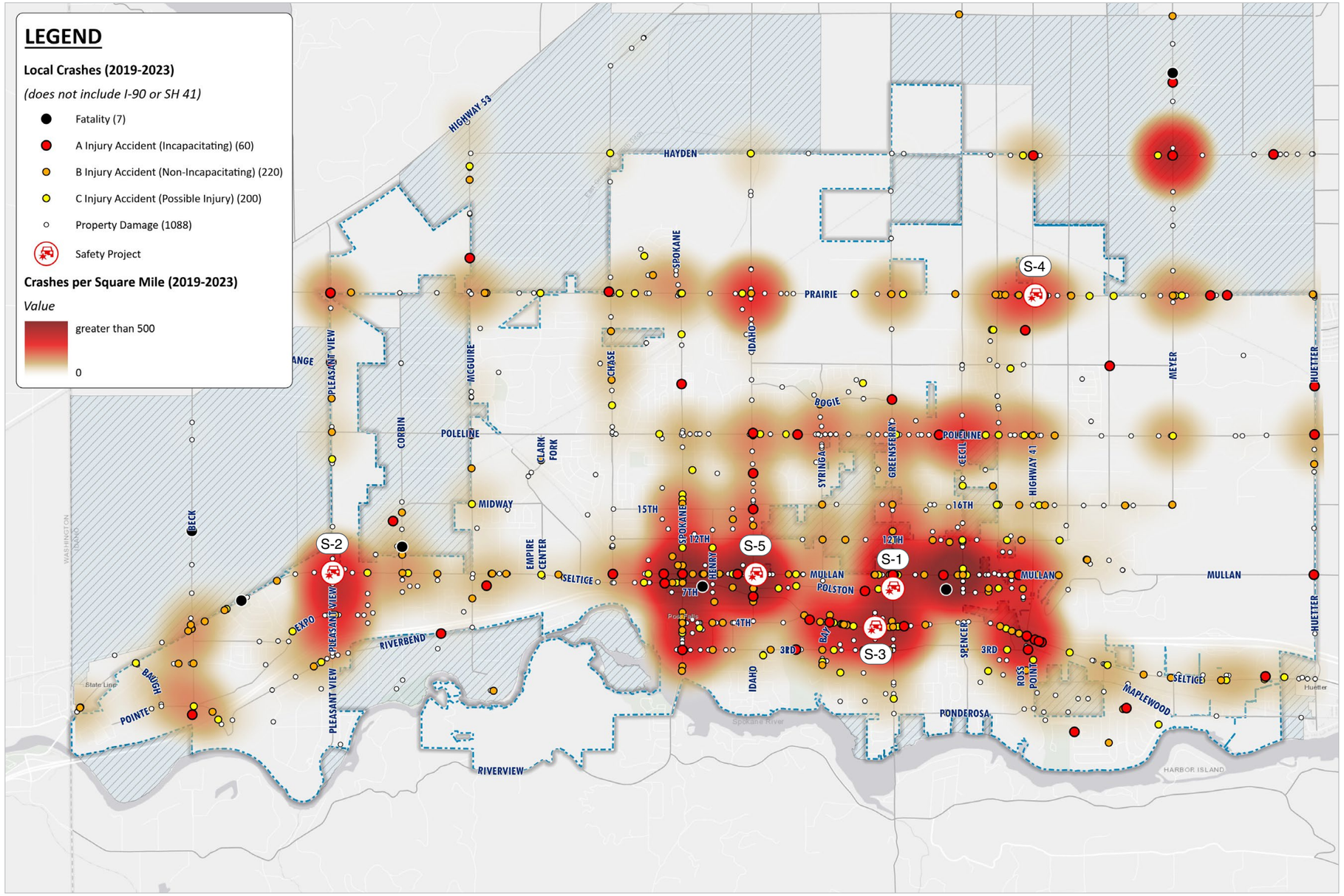
Transportation planning efforts utilized a travel demand model to estimate traffic growth in light of planned land use. The Kootenai Metropolitan Planning Organization (KMPO) model was used as a starting point with several alterations made to make the regional model helpful for local analysis.



Transportation planning for Post Falls is supported by the regional travel demand model developed and maintained by the Kootenai Metropolitan Planning Organization (KMPO). The KMPO model provides a reliable, regionally consistent foundation for understanding travel patterns, growth trends, and corridor performance across northern Kootenai County, and is widely used to support long-range transportation planning and decision-making.

For the Post Falls Transportation Master Plan, the KMPO model was applied to support more detailed, city-level planning while remaining consistent with regional assumptions. To better reflect local conditions, larger regional travel areas were subdivided into smaller areas within Post Falls. As shown on the TAZ map, this refinement allows for a more focused understanding of where population and employment growth are anticipated based on planned land uses. Evaluating travel demand at this more localized scale helps the City assess future transportation needs and align recommended investments with expected development patterns, while remaining coordinated with regional planning efforts.

CRASH SEVERITY



The Crash Severity heat map shows density of crashes across the city's street network. An analysis or crashes resulted in the following suggested mitigative safety actions:

S-1

Intersection: Polston & Greensferry
Issue: Sight Triangle Obstructions
Mitigation: Remove/trim trees in swale

S-2

Intersection: Seltice & Pleasant View Road
Issue: 8 accidents including turning movements/failure to obey signal
Mitigation: Remove permissive left turns in the peak hour

S-3

Intersection: Graffiti Street & Seltice Way
Issue: 2 type A accidents turning left onto Seltice
Mitigation: Turn restriction on Graffiti Street to eliminate left turns

S-4

Intersection: Prairie Avenue from Hwy-41 to Charleville Road
Issue: Rear ends and other accidents, 12 total involved with merging from 2 to 1 lane westbound
Mitigation: Prairie widening West of Hwy-41

S-5

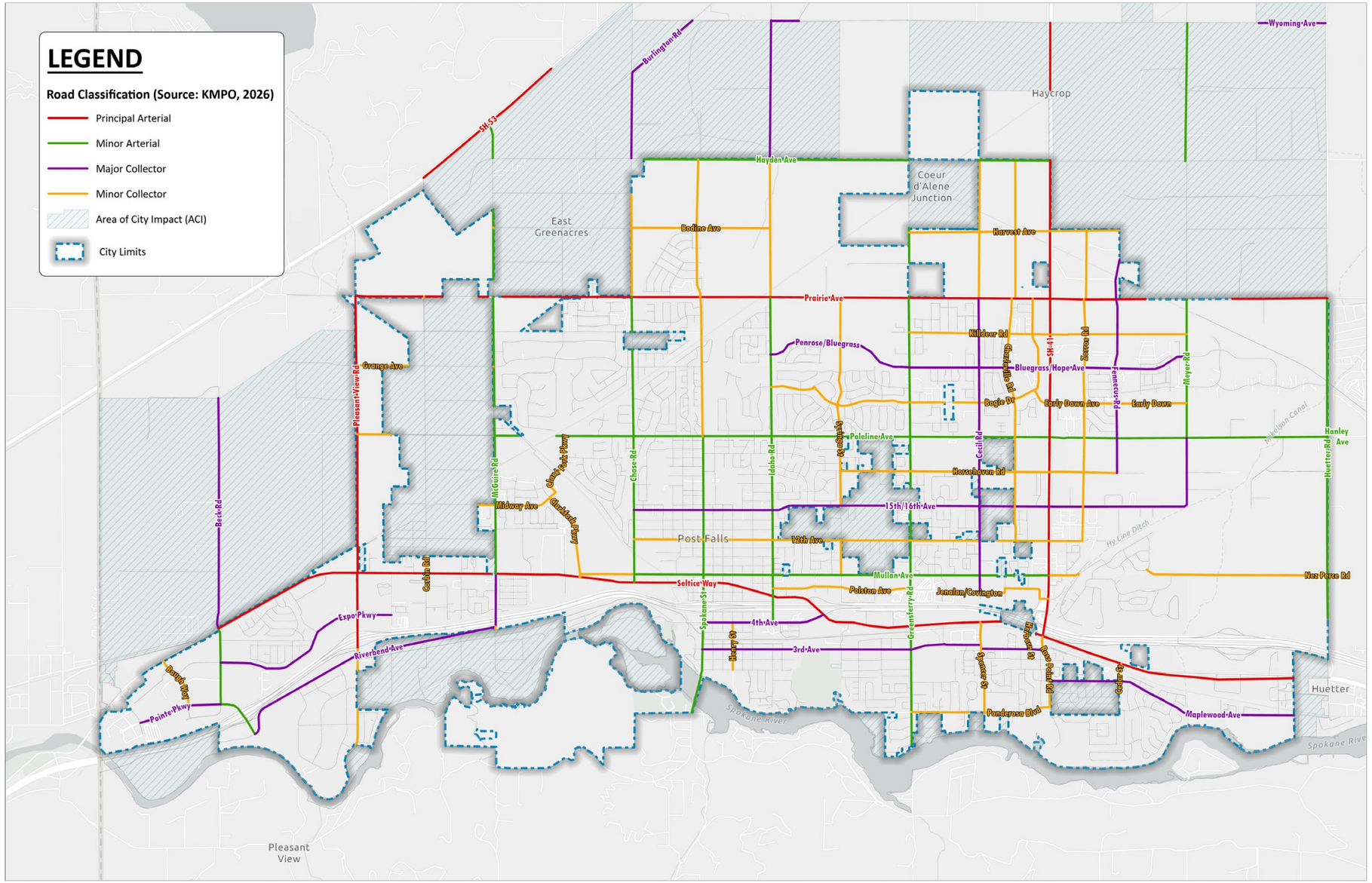
Intersection: Idaho/Super 1 Foods
Issue: 6 accidents turning left into/out of parking lot
Mitigation: Turn restriction to eliminate left turns from Idaho

Safety actions S-1 and S-2 can be addressed through maintenance. Actions S-3 and S-5 have been included as recommended Capital Improvements. Action S-4 is included in other recommended capital improvements.

TRANSPORTATION PLANNING

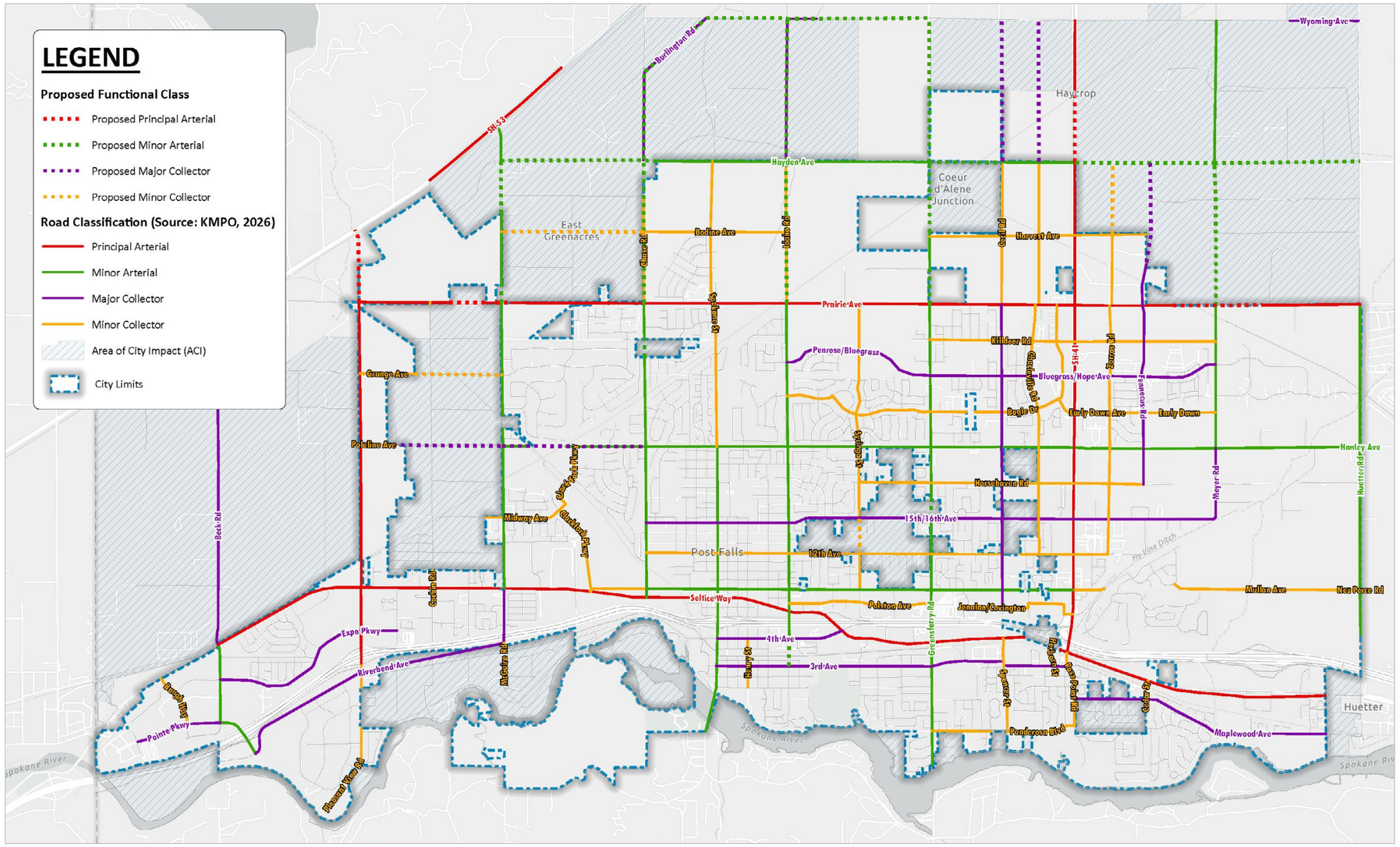
- 2026 KMPO Functional Classification
- Planned Functional Classification, Access, & Mobility
- Planning Approach
- Analysis-Recommended Capital Improvements: Comprehensive
- 2030 Short-Term Analysis-Recommended Capital Improvements
- 2030 Performance Results with Short-Term Projects Installed
- 2035 Mid-Term Analysis-Recommended Capital Improvements
- 2035 Performance Results with Mid-Term Projects Installed
- 2045 Long-Term Analysis-Recommended Capital Improvements
- 2045 Performance Results with Long-Term Projects Installed
- Short, Mid, Long Term Costs
- Multimodal Project Locations
- Mulitmodal Projects

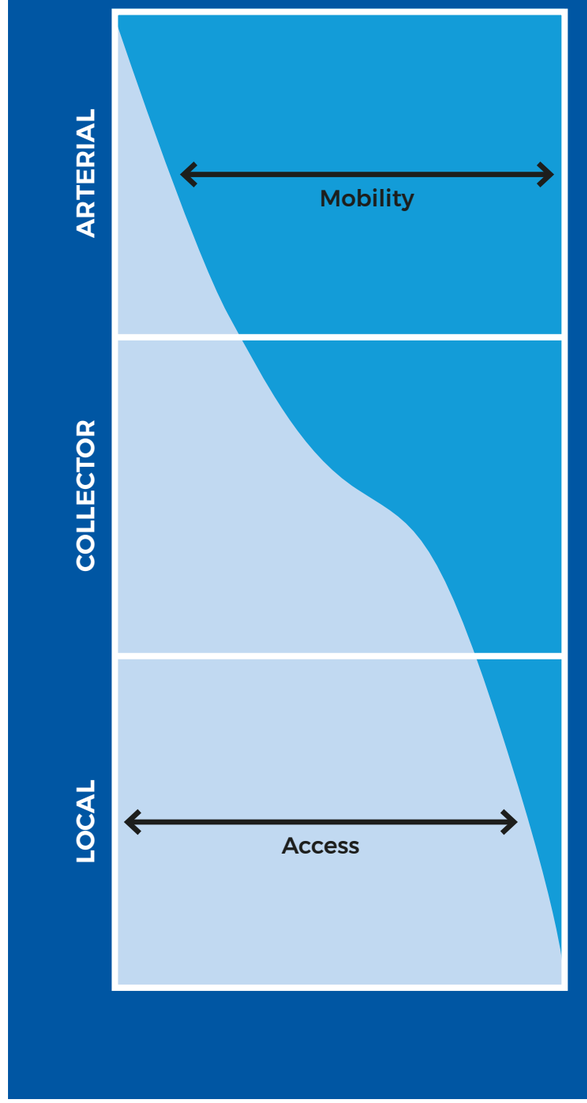
2026 KMPO FUNCTIONAL CLASSIFICATION



The Functional Classification map shown on this page was developed by the Kootenai Metropolitan Planning Organization (KMPO) in coordination with its member agencies and identifies the current roadway classification framework for the community and surrounding Area of City Impact. Functional classification organizes roadways into a hierarchy based on their role in the transportation system, balancing regional mobility with local access. Principal and minor arterials provide the primary routes for longer-distance travel and regional connectivity, while major and minor collectors distribute traffic between neighborhoods and the arterial system. This map reflects the existing KMPO classification structure used to guide roadway planning, access management, and coordination among local and regional agencies. Proposed adjustments to the functional classification network identified through this planning process are presented on the following page.

PLANNED FUNCTIONAL CLASSIFICATION, ACCESS, & MOBILITY





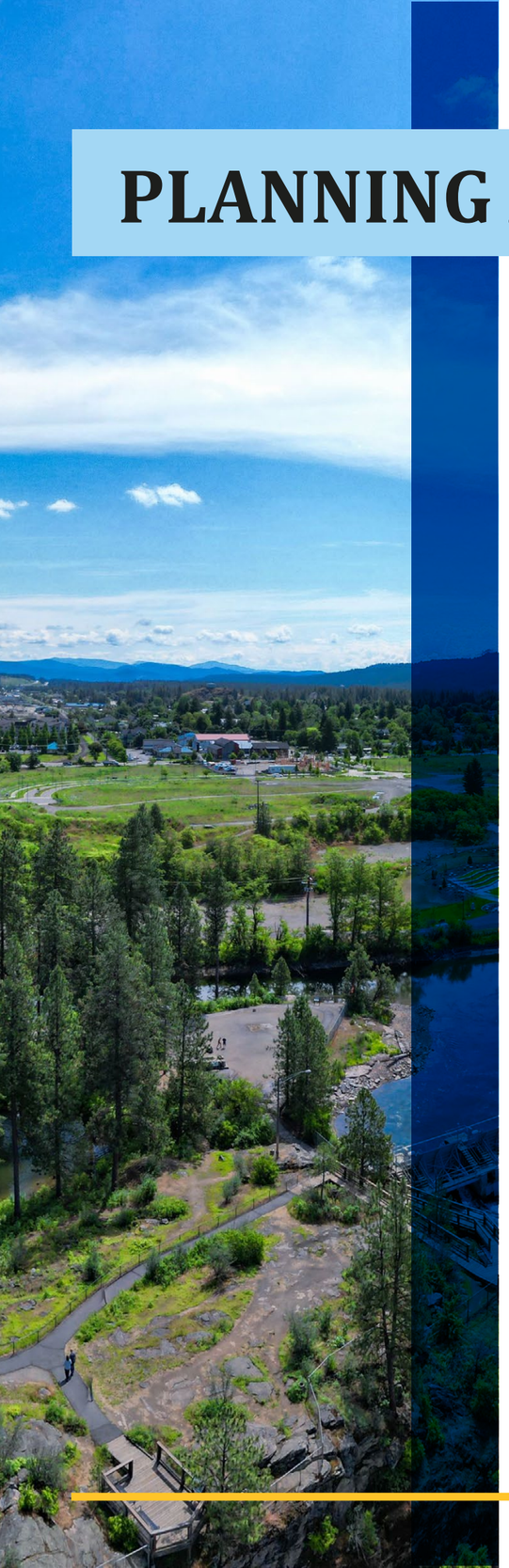
In Post Falls, Functional Classification defines how each roadway serves the community and the region, ranging from local neighborhood streets to major corridors that connect across the city and beyond. It helps guide roadway design, access management, and long-term investment priorities.

- **Mobility** describes how efficiently traffic moves - supporting higher speeds, longer travel distances, and greater volumes.
- **Access** refers to how easily vehicles can enter or exit nearby properties, businesses, or local streets.

Within the Post Falls street network, mobility and access work in balance.

- **Arterials** such as Seltice Way and Spokane Street, prioritize mobility by carrying larger volumes of traffic at higher speeds with fewer driveways and intersections.
- **Collectors** like Poleline Avenue and Syringa Street provide a balance, connecting neighborhoods to arterials.
- **Local Roads** offer direct access to homes and businesses, with lower traffic volumes and slower speeds.

This balance ensures that the Post Falls transportation system moves people and goods efficiently while maintaining safe and convenient local access.



PLANNING APPROACH

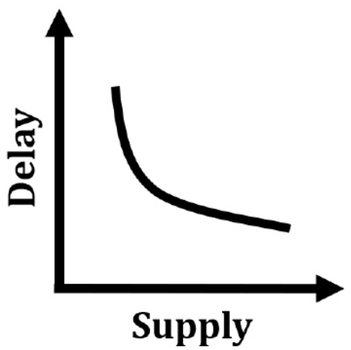
Traffic delay and congestion are the result of the relationship between travel demand and the capacity of the transportation system to accommodate that demand. As communities grow, addressing congestion requires a balanced approach that considers both sides of this relationship rather than relying on a single strategy.

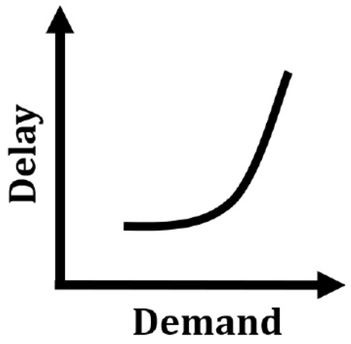
The City has already made meaningful progress in managing transportation demand through land use planning, efficiency improvements, and investments that support travel by multiple modes. These actions help reduce or moderate demand on the roadway system and shift some trips to alternative modes, improving overall system performance. Continued emphasis on these strategies remains an important part of the City's long-term transportation approach.

However, even with strong demand management and multimodal strategies in place, there are locations where congestion and delay persist due to physical and operational constraints. In these areas, targeted infrastructure improvements are necessary to maintain mobility, support economic activity, and ensure safe and reliable travel for all users.

This planning effort builds upon the City's existing practices and identifies strategic capital improvements where increasing system capacity is the most effective and appropriate solution. The capital projects identified in the following sections are intended to complement ongoing demand management efforts, address identified deficiencies, and provide focused investments that improve overall corridor and intersection performance while supporting the City's broader transportation and land use goals.

WHAT CAN WE DO?





CHANGE LAND USE — *REDUCE DEMAND*

- Mixed-use zoning near job centers
- Infill and higher-density at appropriate locations

INCREASE EFFICIENCIES — *MODERATE THE DEMAND*

- Signal timing enhancements
- Employer telework and commute incentive programs
- Vanpools/carpools and ride matching

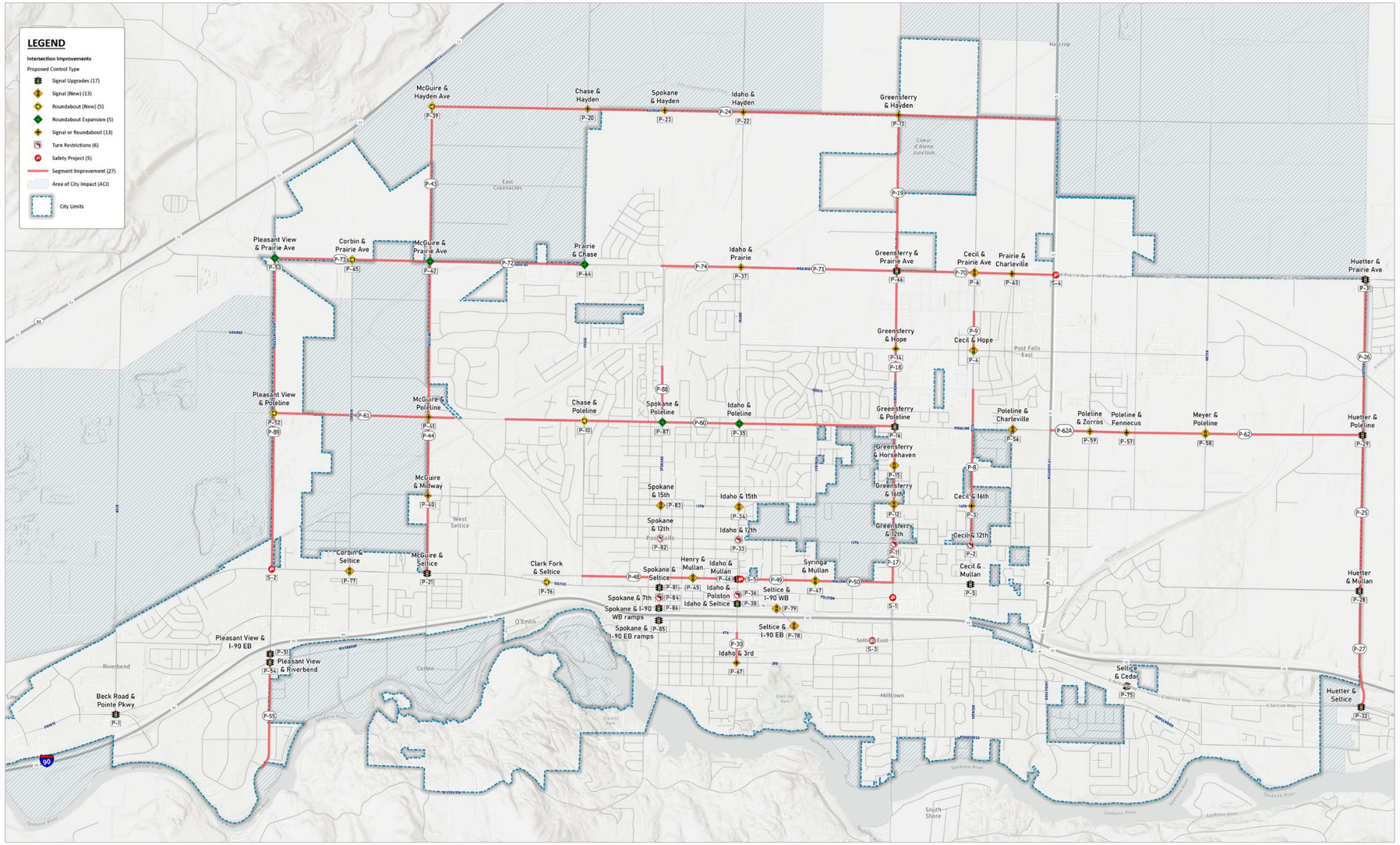
PROMOTE OTHER MODES — *TRANSFER THE DEMAND*

- Transit coordination (CityLink / County)
- Traffic distribution promoting other routes
- Bicycle lanes, cycle tracks, and shared-use paths
- Complete streets retrofits for safe walking

EXPAND INFRASTRUCTURE — *INCREASE THE SUPPLY*

- Intersection capacity improvements (RABs & signals)
- Corridor capacity expansions

ANALYSIS-RECOMMENDED CAPITAL IMPROVEMENTS: COMPREHENSIVE

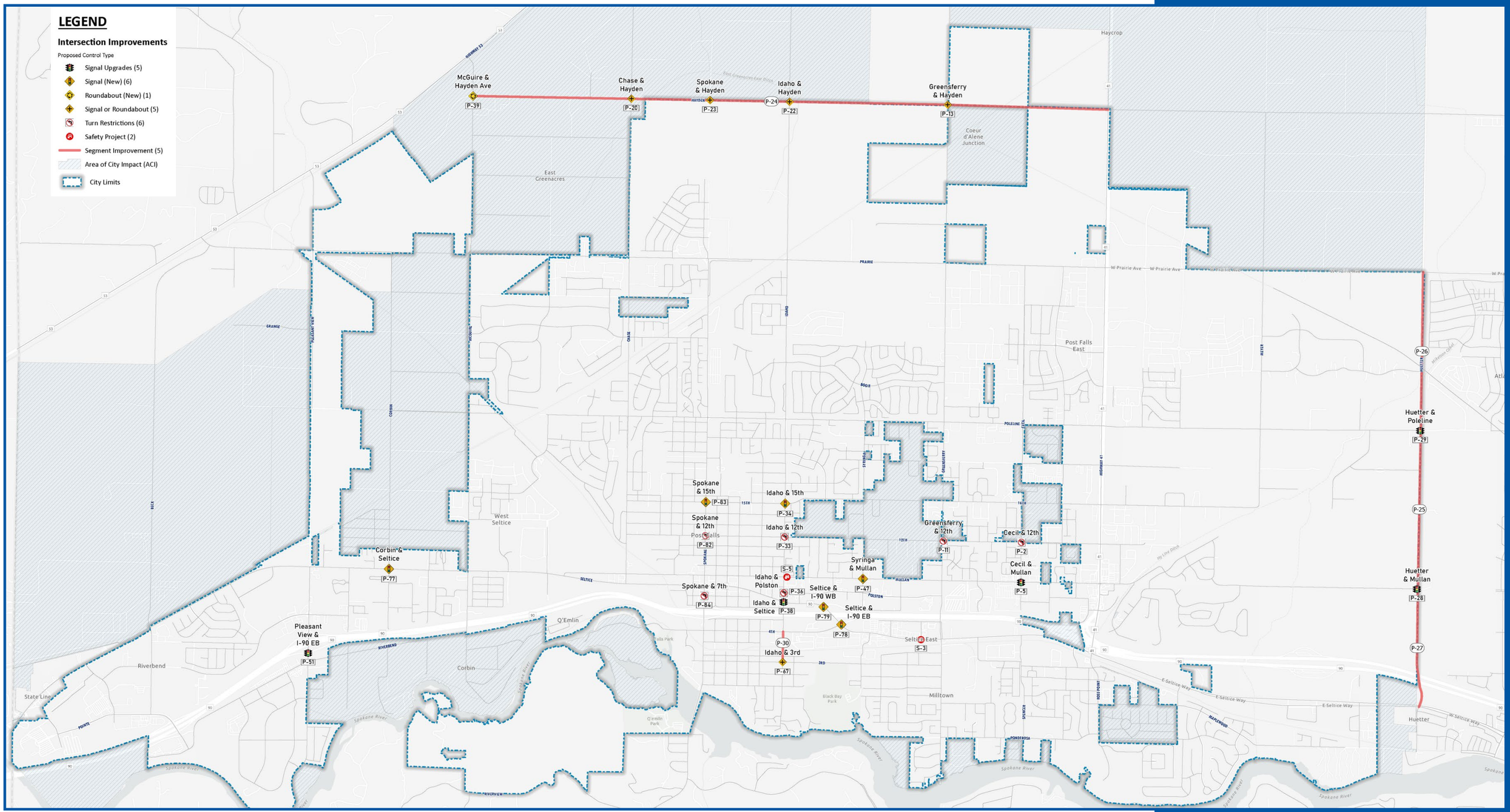


See following sheets for further project detail

91 PROJECTS (20 YRS)	
Short-Term by 2030	
Mid-Term by 2035	
Long-Term by 2045	
INTERSECTION PROJECTS	
17	Signal Upgrades
13	New Signals
5	New Roundabouts
5	Roundabout Expansions
13	New (S or R) Control
6	3/4 Turn Restrictions
5	Safety Actions
CORRIDOR EXPANSIONS	
27	Corridor projects (30 miles of Expansion)

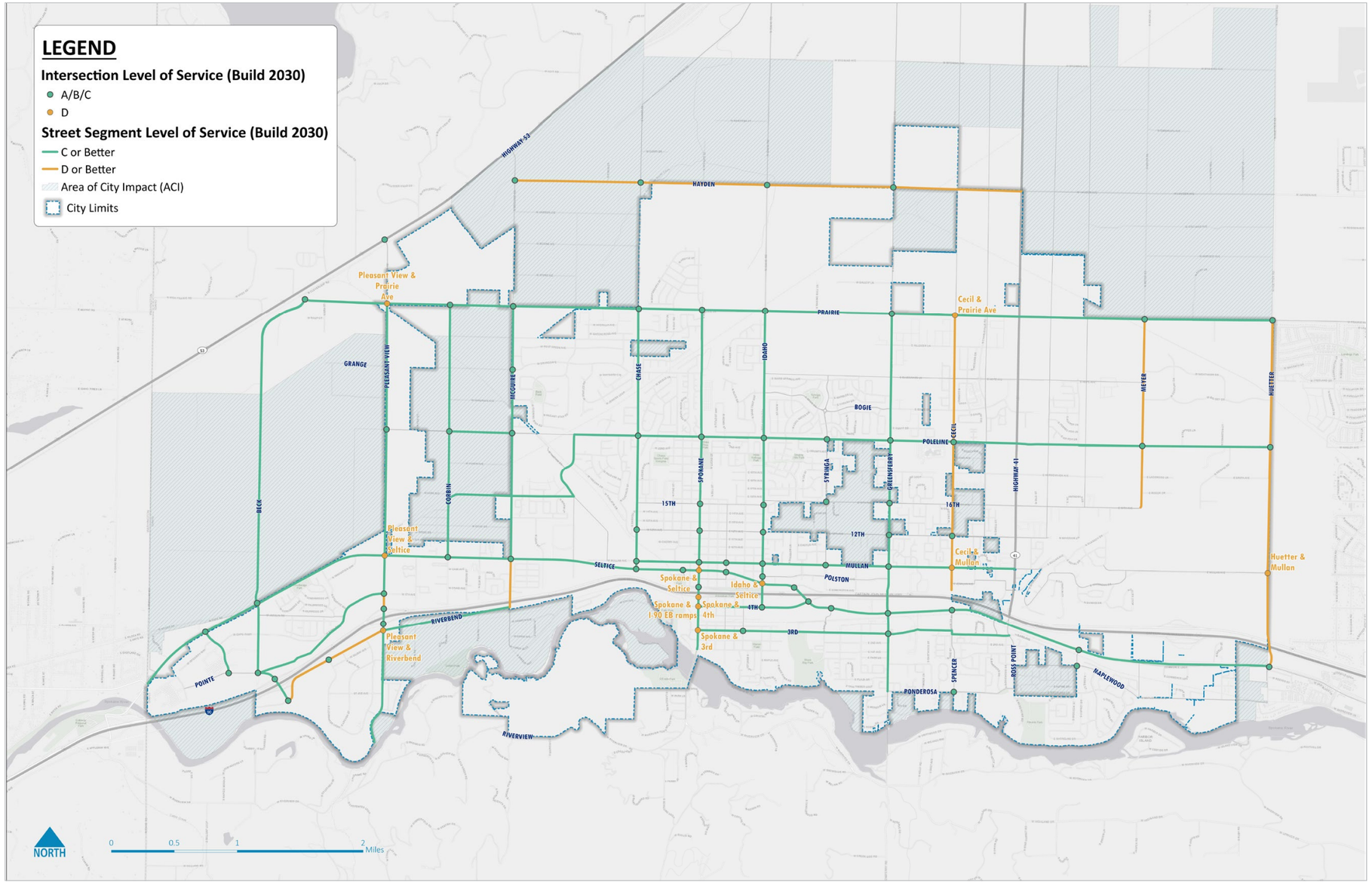
Considering anticipated growth in traffic volumes, traffic analysis identified future years where each capital improvement would best serve to mitigate congestion. The results were categorized by short, medium and long term capital improvements as arranged in the following pages.

2030 SHORT-TERM ANALYSIS-RECOMMENDED CAPITAL IMPROVEMENTS



The short term capital improvements map depicts the projects recommended to be installed prior to 2030, including safety actions S-3 & S-5.

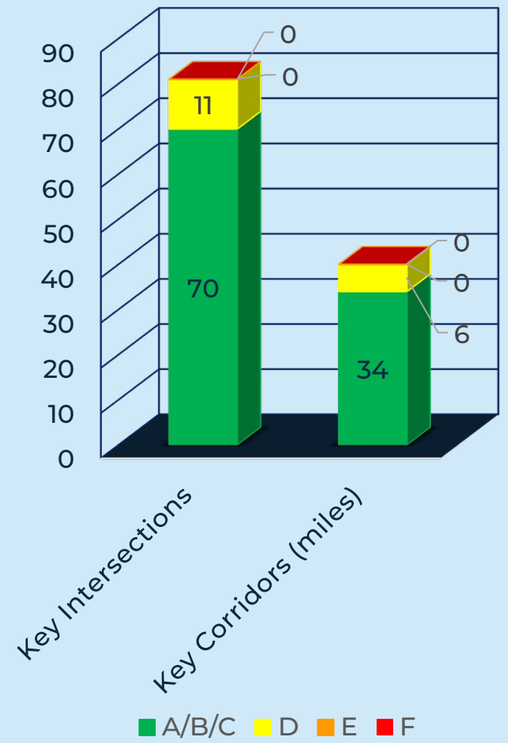
2030 PERFORMANCE RESULTS WITH SHORT-TERM PROJECTS INSTALLED

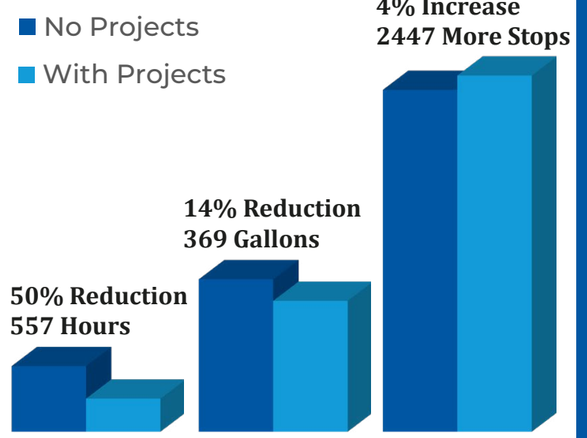


The mitigation identified in the 2030 horizon maintains a well operating transportation system both without over investing or allowing congestion to overcome mobility.

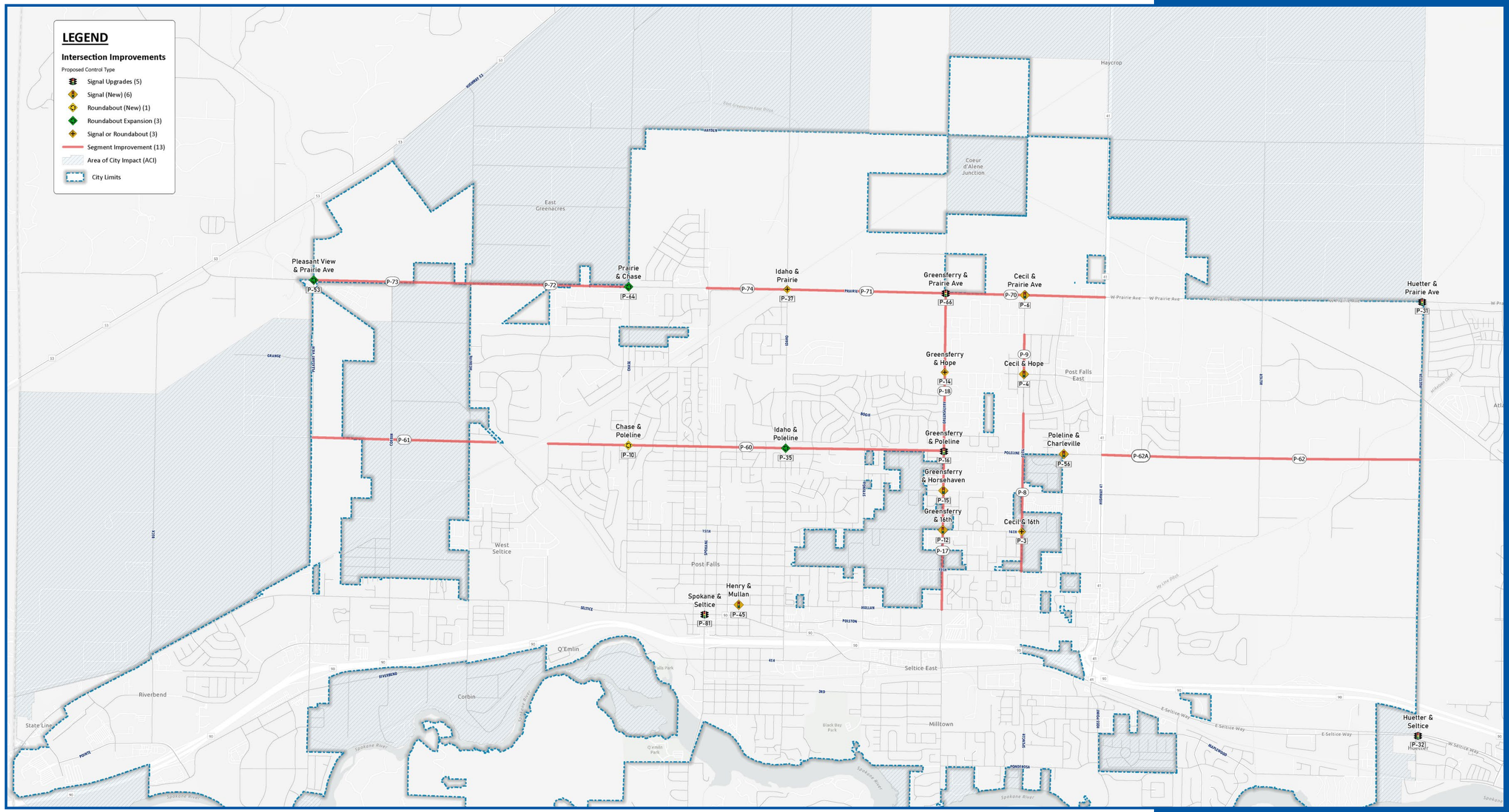
Compared to doing nothing until 2030, the performance measures chart (right) suggests a drastic and tangible benefit resulting from these vital investments.

PERFORMANCE
(LOS/Delay)



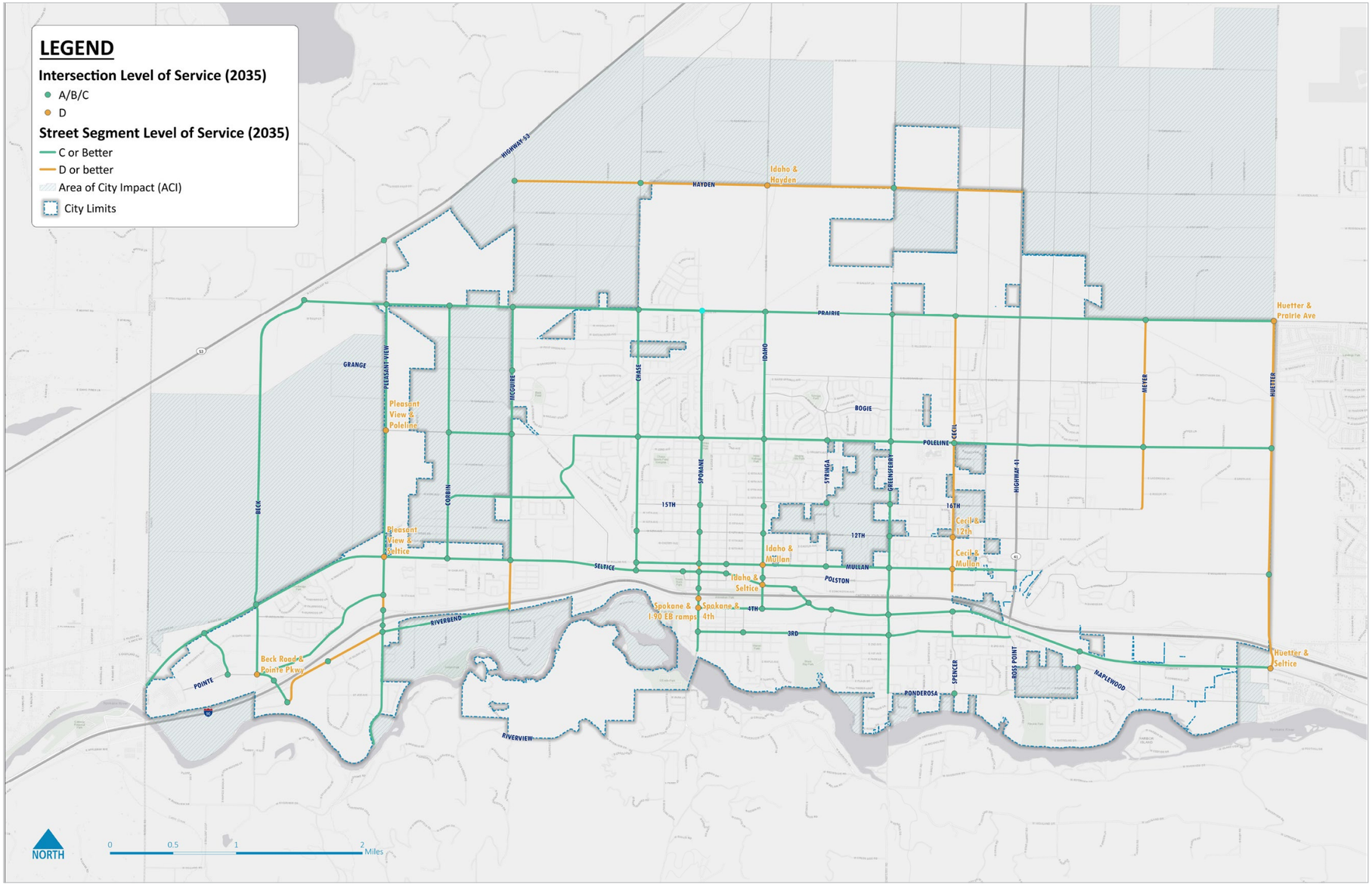


2035 MID-TERM ANALYSIS-RECOMMENDED CAPITAL IMPROVEMENTS



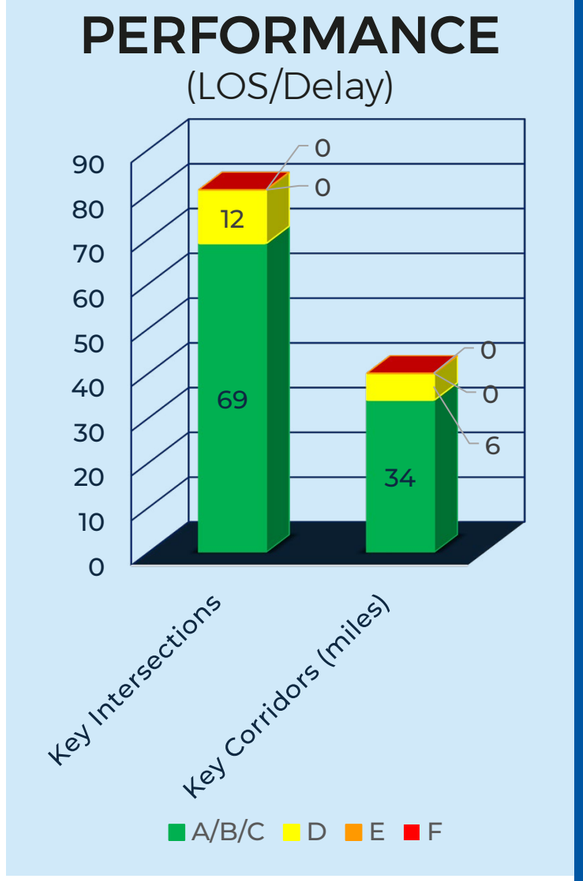
The Mid-Term Capital Improvements map depicts the projects recommended to be installed prior to 2035.

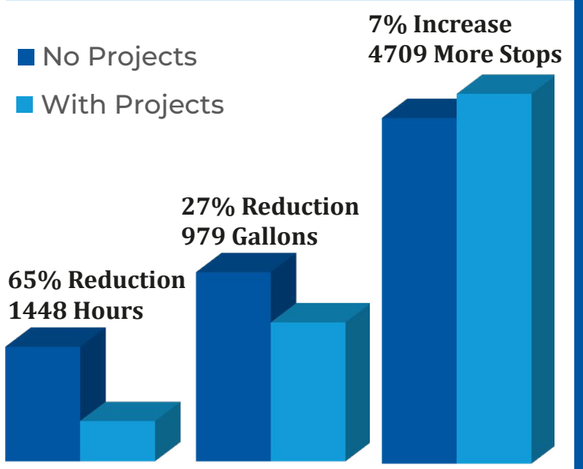
2035 PERFORMANCE RESULTS WITH MID-TERM PROJECTS INSTALLED



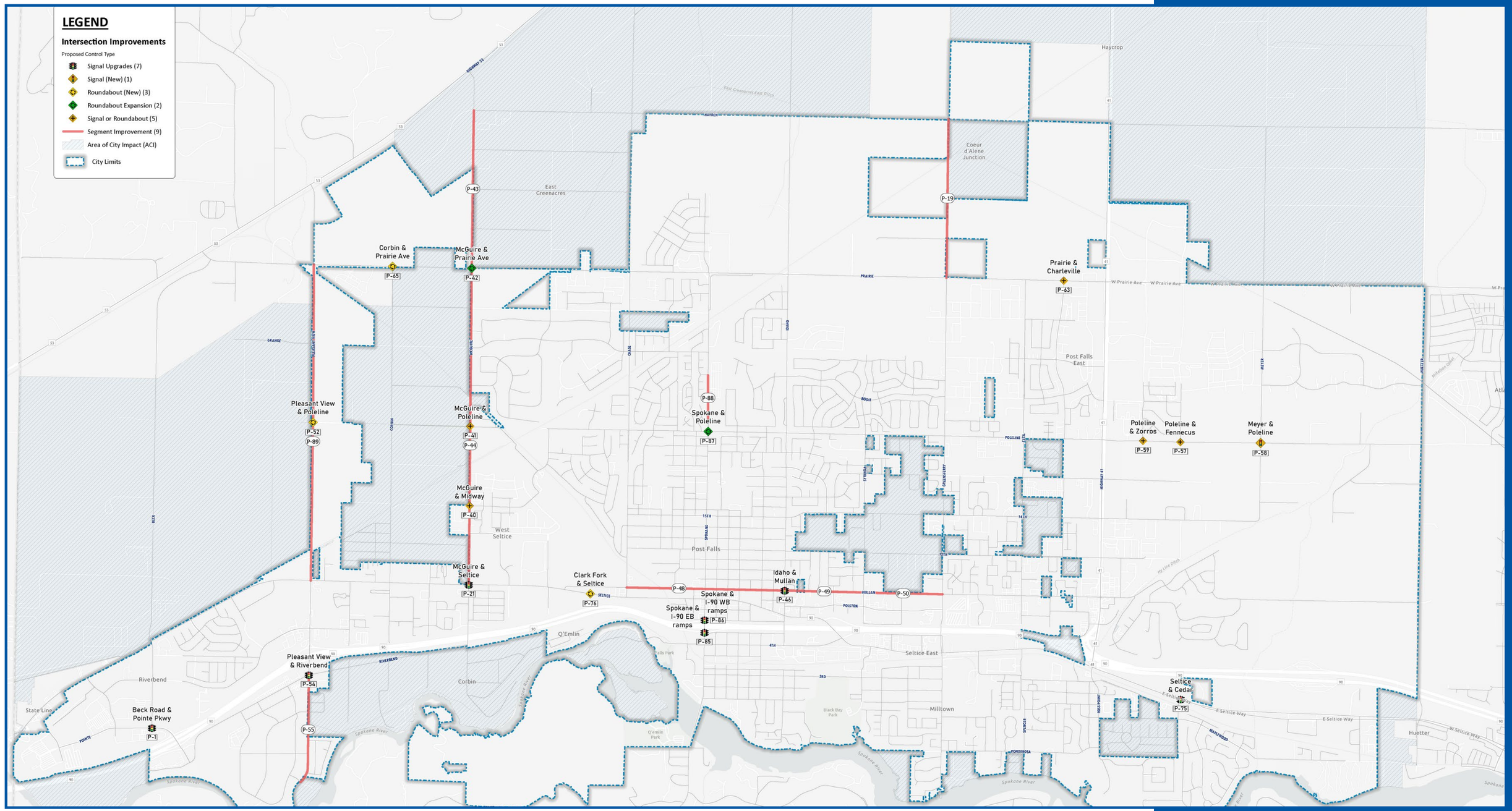
The mitigation identified in the 2035 horizon maintains a well operating transportation system both without over investing or allowing congestion to overcome mobility.

Compared to doing nothing until 2035, the performance measures to the right suggest a drastic and tangible benefit resulting from these vital investments.



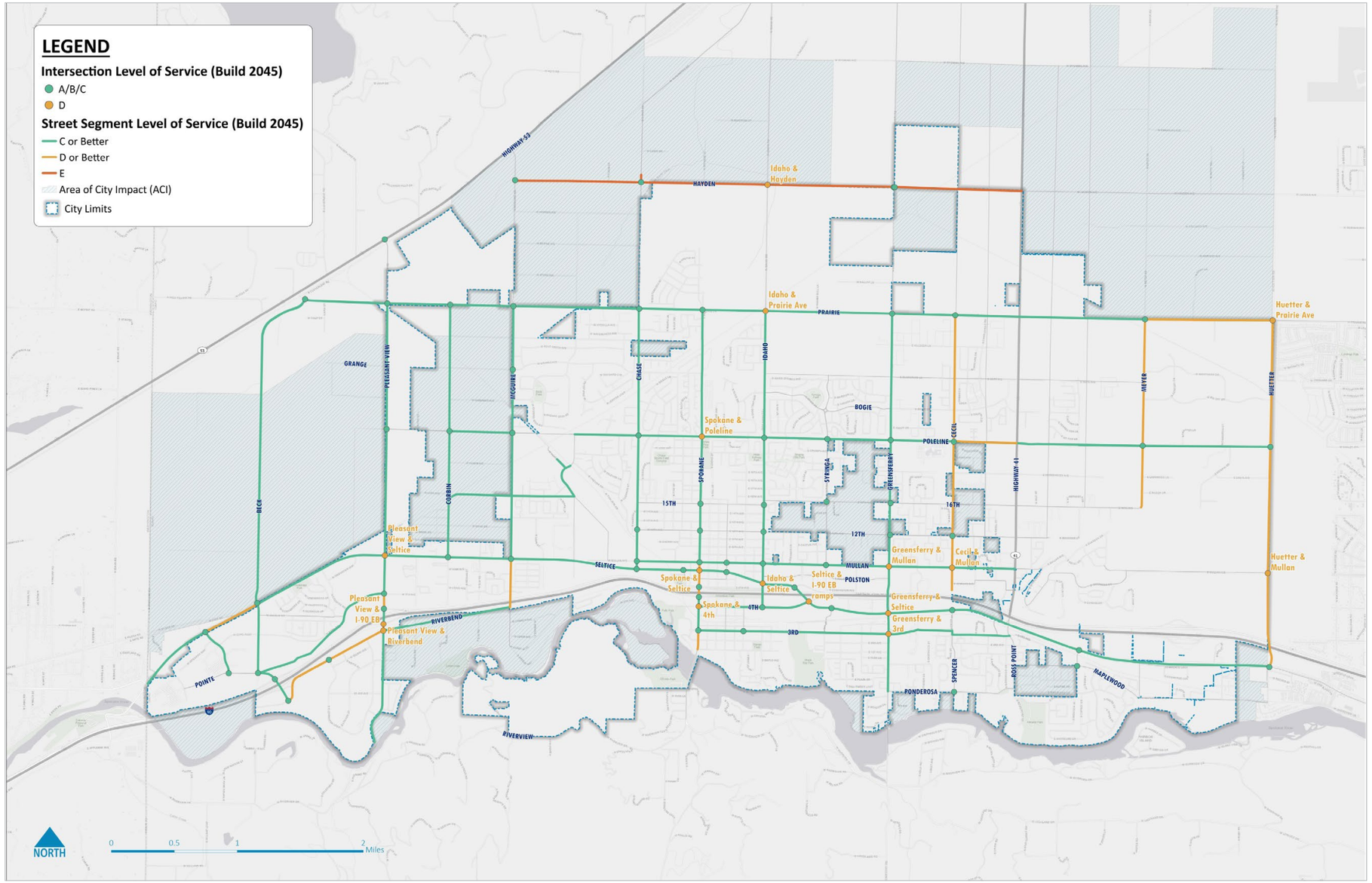


2045 LONG-TERM ANALYSIS-RECOMMENDED CAPITAL IMPROVEMENTS



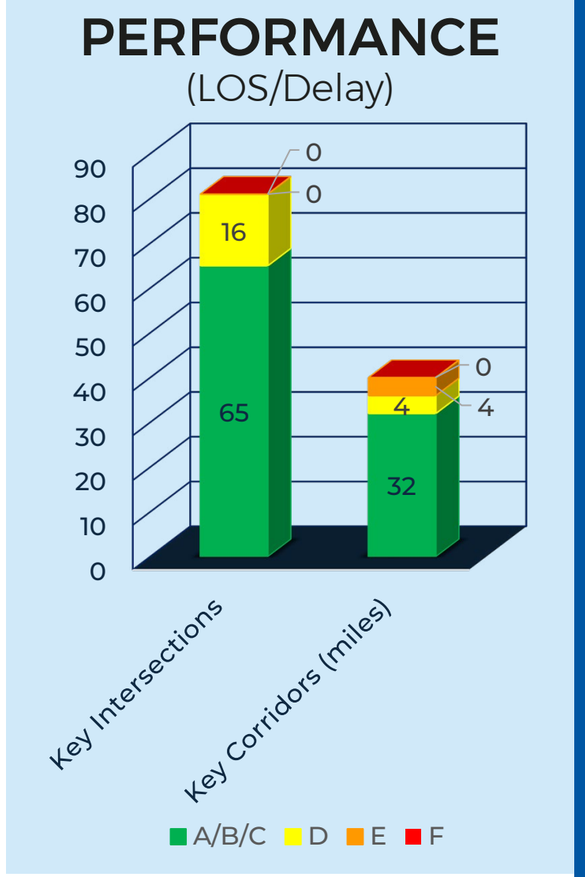
The Long-Term Capital Improvements map depicts the projects recommended to be installed prior to 2045.

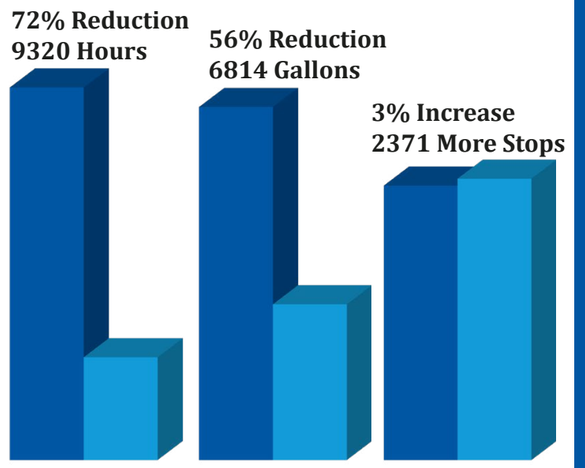
2045 PERFORMANCE RESULTS WITH LONG-TERM PROJECTS INSTALLED



The mitigation identified in the 2045 horizon maintains a well operating transportation system both without over investing or allowing congestion to overcome mobility.

Compared to doing nothing until 2045, the performance measures chart (right) suggests a drastic and tangible benefit resulting from these vital investments.





SHORT, MID, LONG TERM COSTS (for analysis-recommended capital improvements)

SHORT (2026-2030)

ID	Intersection/Corridor Name	Cost
P-2	CECIL RD AND 12TH AVE INTERSECTION	$332,000
P-5	CECIL RD AND MULLAN AVE INTERSECTION	$1,455,000
P-11	GREENSFERRY RD AND 12TH AVE INTERSECTION	$230,000
P-13	GREENSFERRY RD AND HAYDEN AVE INTERSECTION	$4,254,000
P-20	HAYDEN AVE AND CHASE RD INTERSECTION	$1,813,000
P-22	HAYDEN AVE AND IDAHO ST INTERSECTION	$1,966,000
P-23	HAYDEN AVE AND SPOKANE ST INTERSECTION	$2,045,000
P-24	HAYDEN AVE CORRIDOR - MCGUIRE RD TO SH-41	$26,850,000
P-25	HUETTER RD CORRIDOR - MULLAN AVE TO POLELINE AVE	$10,534,000
P-26	HUETTER RD CORRIDOR - POLELINE AVE TO PRAIRIE AVE	$6,718,000
P-27	HUETTER RD CORRIDOR - SELTICE AVE TO MULLAN AVE	$8,173,000
P-28	HUETTER RD AND MULLAN AVE INTERSECTION	$1,601,000
P-29	HUETTER RD AND POLELINE AVE INTERSECTION	$1,525,000
P-30	IDAHO ST CORRIDOR - 3RD AVE TO 4TH AVE	$1,794,000
P-33	IDAHO ST AND 12TH AVE INTERSECTION	$125,000
P-34	IDAHO ST AND 15TH AVE INTERSECTION	$1,097,000
P-36	IDAHO ST AND POLSTON AVE INTERSECTION	$24,000
P-38	IDAHO ST AND SELTICE WAY INTERSECTION	$1,101,000
P-39	MCGUIRE RD AND HAYDEN AVE INTERSECTION	$1,776,000
P-47	MULLAN AVE AND SYRINGA ST INTERSECTION	$1,143,000
P-51	PLEASANT VIEW RD AND I-90 EB RAMP INTERSECTION	$687,000
P-67	IDAHO ST AND 3RD AVE INTERSECTION	$1,806,000
P-77	SELTICE WAY AND CORBIN RD INTERSECTION	$738,000
P-78	SELTICE WAY AND I-90 EB RAMP INTERSECTION	$629,000
P-79	SELTICE WAY AND I-90 WB RAMP INTERSECTION	$623,000
P-82	SPOKANE ST AND 12TH AVE INTERSECTION	$202,000
P-83	SPOKANE ST AND 15TH AVE INTERSECTION	$1,136,000
P-84	SPOKANE ST AND 7TH AVE INTERSECTION	$156,000
S-3	GRAFFITI ST AND SELTICE WAY INTERSECTION	$25,000
S-5	IDAHO RD/SUPER 1 FOODS DRIVEWAY INTERSECTION	$60,000

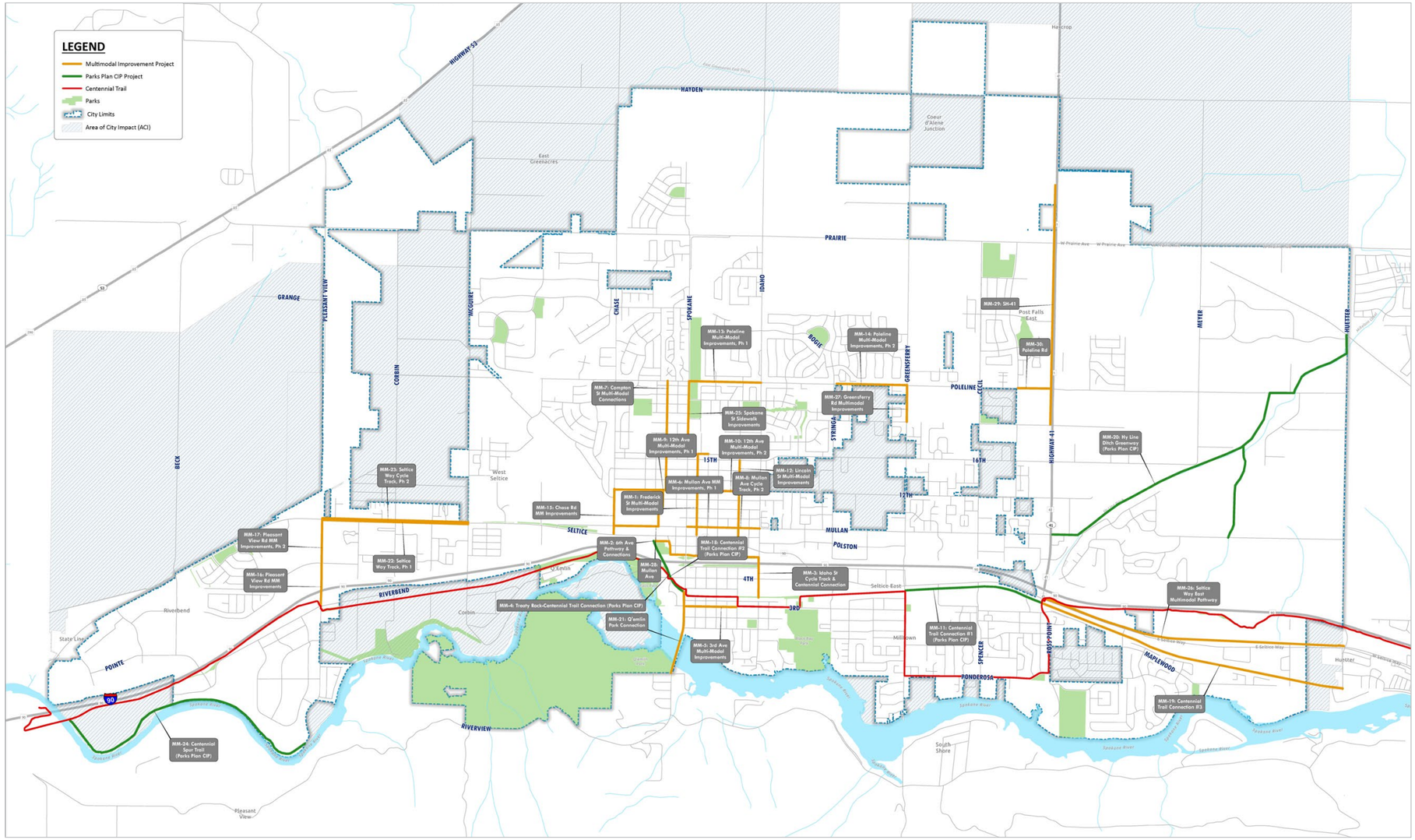
MID (2031-2035)

ID	Intersection/Corridor Name	Cost
P-3	CECIL RD AND 16TH AVE INTERSECTION	$1,879,000
P-4	CECIL RD AND HOPE AVE INTERSECTION	$878,000
P-6	CECIL RD AND PRAIRIE AVE INTERSECTION	$1,140,000
P-8	CECIL RD CORRIDOR - BOGIE DR TO 12TH AVE	$4,077,000
P-9	CECIL RD CORRIDOR - KILLDEER AVE TO HOPE AVE	$737,000
P-10	CHASE RD AND POLELINE AVE INTERSECTION	$1,889,000
P-12	GREENSFERRY RD AND 16TH AVE INTERSECTION	$1,090,000
P-14	GREENSFERRY RD AND HOPE AVE INTERSECTION	$4,391,000
P-15	GREENSFERRY RD AND HORSEHAVEN RD INTERSECTION	$1,120,000
P-16	GREENSFERRY RD AND POLELINE AVE INTERSECTION	$660,000
P-17	GREENSFERRY RD CORRIDOR - MULLAN AVE TO POLELINE AVE	$5,917,000
P-18	GREENSFERRY RD CORRIDOR - POLELINE AVE TO PRAIRIE AVE	$3,458,000
P-31	HUETTER RD AND PRAIRIE AVE INTERSECTION	$283,000
P-32	HUETTER RD AND SELTICE WAY INTERSECTION	$2,872,000
P-35	IDAHO ST AND POLELINE AVE INTERSECTION	$571,000
P-37	IDAHO ST AND PRAIRIE AVE INTERSECTION	$5,608,000
P-45	MULLAN AVE AND HENRY ST INTERSECTION	$902,000
P-53	PLEASANT VIEW RD AND PRAIRIE AVE INTERSECTION	$7,112,000
P-56	POLELINE AVE AND CHARLEVILLE RD INTERSECTION	$1,124,000
P-60	POLELINE AVE CORRIDOR - CLARK FORK PKWY TO GREENSFERRY RD	$8,507,000
P-61	POLELINE AVE CORRIDOR - PLEASANT VIEW RD TO ROSLYN DR	$7,388,000
P-62	POLELINE AVE CORRIDOR - FENNECUS TO HUETTER RD	$24,074,000
P-62A	POLELINE AVE CORRIDOR - SH-41 TO FENNECUS RD	$1,751,000
P-64	PRAIRIE AVE AND CHASE RD INTERSECTION	$4,138,000
P-66	PRAIRIE AVE AND GREENSFERRY RD INTERSECTION	$818,000
P-70	PRAIRIE AVE CORRIDOR - GREENSFERRY RD TO SH-41	$3,419,000
P-71	PRAIRIE AVE CORRIDOR - IDAHO ST TO GREENSFERRY RD	$5,718,000
P-72	PRAIRIE AVE CORRIDOR - MCGUIRE RD TO CHASE RD	$14,368,000
P-73	PRAIRIE AVE CORRIDOR - PLEASANT VIEW RD TO MCGUIRE RD	$6,021,000
P-74	PRAIRIE AVE CORRIDOR - SPOKANE ST TO IDAHO ST	$5,205,000
P-81	SELTICE WAY AND SPOKANE ST INTERSECTION	$826,000

LONG 2036-2045)

ID	Intersection/Corridor Name	Cost
P-1	BECK RD AND POINTE PKWY INTERSECTION	$1,036,000
P-19	GREENSFERRY RD CORRIDOR - PRAIRIE AVE TO HAYDEN AVE	$8,050,000
P-21	MCGUIRE RD AND SELTICE WAY INTERSECTION	$279,000
P-40	MCGUIRE RD AND MIDWAY AVE INTERSECTION	$5,001,000
P-41	MCGUIRE RD AND POLELINE AVE INTERSECTION	$4,648,000
P-42	MCGUIRE RD AND PRAIRIE AVE INTERSECTION	$4,224,000
P-43	MCGUIRE RD CORRIDOR - PRAIRIE AVE TO HAYDEN AVE	$8,743,000
P-44	MCGUIRE RD CORRIDOR - PRAIRIE AVE TO SELTICE WAY	$20,003,000
P-46	MULLAN AVE AND IDAHO ST INTERSECTION	$1,423,000
P-48	MULLAN AVE CORRIDOR - IDAHO ST TO CHASE RD	$12,141,000
P-49	MULLAN AVE CORRIDOR - IDAHO ST TO SYRINGA ST	$391,000
P-50	MULLAN AVE CORRIDOR - SYRINGA ST TO GREENSFERRY RD	$5,438,000
P-52	PLEASANT VIEW RD AND POLELINE AVE INTERSECTION	$4,198,000
P-54	PLEASANT VIEW RD AND RIVERBEND AVE INTERSECTION	$955,000
P-55	PLEASANT VIEW RD CORRIDOR - RIVERBEND AVE TO OWYHEE ST	$2,821,000
P-57	POLELINE AVE AND FENNECUS RD INTERSECTION	$4,510,000
P-58	POLELINE AVE AND MEYER RD INTERSECTION	$628,000
P-59	POLELINE AVE AND ZORROS ST INTERSECTION	$5,918,000
P-63	PRAIRIE AVE AND CHARLEVILLE RD INTERSECTION	$4,061,000
P-65	PRAIRIE AVE AND CORBIN RD INTERSECTION	$4,906,000
P-75	SELTICE WAY AND CEDAR ST INTERSECTION	$650,000
P-76	SELTICE WAY AND CLARK FORK PKWY INTERSECTION	$4,060,000
P-85	SPOKANE ST AND I-90 EB INTERSECTION	$659,000
P-86	SPOKANE ST AND I-90 WB INTERSECTION	$859,000
P-87	SPOKANE ST AND POLELINE AVE INTERSECTION	$570,000
P-88	SPOKANE ST CORRIDOR - CRESTVIEW DR TO ROSE AVE	$257,000
P-89	PLEASANT VIEW RD CORRIDOR - INTERSTATE/UPRR TO HWY 53	$11,173,000

MULTIMODAL PROJECT LOCATIONS



Using the Multimodal Potential heat map as a guide for identifying best investment locations, coupled with the city's existing and planned bike network and gaps data, multimodal improvements were identified to expand city and regional connectivity.

The location and density of projects is modeled after the heat map potential. Further, the North Idaho Centennial Trail was respected as a key corridor for regional connectivity.

Priority was given to development of low stress routes near and parallel to high volume vehicular routes.

The vehicular, traffic congestion related capital improvements each include multimodal characteristics. The projects shown on this map are considered stand-alone projects

Note that the table (following page) includes a description of each recommended project along with a justification of for inclusion and planning level cost opinion.

MULTIMODAL PROJECTS

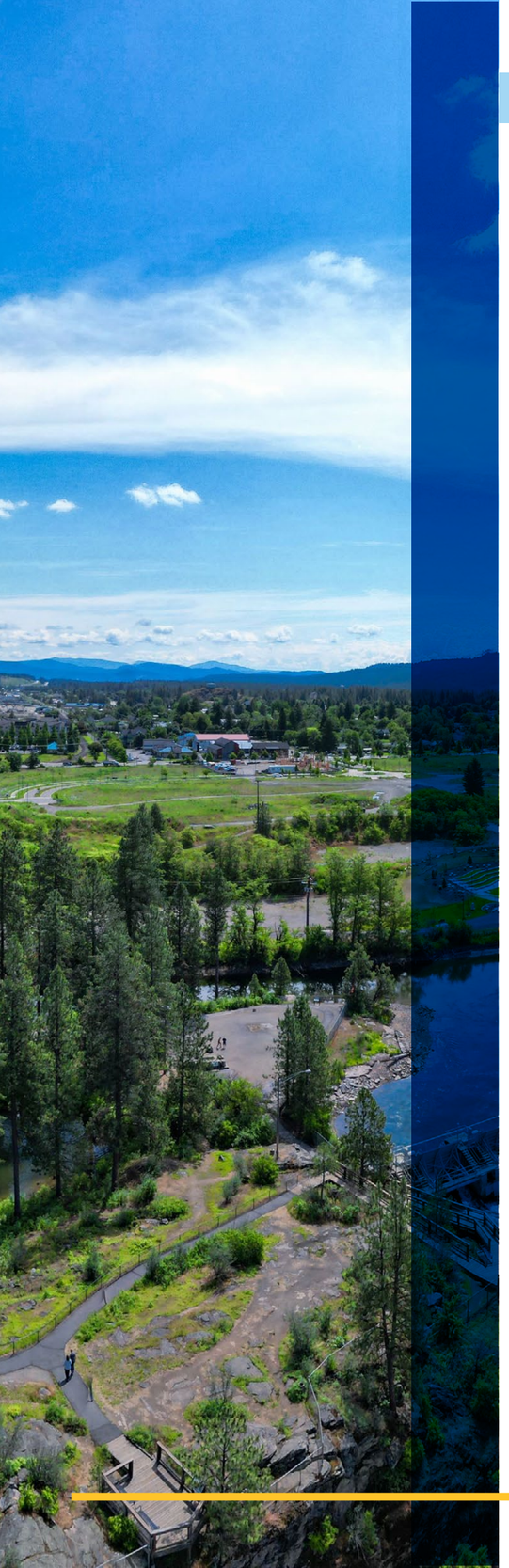
ID	NAME	COST	JUSTIFICATION	DESCRIPTION
MM-1	FREDERICK ST MULTI-MODAL IMPROVEMENTS	$963,000	Close parallel corridor to Spokane St linking commercial area to historic residential core. Opportunity for low Level-of-Stress for multi-modal use on low ADT corridor. One block off transit route. Also connects to PF Middle School along 16th.	Install sidewalks both sides beginning at Seltice Way and ending at 16th Street, install Type 2 bike lane (N-S), include 16th connection to PF Middle School
MM-2	6TH AVE PATHWAY & CONNECTIONS	$279,000	Prime multi-modal potential with pedestrian bike connection off of high Level-of-Stress route. Also potentially connecting two ends of core business area with Centennial Trail. Works best with MM-3	Connect multi-modal pathway at RR to west end Treaty Rock Rd, install separated pathway along south side of Treaty Rock Rd, west side of Compton St, and south side of 6th Ave, east to Idaho St, install sidewalk connection from 6th to 7th at Post St.
MM-3	IDAHO ST CYCLE TRACK & CENTENNIAL CONNECTION	$47,000	Prime connection from regional Centennial Trail to business core reaching southern residential areas	Idaho Street, install two-way cycle track from 6th Ave to 5th Ave across bridge (west side only), consider removing NBL from bridge for space (consult queuing analysis)
MM-4	TREATY ROCK CENTENNIAL CONNECTION	$86,000	Provides north City connectivity with Centennial Trail and downtown core while avoiding Spokane St	Connect multi-modal pathway under freeway along RR connection MM-2 and westward trail with Centennial Trail, potential RR issues (assume rail will be pathway)
MM-5	3RD AVE MULTI-MODAL IMPROVEMENTS	$301,000	Lincoln has striped wide bike lanes connecting to Centennial Trail and crosses tracks. 3rd is a densifying corridor with commercial corridor with SF, MF and Comm. Also connecting into the downtown core with RAB near Spokane St. Connects to river area.	3rd Avenue from Spokane Street to Lincoln Street, install Type 2 bike lanes both sides where missing, install sidewalks where missing or insufficient
MM-6	MULLAN AVE CYCLE TRACK, PH 1	$287,000	Improves pedestrian safety and connectivity for commercial / residential nexus. Improves safety and comfort for bicycle riders. Allows E-W travel off of busy Seltice Way	Mullan Ave from Spokane Street to Henry Street, install cycle track on Mullan Ave for lower level of stress for on-street bike lanes
MM-7	COMPTON ST MULTI-MODAL CONNECTIONS	$1,182,000	Connects low streets with school corridor and Mullan multi-modal infrastructure near library, alternative school, commercial area, and transit. Allow users to avoid high Level-of-Stress Spokane St	Compton Street from Mullan Ave to Poleline Ave, install sharrow lane designation both sides, install sidewalks where missing or insufficient
MM-8	MULLAN AVE CYCLE TRACK, PH 2	$406,000	Improves pedestrian safety and connectivity for commercial / residential nexus. Improves safety and comfort for bicycle riders. Allows E-W travel off of busy Seltice Way	Mullan Ave from Henry Street to Idaho Street, install cycle track on Mullan Ave for lower level of stress for on-street bike lanes
MM-9	12TH AVE MULTI-MODAL IMPROVEMENTS, PH 1	$1,111,000	Improves low ADT school and teams sports corridor connectivity with Compton St improvements, other schools and library. Key E-W corridor.	12th Ave from Chase Road to Spokane Street, install 2-way cycle track (aka multi-modal pathway separated by median) along south side of 12th Ave. Evaluate narrowing of 12th Ave lanes to achieve multi-modal improvements. Install sidewalks where missing or insufficient. Enhance RRFB crossing at Compton Street (across 12th Ave) with pedestrian infrastructure. At 12th Ave and Spokane Street, install 3/4 turn restriction (N-S) (included in CIP project) with pedestrian refuge with RRFBs.
MM-10	12TH AVE MULTI-MODAL IMPROVEMENTS, PH 2	$839,000	Improves low ADT corridor for low stress E-W multimodal travel.	12th Ave from Spokane Street to Idaho Street, install Type 2 bike lanes both sides where missing. Install sidewalks where missing or insufficient. Evaluate narrowing 12th lanes to achieve multi-modal improvements. Install 3/4 turn restriction (N-S) at Idaho Street (included in CIP project) with pedestrian refuge with RRFBs.
MM-11	CENTENNIAL TRAIL CONNECTION #1	$386,000	This connection provides low Level-of-Stress for cyclists yet keeping them close to the Centennial alignment without the southbound circuitous route along Greensferry-Ponderosa-Ross Pt Rd	Install multi-modal pathway on RR grade from Greensferry Road to Ross Point Road, install RRFB's at roadway crossings, assumes RR grade is abandoned
MM-12	LINCOLN ST MULTI-MODAL IMPROVEMENTS	$1,035,000	Low Level-of-Stress parallel MM route to Idaho St. This would be first phase of future improvements north to Poleline Ave	Lincoln St from Seltice Way to 15th Ave, install sidewalks where missing. Install sharrow designation in both directions.
MM-13	POLELINE AVE MULTI-MODAL IMPROVEMENTS, PH 1	$704,000	Provides north city E-W MM connectivity. Complements and expands already-installed greenway and MM path.	Poleline, Spokane Street to Idaho Street widen existing MM pathway (N side), install RRFBs at Henry Street and Lincoln Street, sidewalks along south side
MM-14	POELINE AVE MULTI-MODAL IMPROVEMENTS, PH 2	$494,000	Provides north city E-W MM connectivity. Complements and expands already-installed greenway and MM path.	Poleline, Syringa Street to Greensferry Road install RRFB at Gracie Way, install missing segments of sidewalk (south side)
MM-15	CHASE RD MULTI-MODAL IMPROVEMENTS	$48,000	Provides final trail segment between neighborhood schools, etc to MM Karren Streeter Memorial Trail.	Chase Rd from Mullan Ave to Seltice Way, install MM trail along west side of Chase Rd from Karren Streeter Memorial Trail to Mullan Ave.

MULTIMODAL PROJECTS *(continued)*

ID	NAME	COST	JUSTIFICATION	DESCRIPTION
MM-16	PLEASANT VIEW RD MULTI-MODAL IMPROVEMENTS, PH 1	$295,000	Provides pedestrian connection across freeway. Provides key connection to Centennial Trail and Park & Ride lot.	Pleasant View, Riverbend Ave to Expo Parkway, install multi-modal pathway on west side of Pleasant View Road. Connect to both the Centennial Trail and the Park and Ride, install retaining wall supporting underslope below freeway, include pedestrian scramble connecting Centennial Trail diagonally, include signal re-timing in project. Coordinate with ITD for partnering opportunity through I-90 widening
MM-17	PLEASANT VIEW RD MULTI-MODAL IMPROVEMENTS, PH 2	$111,000	Provides major city trail connection to Centennial Trail. And separated pathway along busy traffic corridor.	Connect MM-16 with Karren Streeter Memorial Trail at Seltice Way along west side of Pleasant View, install multi-use pathway
MM-18	CENTENNIAL TRAIL CONNECTION #2	$112,000	Provides continuity for Centennial Trail. Enhances downtown core enables closer connection to Spokane River bridge	4th Ave to Spokane Street, install multi-modal pathway on RR grade, install RRFB's at roadway crossings, assumes RR grade is abandoned
MM-19	CENTENNIAL TRAIL CONNECTION #3	$704,000	Sets up regional connection south of Seltice Way, potentially connecting to Coeur d Alene's river trail system	Ross Point Road to Huetter Road, install multi-modal pathway on RR grade, install RRFB's at roadway crossings, assumes RR grade is abandoned
MM-20	HY LINE DITCH GREENWAY	$12,098,000	Connects the Centennial Trail area with the Prairie Trail area. Provides a community enriching resource. Significant owner commitment required.	Mullan Avenue to Prairie Trail (Huetter Road) install recreational greenway in this natural resource, likely ROW issues, many private parcels, include S connection along Mikelson Canal to Mullan Ave
MM-21	Q'EMILN PARK CONNECTION	$482,000	Makes key multi-modal connection to highly used park. Connects Centennial Trail to park and other regional cycling routes	Spokane Street (at RR) to Parkway Drive (at park), install multi-modal pathway connection across bridge (widen existing sidewalk, no bridge expansion assumed) to Q'Emlin Park (install Type 2 bike lanes in interim)
MM-22	SELTICE WAY CYCLE TRACK, PH 1	$1,340,000	Provides lower stress bicycle route where there is insufficient multi-modal connectivity	Seltice Way, Pleasant View Road to McGuire Road, install cycle track along S side of Seltice Way for EB travel
MM-23	SELTICE WAY CYCLE TRACK, PH 2	$1,355,000	Provides lower stress bicycle route where there is insufficient multi-modal connectivity	Seltice Way, McGuire Road to Pleasant View Road, install cycle track along N side of Seltice Way for WB travel
MM-24	CENTENNAIL SPUR TRAIL	$9,416,000	Provides scenic alternate route to Centennial Trail along I-90.	Stateline (south of I-90) to Pleasant View Road install multi-modal pathway along Spokane River as an alternate recreational route (see previous plan)
MM-25	SPOKANE ST SIDEWALK IMPROVEMENTS	$814,000	Provides pedestrian space along busy corridor	Spokane Street from 16th Ave to Poleline Avenue, install missing sidewalk on west side
MM-26	SELTICE WAY EAST MULTI-MODAL PATHWAY	$545,000	Provides pedestrian space along busy corridor	Seltice Way, SH-41 interchange to Huetter Road, install multi-modal pathway along north side of Seltice way connecting trail from CDA into Post Falls (some segments exist) connect to Centennial Trail and i/c trail system
MM-27	GREENSFERRY RD MULTI-MODAL IMPROVEMENTS	$267,000	Provides key connection from school to existing facilities on Horsehaven Ave	Greensferry Road, Horsehaven Avenue to Poleline Avenue, install multi-modal pathway along e side of Greensferry Rd, install curb and gutter where missing, install striped bike lanes both directions
MM-28	MULLAN AVE MULTI-MODAL IMPROVEMENTS	$276,000	Completes multi-modal connection to existing facilities near Library, connecting to Karren Streeter Memorial Trail	Mullan Avenue, Chase Road to Compton Street, install sidewalks both sides where missing, install multi-modal pathway, install type 2 bike lanes
MM-29	SH-41 MULTI-MODAL IMPROVEMENTS	$450,000	Connects core PF area to regional Prairie Trail	Install multi-modal pathway along west ROW of SH-41 from Horsehaven Avenue to railroad tracks
MM-30	POLELINE AVE MULTI-MODAL PATHWAY	$189,000	Completes multi-modal connection from existing infrastructure to SH-41 corridor.	Poleline Avenue, Charleville Road to SH-41. Install sidewalk on south side where missing, install multi-modal pathway on north side

TRANSPORTATION SYSTEM STANDARDS

- Street Standards
- Operational Standards
- Access Management Standards
- Traffic Impact Study Standards



STREET STANDARDS

Previous transportation plans established a robust set of street standards to guide development of the City's roadway network. Since that time, the City has updated its typical sections through a separate effort in coordination with staff. The 2025 Transportation Master Plan incorporates those updates and carries them forward. The intent remains to provide practical and effective standards that serve all users while minimizing maintenance and right-of-way impacts. The established street sections, reflecting current volume, lane width, and lane quantity, are summarized in the table below and described in the following pages. **A complete set of typical sections may be found on the City's website.**

Classification	Daily Volume Range	No. of Thru Lanes	Minimum Lane Width	Bike Lane[1]	Parking Lane Width	Typical Speed Limit
Principal Arterial	12,000–32,000	4-5	13/12*	YES	N/A	35
Minor Arterial	6,000–15,000	2-4	11*	YES	N/A	35
Major Collector	4,000–12,000	2-3	11*	YES	8'	35
Minor Collector	1,500–5,000	2-3	11*	YES	8'	35
Res Collector**	800–2,000	2	N/A	OPT	7'	25
Local Residential**	0–1,000	2	N/A	N/A	6'	25
Local-Commercial/ Industrial	0–2,500	2	N/A	N/A	8'	25

[1] *Bicycle or parking lanes are contingent on designated route or area.*

** Less than 12' lane widths may be considered in the adaptation of existing roadways Typically an 11' minimum lane width would be preferred; however, 10' lane widths may be considered for use with the City Engineers discretion*

*** Maintain a minimum 20' Emergency Access*

Arterial Streets

Arterial streets are intended to move traffic, loaded from collector streets, between areas and across a city or region. New residential property development or redevelopment of existing property should not face or be provided with access onto arterial streets.

Principal arterial streets are intended to serve as primary routes for travel between major urban activity centers. These streets function in a similar manner to minor arterials but generally carry a higher traffic volume of 12,000 per day or more. The traffic carrying capacity of this section is approximately 32,000 vehicles per day.

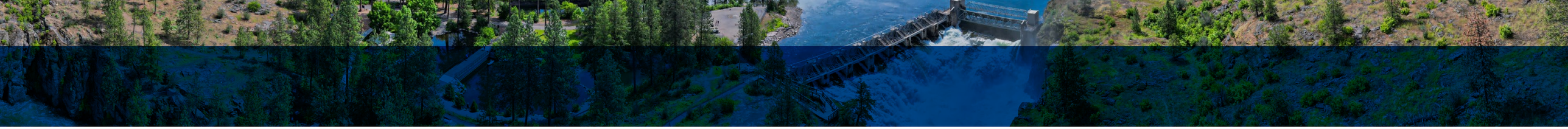
A typical two-way principal arterial shall be a 76-foot wide roadway, which provides four 12-foot lanes and 14-foot center left-turn lane. The right-of-way width shall be 110 feet. The 14-foot wide center turn lane could also be replaced with a raised concrete barrier or center median instead of the center left-turn lane. The raised median shall be 10 feet wide and the adjacent travel lanes shall be widened to 14 feet. There are currently four Principal Arterials in Post Falls, each with a unique cross section: SH-41, Prairie Avenue, Seltice Way, and Pleasant View Road. The speed limits vary from 35 mph to 55 mph.

The construction of SH-41 was completed in 2022 and includes a shared-use path on the east side. The City will incorporate a shared-use path on the west side that will be built in sections as private development occurs.

Prairie Avenue is a principal arterial serving east/west movements between the western portions of Post Falls and Coeur d'Alene with a speed limit between 35-45 mph. The ultimate configuration of this section will include two-12' lanes in each direction with a 12' center turn lane (76' curb to curb width). Prairie Avenue will also include swales and a 10' shared-use path on each side. The overall roadway width is 76' from curb to curb with a minimum right-of-way of 110'.

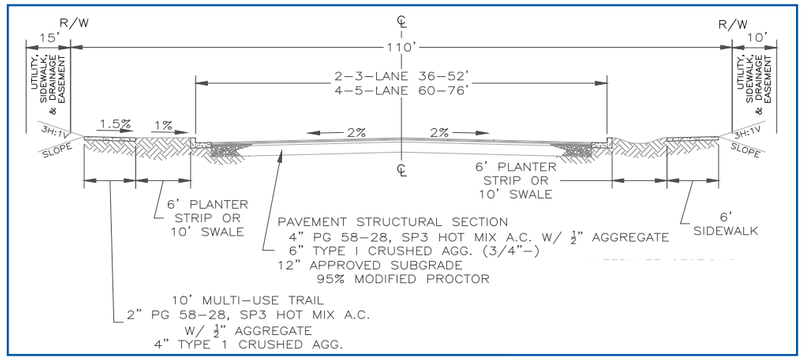
Seltice Way through the City currently consists of two lanes in each direction of varying width and several sections with a center turn lane with a speed limit ranging between 30 and 45 mph. The City of Post Falls has several existing cross sections along Seltice Way; with varying amounts of adjoining development, speed limits and urban improvements. **A series of recommended configurations of Seltice Way have been defined based on the segments identified below:**

STATELINE TO PLEASANT VIEW:	4-Lane section with a shared use path on one side
PLEASANT VIEW TO MCGUIRE:	5-Lane section with one-way cycle tracks on each side and sidewalks on both sides
MCGUIRE TO CHASE:	5-Lane section with 10' paths on both sides
CHASE TO IDAHO (2-WAY):	5-Lane section with sidewalks on both sides
IDAHO TO SH-41:	5-Lane section with sidewalks on both sides. (Alternate section includes narrowed 10' lanes with 7' bicycle lanes)
SH-41 TO HUETTER RD:	5-lane section that splits to a divided facility with bicycle and pedestrian facilities.



Minor arterial streets are intended to carry between 6,000 and 15,000 vehicles per day and have speed limits varying between 25 and 35 mph. If the arterial street volume in the model build out year forecast is less than 1,000 vehicles per hour in the direction of heavier flow, the three lane cross-section should be used. If the volume forecast exceeds 1,000 vehicles per hour in the direction of heavier flow, then a five-lane cross section may be used.

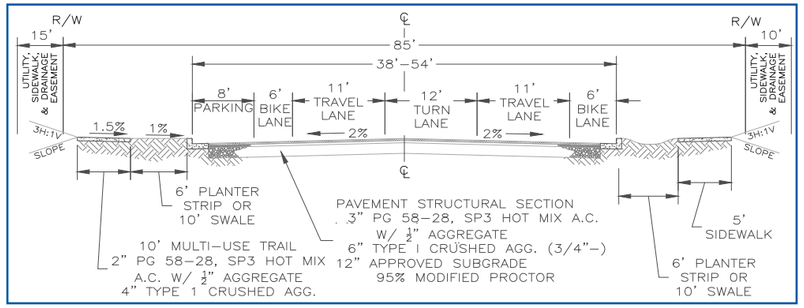
Minor arterial streets shall be constructed with three- or five-lane cross sections; accordingly, a right-of-way width of 110 feet shall be reserved. The minimum 34-foot paved width provides two 12-foot travel lanes and two 5-foot bike lanes. The 76-foot paved width of the five-lane section includes four travel lanes, one center-turn lane, and two 5-foot buffered bike lanes. A 10-foot wide multi-use trail will be provided on one side of the roadway. On-street parking is not provided on arterial street sections.



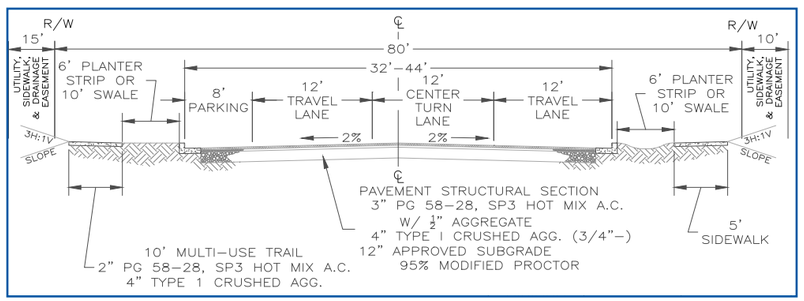
Collector Streets

Collector streets begin the shift from mobility to access in the hierarchy of roadways. They "collect" traffic from the local street network and provide access to residences and businesses. Collector streets often include on-street parking, which provides for variation in the required pavement width. The presence of on-street parking is dependent on the corridor and adjacent land use and side development characteristics.

Major collector streets maintain more of a focus on mobility needs rather than access. They are intended to carry between 4,000 and 12,000 vehicles per day. The following figure shows a typical section with an 85-foot right-of-way and a 38-foot to 52-foot paved width. The Major Collector allows for two 11- or 12-foot travel lanes, two 5-foot bike lanes or 7-foot buffered bike lanes, an optional center turn lane, an optional on-street parking lane, and a 10-foot wide multi-use trail on one side of the roadway and a 5-foot wide sidewalk on the opposing side. In locations where more on-street parking is desired or where a continuous center turn lane is determined unnecessary, the center turn lane can be eliminated.

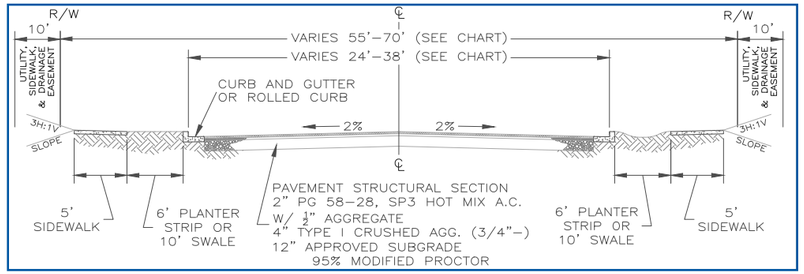


Minor collector streets are primarily intended to serve abutting lands and local access needs of neighborhoods. Minor collectors are intended to carry between 1,500 and 5,000 vehicles per day, including limited through traffic. The collector could serve residential, commercial, industrial, or mixed land uses. The figure below shows the typical section with an 80-foot right-of-way and a 32 to 44-foot paved width. The paved width can be used for several different street section configurations, including on-street parking, center turn lanes, and bike lanes. The 32-foot section, for example, can accommodate two 11-foot travel lanes and two 5-foot bicycle lanes. Sidewalks are required on one side of the street with a multi-use trail on the opposing side. See the Planned Bicycle Network, herein, for guidance.



Local Streets

Local streets are intended to serve the adjacent land without carrying through traffic. These streets shall be designed to carry less than 2,500 vehicles per day. To maintain low volumes, local streets shall be designed to encourage low speed travel; typically 25 mph. Street standards have been established for the local residential streets, allowing 24 to 38 feet of paved surface. The variation in paved surface widths allows for segments with parking on one or both sides and narrower travel lanes when desired. Narrower streets generally improve the neighborhood aesthetics, and discourage speeding as well. They also reduce right-of-way needs, construction and maintenance costs, storm water run-off, and vegetation clearance. Right-of-way for local residential streets may be between 55 and 70 feet. Multi-use trails are not recommended for inclusion on a local street where driveways are frequent. Traffic calming features such as intersection traffic circles, curb extensions or bulb-outs, center medians, or chicanes shall be encouraged on local residential streets.

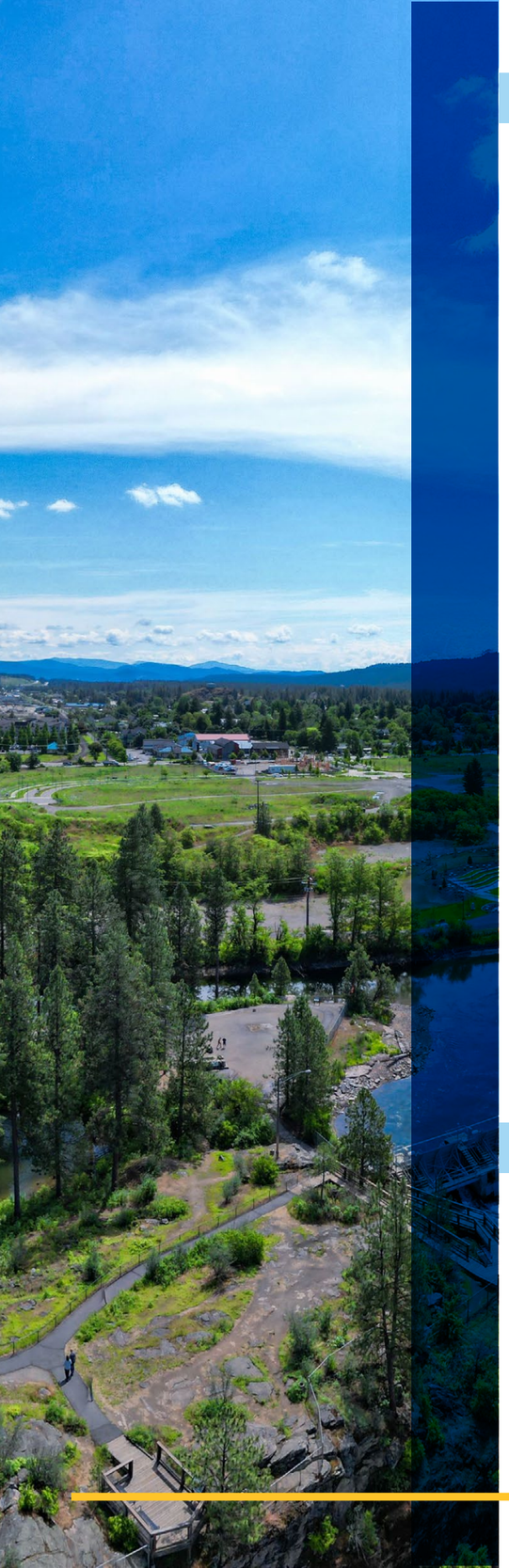


The City standard Local Residential street is 32 feet in width with parking on both sides, which includes two six-foot parking lanes and a 20-foot travel way. Additional variations of the Local-Residential street are included in table below:

Paved Width	R/W Width	Parking Lanes	Other
24'	N/A	None	Private Only
28'	60'	1 side	
32'	65'	2 sides	
36'	70'	2 sides	
38'	70'	None	5' Bike Lane

Another option for local streets applies to commercial and industrial areas. These streets have a standard 40-foot paved width to accommodate two 12-foot lanes and parking lanes on both sides. Right-of-way for local industrial/commercial streets should be 75 feet. Local industrial/commercial streets should be applied where the land use is primarily commercial, where there is a high percentage of truck traffic, and/or transit facilities are present.

As volumes increase on local streets in excess of 800 vehicles per day, the residents begin to notice the higher volumes and often complain about increasing traffic, noise, and potential accidents. With increasing traffic on a roadway dedicated to access (versus mobility), a wider roadway section should be considered.



OPERATIONAL STANDARDS

The operating conditions experienced by motorists are described as Levels of Service (LOS). LOS is a qualitative measure of the effect of a number of quantitative factors, including speed and travel time, traffic interruptions, ability to maneuver, and driving comfort and convenience. Levels-of-service are designated “A” through “F,” from best to worst, and cover the entire range of traffic operations that might occur. Levels-of-service “A” through “E” generally represent traffic volumes at less than roadway capacity, while LOS “F” represents over-capacity and /or forced flow conditions. A facility operating at LOS E is commonly referred to as at capacity. When a development project is proposed, the operation standard is for the build out plus 10 years; meaning a project should not exceed the LOS for at least 10 years beyond the completion of the project.

The LOS requirements have been set to LOS D for signalized intersections, with no major movements below LOS E. For unsignalized intersections, the requirement is set at LOS E. These LOS standards achieve optimal balance between peak-hour capacity and off-peak mobility, allowing a slightly higher level of congestion during the peak hour while operations remain below capacity. For many two-way stop controlled intersections, the failing approach has a very low volume. In these situations, additional measures of effectiveness may be allowed upon the City’s discretion such as V/C ratio, delay or queue length. The recommended operational requirements are presented in the table below. The City may choose to waive some of these requirements and accept a lesser LOS if other factors such as neighborhood context or cost make such improvements infeasible.

Classification	Location	Signalized LOS	Unsignalized LOS	Low Volume Approach V/C	Queue Length
Principal Arterial	CBD	LOS D for overall intersection; no major movements below LOS E	LOS E	For failing minor appraoches with very low volumes, alternative measures such as v/c ratio and queue length will be evaluated	200’
	non-CBD				300’
Minor Arterial	CBD				150’
	non-CBD				300’
Major Collector	CBD				150’
	non-CBD				250’
Minor Collector+	CBD				150’
	non-CBD				250’

Note: Non-intersection locations LOS E or better

ACCESS MANAGEMENT STANDARDS

As established in the previous Plan, requirements for Access Management standards are recommended to continue as detailed in the Municipal Code and summarized in the following table. Intersection spacing is typically measured from center to center of intersections or approaches. Additionally, restrictions to left turn movements should be considered within the functional area of intersections. Where Local Residential roadways run parallel to Collector or higher classified roadways, the distance of the first Local/Local roadway intersection back from a Local/Collector (or higher) roadway can be reduced to 150 feet.

In addition to these recommended standards, the City should consider the expansion of access restrictions to private property to and from roadways (driveways) within 600 feet of Principle Arterial Roadways. Such installations have been shown to create safety hazards and negatively impact efficient roadway operations.

Functional Classification	Spacing Between Approaches	Spacing Between Intersection
Principal Arterial	300 feet	1320 feet (1/4 mile)
Minor Arterial	200 feet	500 feet
Major Collector	150 feet	250 feet
Minor Collector	75 feet	250 feet
Local (residential)	Each Lot	250 feet
Local (commercial/industrial)	50 feet	250 feet

These Access Management Standards are subject to additional restrictions as identified in the Critical Arterial Corridor (CAC) Policy by Kootenai Metropolitan Planning Organization (KMPO).

TRAFFIC IMPACT STUDY STANDARDS

As established in the previous TMP, requirements for Traffic Impact Studies are recommended to continue as detailed in this section. A traffic impact study (TIS) is a comprehensive study that analyzes all surface transportation modes, including pedestrians, bicycles, vehicles, and other public transportation services, that would be affected by a development. The impact analysis area is generally larger than just the immediate project site. The TIS describes the transportation improvements necessary to accommodate traffic volumes generated by the development. The TIS documents the extent of impact of the proposed development on the surrounding transportation network, including additional trips, resulting level of service during AM and PM peaks, and the need for auxiliary lanes or other special capacity or safety features.

- The TIS shall be prepared in accordance with the latest version of the Idaho Transportation Board’s Policy, Requirements for Transportation Studies. This policy requires that the TIS be funded by the developer and conducted by an engineer licensed by the State of Idaho.
- The TIS shall document the extent of the impact of the proposed development on the surrounding transportation system, including additional trips, resulting level of service during AM and PM peaks, and the need for auxiliary lanes or other special capacity or safety features. Any required changes in traffic control, land use, access, pedestrian, or bicycle usage shall also be discussed.
- A “full” TIS is required for developments that will generate 100 or more trips per hour (total two-way traffic) during the highway’s peak hour, or when the total added volume will equal or exceed 1,000 vehicles per day (or a lesser volume when specified by the City).
- A “minor” TIS is required for developments that will generate between 25 and 99 new peak hour trips or that will add from 250 to 999 vehicles per day.

While the number of trips described above is designed to define the type of TIS required, the ADT and level of service of the existing roadway in combination with the number of trips may dictate the need for a “full” TIS. In addition the City Engineer has discretion for foregoing or requiring TIS’s beyond these standards based on project location, adjoining improvements, scheduled projects from the CIP, and how the project fits into the modeling assumptions of this master plan.

TRANSPORTATION IMPLEMENTATION PLAN

During the development of this Transportation Master Plan, traffic modeling and analysis were used to identify the recommended capital improvements presented in the Transportation Planning section. These projects were based on projected growth patterns and illustrate how the City's transportation system is expected to operate as development occurs at the locations and intensities anticipated both locally and regionally.

The timing of these improvements will ultimately depend on the actual pace, location, and intensity of development within and around the City. Project delivery may also be influenced by available funding and opportunities to coordinate larger improvements with other agencies or with private development. In some cases, coordination may accelerate project delivery, while in others it may delay implementation.

Where intersection improvements include roundabouts or traffic signals, field verification of traffic volumes and review of safety data should occur prior to construction to ensure the timing of improvements aligns with accepted engineering warrants and operational needs. In some instances, projects may be implemented on a schedule different from the modeled sequence in order to coordinate funding or construction activities, which may result in certain locations operating at slightly lower levels of service for a limited period of time.

The following pages present an Implementation Plan that refines the broader set of projects identified through the analysis. Recognizing the realities of funding availability and project delivery, some improvements are programmed for longer-term implementation to present a more feasible and strategic approach to advancing capital investments. The Implementation Plan therefore represents a practical scenario for transportation improvements based on the current understanding of development patterns, growth expectations, and likely funding conditions at the time of publication.

- Short-Term Implementation Table
- Short-Term Implementation Projects
- Medium-Term Implementation Table
- Medium-Term Implementation Projects
- Long-Term Implementation Table
- Long-Term Implementation Projects
- Multimodal Implementation Table
- Multimodal Implementation Projects

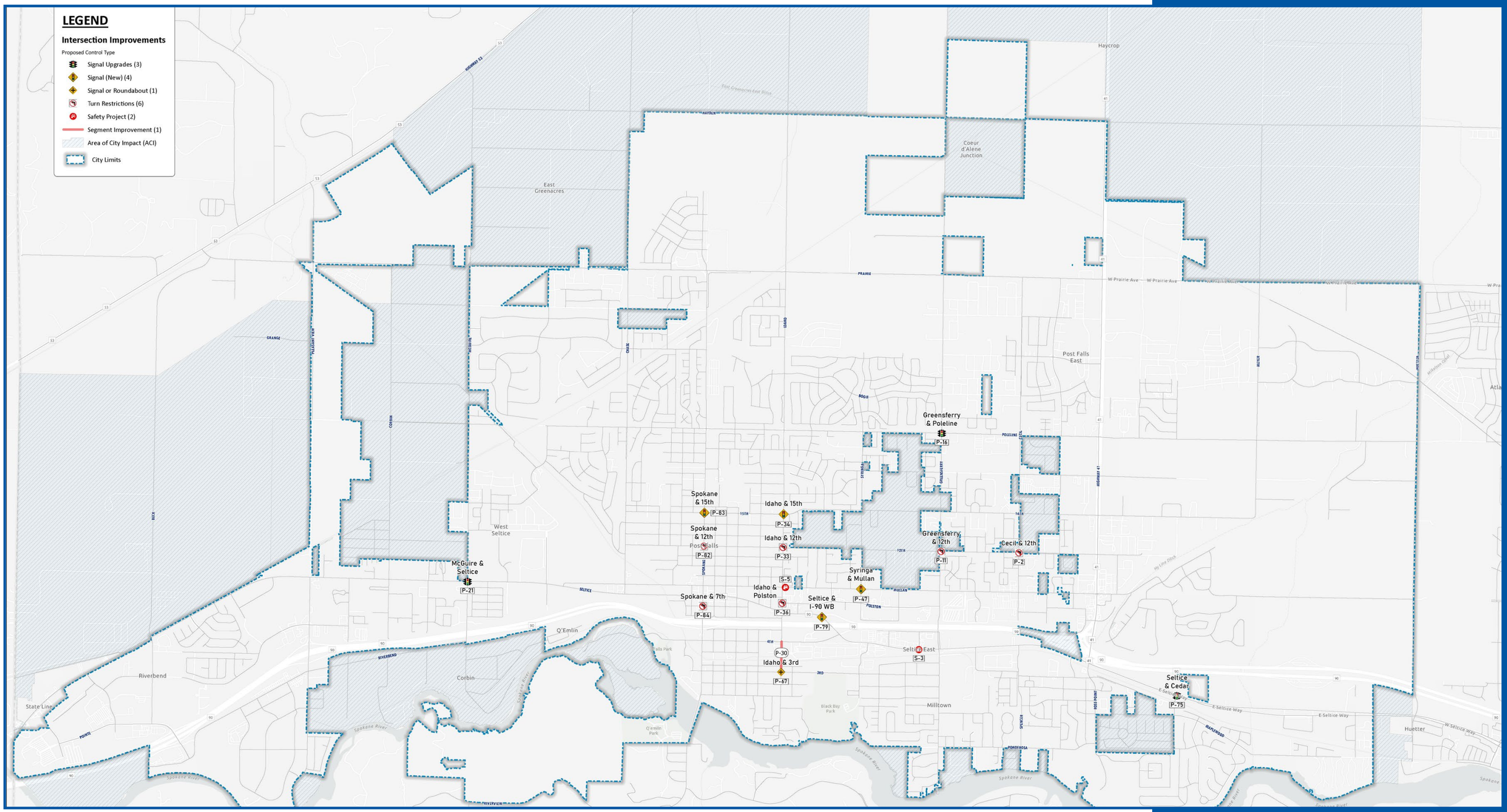


SHORT-TERM IMPLEMENTATION TABLE

GRAND TOTAL (2025 Dollars): $10,342,000

Project Code	Project Name	Short Project Description	2025 Costs	Developer	Impact Fees	Other	Impact Fees	Detailed Project Description
P-2	Cecil Rd & 12th Ave Intersection	Install 3/4 Turn Movement Channelization	$332,000		100%		$332,000.00	Install ¾ turn movement channelization with center island, restricting east-west through and left turning 12th Ave traffic. Include signage, striping, and pedestrian safety features.
P-11	Greensferry Rd & 12th Ave Intersection	Install 3/4 Turn Movement Channelization	$230,000		100%		$230,000.00	Install ¾ turn movement channelization with center island, restricting east-west through and left turning 12th Ave traffic. Include signage, striping, and pedestrian safety features.
P-16	Greensferry Rd & Poleline Ave Intersection	Reconfigure Intersection & Signal	$660,000		100%		$660,000.00	Relocate existing signal in northeast corner to accommodate 5-lane greensferry Road Section, provide northbound right turn pocket, upgrade traffic signal electronics, provide ADA modifications.
P-21	Mcguire Rd & Seltice Way Intersection	Reconfigure Intersection & Add Signal	$279,000		100%		$279,000.00	Reconfigure intersection and upgrade signal. Include ADA-compliant ramps and pedestrian crossings. Coordinate with corridor improvements.
P-30	Idaho St Corridor - 3rd Ave to 4th Ave	Roadway Extension (3 lanes)	$1,794,000		20%	80%	$358,800.00	Widen to three lanes. Include sidewalks, bike lanes, and stormwater facilities. Assume railroad crossing to be abandoned.
P-33	Idaho St & 12th Ave Intersection	Install 3/4 Turn Movement Channelization	$125,000		100%		$125,000.00	Install ¾ turn movement channelization with center island, restricting east-west through and left turning 12th Ave traffic. Include signage, striping, and pedestrian safety features.
P-34	Idaho St & 15th Ave Intersection	Install New Signal	$1,097,000		100%		$1,097,000.00	Install traffic signal. Include ADA ramps and pedestrian facilities. Coordinate with corridor improvements.
P-36	Idaho St & Polston Ave Intersection	Install Turn Restrictions	$24,000		100%		$24,000.00	Install splitter island on Polston Ave restricting westbound left and through trips. Allow southbound left onto Polston Ave from Idaho Street.
P-47	Mullan Ave & Syringa St Intersection	Install New Signal	$1,143,000		100%		$1,143,000	Install traffic signal. Include ADA ramps and pedestrian facilities. Coordinate with corridor improvements.
P-67	Idaho St & 3rd Ave Intersection	Add Signal or Roundabout	$1,806,000		75%	25%	$1,354,500.00	Install a signal or roundabout. Include ADA ramps and pedestrian facilities. Coordinate with corridor improvements.
P-75	Seltice Way & Cedar St Intersection	Reconfigure Intersection & Add Signal	$650,000	75%	25%		$162,500.00	Reconfigure intersection and add north leg. Developer to add necessary signal pole, construct road improvements, and relocate signal control cabinet. City will update signal electronics and include pedestrian signal heads, ADA ramps, and push buttons.
P-79	Seltice Way & I-90 WB Ramp Intersection	Install New Signal	$623,000		33%	67%	$205,590.00	Install a new signal. Include ADA ramps and pedestrian facilities. ITD lead project and participate at 67%.
P-82	Spokane St & 12th Ave Intersection	Install 3/4 Turn Movement Channelization	$202,000		100%		$202,000.00	Install ¾ turn movement channelization with center island, restricting east-west through and left turning 12th Ave traffic. Include signage, striping, and pedestrian safety features.
P-83	Spokane St & 15th Ave Intersection	Install New Signal	$1,136,000		100%		$1,136,000.00	Reconfigure intersection and install signal. Include ADA ramps and pedestrian facilities. Include roadway improvements from Seltice Way to 660 feet north.
P-84	Spokane St & 7th Ave Intersection	Install 3/4 Turn Movement Channelization	$156,000		100%		$156,000.00	Install ¾ turn movement channelization restricting through and left turns from 7th Ave in the east and west directions. Include signage, striping, and pedestrian safety features.
S-3	Graffiti St & Seltice Way Intersection	Install Right Turn Only Movement Channelization	$25,000			100%	$25,000	Install right turn only channelization on Seltice Way to prevent left turns from Graffiti St onto Seltice Way
S-5	Idaho St & Super1 Foods Driveway Intersection	Install 3/4 Turn Movement Channelization	$60,000			100%	$60,000	Install 3/4 turn movement channelization with center island on Idaho Street restricting EB driveway to right-in/right-out

SHORT-TERM IMPLEMENTATION PROJECTS

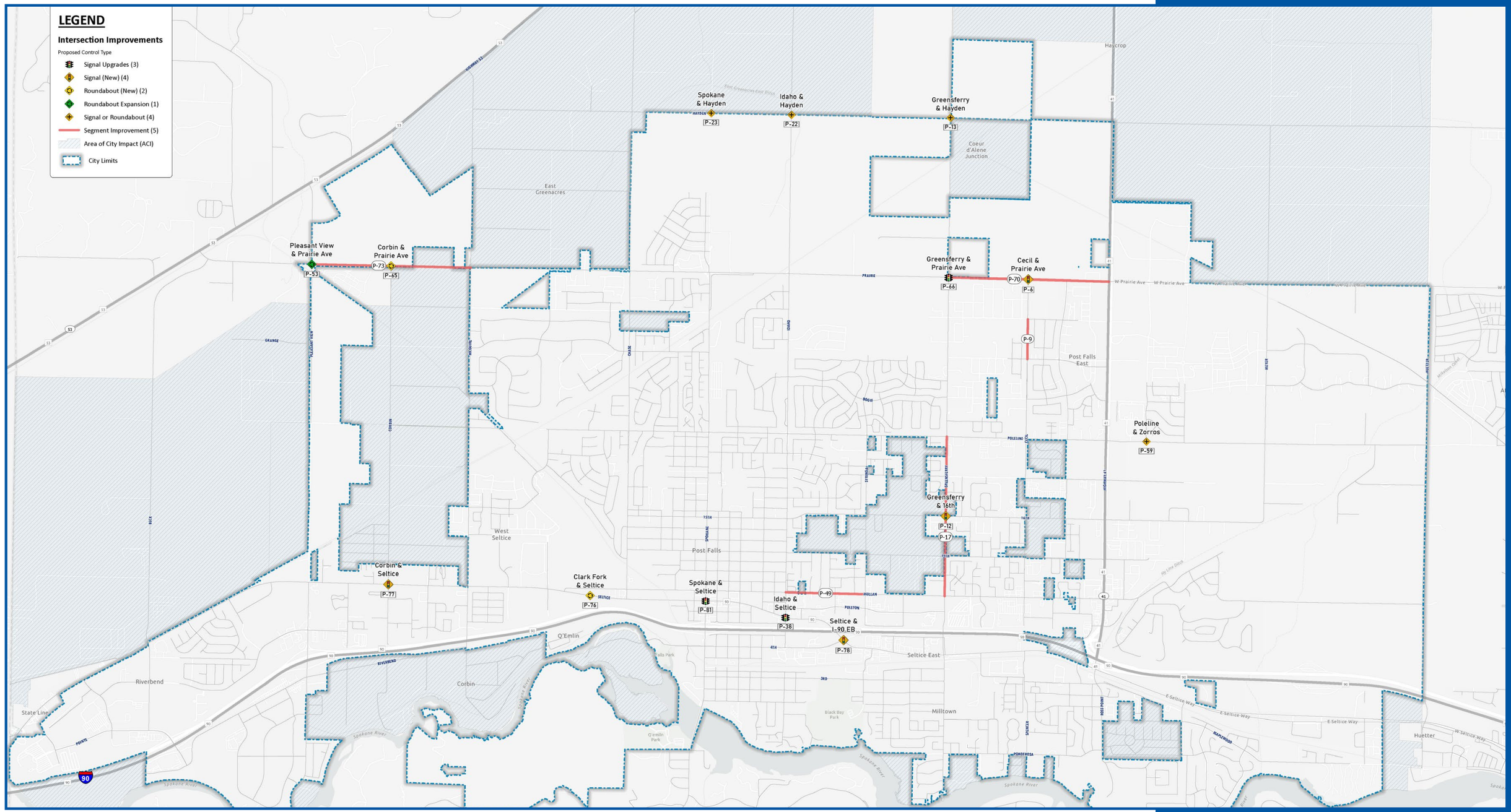


MEDIUM-TERM IMPLEMENTATION TABLE

GRAND TOTAL (2025 Dollars): $53,088,000

Project Code	Project Name	Short Project Description	2025 Costs	Developer	Impact Fees	Other	Impact Fees	Detailed Project Description
P-6	Cecil Rd & Prairie Ave Intersection	Install New Signal	$1,140,000		20%	80%	$228,000.00	Install a new traffic signal at the intersection of Cecil Road and Prairie Avenue. The corridor is already a three-lane facility, so no widening is required at this location. The signal installation should include ADA-compliant curb ramps, pedestrian crossings, and signal interconnect capability with adjacent signals. A future fourth north leg is anticipated; therefore, 50 feet of northbound approach should be constructed to accommodate future development access. URA participation at 80%.
P-9	Cecil Rd Corridor - Killdeer Ave to Hope Ave	Widen to Accomodate 3-lanes	$737,000	80%	20%		$147,400.00	Widen to extend retaining wall, multi-use pathway, curb, gutter and swale on west side from end of existing infrastructure north to Killdeer Avenue. Right-of-way acquisition may be necessary for feasibility.
P-12	Greensferry Rd & 16th Ave Intersection	Install New Signal	$1,090,000	20%	80%		$872,000	Install traffic signal. Include ADA upgrades and pedestrian facilities.
P-13	Greensferry Rd & Hayden Ave Intersection	Add Signal or Multi-Lane Roundabout	$4,254,000		50%	50%	$2,127,000.00	Install a signal or multi-lane roundabout. Include ADA-compliant ramps, pedestrian crossings, and coordination with corridor improvements.
P-17	Greensferry Rd Corridor - Mullan Ave to Poleline Ave	Widen to Accomodate 5-lanes	$5,917,000	100%			$0	Widen to five lanes. Include full arterial section with sidewalks, bike lanes, and stormwater facilities. Account for right-of-way acquisition and utility impacts.
P-22	Hayden Ave & Idaho St Interection	Add Signal or Roundabout	$1,966,000		50%	50%	$983,000.00	Install a signal or roundabout. Evaluate feasibility based on adjacent development and right-of-way. Include ADA ramps and pedestrian crossings. Single lane roundabout assumed for estimating purposes.
P-23	Hayden Ave & Spokane St Intersection	Add Signal or Roundabout	$2,045,000	50%	50%		$1,022,500.00	Install a signal or roundabout. Include ADA ramps and pedestrian facilities. Evaluate feasibility based on intersection geometry.
P-38	Idaho St & Seltice Way Intersection	Reconfigure Intersection & Signal	$1,101,000		20%	80%	$220,200.00	Reconfigure intersection to include eastbound right turn lane, dual southbound left turn lanes, single southbound through lane, single southbound right turn lane, and upgrade signal. Include ADA-compliant ramps and pedestrian facilities. ITD participation assumed at 80%.
P-49	Mullan Ave Corridor - Idaho St to Syringa St	Widen to Accomodate 5-lanes	$391,000		100%		$391,000	Widen to five lanes. Include full arterial section. Account for constrained parcels and right-of-way acquisition.
P-53	Pleasant View Rd & Prairie Ave Intersection	Reconstruct to New Multi-Lane Roundabout	$7,112,000		100%		$7,112,000.00	Construct a new multi-lane roundabout. Include full reconstruction and ADA-compliant pedestrian facilities.
P-59	Poleline Ave & Zorros St Intersection	Add Signal or Roundabout	$5,918,000		100%		$5,918,000.00	Install a signal or roundabout. Include ADA ramps and pedestrian facilities. Evaluate feasibility based on adjacent development.
P-65	Prairie Ave & Corbin Rd Intersection	Add New Multi-Lane Roundabout	$4,906,000		100%		$4,906,000.00	Construct a new multi-lane roundabout. Include full reconstruction, ADA-compliant ramps, and pedestrian crossings.
P-66	Prairie Ave & Greensferry Rd Interstion	Reconfigure Intersection & Signal	$818,000		100%		$818,000.00	Reconfigure intersection and signal adding a single through lane in the east and west bound directions. Include ADA-compliant ramps and pedestrian facilities.
P-70	Prairie Ave Corridor - Greensferry Rd to SH-41	Widen to Accomodate 5-lanes	$3,419,000	25%	25%	50%	$854,750.00	Widen to five lanes. Include full arterial section with sidewalks, bike lanes, and stormwater facilities. Account for constrained parcels and acquisitions. Developers to cover curb&gutter, roadway illumination, bike lane, swales and multi-use path, Impact fees for traffic lane widening, URA Cecil to SH41
P-73	Prairie Ave Corridor - Pleasant View Rd to McGuire Rd	Widen to Accomodate 5-lanes	$6,021,000	80%	20%		$1,204,200.00	Widen to five lanes. Include full arterial section. Coordinate with adjacent development and intersection upgrades. Impact Fee costs for 1 east bound and 1 westbound lane, developer shares remainder of costs.
P-76	Seltice Way & Clark Fork PKWY Intersection	Add New Multi-Lane Roundabout	$4,060,000		100%		$4,060,000.00	Construct a new multi-lane roundabout. Include full reconstruction, ADA upgrades, and pedestrian facilities.
P-77	Seltice Way & Corbin Rd Intersection	Install New Signal	$738,000		100%		$738,000.00	Install a new signal. Include ADA-compliant ramps and pedestrian crossings. Coordinate with corridor improvements.
P-78	Seltice Way & I-90 EB Ramp Intersection	Install New Signal	$629,000			100%	$0	Install a new signal. Include ADA ramps and pedestrian facilities. Coordinate with I-90 interchange improvements.
P-81	Seltice Way & Spokane St Intersection	Reconfigure Intersection & Signal	$826,000			100%	$0	Reconfigure intersection to include dual northbound left turn lanes, a single northbound right turn lane, a single eastbound right turn lane, and dual westbound left turn lanes. Upgrade signal accordingly. Include ADA ramps and pedestrian facilities.

MEDIUM-TERM IMPLEMENTATION PROJECTS



LONG-TERM IMPLEMENTATION TABLE

Project Code	Project Name	Short Project Description	2025 Costs	Developer	Impact Fees	Other	Impact Fees	Detailed Project Description
P-1	Beck Rd & Pointe PKWY Intersection	Reconfigure Intersection & Signal	$1,036,000		50%	50%	$518,000	Reconfigure the existing intersection adding a northbound right turn lane and upgrade traffic signal. ADA-compliant curb ramps and pedestrian crossings are required. Adjacent signal timing coordination is recommended.
P-3	Cecil Rd & 16th Ave Intersection	Add Signal or Roundabout	$1,879,000		100%		$1,879,000	Install either a signal or a roundabout at Cecil Road and 16th Avenue. ADA upgrades and pedestrian facilities are required. Single lane roundabout assumed for estimating purposes.
P-4	Cecil Rd & Hope Ave Intersection	Install New Signal	$878,000		100%		$878,000	Install a new traffic signal at Cecil Road and Hope Avenue. Although roundabouts are generally preferred by the city, the intersection is constrained on all four corners, making a roundabout infeasible. The signal installation should include ADA-compliant curb ramps, pedestrian crossings, and signal coordination with adjacent intersections.
P-5	Cecil Rd & Mullan Ave Intersection	Reconfigure Intersection & Signal	$1,455,000		100%		$1,455,000	Reconfigure the intersection and upgrade the existing signal at Cecil Road and Mullan Avenue. Improvements include adding turn lanes, modifying signal phasing, and reconstructing ADA ramps. The intersection must accommodate future corridor widening to three lanes. Adjacent school and residential properties limit expansion options, requiring careful design to avoid significant impacts.
P-8	Cecil Rd Corridor - Bogie Dr to 12th Ave	Widen to Accomodate 3-lanes	$4,077,000	100%			$0	Widen Cecil Road from Bogie Drive to 12th Avenue to a three-lane section. Existing pavement width is approximately 38 feet; widening to 46 feet is required. The corridor includes constrained areas with existing curb and gutter and adjacent residential development. The corridor transitions to three lanes near 12th Avenue, so tapering and transition design must be incorporated.
P-10	Chase Rd & Poleline Ave Intersection	Add New Single-Lane Roundabout	$1,889,000		100%		$1,889,000	Construct a single-lane roundabout at the intersection of Chase Road and Poleline Avenue. The geometry supports feasibility. The roundabout should include full intersection reconstruction, ADA-compliant ramps, pedestrian crossings, and appropriate signage.
P-14	Greensferry Rd & Hope Ave Intersection	Add Signal or Roundabout	$4,391,000	20%	80%		$3,512,800	Install a signal or roundabout and extend Hope Ave west to the western boundary of Greensferry Elementary. Consider constraints on all corners. Include ADA upgrades and pedestrian facilities. Assumed 2 lane roundabout for estimating purposes.
P-15	Greensferry Rd & Horsehaven Rd Intersection	Install New Signal	$1,120,000		100%		$,1,120,000	Install new traffic signal. Include ADA ramps and pedestrian crossings.
P-18	Greensferry Rd Corridor - Poleline Ave to Prairie Ave	Widen to Accomodate 3-lanes	$3,458,000	100%			$0	Widen to three lanes. Include ADA-compliant features, stormwater swales, and pedestrian improvements. Coordinate with adjacent intersection upgrades.
P-19	Greensferry Rd Corridor - Prairie Ave to Hayden Ave	Widen to Accomodate 3-lanes	$8,050,000	100%			$0	Widen to three lanes. Include ADA ramps, sidewalks, and stormwater improvements. Consider future development and right-of-way needs.
P-20	Hayden Ave & Chase Rd Intersection	Add Signal or Roundabout	$1,813,000		50%	50%	$906,500	Install a signal or roundabout. Evaluate feasibility based on adjacent development and right-of-way. Include ADA ramps and pedestrian crossings. Single lane roundabout used for estimating purposes.
P-24	Hayden Ave Corridor - McGuire Rd to SH-41	Widen to Accomodate 3-lanes	$26,850,000	50%	30%	20%	$8,055,000	Widen to three lanes. Include sidewalks, bike lanes, and stormwater facilities. Consider future development and right-of-way constraints. This is a multi jurisdictional project that impacts regional mobility. City Impact fees for southern frontage improvements (Spokane-Greensferry).
P-25	Huetter Rd Corridor - Mullan Ave to Poleline Ave	Widen to Accomodate 5-lanes	$10,534,000			100%	$0	Widen to five lanes. Include full arterial section with sidewalks, bike lanes, and stormwater swales. Account for significant cut/fill and borrow.
P-26	Huetter Rd Corridor - Poleline Ave to Prairie Ave	Widen to Accomodate 5-lanes	$6,718,000			100%	$0	Widen to five lanes. Include full arterial section. Coordinate with adjacent corridor and intersection projects.
P-27	Huetter Rd Corridor - Selctive Ave to Mullan Ave	Widen to Accomodate 5-lanes	$8,173,000			100%	$0	Widen to five lanes. Coordinate with I-90 bridge improvements. Include full arterial section with pedestrian and stormwater features.
P-28	Huetter Rd & Mullan Ave Intersection	Reconfigure Intersection & Signal	$1,601,000	100%			$0	Reconfigure intersection adding left turn lanes in all directions and upgrade signal. Include ADA ramps and pedestrian crossings.
P-29	Huetter Rd & Poleline Ave Intersection	Reconfigure Intersection & Signal	$1,525,000	100%			$0	Reconfigure intersection adding a second through lane in each direction and upgrade signal. Include ADA ramps and pedestrian crossings. Coordinate with corridor widening.

LONG-TERM IMPLEMENTATION TABLE *(continued)*

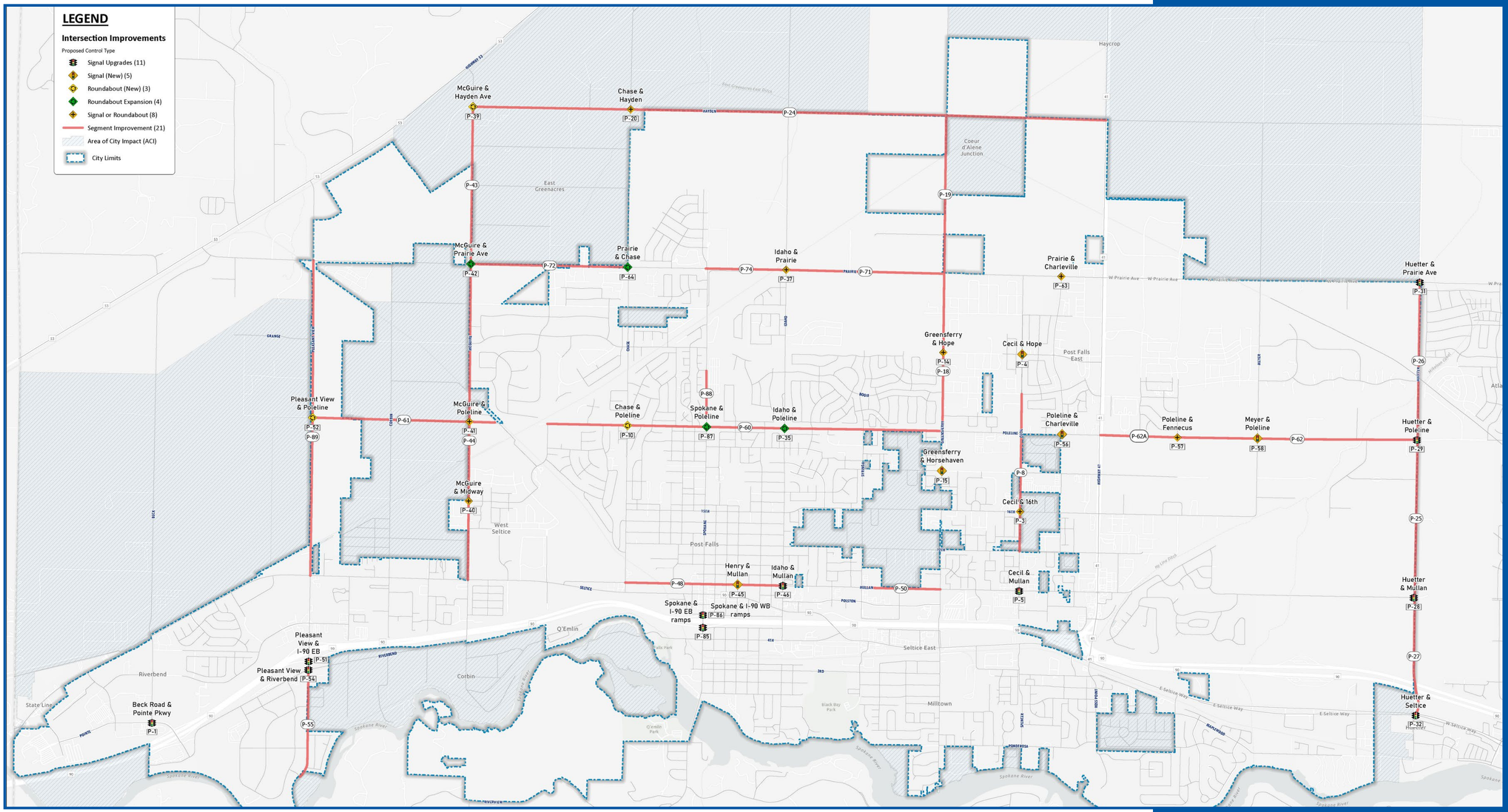
Project Code	Project Name	Short Project Description	2025 Costs	Developer	Impact Fees	Other	Impact Fees	Detailed Project Description
P-31	Huetter Rd & Prairie Ave Intersection	Reconfigure Intersection & Signal	$547,000			100%	$0	Reconfigure intersection to include separate right turn lanes in each direction and dual northbound right turns and upgrade signal. Include ADA ramps and pedestrian crossings. Coordinate with corridor widening.
P-32	Huetter Rd & Seltice Way Intersection	Reconfigure Intersection & Signal	$2,872,000			100%	$0	Reconfigure intersection adding dual eastbound lefts, dual southbound lefts, separate westbound right turn lanes and upgrade signal. Include ADA-compliant ramps and pedestrian facilities.
P-35	Idaho St & Poleline Ave Intersection	Add Slip Lanes	$571,000		100%		$571,000.00	Construct slip lanes on remaining three legs, adjust pedestrian facilities.
P-37	Idaho St & Prairie Ave Intersection	Add Signal or Multi-Lane Roundabout	$5,608,000		100%		$5,608,000	Install signal or multi-lane roundabout. Evaluate feasibility based on traffic volumes and corridor consistency. Include ADA upgrades.
P-39	McGuire Rd & Hayden Ave Intersection	Add Single Lane Roudabout	$1,776,000			100%	$0	Add single lane roundabout.
P-40	McGuire Rd & Midway Ave Intersection	Add Signal or Multi-Lane Roundabout	$5,001,000		100%		$5,001,000	Install a signal or roundabout. Include ADA-compliant ramps and pedestrian facilities. Evaluate feasibility based on adjacent development.
P-41	McGuire Rd & Poleline Ave Intersection	Add Signal or Multi-Lane Roundabout	$4,648,000		100%		$4,648,000	Install a signal or roundabout. Include ADA ramps and pedestrian crossings. Coordinate with corridor improvements.
P-42	McGuire Rd & Prairie Ave Intersection	Reconstruct to Multi-Lane Roundabout	$4,224,000		100%		$4,224,000	Reconstruct to a multi-lane roundabout. Include full reconstruction, ADA upgrades, and pedestrian facilities.
P-43	McGuire Rd Corridor - Prairie Ave to Hayden Ave	Widen to Accommodate 3-lanes	$8,743,000	100%			$0	Widen to three lanes. Include full reconstruction due to pavement distress. Include curb, gutter, sidewalk, bike lanes, and stormwater facilities.
P-44	McGuire Rd Corridor - Prairie Ave to Seltice Way	Widen to Accommodate 5-lanes	$20,003,000	50%	50%		$10,001,500	Widen to five lanes. Include full arterial section. Account for railroad crossing costs and right-of-way acquisition. 50% Impact fee for costs of replacing existing curb locations and widening along sections of roadway with urban improvements.
P-45	Mullan Ave & Henry St Intersection	Install New Signal	$902,000		100%		$902,000	Reconfigure intersection and upgrade signal. Include ADA-compliant ramps and pedestrian crossings.
P-46	Mullan Ave & Idaho St Intersection	Reconfigure Intersection & Signal	$1,423,000		100%		$1,423,000	Reconfigure intersection adding dual westbound lefts, a separate northbound right, and upgrade signal. Include ADA ramps and pedestrian facilities. Coordinate with corridor improvements.
P-48	Mullan Ave Corridor - Idaho St to Chase Rd	Widen to Accommodate 3-lanes	$12,141,000	40%	60%	-	$7,284,600	Widen to three lanes. Include full reconstruction, ADA upgrades, and stormwater improvements. Remove and replace sections of urban improvements that do not comply with 3-lane section by impact fees. Developers are responsible for frontage improvements along sections that have no existing improvements.
P-50	Mullan Ave Corridor - Syringa St to Greensferry Rd	Widen to Accommodate 5-lanes	$5,438,000	100%			$0	Widen to five lanes. Include full arterial section. Address pinch points and constrained parcels.
P-51	Pleasant View Rd & I-90 EB Ramp Intersection	Reconfigure Intersection & Signal	$687,000			100%	$0	Reconfigure intersection to include a separate northbound right turn lane and upgrade signal. Include ADA-compliant ramps and pedestrian facilities. Coordinate with I-90 interchange improvements.
P-52	Pleasant View Rd & Poleline Ave Intersection	Add a New Multi-Lane Roundabout	$4,198,000		100%		$4,198,000	Construct a new multi-lane roundabout. Include full reconstruction, ADA upgrades, and pedestrian crossings.
P-54	Pleasant View Rd & Riverbend Ave Intersection	Reconfigure Intersection & Signal	$955,000		100%		$955,000	Reconfigure intersection with restriping to accommodate protected east bound and west bound left turn lanes and upgrade signal. Remove east bound and west bound split phasing. Update signal timing and geometry. Consider ped scramble timing.
P-55	Pleasant View Rd Corridor - Riverbend Ave to Owyhee St.	Widen to Accommodate 3-lanes	$2,821,000	33%	67%		$1,890,070	Configure roadway as 3-lane from Riverbend to Lochsa St. Construct 2-lanes with onstreet parking (east side) and bike lanes south of Lochsa St. Include ADA-compliant ramps, sidewalks, and stormwater improvements. Coordinate with adjacent development.
P-56	Poleline Ave & Charleville Rd Intersection	Install New Signal	$1,124,000		100%		$1,124,000	Install new signal. Include ADA-compliant ramps and pedestrian crossings.

LONG-TERM IMPLEMENTATION TABLE *(continued)*

GRAND TOTAL (2025 Dollars): $261,792,000

Project Code	Project Name	Short Project Description	2025 Costs	Developer	Impact Fees	Other	Impact Fees	Detailed Project Description
P-57	Poleline Ave & Fennecus Rd Intersection	Add Signal or Roundabout	$4,510,000		100%		$4,510,000	Install a signal or roundabout. Include ADA ramps and pedestrian facilities. Coordinate with corridor improvements.
P-58	Poleline Ave & Meyer Rd Intersection	Install New Signal	$628,000			100%	$0	Install a new signal. Include ADA-compliant ramps and pedestrian crossings. Coordinate with corridor widening.
P-60	Poleline Ave Corridor - Clark Fork PKWY to Greesferry Rd	Widen to Accommodate 3-lanes	$8,507,000	50%	50%		$4,253,500	Widen to three lanes. Include ADA-compliant ramps, sidewalks, and stormwater improvements. Coordinate with adjacent intersection upgrades and multimodal project.
P-61	Poleline Ave Corridor - Pleasant View Rd to Roslyn Dr	Widen to Accommodate 3-lanes	$7,388,000	100%			$0	Widen to three lanes. Include ADA ramps, pedestrian facilities, and stormwater swales. Account for right-of-way acquisition.
P-62	Poleline Ave Corridor - Fennecus to Huetter Rd	Widen to Accommodate 5-lanes	$24,074,000	80%	10%	10%	$2,407,400	Widen to five lanes. Include full arterial section. Account for cut/fill, borrow, and utility relocation. Coordinate with adjacent corridor projects. 10% Impact Fees for modifications of roadway at the terminus of SH41 improvements (2022).
P-62A	Poleline Ave Corridor-SH-41 to Fennecus Rd	Widen to Accommodate 5-Lanes	$1,751,000	80%	10%	10%	$175,100	Widen to five lanes. Include full arterial section. Account for cut/fill, borrow, and utility relocation. Coordinate with adjacent corridor projects. 10% Impact Fees for modifications of roadway at the terminus of SH41 improvements (2022).
P-63	Prairie Ave & Charleville Rd Intersection	Add Signal or Roundabout	$4,061,000		10%	90%	$406,100	Install a signal or roundabout. Include ADA-compliant ramps and pedestrian crossings. Evaluate feasibility based on corridor consistency. This is an Urban Renewal project.
P-64	Prairie Ave & Chase Rd Intersection	Reconstruct to Multi-Lane Roundabout	$4,138,000		100%		$4,138,000	Reconstruct to a multi-lane roundabout. Include full reconstruction, ADA upgrades, and pedestrian facilities.
P-71	Prairie Ave Corridor - Idaho St to Greesferry Rd	Widen to Accommodate 5-lanes	$5,718,000	75%	25%		$1,429,500	Widen to five lanes. Include full arterial section. Coordinate with adjacent corridor and intersection projects. Impact fees utilized for center 36 feet of roadway, remaining widening and urban frontage improvements by developer.
P-72	Prairie Ave Corridor - McGuire Rd to Chase Rd	Widen to Accommodate 5-lanes	$14,368,000	75%	25%		$3,592,000	Widen to five lanes. Include full arterial section. Address pinch points and constrained parcels. Impact fees utilized for center 36 feet of roadway, remaining widening and urban frontage improvements by developer.
P-74	Prairie Ave Corridor - Spokane St to Idaho St	Widen to Accommodate 5-lanes	$5,205,000	75%	25%		$1,301,250	Widen to five lanes. Include full arterial section. Account for constrained parcels and right-of-way acquisition. Impact fees utilized for center 36 feet of roadway, remaining widening and urban frontage improvements by developer.
P-85	Spokane St & I-90 EB Intersection	Reconfigure Intersection & Signal	$659,000			100%	$0	Reconfigure intersection to include dual eastbound left turn lanes, a shared through and right eastbound lane, a separate eastbound right turn lane, and upgrade signal. Include ADA-compliant ramps and pedestrian facilities.
P-86	Spokane St & I-90 WB Intersection	Reconfigure Intersection & Signal	$859,000			100%	$0	Reconfigure intersection adding dual northbound lefts, a separate southbound right turn lane, and upgrade signal. Include ADA ramps and pedestrian facilities.
P-87	Spokane St & Poleline Ave Intersection	Modify Existing Roundabout	$570,000		100%		$570,000	Modify single lane roundabout adding north bound and west bound slip lanes. Include ADA upgrades, and pedestrian crossings adjustments.
P-88	Spokane St Corridor - Crestview Dr to Rose Ave	Install Left Turn Pockets at Rose Ave & Crestview Ct	$257,000		100%		$257,000	Install left turn pockets at Rose Ave and Crestview Court. Include pavement widening, striping, and coordination with corridor improvements.
P-89	Pleasant View Rd Corridor - Interstate/UPRR to Hwy 53	Widen to Accommodate 5-lanes	$11,173,000	80%	20%		$2,234,600	Widen to five lanes. Match existing arterial section where it is fully built out. Impact fees utilized for 20% of roadway of widening costs, developer responsible for urban improvements and remainder of widening.

LONG-TERM IMPLEMENTATION PROJECTS



MULTIMODAL IMPLEMENTATION TABLE

PROJECT CODE	PROJECT NAME	2025 COSTS	IMPACT FEES PORTION	OTHER FUNDING	DETAILED DESCRIPTION
MM-1	FREDERICK ST MULTI-MODAL IMPROVEMENTS	$963,000	$963,000		Install sidewalks on both sides beginning at Seltice Way and ending at 16th Street, install Type 2 bike lane (N-S), include 16th connection to PF Middle School
MM-2	6TH AVE PATHWAY & CONNECTIONS	$279,000	$279,000		Connect multi-modal pathway at RR to west end Treaty Rock Rd, install separated pathway along south side of Treaty Rock Rd, west side of Compton St, and south side of 6th Ave, east to Idaho St, install sidewalk connection from 6th to 7th at Post St.
MM-3	IDAHO ST CYCLE TRACK & CENTENNIAL CONNECTION	$47,000	$47,000		Idaho Street, install two-way cycle track from 6th Ave to 5th Ave across bridge (west side only), consider removing NBL from bridge for space (consult queuing analysis)
MM-4	TREATY ROCK CENTENNIAL CONNECTION[1]	$86,000	$86,000		Connect multi-modal pathway under freeway along RR connection MM-2 and westward trail with Centennial Trail, potential RR issues (assume rail will be pathway)
MM-5	3RD AVE MULTI-MODAL IMPROVEMENTS	$301,000	$301,000		3rd Avenue from Spokane Street to Lincoln Street, install Type 2 bike lanes both sides where missing, install sidewalks where missing or insufficient
MM-6	MULLAN AVE CYCLE TRACK, PH 1	$287,000	$287,000		Mullan Ave from Spokane Street to Henry Street, install cycle track on Mullan Ave for lower level of stress for on-street bike lanes
MM-7	COMPTON ST MULTI-MODAL CONNECTIONS	$1,182,000	$1,182,000		Compton Street from Mullan Ave to Poleline Ave, install sharrow lane designation both sides, install sidewalks where missing or insufficient
MM-8	MULLAN AVE CYCLE TRACK, PH 2	$406,000	$406,000		Mullan Ave from Henry Street to Idaho Street, install cycle track on Mullan Ave for lower level of stress for on-street bike lanes
MM-9	12TH AVE MULTI-MODAL IMPROVEMENTS, PH 1	$1,111,000	$1,111,000		12th Ave from Chase Road to Spokane Street, install 2-way cycle track (aka multi-modal pathway separated by median) along south side of 12th Ave. Evaluate narrowing of 12th Ave lanes to achieve multi-modal improvements. Install sidewalks where missing or insufficient. Enhance RRFB crossing at Compton Street (across 12th Ave) with pedestrian infrastructure. At 12th Ave and Spokane Street, install 3/4 turn restriction (N-S) (included in CIP project) with pedestrian refuge with RRFBs.
MM-10	12TH AVE MULTI-MODAL IMPROVEMENTS, PH 2	$839,000	$839,000		12th Ave from Spokane Street to Idaho Street, install Type 2 bike lanes both sides where missing. Install sidewalks where missing or insufficient. Evaluate narrowing 12th lanes to achieve multi-modal improvements. Install 3/4 turn restriction (N-S) at Idaho Street (included in CIP project) with pedestrian refuge with RRFBs.
MM-11	CENTENNIAL TRAIL CONNECTION #1[1]	$386,000			Install multi-modal pathway on RR grade from Greensferry Road to Ross Point Road, install RRFB's at roadway crossings, assumes RR grade is abandoned
MM-12	LINCOLN ST MULTI-MODAL IMPROVEMENTS	$1,035,000	$1,035,000		Lincoln St from Seltice Way to 15th Ave, install sidewalks where missing. Install sharrow designation in both directions.
MM-13	POLELINE AVE MULTI-MODAL IMPROVEMENTS, PH 1	$704,000	$704,000		Poleline, Spokane Street to Idaho Street widen existing MM pathway (N side), install RRFBs at Henry Street and Lincoln Street, sidewalks along south side
MM-14	POLELINE AVE MULTI-MODAL IMPROVEMENTS, PH 2	$494,000	$494,000		Poleline, Syringa Street to Greensferry Road install RRFB at Gracie Way, install missing segments of sidewalk (south side)
MM-15	CHASE RD MULTI-MODAL IMPROVEMENTS	$48,000	$48,000		Chase Rd from Mullan Ave to Seltice Way, install MM trail along west side of Chase Rd from Karren Streeter Memorial Trail to Mullan Ave.
MM-16	PLEASANT VIEW RD MULTI-MODAL IMPROVEMENTS, PH 1	$295,000	$236,000	$59,000	Pleasant View, Riverbend Ave to Expo Parkway, install multi-modal pathway on west side of Pleasant View Road. Connect to both the Centennial Trail and the Park and Ride, install retaining wall supporting underslope below freeway, include pedestrian scramble connecting Centennial Trail diagonally, include signal re-timing in project. Coordinate with ITD for partnering opportunity through I-90 widening
MM-17	PLEASANT VIEW RD MULTI-MODAL IMPROVEMENTS, PH 2	$111,000	$111,000		Connect MM-16 with Karren Streeter Memorial Trail at Seltice Way along west side of Pleasant View, install multi-use pathway
MM-18	CENTENNIAL TRAIL CONNECTION #2[1]	$112,000			4th Ave to Spokane Street, install multi-modal pathway on RR grade, install RRFB's at roadway crossings, assumes RR grade is abandoned

MULTIMODAL IMPLEMENTATION TABLE *(continued)*

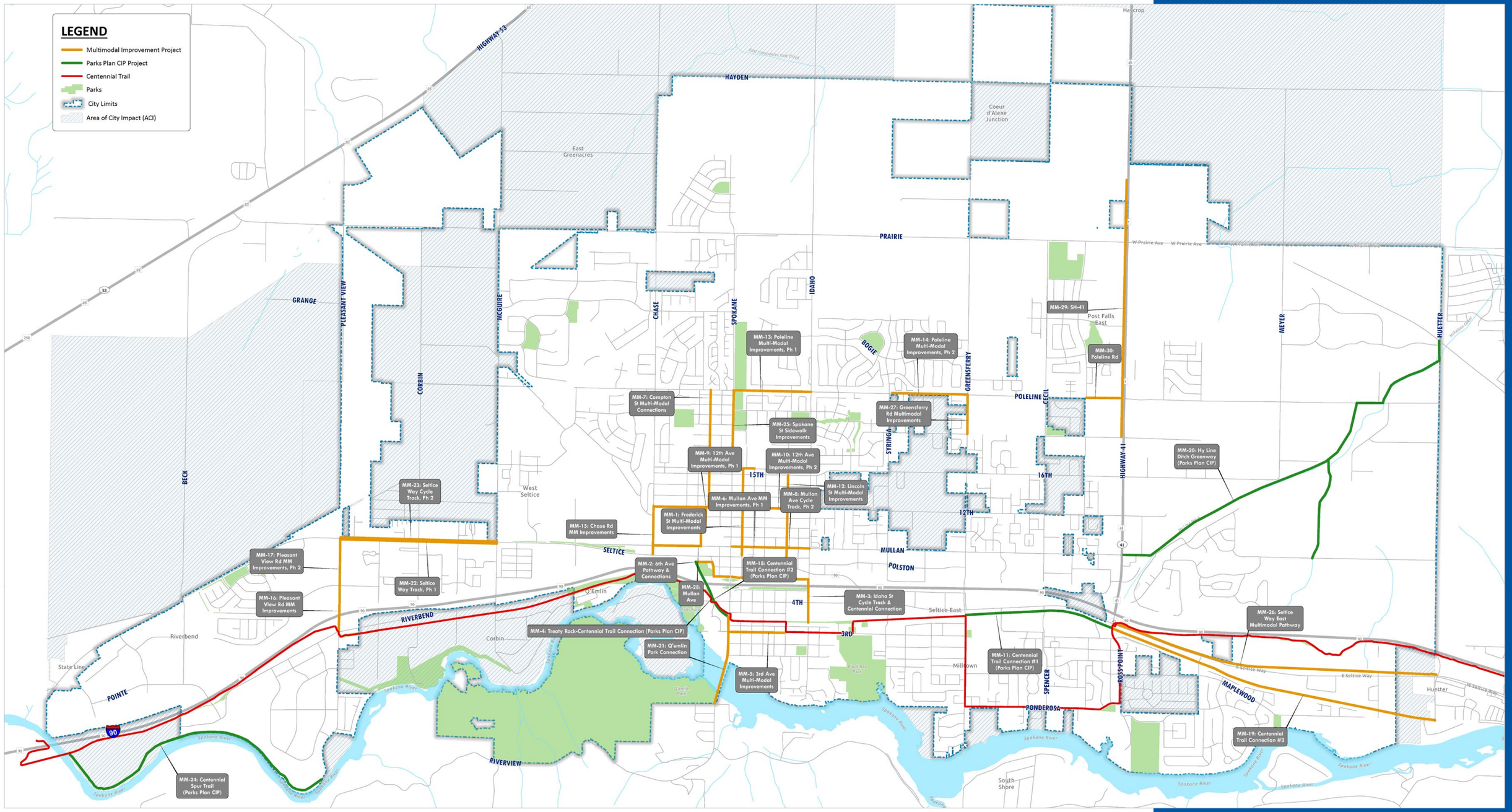
GRAND TOTAL (2025 Dollars): $36,662,000

PROJECT CODE	PROJECT NAME	2025 COSTS	IMPACT FEES PORTION	OTHER FUNDING	DETAILED DESCRIPTION
MM-19	CENTENNIAL TRAIL CONNECTION #3	$704,000	$704,000		Ross Point Road to Huetter Road, install multi-modal pathway on RR grade, install RRFB's at roadway crossings, assumes RR grade is abandoned
MM-20	HY LINE DITCH GREENWAY[2]	$12,098,000			Mullan Avenue to Prairie Trail (Huetter Road) install recreational greenway in this natural resource, likely ROW issues, many private parcels, include S connection along Mikelson Canal to Mullan Ave
MM-21	Q'EMILN PARK CONNECTION	$482,000	$482,000		Spokane Street (at RR) to Parkway Drive (at park), install multi-modal pathway connection across bridge (widen existing sidewalk, no bridge expansion assumed) to Q'Emlin Park (install Type 2 bike lanes in interim)
MM-22	SELTICE WAY CYCLE TRACK, PH 1	$1,340,000	$1,340,000		Seltice Way, Pleasant View Road to McGuire Road, install cycle track along S side of Seltice Way for EB travel
MM-23	SELTICE WAY CYCLE TRACK, PH 2	$1,355,000	$1,355,000		Seltice Way, McGuire Road to Pleasant View Road, install cycle track along N side of Seltice Way for WB travel
MM-24	CENTENNIAL SPUR TRAIL[1]	$9,416,000		$9,416,000	Stateline (south of I-90) to Pleasant View Road install multi-modal pathway along Spokane River as an alternate recreational route (see previous plan)
MM-25	SPOKANE ST SIDEWALK IMPROVEMENTS	$814,000	$814,000		Spokane Street from 16th Ave to Poleline Avenue, install missing sidewalk on west side
MM-26	SELTICE WAY EAST MULTI-MODAL PATHWAY	$545,000	$545,000		Seltice Way, SH-41 interchange to Huetter Road, install multi-modal pathway along north side of Seltice way connecting trail from CDA into Post Falls (some segments exist) connect to centennial trail and i/c trail system
MM-27	GREENSFERRY RD MULTI-MODAL IMPROVEMENTS	$267,000	$267,000		Greensferry Road, Horsehaven Avenue to Poleline Avenue, install multi-modal pathway along E side of Greensferry Rd, install curb and gutter where missing, install striped bike lanes both directions
MM-28	MULLAN AVE MULTI-MODAL IMPROVEMENTS	$276,000	$276,000		Mullan Avenue, Chase Road to Compton Street, install sidewalks both sides where missing, install multi-modal pathway, install type 2 bike lanes
MM-29	SH-41 MULTI-MODAL IMPROVEMENTS	$450,000	$450,000		Install multi-modal pathway along west ROW of SH-41 from Horsehaven Avenue to railroad tracks
MM-30	POLELINE AVE MULTI-MODAL PATHWAY	$189,000	$189,000		Poleline Avenue, Charleville Road to SH-41. Install sidewalk on south side where missing, install multi-modal pathway on north side

[1] *To be included in Parks Master Plan CIP*

[2] *To be included in Parks Master Plan - not included CIP as beyond horizon project*

MULTIMODAL IMPLEMENTATION PROJECTS





CITY OF POST FALLS

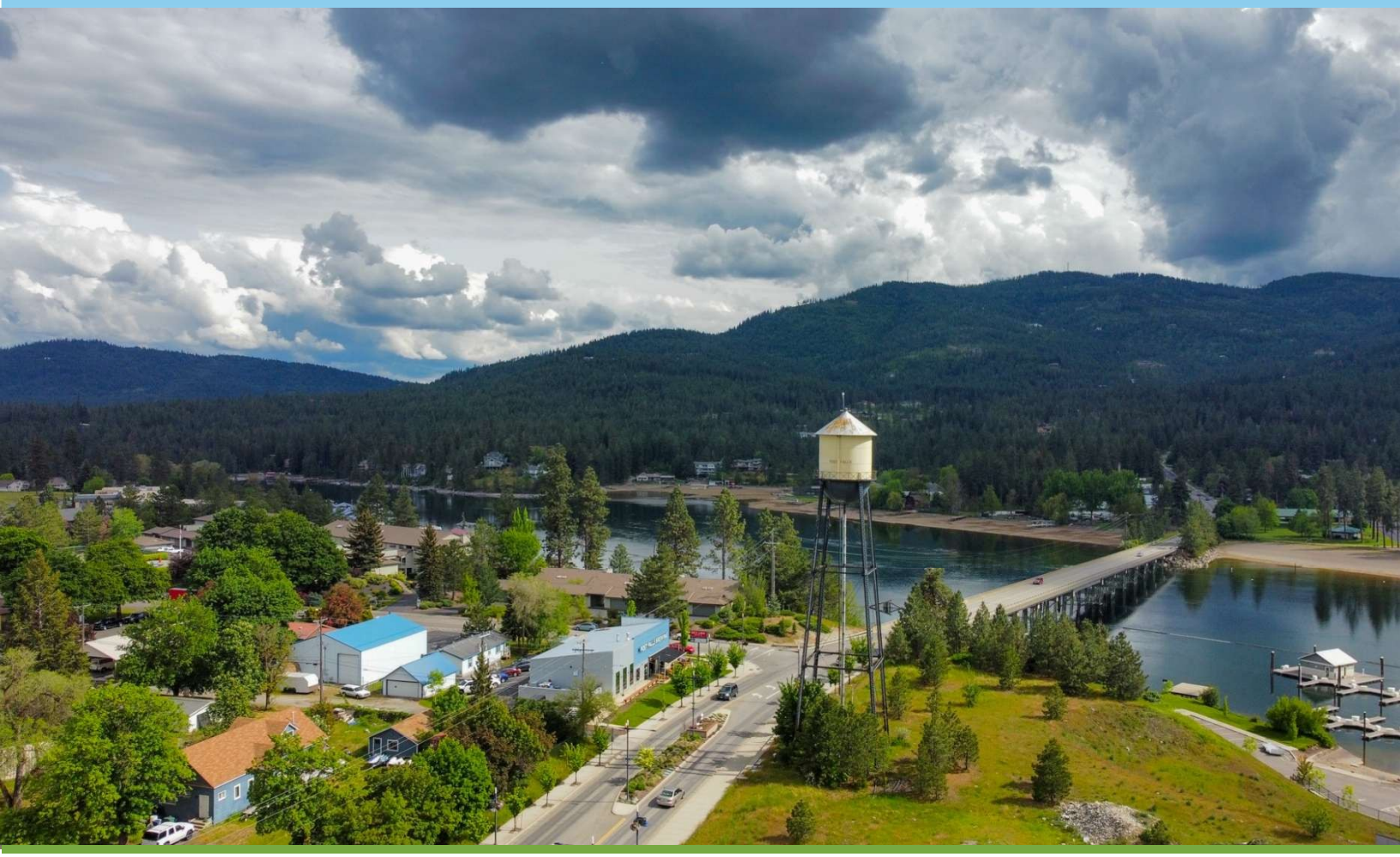
2025 TRANSPORTATION MASTER PLAN

Iteris Travel Demand Model Documentation

City of Post Falls

Travel Demand Model Documentation and User's Guide

December 2025



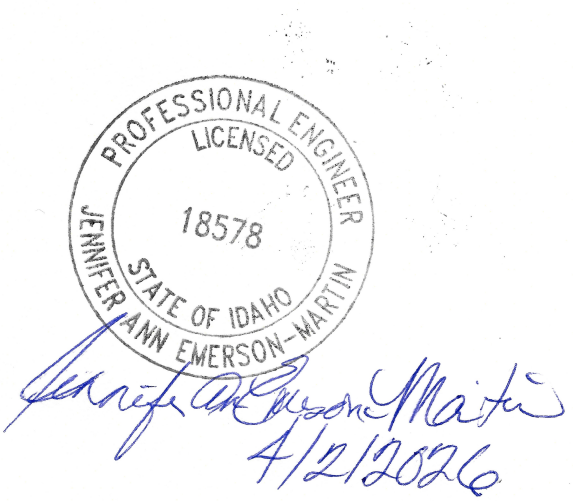
iteris

CITY OF POST FALLS

City of Post Falls

Travel Demand Model Documentation and User's Guide

December 2025



iteris

Spokane, WA
(949) 270-9400

Table of Contents

1 INTRODUCTION 1
1.1 KMPO Model 1
1.2 Model Geography 1
1.3 Modeling Process 4
1.4 Post Falls Model Improvements 4
1.5 Model Limitations 4
2 ROADWAY NETWORK 5
2.1 Link Types 5
2.2 Centroid Connectors 6
2.3 Nodes 6
3 TRANSPORTATION ANALYSIS ZONES 12
3.1 Transportation Analysis Zone Structure 12
3.2 Land Use 14
4 TRIP GENERATION 17
4.1 Internal Trip Generation 17
4.2 External Trip Generation 17
5 TRIP DISTRIBUTION 19
6 TRAFFIC ASSIGNMENT 20
6.1 Traffic Counts 20
6.2 Traffic Assignment (2020) 20
7 VALIDATION 24
7.1 Trip Generation Validation 24
7.2 Vehicle Assignment Validation 24
7.3 Conclusion 35
8 INTERIM YEAR (2035) MODEL 37
8.1 No Build Projects 37
8.2 Roadway Network 38
8.3 Land Use 43
8.4 Trip Generation 43
8.5 Traffic Assignment (2035) 44
9 FORECAST YEAR MODEL 48
9.1 No Build Projects 48
9.2 Roadway Network 49
9.3 Land Use 54
9.4 Trip Generation 55
9.5 Traffic Assignment (2045) 55
10 User's Guide 2

Figures

Figure 1-1: KMPO Model Extents 2
Figure 1-2: City of Post Falls Model Area 3
Figure 2-1: Roadway System Functional Classification (Year 2020) 7
Figure 2-2: Roadway System Capacity (Year 2020) 8
Figure 2-3: Roadway System Posted Speed (Year 2020) 9
Figure 2-4: Centroid Connectors (2020) 10
Figure 2-5: Intersection Control (2020) 11
Figure 3-1: City of Post Falls Transportation Analysis Zone Structure 13
Figure 6-1: AM Peak Hour Model Assignment (2020) 21
Figure 6-2: PM Peak Hour Model Assignment (2020) 22
Figure 6-3: Estimated Average Daily Traffic Model Assignment (2020) 23
Figure 7-1: Screenlines 31
Figure 7-2: AM Peak Hour Traffic Counts versus Post Falls Model Volumes 34
Figure 7-3: PM Peak Hour Traffic Counts versus Post Falls Model Volumes 34
Figure 8-1: Roadway System Functional Classification (Year 2035) 39
Figure 8-2: Roadway System Capacity (Year 2035) 40
Figure 8-3: Roadway System Posted Speed (Year 2035) 41
Figure 8-4: Intersection Control (2035) 42
Figure 8-5: AM Peak Hour Model Assignment (2035) 45
Figure 8-6: PM Peak Hour Model Assignment (2035) 46
Figure 8-7: Estimated Average Daily Traffic Model Assignment (2035) 47
Figure 9-1: Roadway System Functional Classification (Year 2045) 50
Figure 9-2: Roadway System Capacity (Year 2045) 51
Figure 9-3: Roadway System Posted Speed (Year 2045) 52
Figure 9-4: Intersection Control (2045) 53
Figure 9-5: AM Peak Hour Model Assignment (2045) 56
Figure 9-6: PM Peak Hour Model Assignment (2045) 57
Figure 9-7: Estimated Average Daily Traffic Model Assignment (2045) 58
Figure 10-1: Procedure Sequence (Update Capacities Group Procedures) 2
Figure 10-2: Procedure Sequence (Update Land Use Inputs Group Procedures) 3
Figure 10-3: Procedure Sequence (Update AM Peak Hour Assignment Group Procedures) 3
Figure 10-4: Procedure Sequence (Update PM Peak Hour Assignment Group Procedures) 3

Tables

Table 1-1: KMPO and City of Post Falls Base Year (2020) Model Comparison 1
Table 2-1: Roadway Capacities and Link Types 6
Table 3-1: Land Use Categories (Year 2020) 16
Table 4-1: AM Peak Hour Vehicle Trip Summary (2020) 17
Table 4-2: PM Peak Hour Vehicle Trip Summary (2020) 17
Table 5-1: Vehicle Trip Length Distribution (2020) 19
Table 6-1: Traffic Assignment Parameters 20
Table 7-1: AM Peak Hour Vehicle Trip Generation Validation 24
Table 7-2: PM Peak Hour Vehicle Trip Generation Validation 24
Table 7-3: 2020 AM Peak Hour Screenline Validation Summary 32
Table 7-4: 2020 PM Peak Hour Screenline Validation Summary 33
Table 7-5: AM and PM Peak Hour Count-Volume Summary 34
Table 7-6: AM and PM Peak Hour Coefficient of Determination R^2 35
Table 7-7: AM and PM Peak Hour %RMSE 35
Table 8-1: City of Post Falls Interim Year (2035) Model 37
Table 8-2: KMPO and City of Post Falls Interim Year (2035) No Build Roadway Projects 37
Table 8-3: Land Use Categories (Year 2035) 43
Table 8-4: AM Peak Hour Vehicle Trip Summary (2035) 44
Table 8-5: PM Peak Hour Vehicle Trip Summary (2035) 44
Table 9-1: City of Post Falls Forecast Year (2045) Model 48
Table 9-2: KMPO and City of Post Falls Forecast Year (2045) No Build Roadway Projects 48
Table 9-3: Land Use Categories (Year 2045) 54
Table 9-4: AM Peak Hour Vehicle Trip Summary (2045) 55
Table 9-5: PM Peak Hour Vehicle Trip Summary (2045) 55

Appendices

Appendix A 2022 KMPO Base Calibration Travel Demand Model Update
Appendix B Land Use Data
Appendix C External Trip Tables
Appendix D Traffic Count Data
Appendix E Assignment Validation
Appendix F Interim and Forecast Year No Build Projects

Acronyms

City	City of Post Falls
ITD	Idaho Transportation Department
KMPO	Kootenai Metropolitan Planning Organization
NAICS	North American Industry Classification System
TAZ	Transportation Analysis Zone
US	United States
NAICS	North American Industry Classification System
DOL	Idaho Department of Labor
ITE	Institute of Transportation Engineers

1 INTRODUCTION

The purpose of this report is to document the development, validation, model inputs and outputs, and user's guide for the transportation model for the City of Post Falls, Idaho (City). This report is organized as follows:

- Base Year (2020) data is summarized in Section 2 through Section 7 of this report,
- Interim Year (2035) data is summarized in Section 8 of this report, and
- Forecast Year (2045) data is summarized in Section 9 of this report, and
- The User's Guide for running the model is summarized in Section 10 of this report.

The City of Post Falls model will be required to be used for local projects, including the upcoming Transportation Strategic Plan and any other expected planning efforts.

1.1 KMPO Model

The model was developed using PTV VISUM transportation forecasting software, developed as a stand-alone subregional model to the Kootenai Metropolitan Planning Organization (KMPO), and calibrated to the year 2020. The full documentation for the 2022 KMPO VISUM Model (KMPO Model) is included in **Appendix A** of this report. As a comparison, **Table 1-1** illustrates the model geography comparisons for the KMPO and City of Post Falls models.

Table 1-1: KMPO and City of Post Falls Base Year (2020) Model Comparison

	KMPO Updated Models (Year 2020 Model File)		City of Post Falls Model (Year 2020 Base Year Model)	
Geography Extent	Kootenai County	City of Post Falls	Kootenai County	City of Post Falls[1]
Occupied Dwelling Units	66,243	16,861	66,242	16,860
Total Employment	57,366	11,724	57,366	11,724

[1]As a note, the difference in dwelling units and employment compared with the KMPO model is related to the restructuring of zones, and not a reduction of modeled dwelling units and employees in the KMPO region.

1.2 Model Geography

Figure 1-1 displays the model study area for the City of Post Falls within the context of the entire KMPO model. **Figure 1-2** illustrates the local study area for the Post Falls model, which encompasses the entire City of Post Falls.

Figure 1-1: KMPO Model Extents

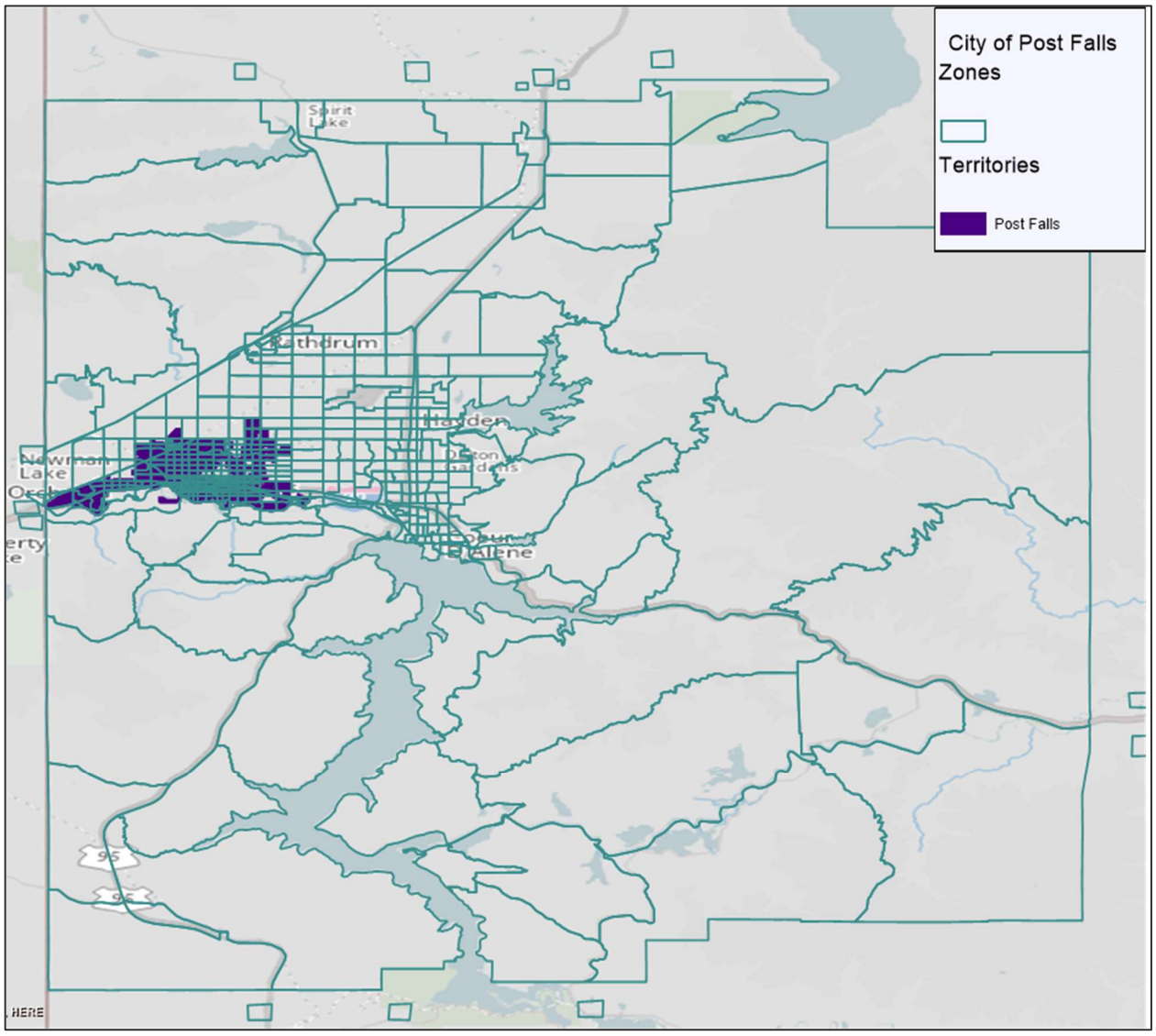
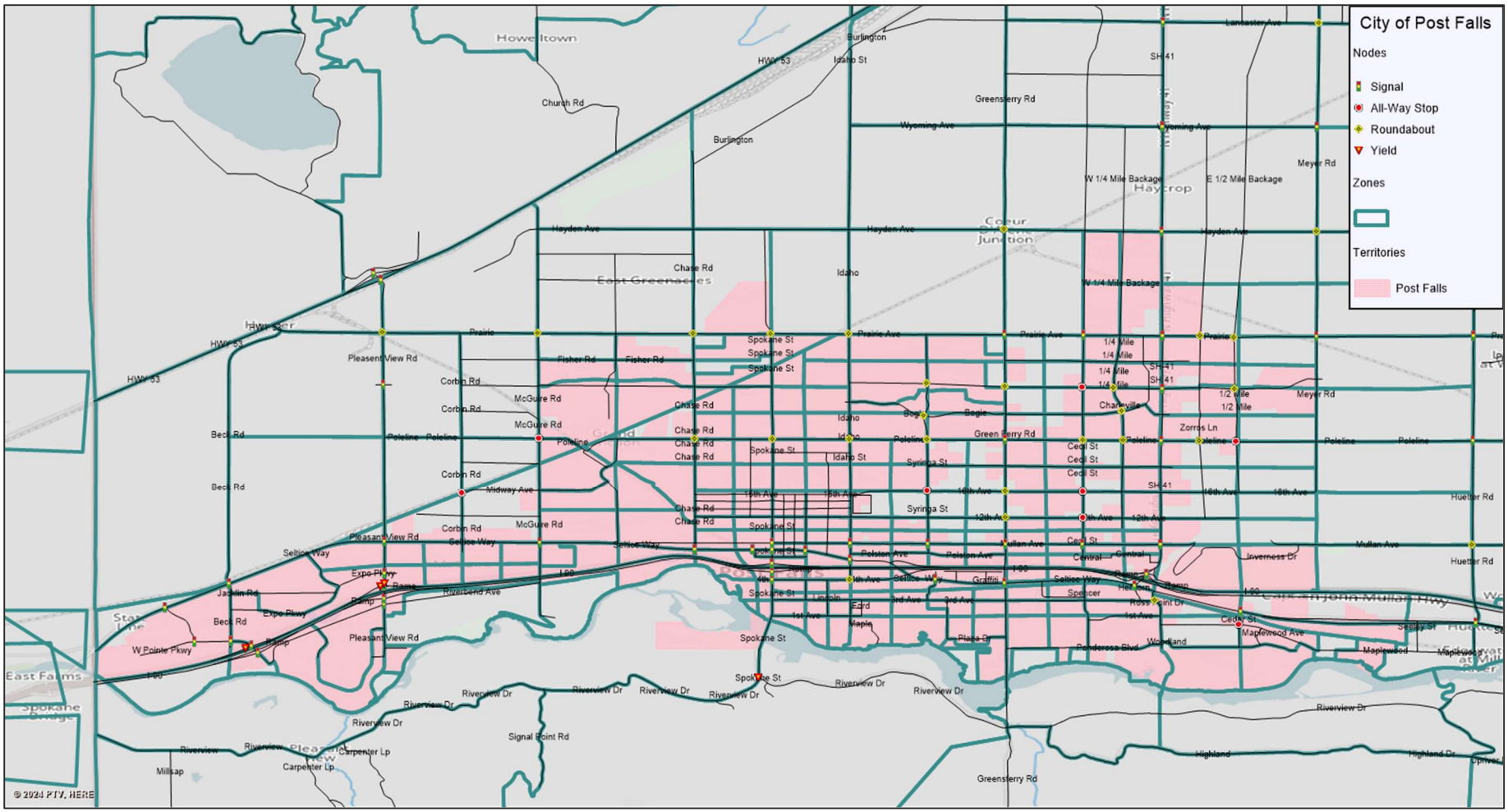


Figure 1-2: City of Post Falls Model Area



1.3 Modeling Process

The travel demand model described in this document represents the transportation facilities within and around the City of Post Falls. The model uses and develops travel patterns for motorized trips within the facilities defined in the model, which includes the entire KMPO geography. The modeling process includes the following stages:

- **Roadway Network:** Building the roadway network, including cross classification lookup of capacities based on area type and functional classification.
- **Transportation Analysis Zone Structure:** Generation of vehicle trips based on input of land use information.
- **Trip Generation:** Generation of trips in the City of Post Falls model uses an identical process as the KMPO model.
- **Trip Distribution:** Distribution of trips within the City of Post Falls model uses an identical process as the KMPO model.
- **Trip Assignment:** Assignment of traffic volumes to roadway network links within the KMPO model area.

1.4 Post Falls Model Improvements

The City of Post Falls model is based solely on the KMPO model, with several improvements to aid local analysis. The notable improvements include:

- **Updated zone structure** within the City of Post Falls, increasing from 68 zones to 281 zones within the city. The updated zone structure allows for a better localized trip generation and trip distribution process, with more refined trip distribution patterns on arterials and local streets within the city.
- **Updated network** within the City of Post Falls. The network was reviewed extensively for roadway links and nodes within the City, including reviewing turn movements and turn movement restrictions at intersections. The updated network ensures number of lanes, two-way-left-turn lanes, posted speed, functional classification, and geometries are accurate within the City boundaries for the base year and future year.
- **Revised trip generation rates** within the City of Post Falls. Using the collected count information, it was observed that the AM peak hour trip generation rates were grossly underestimating AM peak hour trips. As this model is a regional model, the trip generation rates for both the AM and PM peak hours were updated and applied only to the City of Post Falls zones. The AM peak hour trip generation rates were increased by 20%, and the PM peak hour rates were increased by 5%.
- **AM Peak Hour model outputs** saved during model process. This is an additional step added to the model process to save model results for the AM peak hour. Saving this data is helpful to assist in creating plots and obtaining AM peak hour model information without having to run the model.
- **Estimated Average Daily Traffic** model outputs developed and saved during the model process.

1.5 Model Limitations

The KMPO model has several documented limitations, which are consistent with regional travel demand model limitations for county-wide models. Subsequently, the City of Post Falls has the following limitations:

- The model does not have multimodal forecasting capability.

2 ROADWAY NETWORK

One primary input for the travel demand model is the transportation network. The roadway network is comprised of both links and nodes. The links represent roadway segments, and the nodes represent the endpoints of the roadway segments, as well as roadway intersections. The roadway network within the City of Post Falls was updated to better reflect existing conditions, by incorporating additional local streets that were not included in the KMPO model.

2.1 Link Types

The roadway network maintains many attributes required to run the mode and is used within the model to determine most of the information related to the network. **Table 2-1** summarizes the link classes used within the model, as well as the following default information for each class:

- **Link Type Number:** The link type numbers are defined by KMPO.
- **Link Type Name:** Also referred to as functional classification, the link type name ranges in classifications from urban interstates to rural local streets.
- **Number of Lanes Per Direction:** Number of lanes per direction is a default number of lanes, which can be modified by the user in the VISUM link layer when editing.
- **Capacity Per Lane:** Capacity per lane is the CapPrT
- **Posted Speed (in MPH):** (V0PrT)
- **Maximum Allowable Speed (in MPH):** (VMax_PrT)

Not all link classes are used within the City of Post Falls in either the base year or the future year model. However, the functionality is available within the model for the entire KMPO region for the purposes of future planning efforts. The global link class (type number) is used for plotting purposes.

The information in **Table 2-1** is default information and can be edited within the roadway network to modify any attribute (such as number of lanes, capacity, and posted speeds. **Figure 2-1** illustrates the 2020 global functional class of the roadway network for the model.

Link capacity assumptions in the model are summarized in **Table 2-1** and are consistent with the link capacity assumptions (vehicles per hour per lane) for the KMPO model. **Figure 2-2** illustrates the bandwidth of assumed daily roadway capacities in the model for the year 2020. The capacities shown in **Figure 2-2** illustrate directional capacities, and not total roadway segment capacity, because the model maintains directional roadway segment attributes.

The model requires an input of the posted speed on the roadway facility. The posted speed is used to calculate the free-flow speed used for the modeling process. **Figure 2-3** illustrates the posted speeds on the roadway network in 2020.

Table 2-1: Roadway Capacities and Link Types

Link Type Number	Global Type	Name (Functional Classification)	Default Number of Lanes Per Direction	Per Lane Capacity (CapPrT)	Posted Speed (MPH) (V0PrT)	Maximum Allowable Speed (MPH) (VMax_PrT)
11	1	Urban Interstate	1	1900	60mph	70mph
57	1	Urban Ramp I	1	1600	45mph	55mph
4	3	Rural Principal Arterial I	1	1200	50mph	60mph
16	3	Urban Principal Arterial III	1	1000	30mph	45mph
25	3	Urban Principal Arterial I	1	1600	45mph	60mph
70	3	Urban Principal Arterial II	1	1500	35mph	45mph
23	4	Urban Minor Arterial I	1	1200	30mph	45mph
45	4	Urban Minor Arterial II	1	700	25mph	40mph
10	5	Rural Major Collector I	1	800	45mph	50mph
24	5	Urban Collector Arterials I	1	1000	30mph	40mph
49	5	Urban Collector Arterial II	1	600	30mph	45mph
19	6	Local Street	1	500	25mph	30mph
62	6	Exclusive Bus Transit Link	1	0	35mph	0mph
63	6	Bus Drop & Ride	1	0	15mph	0mph
64	6	Urban Principal Arterial VI	1	1300	25mph	0mph
65	6	HCT Transit Walk/Wait Link	1	0	5mph	0mph
67	6	Light rail Drop & Ride	1	0	15mph	0mph
68	6	Light rail Park & Ride	1	0	15mph	0mph

2.2 Centroid Connectors

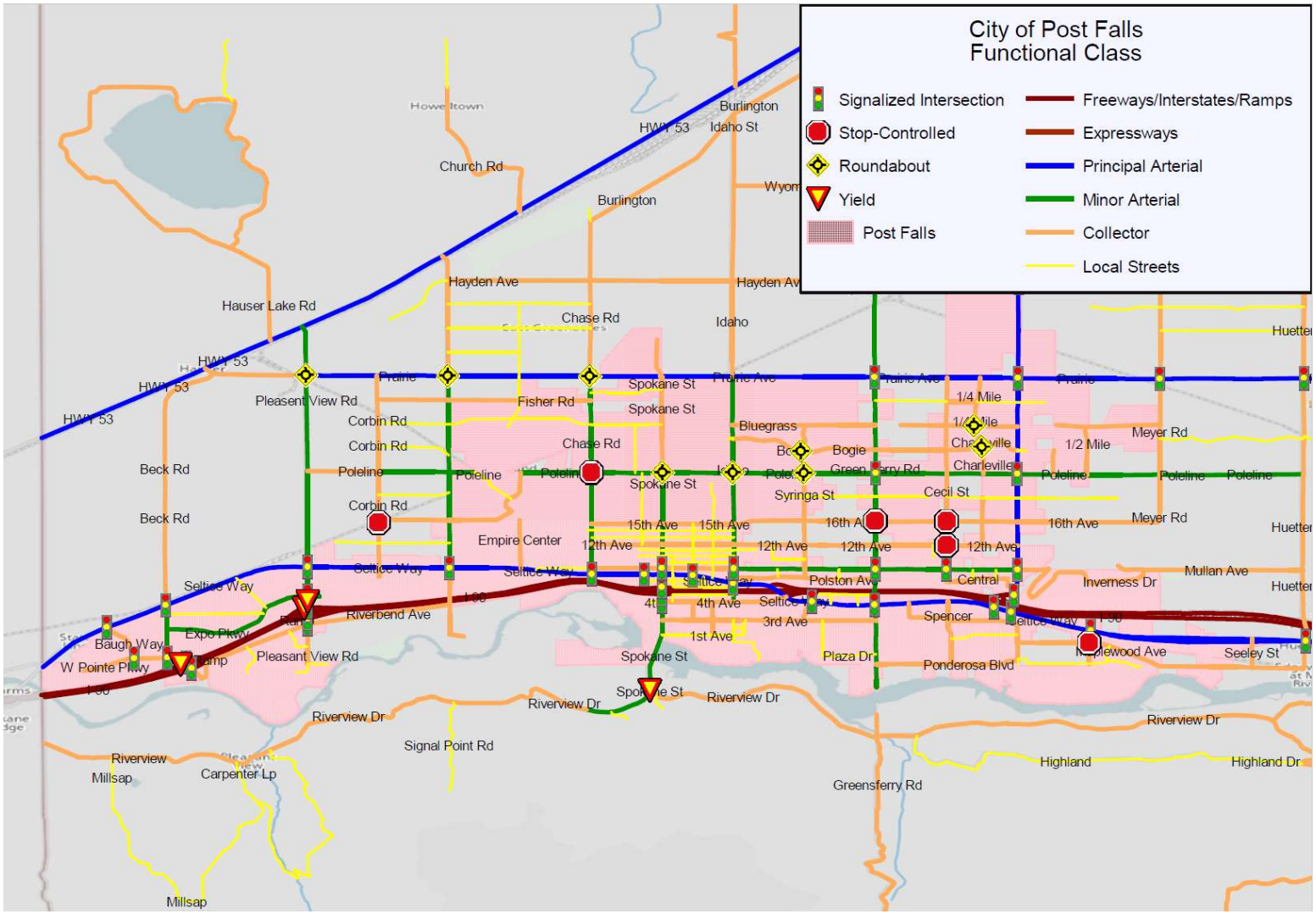
Centroid connectors are used to represent travel on local streets which are not a part of the arterial and collector system. Centroid connectors need to connect to the arterial and collector system at locations which best represent access from local streets. **Figure 2-4** illustrates the centroid connectors in the model.

2.3 Nodes

Nodes in the model are used to represent "intersections". True intersections in the model can be attributed with varying types of intersection control: No Control, Centroid Connector Location, One-Way Stop Controlled, Two-Way Stop Controlled, Signalized Intersection, Roundabout.

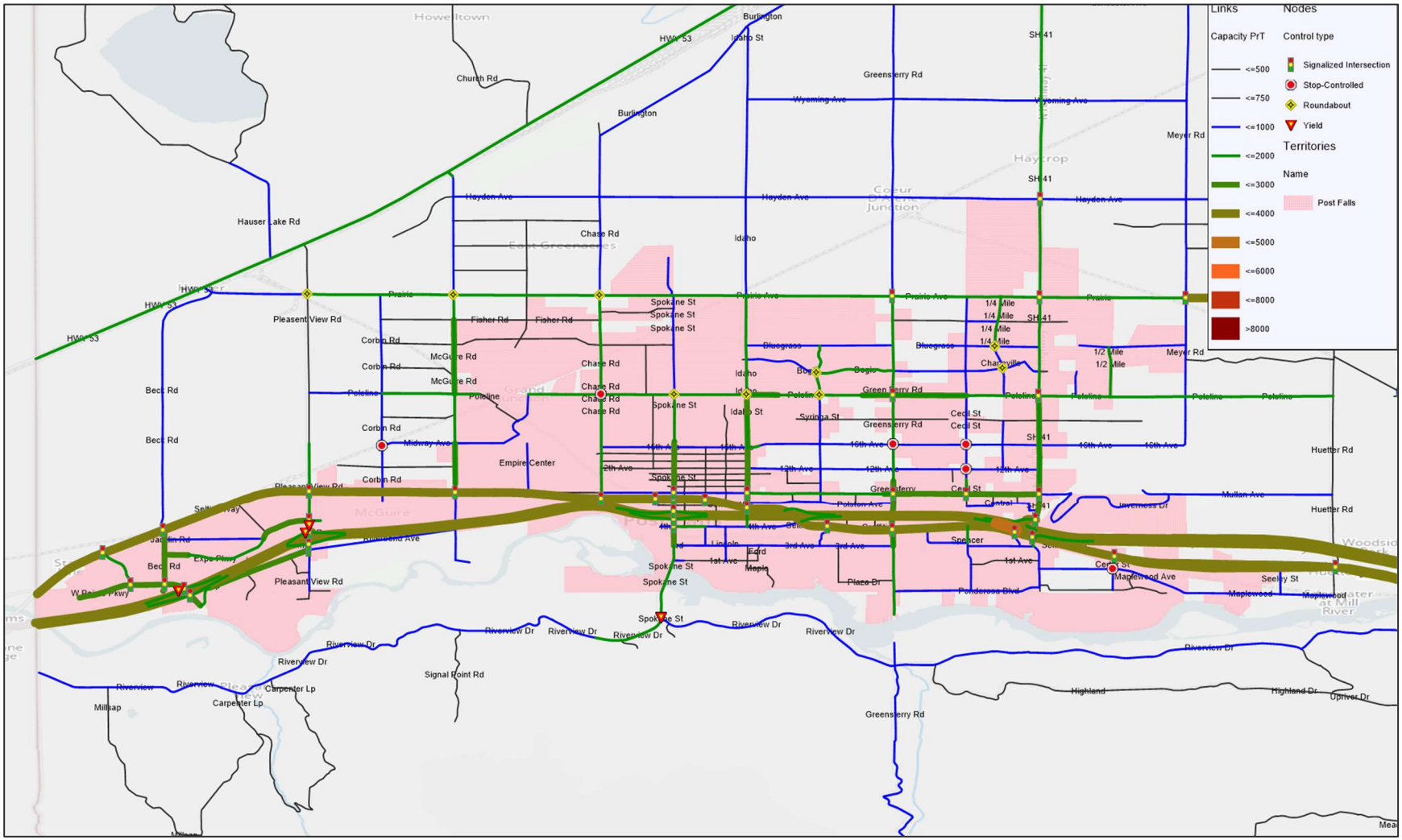
Figure 2-5 illustrates the existing intersection control in the model.

Figure 2-1: Roadway System Functional Classification (Year 2020)



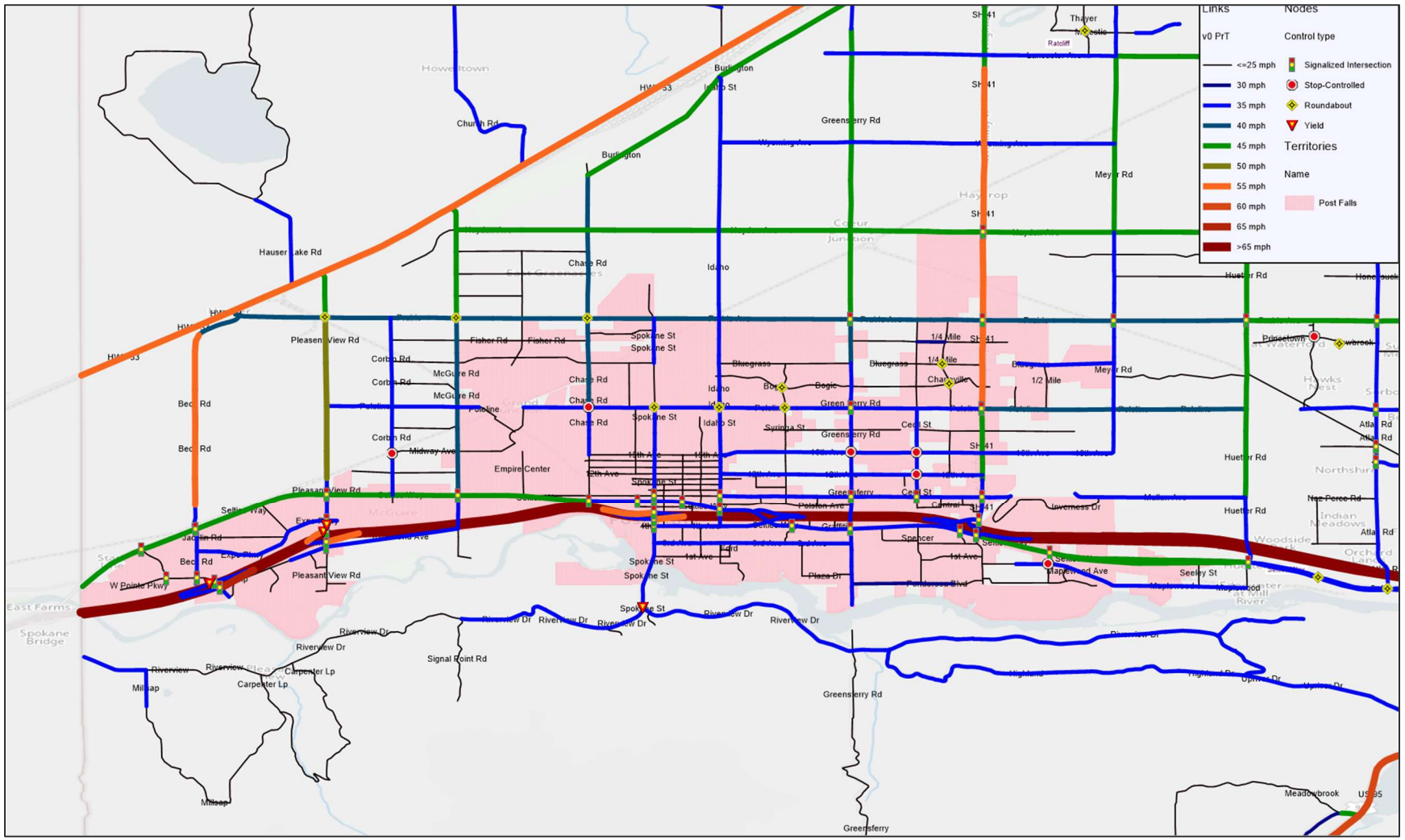
Note: Stop controlled intersections on **Figure 2-1** illustrate all-way stop-controlled (4-way stop-controlled) intersections. Two-way stop controlled intersections are not illustrated.

Figure 2-2: Roadway System Capacity (Year 2020)



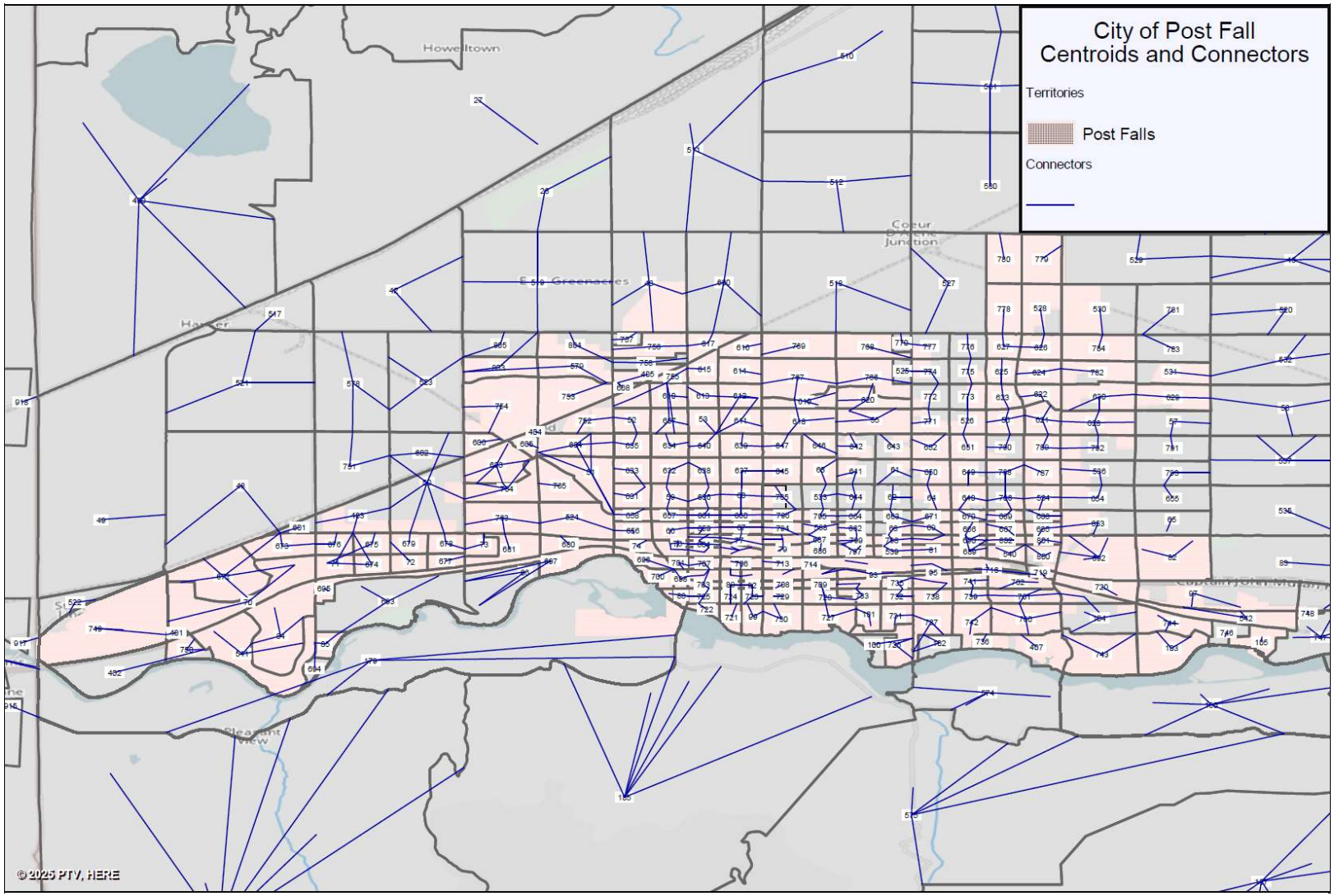
Note: Stop controlled intersections on **Figure 2-2** illustrate all-way stop-controlled (4-way stop-controlled) intersections. Two-way stop-controlled intersections are not illustrated.

Figure 2-3: Roadway System Posted Speed (Year 2020)



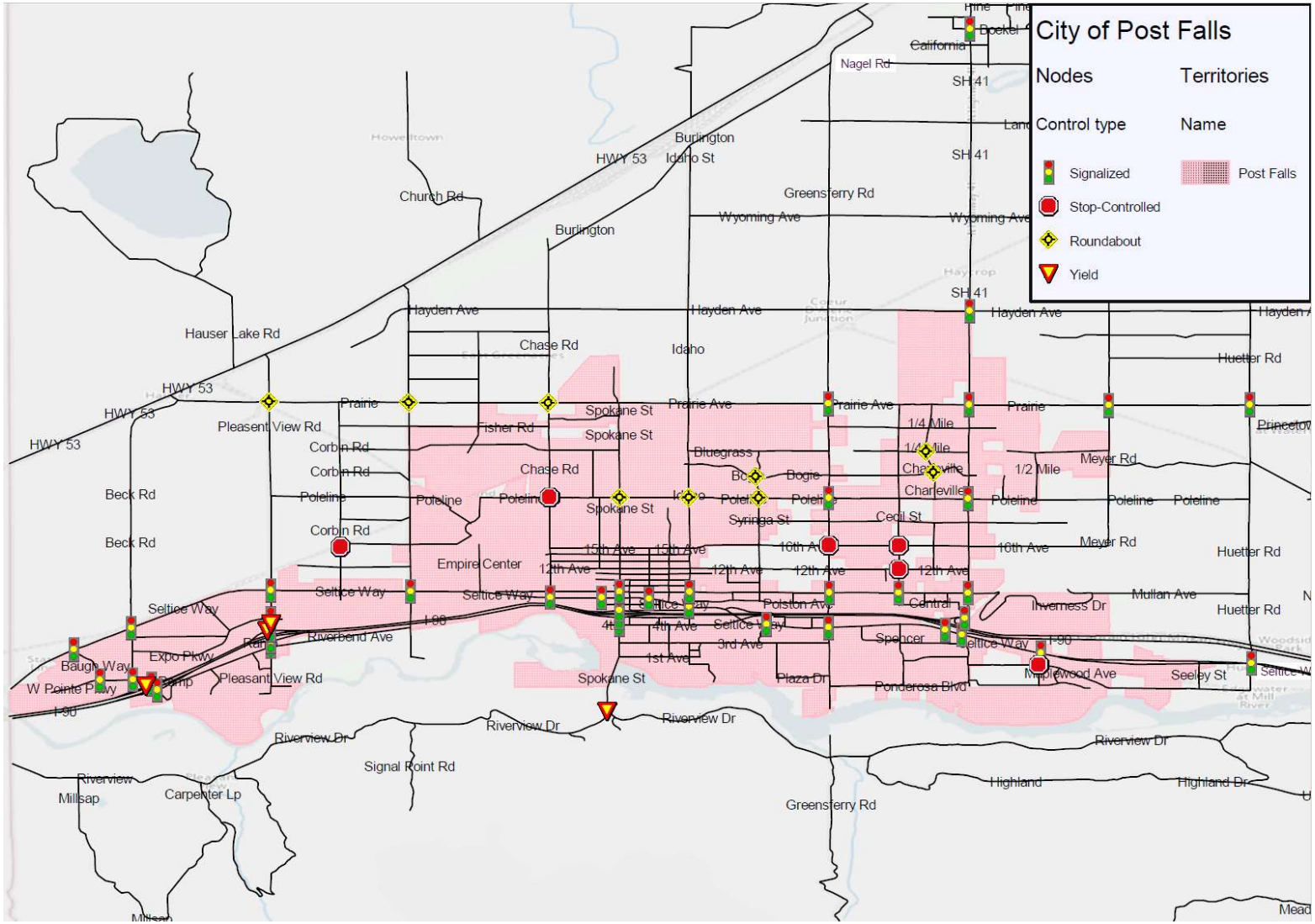
Note: Stop controlled intersections on **Figure 2-3** illustrate all-way stop-controlled (4-way stop-controlled) intersections. Two-way stop-controlled intersections are not illustrated.

Figure 2-4: Centroid Connectors (2020)



Note: Stop controlled intersections on **Figure 2-4** illustrate all-way stop-controlled (4-way stop-controlled) intersections. Two-way stop-controlled intersections are not illustrated.

Figure 2-5: Intersection Control (2020)



Note: Stop controlled intersections on all figures, including **Figure 2-5**, illustrate all-way stop-controlled (4-way stop-controlled) intersections. Two-way stop-controlled intersections are not illustrated.

3 TRANSPORTATION ANALYSIS ZONES

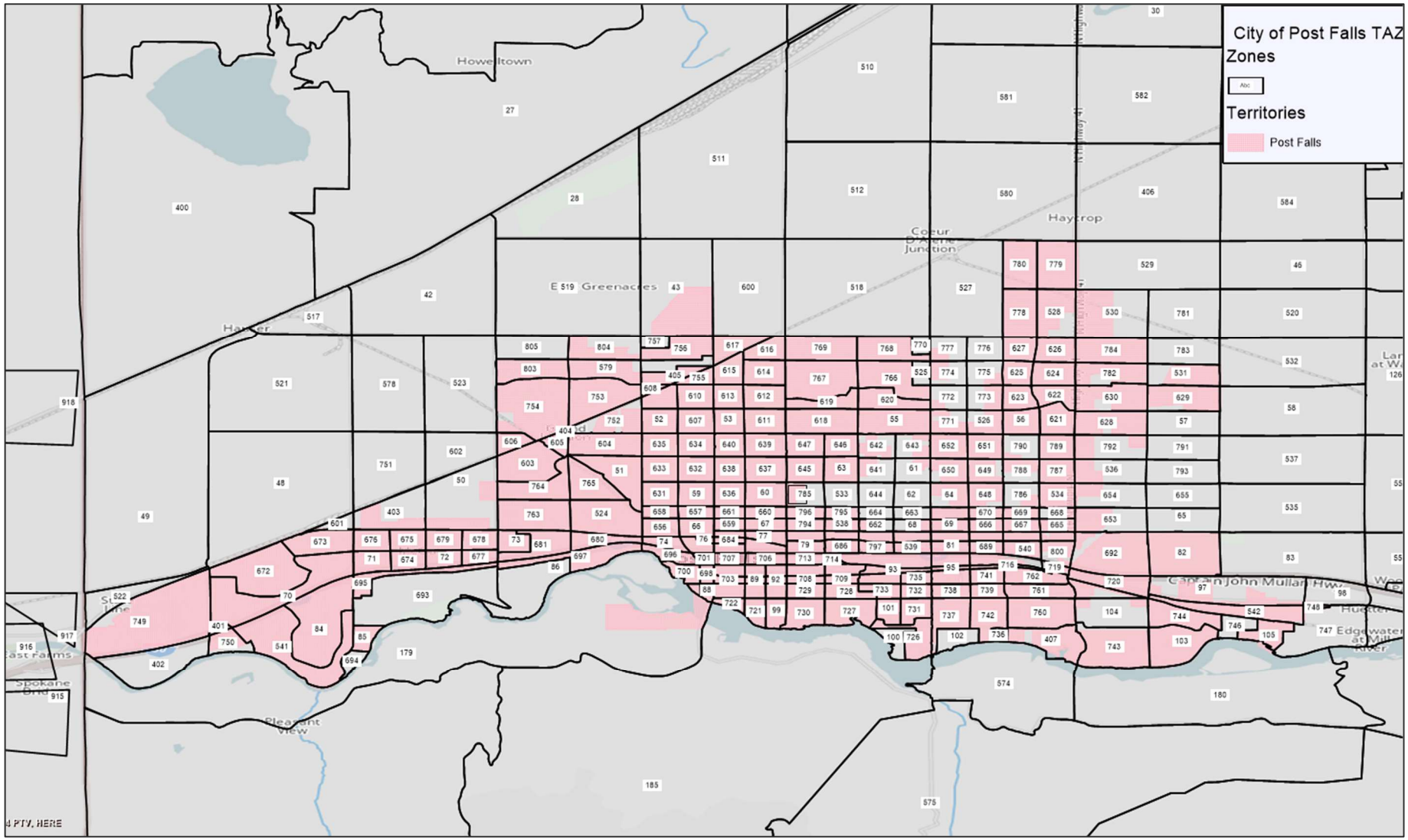
The primary input for trip generation is land use data. Transportation analysis zones (TAZs) are geographic areas dividing a planning region into relatively similar areas of land use or land activity. TAZs should be relatively homogenous in character and boundaries usually lie along major roadways, follow significant physical features, City, or other political boundaries. The TAZs within the KMPO model were reviewed for applicability to the City of Post Falls. The zones are generally bordered by natural geographic boundaries (water, mountains, highways, etc.) and are designed to best represent local travel onto the arterial network.

3.1 Transportation Analysis Zone Structure

Upon review, it was determined that the zones within the City of Post Falls were large and not consistent in size and required to be modified to better represent traffic at the arterial and collector street level. Therefore, zones within the city were disaggregated (split) into smaller zones more representative of local travel.

All zones outside of the City of Post Falls remain consistent with KMPO zones, and all the centroid connectors remain consistent with KMPO centroid connectors. **Figure 3-1** illustrates the transportation analysis zones within the City of Post Falls.

Figure 3-1: City of Post Falls Transportation Analysis Zone Structure



3.2 Land Use

Land use in the model is used to generate vehicle trips (origins and destinations) within the model. The land use in the model is aggregated into 23 categories, based on North American Industry Classification System (NAICS) codes, which is consistent with Idaho Department of Labor (DOL) reporting. The KMPO model categories are comprehensive and include a majority of land uses included in the City of Post Falls accepted planning efforts and therefore were not modified for the development of this model. The land use categories used in the model are summarized in **Table 3-1**.

The detailed definitions of land use categories are as follows:

- **LU1: (SFDU) Single-Family Dwelling Units**: Single-family homes, duplexes, or a manufactured home on a single lot.
  Measured in dwelling units.
- **LU2: (MFDU) Multi-Family Dwelling Units:** Three or more residential units on a single parcel of lands. Also includes mobile home parks, apartment buildings, and condominiums.
  Measured in dwelling units.
- **LU3: (RET) Retail:** A broad range of establishments which sell goods directly to the general public, such as general commercial, home furnishings, food stores, direct selling establishments, or other products.
  Measured in employees.
- **LU4: (FIRES) Finance, Insurance, Real Estate Rental and Leasing Services:** Commercial banking, financial, investment brokerage, savings institutions, credit unions, investment advice, insurance carriers, real estate, rental and leasing, passenger car rental, recreational rentals, commercial air rail and water transportation, video tape and disc rental, and other related companies.
  Measured in employees.
- **LU5: (INDUST) Industrial:** Lands supporting mining, manufacturing, and wholesale sectors comprising of establishments engaged in the mechanical, physical, or chemical transformation of materials, substances, or components into new products. Industrial land uses also include the wholesale trade sector which comprises establishments engaged in wholesaling merchandise, generally without transformation, and rendering services incidental to the sale of merchandise. Categories include mining operations, processing plants, packaging mills, foundries, machining, wholesale goods merchants and wholesale trade agents and brokers.
  Measured in employees.
- **LU6: (SCH) Schools:** Elementary and secondary schools.
  Measured in students.
- **LU7: (ACCOM) Accommodations:** Hotel and motel establishments.
  Measured in rooms.
- **LU8: (AER) Arts, Entertainment, and Recreation:** Theater companies and dining theaters, musical groups and artists, sports teams and clubs, race tracks, museums, zoos, amusement and theme parks, casinos, marinas, golf courses, recreation centers, bowling centers, RV parks and campgrounds, and other amusement and recreation industries.
  Measured in spaces.
- **LU9: (OSFDU) Outer Single-Family Residential:** Single-family homes, duplexes, or a manufactured home on a single lot, but outside of the city's Area of City Impact (ACI), typically rural areas.
  Measured in dwelling units.

- **LU10: (PSS) Post-Secondary School:** Colleges, universities, computer, trade, and other professional schools.
  Measured in students.

- **LU11: (AGRI) Agriculture:** Lands used for agricultural purposes.
  Measured in acres.
- **LU12: (WFRT) Waterfront Units:** Dwelling units which are located on the water (such as houseboats).
  Measured in dwelling units.
- **LU13: (POL) Publicly-Owned Land:** Lands that are owned by the public, such as forest and Bureau of Land Management (BLM) lands.
  Measured in acres.
- **LU14: (TRNWH) Transportation and Warehousing:** Postal service, couriers, and express delivery services, local messengers and delivery, general, farm and refrigerated warehousing, and storage. This category also includes industries providing transportation passengers and cargo, warehousing and storage for goods, scenic and sightseeing transportation, and support activities related to various modes of transportation.
  Measured in employees.
- **LU15: (MED) Medical:** Health care and social assistance.
  Measured in employees.
- **LU16: (GOVT) Government:** Establishments of federal, state, and local government agencies that administer, oversee, and manage public programs and have executive, legislative, or judicial authority over other institutions.
  Measured in employees.
- **LU17: (ASWMR) Administrative, Support, Waste Management, and Remediation Services:** Office administrative services, temporary help services, telemarketing, collection agencies, visitors' bureau, locksmiths, landscaping services, solid waste collection, landfills, incinerators, septic tank services, and related industries.
  Measured in employees.
- **LU18: (PSTMC) Professional, Scientific, Technical Services, Management of Companies, and Enterprises:** Offices of notaries, payroll services, testing laboratories, technical design services, outdoor advertising, etc.
  Measured in employees.
- **LU19: (EDUSRV) Educational Services:** Support staff in elementary and secondary schools, junior colleges, business and secretarial schools, miscellaneous training schools, and education support services.
  Measured in employees.
- **LU20: (OTHR) Other Services (Except Public Administration):** Automotive repair, appliance repair and maintenance, diet centers, funeral homes, laundry services, photo finishing laboratories, religious organizations, civic and social organizations, business associations, political organizations, parking lots and garages, and other miscellaneous services.
  Measured in employees.
- **LU21: (INFO) Information:** Newspaper companies, software publishers, recording studios, radio stations, telecommunications, and libraries.
  Measured in employees.
- **LU22: (UTLCONST) Utilities and Construction:** Power generation, transmission and distribution by: hydroelectric, fossil, solar, wind, geothermal, biomass, electric, gas, and other. Also includes water supply, steam and air conditioning supply, sewage treatment facilities, construction of new homes, highway, street, and bridges, contractors for: structural steel framing, roofing, siding, painting, flooring, site preparation, and all other specialty trade contractors.
  Measured in employees.
- **LU23: (FS) Food Services:** Caterers, mobile food services, full-service restaurants, drive-through food

establishments, bars, cafeterias, and buffets.
Measured in employees.

Table 3-1: Land Use Categories (Year 2020)

Land Use Type	Unit	KMPO Model	City of Post Falls Model	
		Total Units in Region	Total Units in Region	Total Units in City Extents
LU1: (SFDU) Single-Family Dwelling Units	Dwelling Units	46,591	46,591	13,842
LU2: (MFDU) Multi-Family Dwelling Units	Dwelling Units	10,321	10,321	3,019
LU3: (RET) Retail	Employees	8,616	8,616	2,052
LU4: (FIRES) Finance, Insurance, Real Estate Rental and Leasing Services	Employees	3,095	3,095	357
LU5: (INDUST) Industrial	Employees	6,442	6,442	2,178
LU6: (SCH) Schools	Students	25,572	25,572	6,943
LU7: (ACCOM) Accommodations	Rooms	2,993	2,993	469
LU8: (AER) Arts, Entertainment, and Recreation	Spaces	7,695	7,695	1,138
LU9: (OSFDU) Outer Single-Family Residential	Dwelling Units	9,331	9,331	0
LU10: (PSS) Post-Secondary School	Students	3,316	3,316	64
LU11: (AGRI) Agriculture	Acres	312,503	312,503	3,134
LU12: (WFRT) Waterfront Units	Dwelling Units	0	0	0
LU13: (POL) Publicly Owned Land	Acres	279,695	279,695	1,099
LU14: (TRNWH) Transportation and Warehousing	Employees	1,096	1,096	250
LU15: (MED) Medical	Employees	8,552	8,552	2,053
LU16: (GOVT) Government	Employees	2,715	2,715	329
LU17: (ASWMR) Administrative, Support, Waste Management, and Remediation Services	Employees	3,283	3,283	374
LU18: (PSTMC) Professional, Scientific, Technical Services, Management of Companies, and Enterprises	Employees	2,515	2,515	420
LU19: (EDUSRV) Educational Services	Employees	4,244	4,244	967
LU20: (OTHR) Other Services (Except Public Administration)	Employees	1,674	1,674	224
LU21: (INFO) Information	Employees	639	639	122
LU22: (UTLCONST) Utilities and Construction	Employees	5,672	5,672	1,167
LU23: (FS) Food Services	Employees	6,445	6,445	1,231

4 TRIP GENERATION

Trip generation for the Post Falls model is completed using a trip rate model, identical to the trip generation procedure in the KMPO model. Additionally, trip generation rates for AM and PM peak hours are based on the KMPO model and were updated as part of the model validation. Trip generation rates are summarized in Table 9 and Table 10 and included in **Appendix A.**

4.1 Internal Trip Generation

Vehicle trips are generated based on land use variables, as identified in **Table 3-1**. Trip productions are estimated using a trip rate per dwelling unit, and trip attractions for the internal commercial land uses are estimated using a trip rate per unit. All trip generation rates are based on KMPO model trip rates and validated for the City of Post Falls.

Trip productions and attractions are balanced in the model procedure sequence to ensure that for each production generated by the model there was an attraction. **Table 4-1** and **Table 4-2** summarize the AM and PM peak hour vehicle trips by purpose for the modeled area.

Table 4-1: AM Peak Hour Vehicle Trip Summary (2020)

Trip Purpose	KMPO AM Peak Hour Trips (Region)	Post Falls AM Peak Hour Trips (Region)	Percent Difference (Post Falls / KMPO)	Post Falls AM Peak Hour Trips (City of Post Falls)	Percent of Total Trips (City of Post Falls)
Home-Based Work	14,256	14,932	104.7%	5,446	28.5%
Home-Based Retail	3,639	3,834	105.4%	1,237	6.5%
Home-Based Other	16,510	17,340	105.0%	5,535	29.0%
Non Home-Based	12,206	12,727	104.3%	3,243	17.0%
Home-Based School	10,196	10,742	105.4%	3,649	19.1%
Total Trips	56,807	59,575	104.9%	19,111	100.0%

Table 4-2: PM Peak Hour Vehicle Trip Summary (2020)

Trip Purpose	KMPO PM Peak Hour Trips (Region)	Post Falls PM Peak Hour Trips (Region)	Percent Difference (Post Falls / KMPO)	Post Falls PM Peak Hour Trips (City of Post Falls)	Percent of Total Trips (City of Post Falls)
Home-Based Work	9,980	10,112	101.3%	3,661	16.3%
Home-Based Retail	8,425	8,452	100.3%	2,684	11.9%
Home-Based Other	35,460	35,802	101.0%	11,327	50.3%
Non Home-Based	18,484	18,546	100.3%	4,476	19.9%
Home-Based School	1,148	1,164	101.4%	376	1.7%
Total Trips	73,498	74,076	100.8%	22,524	100.0%

4.2 External Trip Generation

The KMPO model maintains 19 external stations, representing major crossing locations of the County line. The external stations in the KMPO model are adequate for use in the City of Post Falls model, and do not need to be modified. There are 19 external zones in the KMPO model, identified by TAZs numbered 900 through 918. The external locations are summarized below:

- North County Line:
  - TAZ 900 – State Highway 41
  - TAZ 903 – US-95
  - TAZ 905 – Bayview Road
- East County Line:
  - TAZ 906– East Canyon Road
  - TAZ 907 – I-90
  - TAZ 914 – Elder Road
- South County Line:
  - TAZ 902 – Old US-95
  - TAZ 904 – Williams Lane
  - TAZ 909 – State Highway 3
  - TAZ 910 – Heyburn Road
  - TAZ 911 – US-95
- West County Line
  - TAZ 912 – West Worley West Road
  - TAZ 913 – State Highway 58
  - TAZ 915 – West Riverview Drive
  - TAZ 916 – I-90
  - TAZ 917 – Seltice Way
  - TAZ 918 – State Highway 53 (Trent Avenue)
- TAZ 901 – Calgstone (Future External Zone)

External trips within the model are consistent and identical with KMPO external trips, and are summarized in detail in **Appendix C**.

5 TRIP DISTRIBUTION

The trip distribution procedures within the Post Falls model are identical to the procedures and parameters within the KMPO model, and summarized in Section 4.0 in **Appendix A**. The trip distribution stage of the model utilizes a gravity model approach and allocates the trip productions and attractions to an estimate number of trips between each pair of zones within the study area.

The length of trips by purpose typically varies within a model and is summarized in **Table 5-1**. Most trips within the Post Falls model are less than five (5) minutes in length.

Table 5-1: Vehicle Trip Length Distribution (2020)

Length of Trip (in minutes)	AM Peak Hour		PM Peak Hour	
	Number of Trips	Percentage of Trips	Number of Trips	Percentage of Trips
0-1	22,499	37%	24,218	32%
1-2	8,290	14%	10,279	14%
2-3	5,339	9%	6,938	9%
3-4	3,526	6%	4,757	6%
4-5	2,265	4%	3,182	4%
5-6	1,966	3%	2,691	4%
6-7	2,144	4%	2,840	4%
7-8	2,163	4%	3,142	4%
8-9	1,807	3%	2,633	4%
9-10	1,452	2%	2,094	3%
10-11	848	1%	1,319	2%
11-12	717	1%	1,065	1%
12-13	473	1%	753	1%
13-14	760	1%	1,060	1%
14-15	969	2%	1,171	2%
15-16	705	1%	991	1%
16-17	417	1%	569	1%
17-18	352	1%	473	1%
18-19	253	0%	378	1%
19-20	248	0%	356	0%
more than 20	3,131	5%	3,841	5%
Total Trips	60,323	100%	74,750	100%

6 TRAFFIC ASSIGNMENT

The traffic assignment phase allocates vehicle trips from the origin-destination matrices onto the roadway network based on a generalized cost (a combination of time, distance, toll, etc.) between the various zones, which is a function of the shortest travel time between zones and the associated congestion on the desired path.

The Post Falls model uses the Bi-conjugate Frank Wolfe assignment process for assigning vehicle trips, which is an iterative process of assignment to achieve convergence. Convergence means that no vehicles can improve their route travel times by shifting routes.

Parameters for the traffic assignment are summarized in **Table 6-1**.

Table 6-1: Traffic Assignment Parameters

Assignment Parameter	Value
Assignment Iterations	200
Assignment Convergence	0.0001
Trip Distribution Feedback Loops	Minimum of 2 Maximum of 5

6.1 Traffic Counts

KMPO maintains extensive traffic counts within the model. The AM Peak Hour, PM Peak Hour, AM Period and PM Period actual traffic counts are used to validate the modeled traffic volumes. Additional traffic counts were collected by the City of Post Falls in 2023 and were included into the model update. All traffic count data is summarized in **Appendix D**.

6.2 Traffic Assignment (2020)

Figure 6-1 illustrates the AM Peak Hour assignment, and **Figure 6-2** illustrates the PM Peak Hour assignment. for the base year model. Additionally, the average daily traffic (ADT) is added into the model stream and calculated using a K-factor of the PM peak hour. The K-factor to determine an estimated ADT from the PM peak hour traffic is 10.6% (ex: PM/ADT = 10.6%). **Figure 6-3** illustrates the estimated ADT assignment for the base year model.

Figure 6-1: AM Peak Hour Model Assignment (2020)

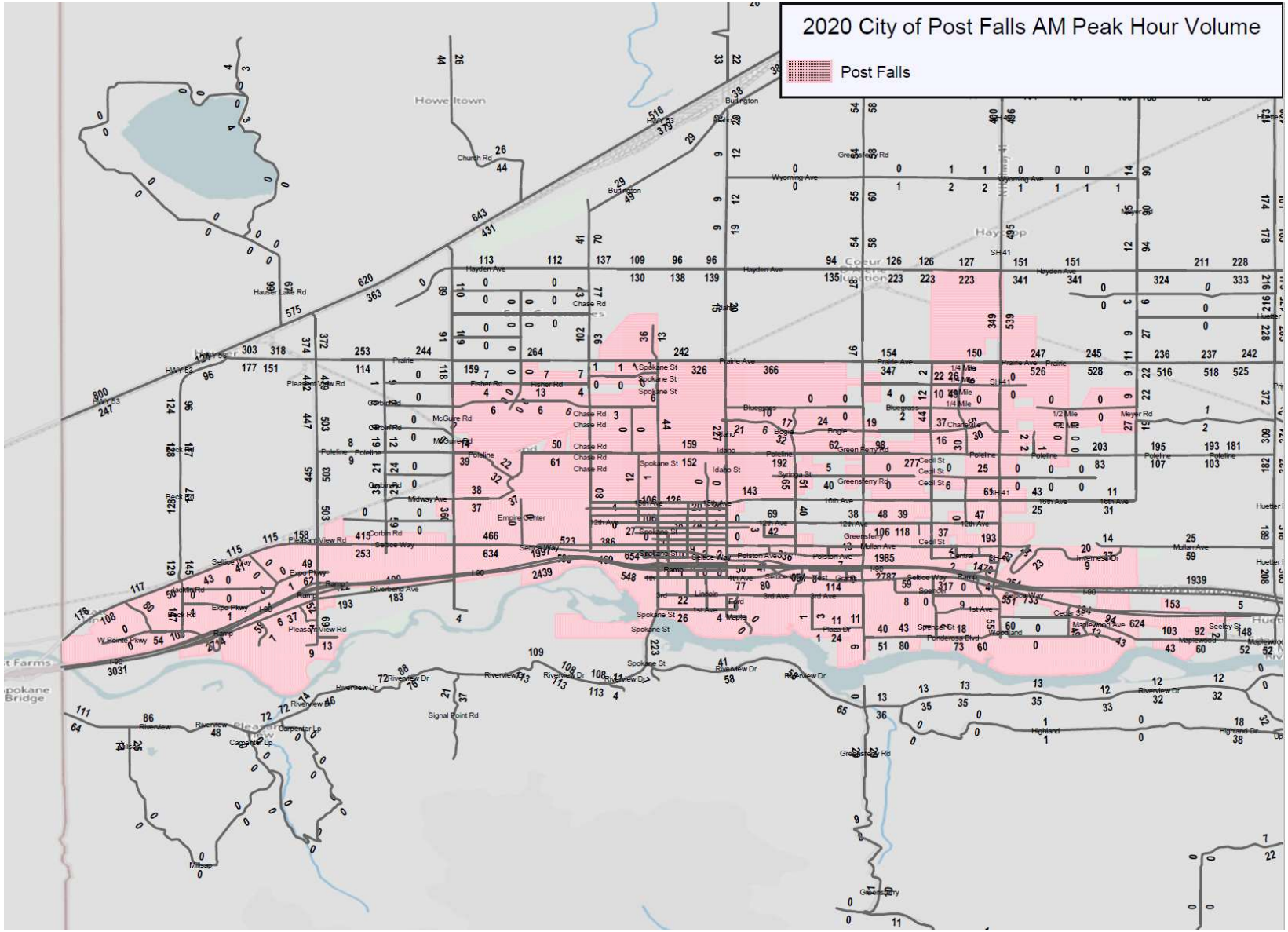


Figure 6-2: PM Peak Hour Model Assignment (2020)

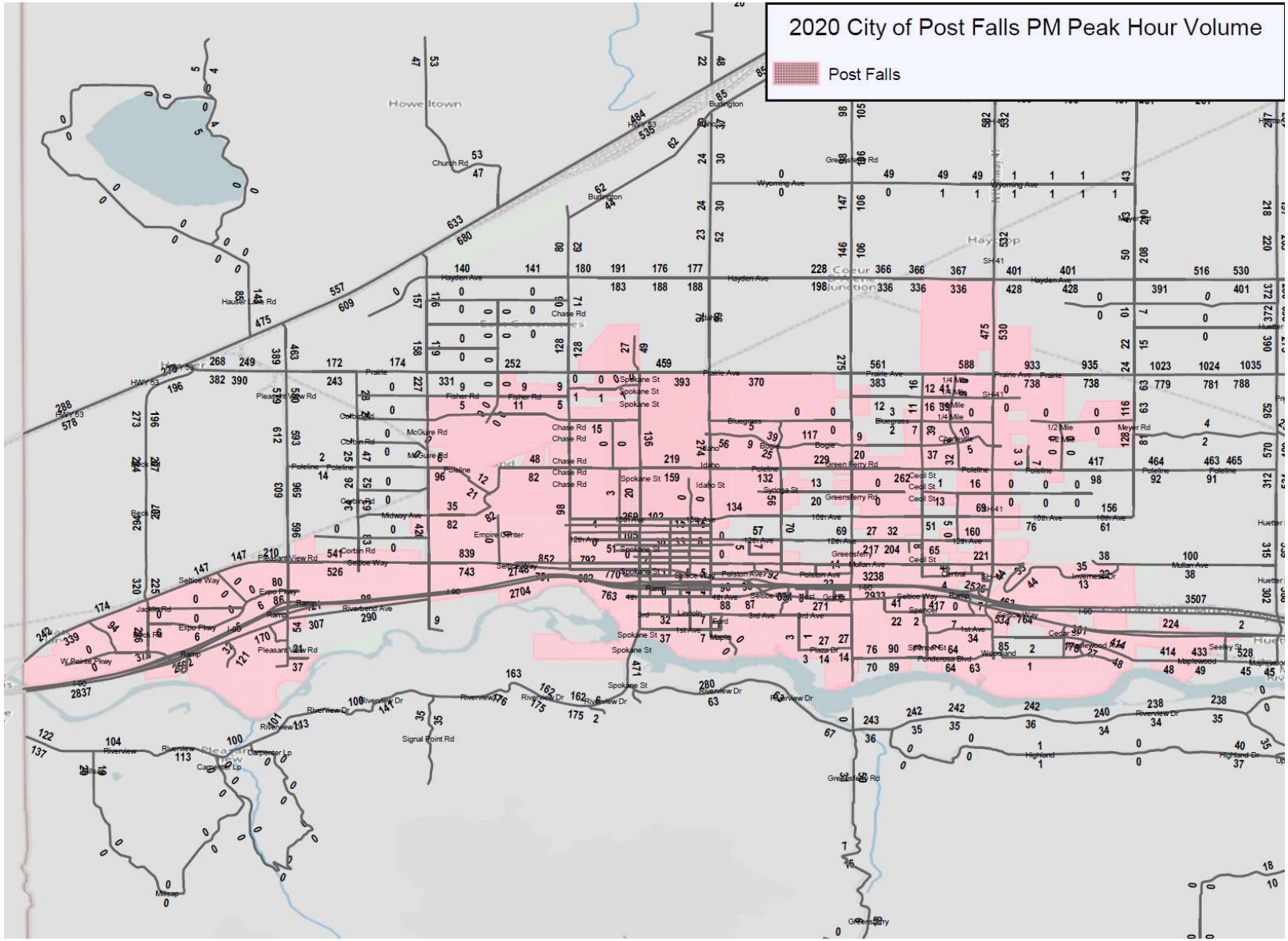
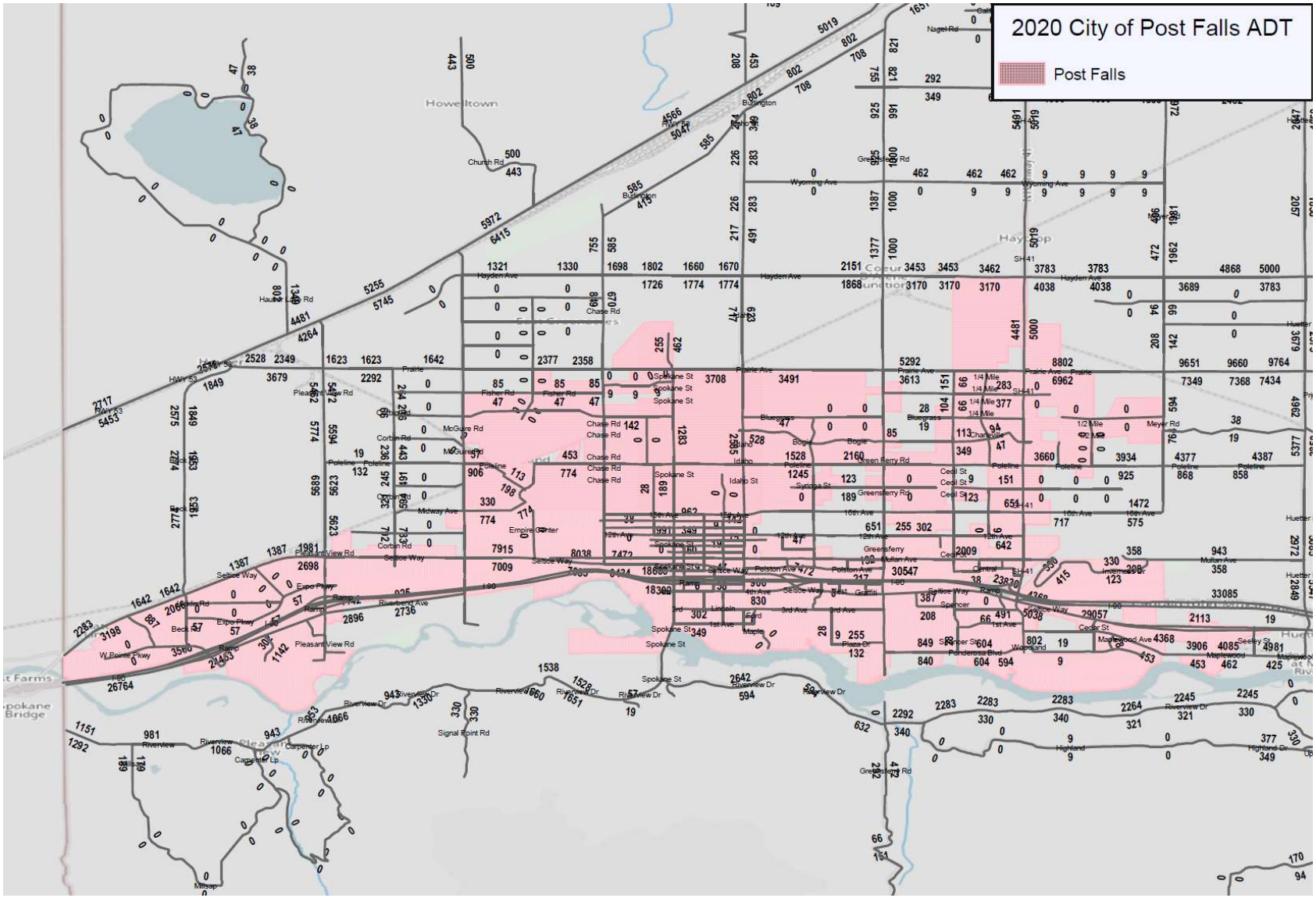


Figure 6-3: Estimated Average Daily Traffic Model Assignment (2020)



7 VALIDATION

Model validation for the City of Post Falls model was completed for the trip generation and traffic assignment stages of the model.

7.1 Trip Generation Validation

Trips generated by trip purpose are compared for the AM and PM peak hours to the KMPO model as well as the 2005 NuStats household travel survey. As shown in **Table 7-1** and **Table 7-2**, both the AM and PM peak hour trip generation results in similar distribution of trips by purpose as the NuStats survey and KMPO 2020 travel model.

As summarized in **Table 7-1** and **Table 7-2**, both the regional City of Post Falls trip generation by purpose and the local City of Post Falls trip generation by purpose closely replicate the percentage of trip generation obtained in the 2005 NuStats survey, as well as the regional KMPO trip generation.

Table 7-1: AM Peak Hour Vehicle Trip Generation Validation

Trip Purpose	Percent of AM Peak Hour of 2005 Trips Reported by NuStats	Percent of KMPO AM Peak Hour Trips (Region)	Post Falls AM Peak Hour Trips (Region)	Percent of Post Falls AM Peak Hour Trips (Region)	Post Falls AM Peak Hour Trips (City of Post Falls)	Percent of Total Trips (City of Post Falls)
Home-Based Work	25.2%	25.1%	14,325	25.10%	3,367	26.00%
Home-Based Retail	5.3%	6.4%	3,691	6.47%	711	5.49%
Home-Based Other	28.2%	29.1%	16,628	29.13%	3,594	27.75%
Non Home-Based	20.7%	21.5%	12,234	21.43%	2,561	19.77%
Home-Based School	20.6%	17.9%	10,198	17.87%	2,719	21.00%
Total Trips	100.0%	100.0%	57,076	100.00%	12,952	100.00%

Table 7-2: PM Peak Hour Vehicle Trip Generation Validation

Trip Purpose	Percent of PM Peak Hour of 2005 Trips Reported by NuStats	Percent of KMPO PM Peak Hour Trips (Region)	Post Falls PM Peak Hour Trips (Region)	Percent of Post Falls PM Peak Hour Trips (Region)	Post Falls PM Peak Hour Trips (City of Post Falls)	Percent of Total Trips (City of Post Falls)
Home-Based Work	13.4%	13.6%	10,000	13.58%	1,867	12.18%
Home-Based Retail	10.6%	11.5%	8,445	11.47%	1,781	11.62%
Home-Based Other	48.1%	48.2%	35,534	48.26%	7,493	48.90%
Non Home-Based	26.2%	25.1%	18,503	25.13%	3,899	25.45%
Home-Based School	1.7%	1.6%	1,148	1.56%	283	1.85%
Total Trips	100.0%	100.0%	73,630	100.00%	15,322	100.00%

7.2 Vehicle Assignment Validation

The Post Falls model was calibrated and validated using available count data and resources and passes all guidelines. The validation was completed for the base year of 2020 and was found to accurately replicate existing conditions. Validation was completed for both the AM Peak Hour and PM Peak Hour time periods separately.

7.2.1 Screenline Analysis

Screenlines are imaginary lines drawn across sections of roadways along key corridors to assess the performance of the model by comparing the total model assigned volumes and total actual counts for those roadway sections. All model links (segments) cross a screenline form a group of roadways within a corridor for which the total model produced volumes and ground traffic counts are aggregated and compared. Twelve (12) screenlines were identified across different locations in the County. The twelve screenlines were selected based on the locations of available counts, as well as the desire to best represent east/west and north/south travel throughout the City. The twelve screenlines are best described as follows:

- 101: South of Hayden Avenue
- 102: North of Prairie Avenue
- 103: South of Prairie Avenue
- 104: North of I-90
- 105: South of I-90
- 106: West of Pleasant View Road
- 107: West of Idaho Street
- 108: East of Idaho Street
- 109: West of SH-41 (East of Cecil)
- 110: East of SH-41 (West of Meyer)
- 111: West of Huetter Road
- 112: East of McGuire Road

Figure 7-1 illustrates the screenlines used in the Post Falls Model. The screenlines include a combination of regional screenlines from the KMPO model as well as newly developed East/West and North/South screenlines within the City of Post Falls only.

Detailed screenline analysis is summarized in **Table 7-3**. As shown in **Table 7-3**, all screenlines pass recommended guideline analysis for both AM and PM Peak Hour.

Figure 7-1: Screenlines

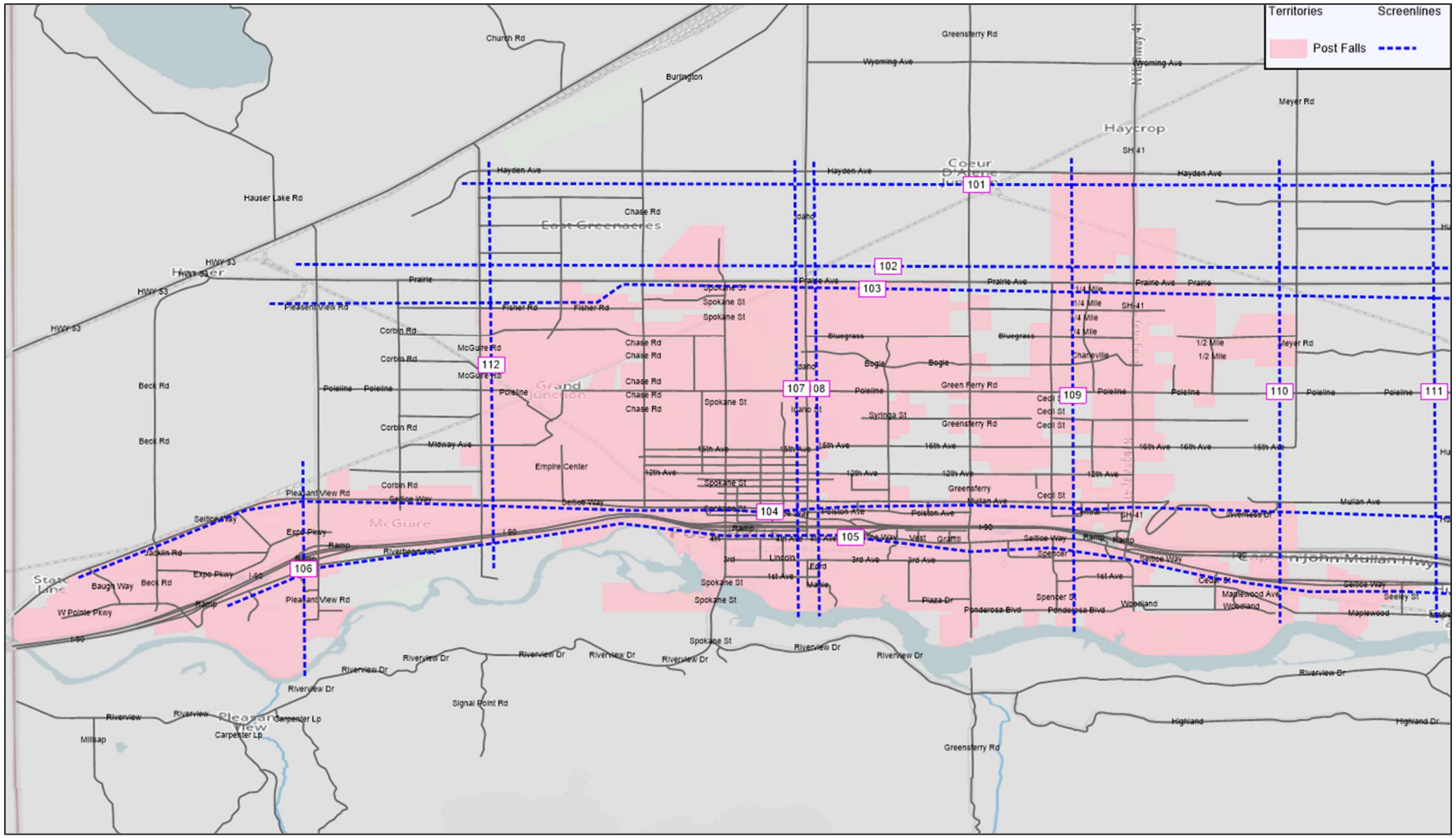


Table 7-3: 2020 AM Peak Hour Screenline Validation Summary

Screenline Name	Number of Counts	Total Sum of Counts	Total Sum of Screenline Capacity	Total Sum of Screenline Volume	Total Volumes at Locations with Counts	Total Volume/ Capacity Ratio	Volume/ Count Ratio	FHWA Pass/Fail Criteria
1 Post Falls South of Hayden Avenue	2	606	12,000	1,831	574	0.15	0.95	PASS
2 Post Falls North of Prairie Avenue	7	2,063	16,500	2,743	2,667	0.17	1.29	PASS
3 Post Falls South of Prairie Avenue	9	4,027	26,900	3,980	3,955	0.15	0.98	PASS
4 Post Falls North of I-90	9	3,765	58,400	7,675	3,375	0.13	0.90	PASS
5 Post Falls South of I-90	5	1,595	34,550	3,782	1,561	0.11	0.98	PASS
6 Post Falls West of Pleasant View Rd	5	1,892	28,000	5,842	1,798	0.21	0.95	PASS
7 Post Falls West of Idaho St	5	6,265	31,000	6,062	4,882	0.20	0.78	PASS
8 Post Falls East of Idaho St	6	7,525	45,150	7,256	6,241	0.16	0.83	PASS
9 Post Falls West of SH-41 (East of Cecil)	4	2,334	46,200	7,212	1,801	0.16	0.77	PASS
10 Post Falls East of SH-41 (West of Meyer)	3	5,337	30,600	7,125	5,525	0.23	1.04	PASS
11 Post Falls West of Huetter Road	2	1,895	25,700	6,571	1,255	0.26	0.66	PASS
12 Post Falls East of McGuire Road	4	5,926	29,100	6,037	5,672	0.21	0.96	PASS
739BCombined Screenline Totals	**61**	**43,230**		**66,116**	**39,306**		**0.91**	

745B** **All Counts are for 2020**

Table 7-4: 2020 PM Peak Hour Screenline Validation Summary

Screenline Name	Number of Counts	Total Sum of Counts	Total Sum of Screenline Capacity	Total Sum of Screenline Volume	Total Volumes at Locations with Counts	Total Volume/ Capacity Ratio	Volume/ Count Ratio	FHWA Pass/Fail Criteria
1 Post Falls South of Hayden Avenue	3	1,104	12,000	2,825	1,478	0.24	1.34	PASS
2 Post Falls North of Prairie Avenue	7	2,511	16,500	3,924	3,707	0.24	1.48	PASS
3 Post Falls South of Prairie Avenue	11	5,092	26,900	6,038	6,015	0.22	1.18	PASS
4 Post Falls North of I-90	13	8,213	58,400	12,051	8,369	0.21	1.02	PASS
5 Post Falls South of I-90	9	3,652	34,550	5,620	4,180	0.16	1.14	PASS
6 Post Falls West of Pleasant View Rd	6	2,711	28,000	7,319	2,742	0.26	1.01	PASS
7 Post Falls West of Idaho St	8	8,255	31,000	7,762	6,654	0.25	0.81	PASS
8 Post Falls East of Idaho St	10	10,271	45,150	10,317	9,465	0.23	0.92	PASS
9 Post Falls West of SH-41 (East of Cecil)	5	3,141	46,200	10,385	2,896	0.22	0.92	PASS
10 Post Falls East of SH-41 (West of Meyer)	4	7,903	30,600	10,787	8,565	0.35	1.08	PASS
11 Post Falls West of Huetter Road	3	2,498	25,700	10,323	3,165	0.40	1.27	PASS
12 Post Falls East of McGuire Road	7	7,868	29,100	7,975	7,824	0.27	0.99	PASS
Combined Screenline Totals	**86**	**63,219**		**95,326**	**65,060**		**1.03**	

**** All Counts are for 2020**

7.2.2 Count-Volume Comparison

Table 7-5 summarizes the count volume comparison for all roadway facilities within the City of Post Falls. From **Table 7-5**, the model closely replicates existing conditions for arterials and collectors, and has an overall comparison of -2.8% in the AM peak hour and 1.7% in the PM peak hour.

Table 7-5: AM and PM Peak Hour Count-Volume Summary

Functional Classification	AM Peak Hour			PM Peak Hour		
	Count	Model Volume	Count/Volume Ratio	Count	Model Volume	Count/Volume Ratio
Freeway	27,410	27,646	0.9%	35,113	34,478	-1.8%
Principal Arterial	42,067	39,494	-6.5%	63,919	64,987	1.6%
Minor Arterial	58,570	57,155	-2.5%	89,757	94,596	5.1%
Collector	6,443	6,569	1.9%	20,338	18,696	-8.8%
Local	329	326	-0.9%	1,312	1,404	6.6%
Overall	134,819	131,190	-2.8%	210,439	214,161	1.7%

Figure 7-2 and **Figure 7-3** compare the observed AM and PM peak hour counts with the modeled AM and PM peak hour volumes for all roadway segments with available counts. These figures illustrate that the count to volume comparison is generally clustered along a 45° fit-line, which shows a good correlation between actual and modeled volumes.

Figure 7-2: AM Peak Hour Traffic Counts versus Post Falls Model Volumes

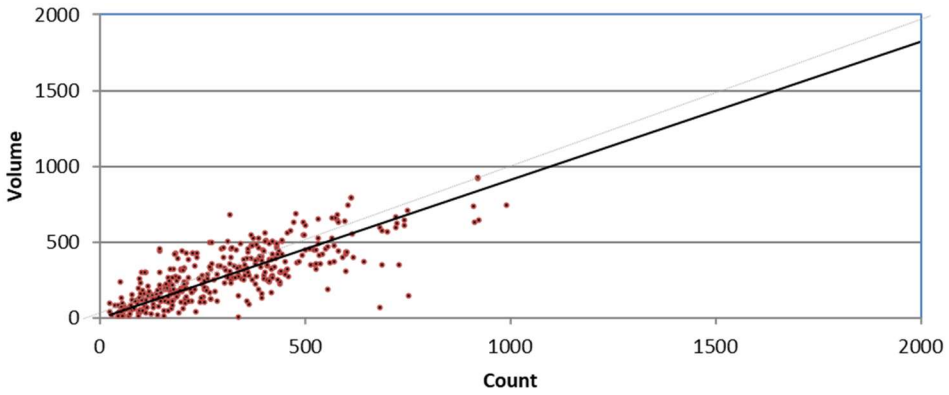
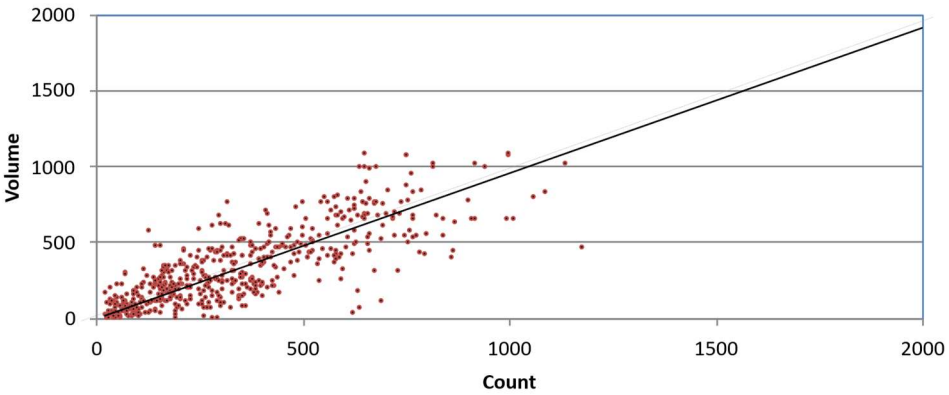


Figure 7-3: PM Peak Hour Traffic Counts versus Post Falls Model Volumes



7.2.3 Coefficient of Determination (R^2)

Another important measure of comparison for the fit between observed traffic counts and estimated model volumes is the Coefficient of Determination (R^2). The recommended value of R^2 is greater than 0.88 *(Model Validation and Reasonableness Checking Manual, Travel Model Improvement Program)*. As summarized in **Table 7-6**, both the AM and PM peak hours R^2 value is greater than 0.88.

The computed overall value of R^2 for the AM and PM Peak hour are calculated using the following equation and summarized in **Table 7-6**.

$$r^2 = \frac{N * \left[\sum_{i=1}^{N}(Count_i * Model_i)\right] - \left(\sum_{i=1}^{N} Count_i\right) * \left(\sum_{i=1}^{N} Model_i\right)}{\sqrt{\left[\left(N * \sum_{i=1}^{N} {Count_i}^2\right) - \left(\sum_{i=1}^{N} Count_i\right)^2\right] * \left[\left(N * \sum_{i=1}^{N} {Model_i}^2\right) - \left(\sum_{i=1}^{N} Model_i\right)^2\right]}}$$

Where:

$Count_i$ = Observed traffic count for link i
$Model_i$= Modeled traffic volume for link i
N = Number of links in the group of links (including link i)

Table 7-6: AM and PM Peak Hour Coefficient of Determination R^2

AM Peak Hour	PM Peak Hour
0.92	0.93

7.2.4 Root Mean Squared Error (RMSE)

The RMSE is a quadratic scoring rule which measures the average magnitude of the error between observed traffic counts and model predicted volumes. The equation for the RMSE is as follows:

$$RMSE = \sqrt{\frac{\sum_{i=1}^{N}[(Count_i - Model_i)^2]}{N}} \quad \%RMSE = \frac{RMSE}{\left(\frac{\sum_{i=1}^{N} Count_i}{N}\right)} * 100$$

Where:

$Count_i$ = Observed traffic count for link i
$Model_i$= Modeled traffic volume for link i
N = Number of links in the group of links (including link i)

The lower the %RMSE value, the more accurate the model is matching assigned volumes to observed traffic counts. Based on the FHWA Travel Model Improvement Program (TIMP) Model Validation and Reasonableness Checking Manual (Second Edition), RMSE is suggested to be less than 30%. This requirement is for daily analysis and does not apply to validation at the AM and PM peak hour analysis level. The AM and PM peak hour %RMSE for the Post Falls model is summarized in **Table 7-7**.

Table 7-7: AM and PM Peak Hour %RMSE

AM Peak Hour	PM Peak Hour
39%	37%

**It is worth noting that the AM and PM peak hour %RMSE does not validate well using the FHWA TMIP guidelines for daily validation, and there are no criteria for AM and PM peak hour validation.*

7.3 Conclusion

The results of model validation/calibration process for the Post Falls model, based on the detailed review of each individual module, indicate a favorable validation. Traffic assignment summary statistics for the focused model are well within acceptable industry standards. In addition, assignment volumes summed along critical screenlines and travel corridors closely replicate actual ground counts based on established industry standards. It is therefore concluded that the model is ready to be used to develop future traffic forecasts assignments for use in various studies.

8 INTERIM YEAR (2035) MODEL

The interim year for the City of Post Falls model is 2035. **Table 8-1** illustrates the model geography comparisons for the KMPO and City of Post Falls models.

Table 8-1: City of Post Falls Interim Year (2035) Model

	KMPO	City of Post Falls Regional Extents	City of Post Falls City Extents
Geography Extent	Kootenai County	Kootenai County	City of Post Falls
Occupied Dwelling Units	98,657	98,657	27,270
Total Employment	70,661	70,661	14,833

8.1 No Build Projects

No build projects are those that are fiscally constrained (funded) and assumed to be built prior to the forecast year for the travel demand model. No Build projects consist of major roadway improvements included in the KMPO 2020 MTP or Transportation Improvement Program (TIP). **Table 8-2** summarizes the projects included in the interim year No Build network. As a note, additional projects are included in the region, and are summarized in **Appendix F**.

Table 8-2: KMPO and City of Post Falls Interim Year (2035) No Build Roadway Projects

Design Year	Sponsors	Roadway	From	To	Description
2025	ITD	McGuire Rd	Poleline Ave	Seltice Wy	Reconstruct to 4 lanes
2025	ITD	Clark Fork Pkwy	Seltice Wy	N/A	Dual-lane Roundabout
2025	ITD	Corbin Rd	Seltice Wy	N/A	Add SB Left-Turn bay, signal
2025	ITD	Spokane St	Prairie Ave	N/A	Align approaches, build north leg
2025	ITD	Spokane St	15th Ave	N/A	Add signal
2025	ITD	Spokane St	12th Ave	N/A	Turn restrictions
2025	ITD	Spokane St	6th Ave	N/A	Modify signal and approach
2025	ITD	Idaho Rd	Prairie Ave	N/A	Signal
2025	ITD	Idaho Rd	15th Ave	N/A	Add signal and EB turn lane
2025	ITD	Idaho St	4th Ave	N/A	Realign 5th and 4th, construct roundabout
2025	ITD	Greensferry Rd	Prairie Ave	N/A	Add left turn bays, signal
2025	ITD	Horsehaven Ave	Greensferry Rd	Cecil Rd	Construct minor collector
2025	ITD	Greensferry Rd	12th Ave	N/A	Add WB left turn lane
2025	ITD	Bluegrass/Hope Ave	Greenferry Rd	Cecil Rd	Construction minor collector
2025	ITD	Cecil Rd	Bluegrass/Hope Ave	Poleline Ave	Reconstruct
2025	ITD	Cecil Rd	Poleline Ave	Horsehaven Ave	Reconstruct
2025	ITD	Prairie Ave	Greensferry Rd	Meyer Rd	Reconstruct to 5 lanes
2025	ITD	SH 41	Hope Ave	N/A	Signal
2025	ITD	SH 41	Bogie/Market Lp	N/A	Restrict to Right-in/Right-out
2025	ITD	SH 41	Poleline Ave	Mullan Ave	Rebuild as 4-lane divided highway
2025	ITD	SH 41	Horsehaven Ave	N/A	Restrict to Right-in/Right-out
2025	ITD	SH 41	16th Ave	N/A	Signal
2025	ITD	12th Ave	October Glory St	Maverick Ln	Construct urban collector

Design Year	Sponsors	Roadway	From	To	Description
2025	ITD	SH 41	12TH Ave	N/A	Restrict to Right-in/Right-out
2025	ITD	SH 41	Neufeld Ln	N/A	Restrict to Right-in/Right-out
2025	ITD	I-90	SH 41	N/A	Construct new interchange
2030	ITD	I-90	Washington State Line	SH 41	Widen to 3 lanes in each direction
2030	ITD	Chase Rd	BNSF	N/A	Reconstruct approaches

8.2 Roadway Network

This section details the network link attributes for 2035. **Figure 8-1** illustrates the global type of the roadway network for the model, **Figure 8-2** illustrates a bandwidth of assumed peak hour roadway capacities in the model, and **Figure 8-3** illustrates the posted speeds, and **Figure 8-4** illustrates the intersection control. The capacities shown in **Figure 8-2** illustrate directional capacities, and not total roadway segment capacity.

Figure 8-1: Roadway System Functional Classification (Year 2035)

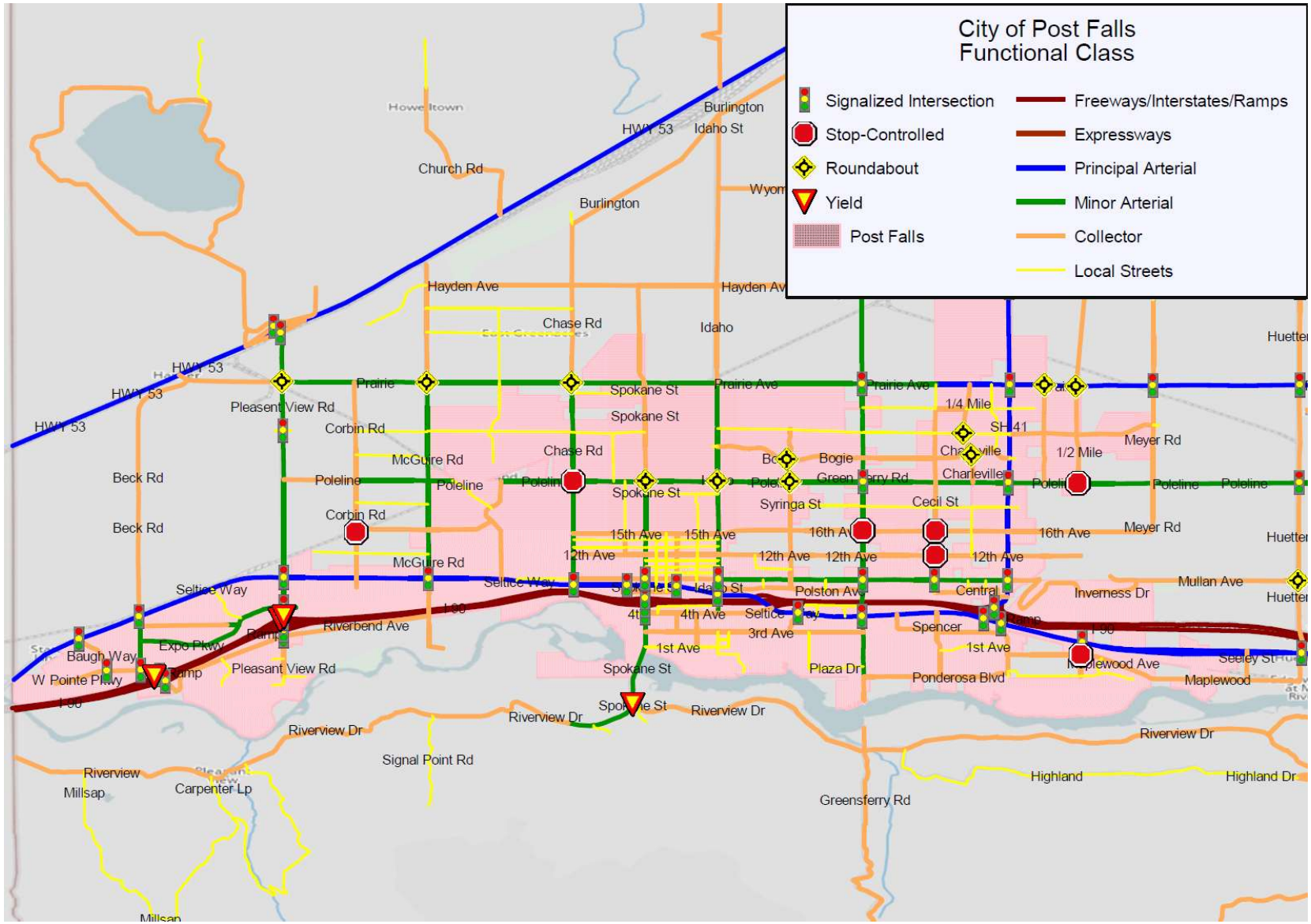


Figure 8-2: Roadway System Capacity (Year 2035)

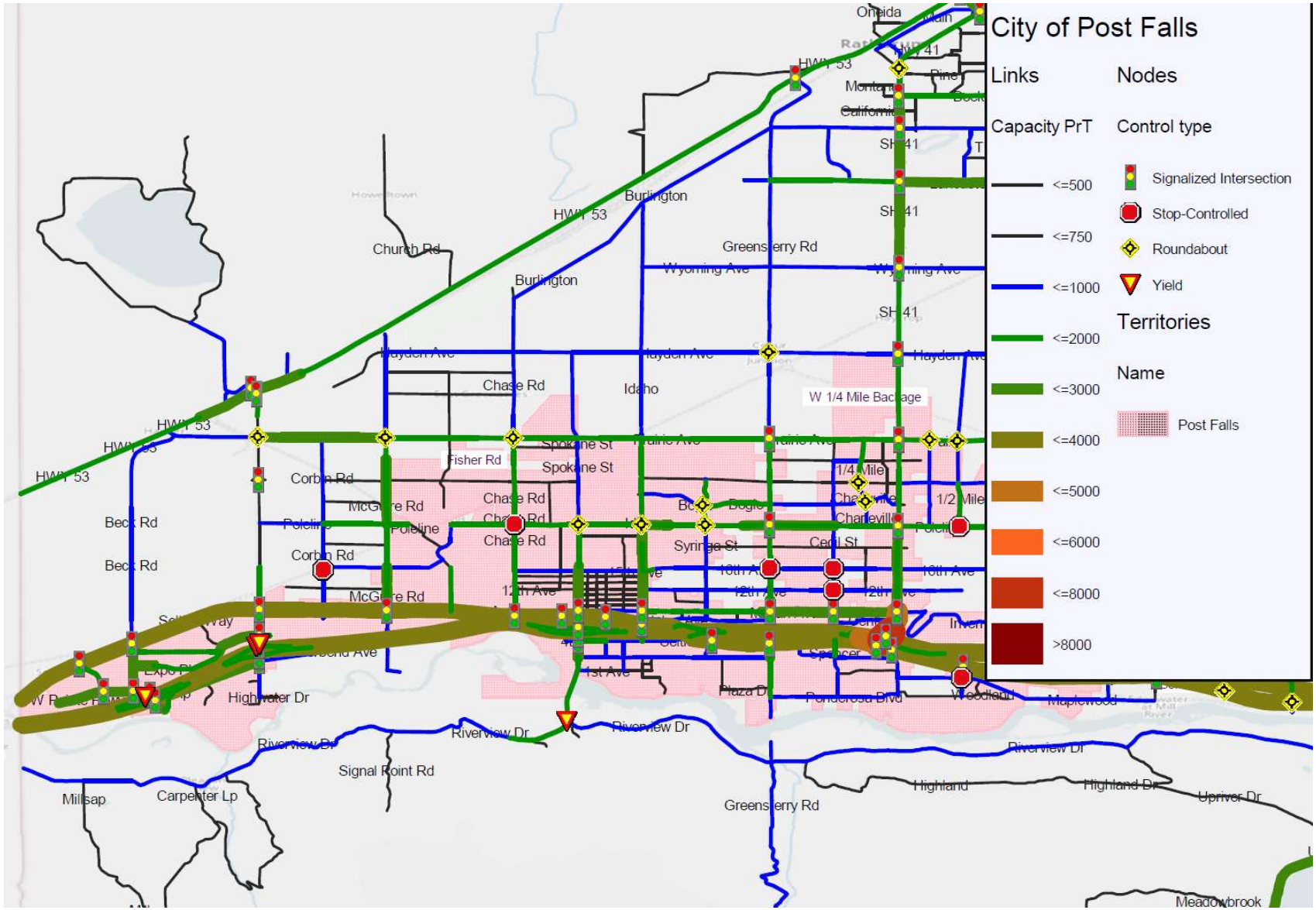


Figure 8-3: Roadway System Posted Speed (Year 2035)

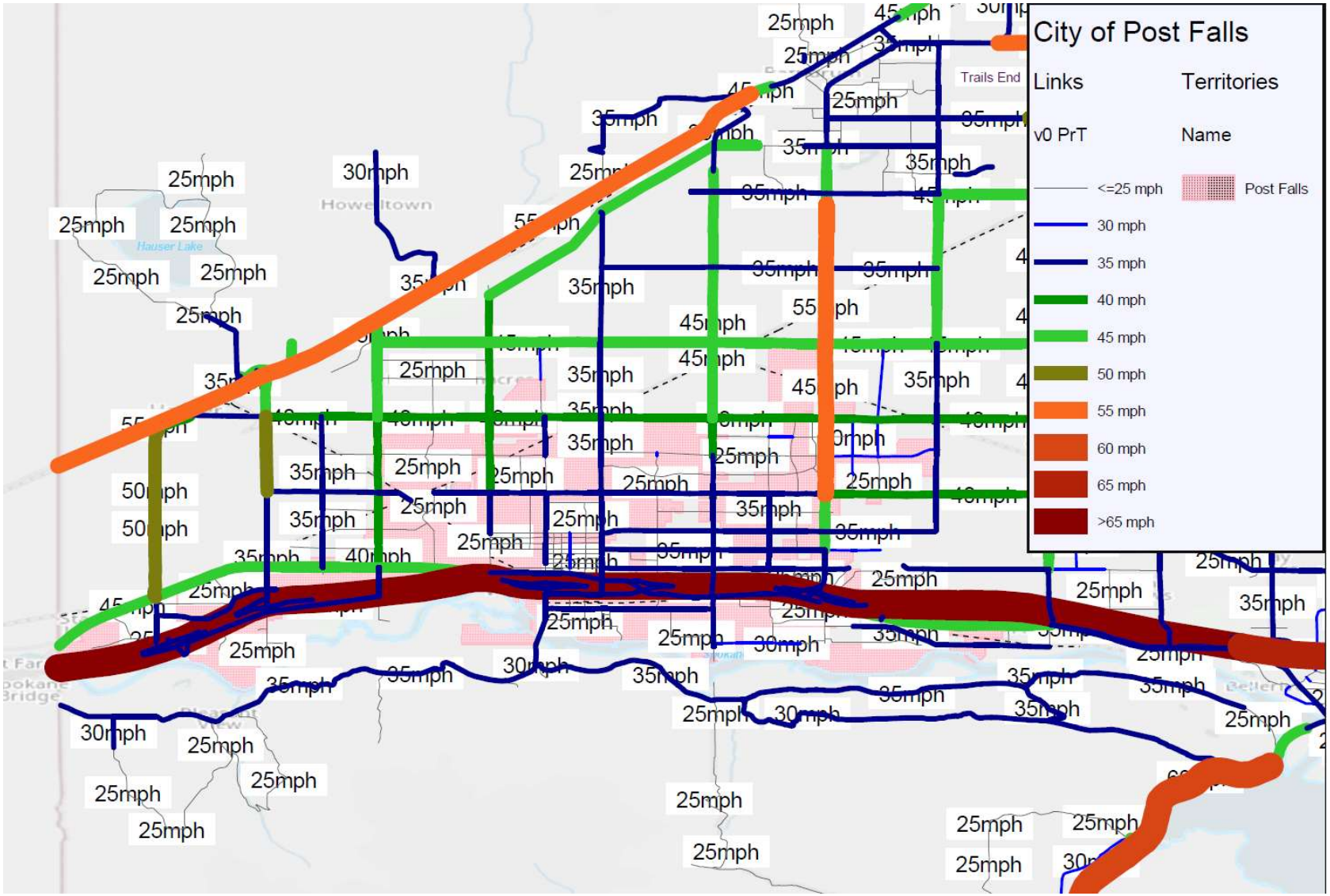
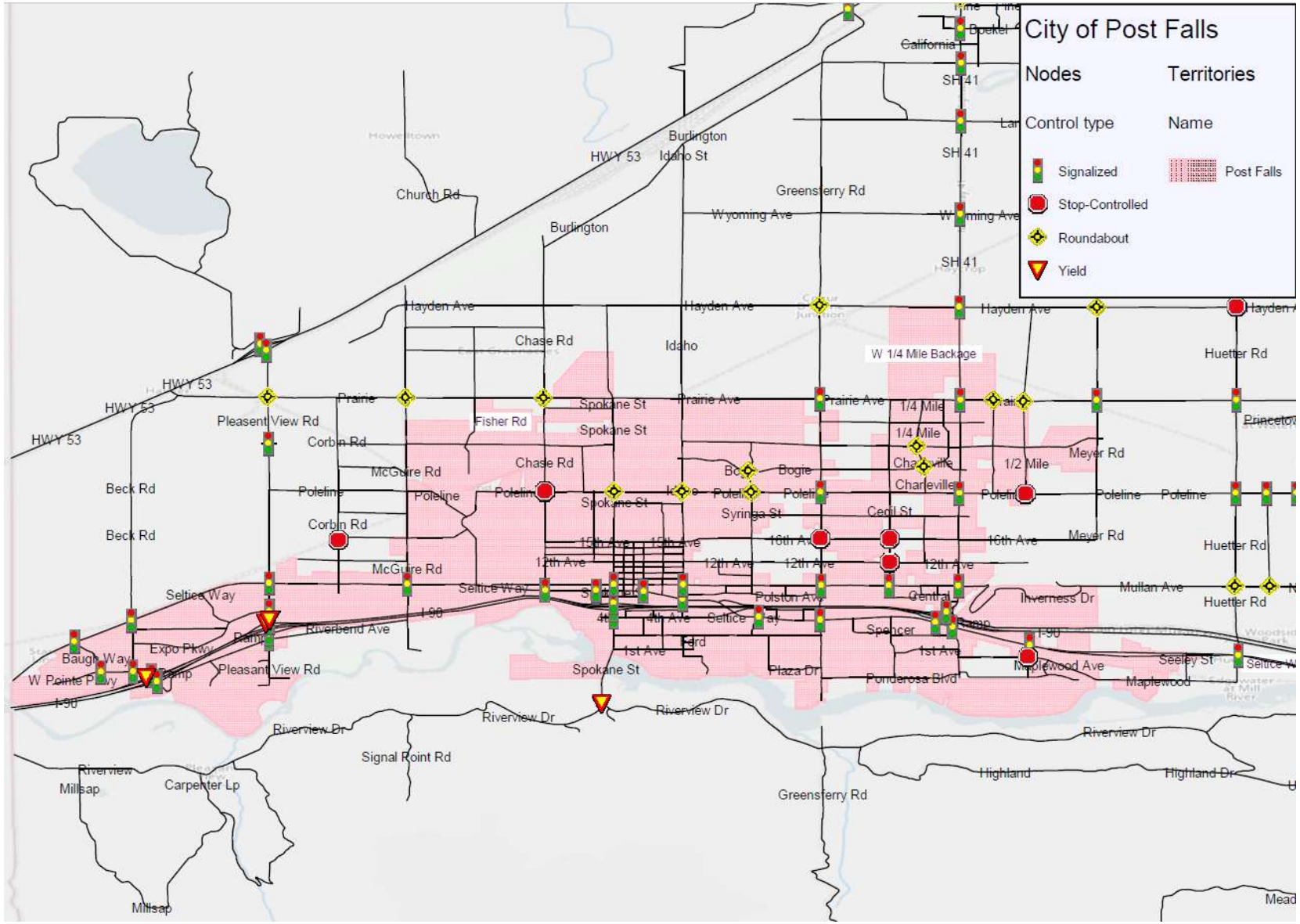


Figure 8-4: Intersection Control (2035)



8.3 Land Use

Table 8-3 compares the 2020 and 2035 land uses by category. The 2035 land uses were controlled to the overarching 2035 land uses forecast by KMPO for the City of Post Falls.

Table 8-3: Land Use Categories (Year 2035)

Land Use Type	Unit	2020	2035
		Total Units Within City Extents	Total Units Within City Extents
LU1: (SFDU) Single-Family Dwelling Units	Dwelling Units	13,842	19,841
LU2: (MFDU) Multi-Family Dwelling Units	Dwelling Units	3,019	10,012
LU3: (RET) Retail	Employees	2,052	3,905
LU4: (FIRES) Finance, Insurance, Real Estate Rental and Leasing Services	Employees	357	513
LU5: (INDUST) Industrial	Employees	2,178	3,323
LU6: (SCH) Schools	Students	6,943	8,686
LU7: (ACCOM) Accommodations	Rooms	469	577
LU8: (AER) Arts, Entertainment, and Recreation	Spaces	1,138	1,398
LU9: (OSFDU) Outer Single-Family Residential	Dwelling Units	0	0
LU10: (PSS) Post-Secondary School	Students	64	79
LU11: (AGRI) Agriculture	Acres	3,134	1,613
LU12: (WFRT) Waterfront Units	Dwelling Units	0	0
LU13: (POL) Publicly-Owned Land	Acres	1,099	1,099
LU14: (TRNWH) Transportation and Warehousing	Employees	250	307
LU15: (MED) Medical	Employees	2,053	3,932
LU16: (GOVT) Government	Employees	329	434
LU17: (ASWMR) Administrative, Support, Waste Management, and Remediation Services	Employees	374	581
LU18: (PSTMC) Professional, Scientific, Technical Services, Management of Companies, and Enterprises	Employees	420	889
LU19: (EDUSRV) Educational Services	Employees	967	1,268
LU20: (OTHR) Other Services (Except Public Administration)	Employees	224	315
LU21: (INFO) Information	Employees	122	172
LU22: (UTLCONST) Utilities and Construction	Employees	1,167	1,457
LU23: (FS) Food Services	Employees	1,231	2,580

8.4 Trip Generation

Trip productions and attractions are balanced in the model procedure sequence to ensure that for each production generated by the model there was an attraction. **Table 8-4** and **Table 8-5** summarize the AM and PM peak hour vehicle trips by purpose for the modeled area.

Table 8-4: AM Peak Hour Vehicle Trip Summary (2035)

Trip Purpose	Post Falls AM Peak Hour Trips (2020) (City of Post Falls)	Post Falls AM Peak Hour Trips (2035) (City of Post Falls)	Growth in Trips
Home-Based Work	3,367	6,603	26%
Home-Based Retail	711	1,531	6%
Home-Based Other	3,594	7,185	28%
Non Home-Based	2,561	5,308	21%
Home-Based School	2,719	4,884	19%
Total Trips	12,952	25,512	100%

Table 8-5: PM Peak Hour Vehicle Trip Summary (2035)

Trip Purpose	Post Falls AM Peak Hour Trips (2020) (City of Post Falls)	Post Falls AM Peak Hour Trips (2035) (City of Post Falls)	Growth in Trips
Home-Based Work	1,867	3,327	13%
Home-Based Retail	1,781	3,257	12%
Home-Based Other	7,493	12,382	47%
Non Home-Based	3,899	7,225	27%
Home-Based School	283	412	2%
Total Trips	15,322	26,603	100%

8.5 Traffic Assignment (2035)

Figure 8-5 illustrates the AM Peak Hour assignment, and **Figure 8-6** illustrates the PM Peak Hour assignment for the forecast year model. **Figure 8-7** illustrates the estimated average daily traffic assignment for 2035.

Figure 8-5: AM Peak Hour Model Assignment (2035)

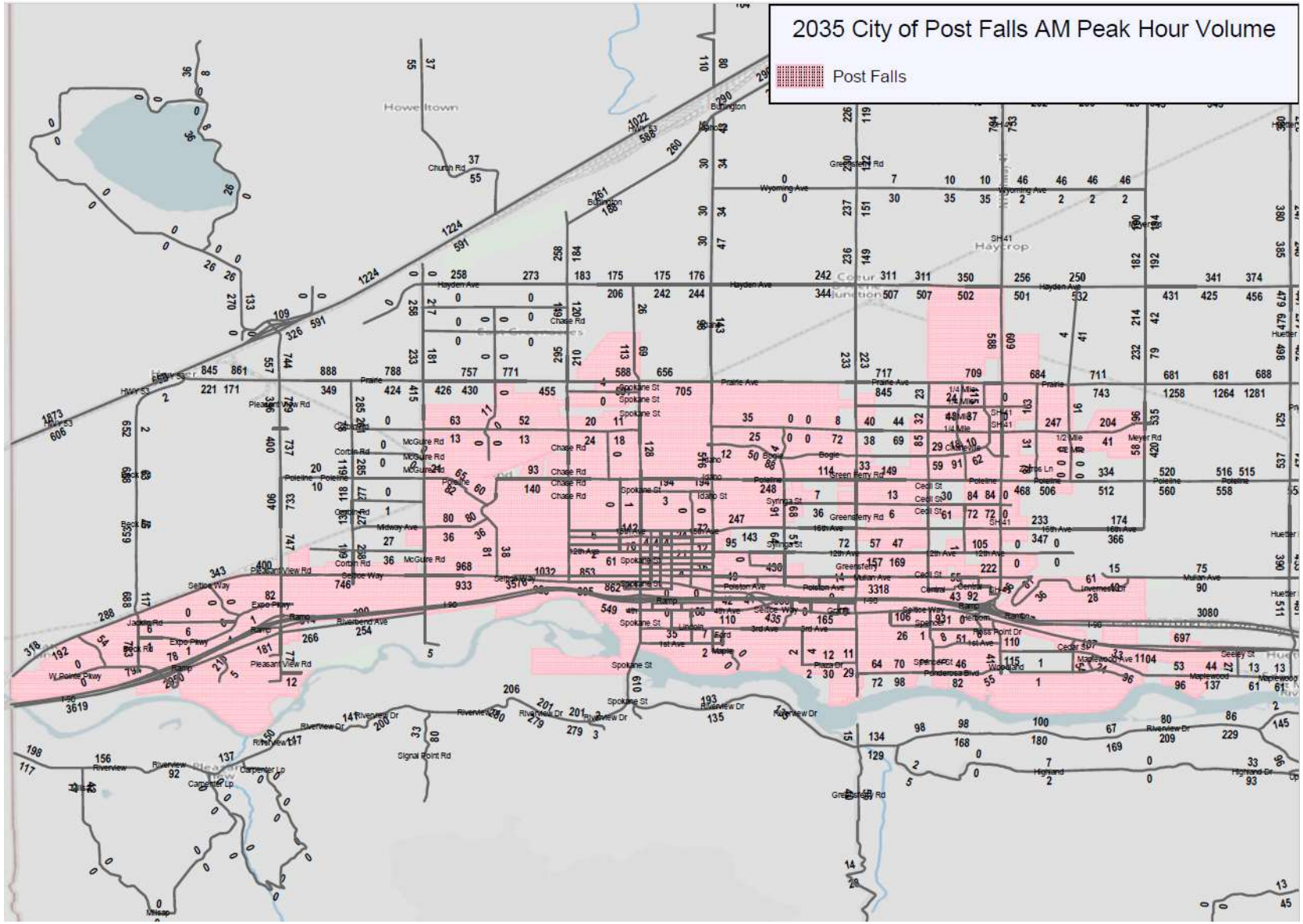


Figure 8-6: PM Peak Hour Model Assignment (2035)

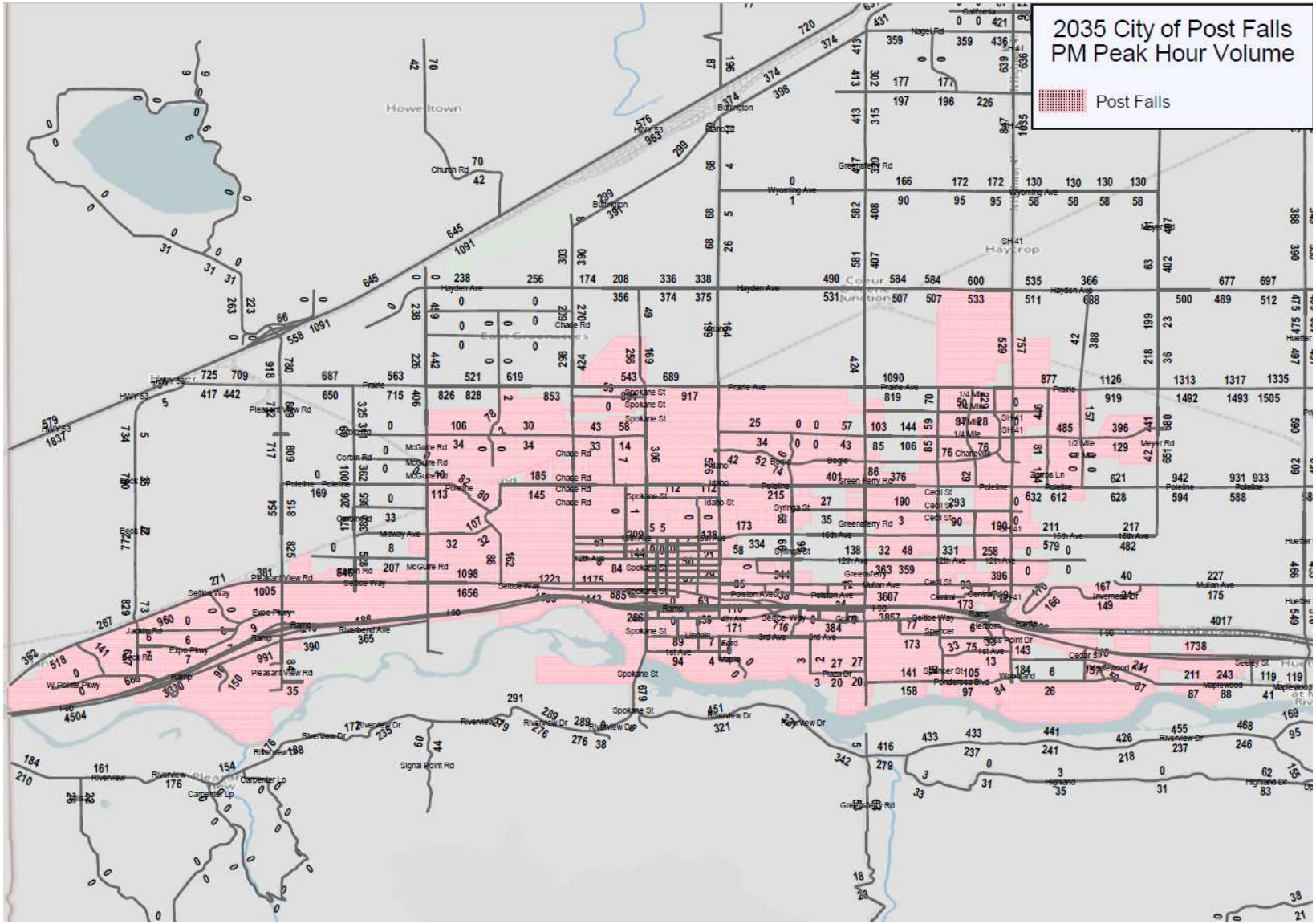
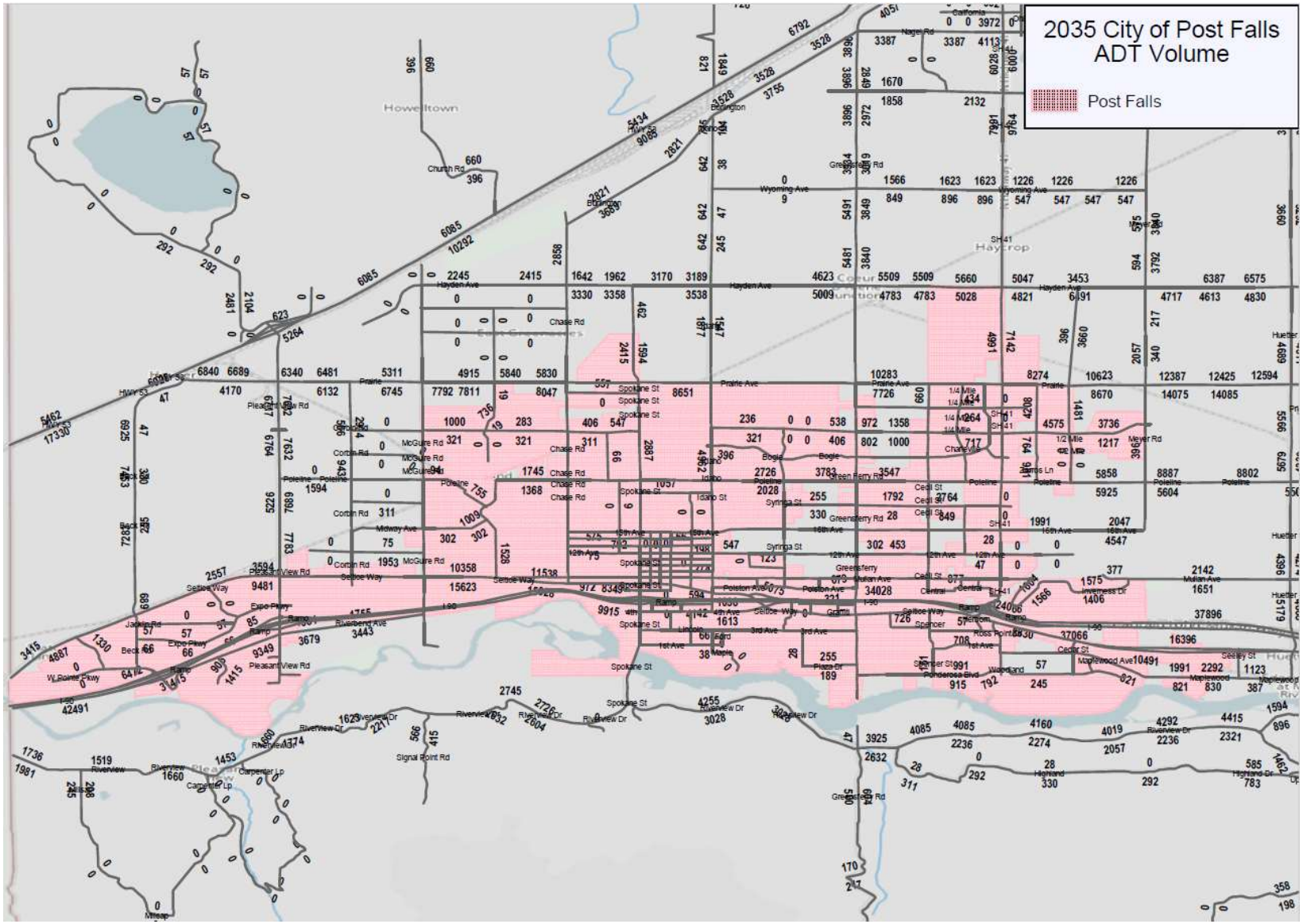


Figure 8-7: Estimated Average Daily Traffic Model Assignment (2035)



9 FORECAST YEAR MODEL

The forecast year for the City of Post Falls model is 2045. **Table 9-1** illustrates the model geography comparisons for the KMPO and City of Post Falls models.

Table 9-1: City of Post Falls Forecast Year (2045) Model

	KMPO (2045)	City of Post Falls (2045) Regional Extents	City of Post Falls (2045) City Extents
Geography Extent	Kootenai County	Kootenai County	City of Post Falls
Occupied Dwelling Units	124,677	124,676	39,000
Total Employment	81,205	87,562	24,793

9.1 No Build Projects

No build projects are those that are fiscally constrained (funded), and assumed to be built prior to the forecast year for the travel demand model. No Build projects consist of major roadway improvements included in the KMPO 2020 MTP. **Table 9-2** summarizes the projects included in the forecast year No Build network. In addition to the projects in **Table 9-2**, all projects included in the 2035 No Build (summarized in **Table 8-2**) are also included. As a note, additional projects are included in the region, and are summarized in **Appendix F**.

Table 9-2: KMPO and City of Post Falls Forecast Year (2045) No Build Roadway Projects

Design Year	Sponsors	Roadway	From	To	Description
2040	ITD	Clearwater Lp	Riverbend Ave	N/A	Add NB turn lane
2040	ITD	Pleasant View Rd	Seltice Wy	N/A	Add NB and SB right turn lanes, adjust signal timing
2040	ITD	Pleasant View Rd	I-90	N/A	Add EB/WB right turn lanes
2040	ITD	Pleasant View Rd	Riverbend Ave	N/A	Add NB turn lane, adjust approach
2040	ITD	McGuire Rd	Seltice Wy	N/A	Add NB thru/turn lane, SB receiving lane
2040	ITD	McGuire Rd	Riverbend Ave	N/A	Add EB turn lane
2040	ITD	Chase Rd	Prairie Ave	N/A	Expand to dual lane roundabout
2040	ITD	Spokane St	Prairie Ave	N/A	Signal or roundabout
2040	ITD	Spokane St	I-90	N/A	Improve Ramps
2040	ITD	Spokane St	3rd Ave	N/A	Signal
2040	ITD	Henry St	Mullan Ave	N/A	Add multi-lane roundabout
2040	ITD	Idaho Rd	Polston Ave	N/A	Restrict WB left turns
2040	ITD	Idaho Rd	Seltice Wy	N/A	Add second NB thru lane
2040	ITD	Prairie Ave	SH 41	Pleasant View Rd	Reconstruct to 5 lanes
2040	ITD	Bluegrass Ln	Syringa St	N/A	Install Roundabout
2040	ITD	Syringa St	Mullan Ave	N/A	Roundabout
2040	ITD	Greensferry Rd	Prairie Ave	N/A	Signal
2040	ITD	Greensferry Rd	Bluegrass Ln	N/A	Roundabout
2040	ITD	Greensferry Rd	Horsehaven Ave	N/A	Roundabout with NB right turn lane
2040	ITD	Greensferry Rd	16th Ave	N/A	Signal or roundabout
2040	ITD	Greensferry Rd	12th Ave	N/A	Roundabout

Design Year	Sponsors	Roadway	From	To	Description
2040	ITD	Greensferry Rd	Seltice Wy	N/A	Add SB right turn, convert NB right turn to thru/right
2040	ITD	Greensferry Rd	3rd Ave	N/A	Signal
2040	ITD	Cecil Rd	Prairie Ave	N/A	Add left turn lanes, signal
2040	ITD	Cecil Rd	Poleline Ave	N/A	Signal or roundabout
2040	ITD	Cecil Rd	12th Ave	N/A	Add EB/WB left turn lanes
2040	ITD	Ross Point Rd	3rd Ave	N/A	Roundabout
2040	ITD	W ¼ mile	Poleline Ave	N/A	Roundabout
2040	ITD	E ¼ mile	Prairie Ave	N/A	Dual lane roundabout
2040	ITD	E ½ mile	Prairie Ave	N/A	Add left turn lanes, signal
2040	ITD	E ¼ mile	Poleline	N/A	Roundabout

9.2 Roadway Network

This section details the network link attributes for 2045. **Figure 9-1** illustrates the global type of roadway network for the model, **Figure 9-2** illustrates a bandwidth of assumed peak hour roadway capacities in the model, and **Figure 9-3** illustrates the posted speeds, and **Figure 9-4** illustrates the intersection control. The capacities shown in **Figure 9-2** illustrate directional capacities, and not total roadway segment capacity.

Figure 9-1: Roadway System Functional Classification (Year 2045)

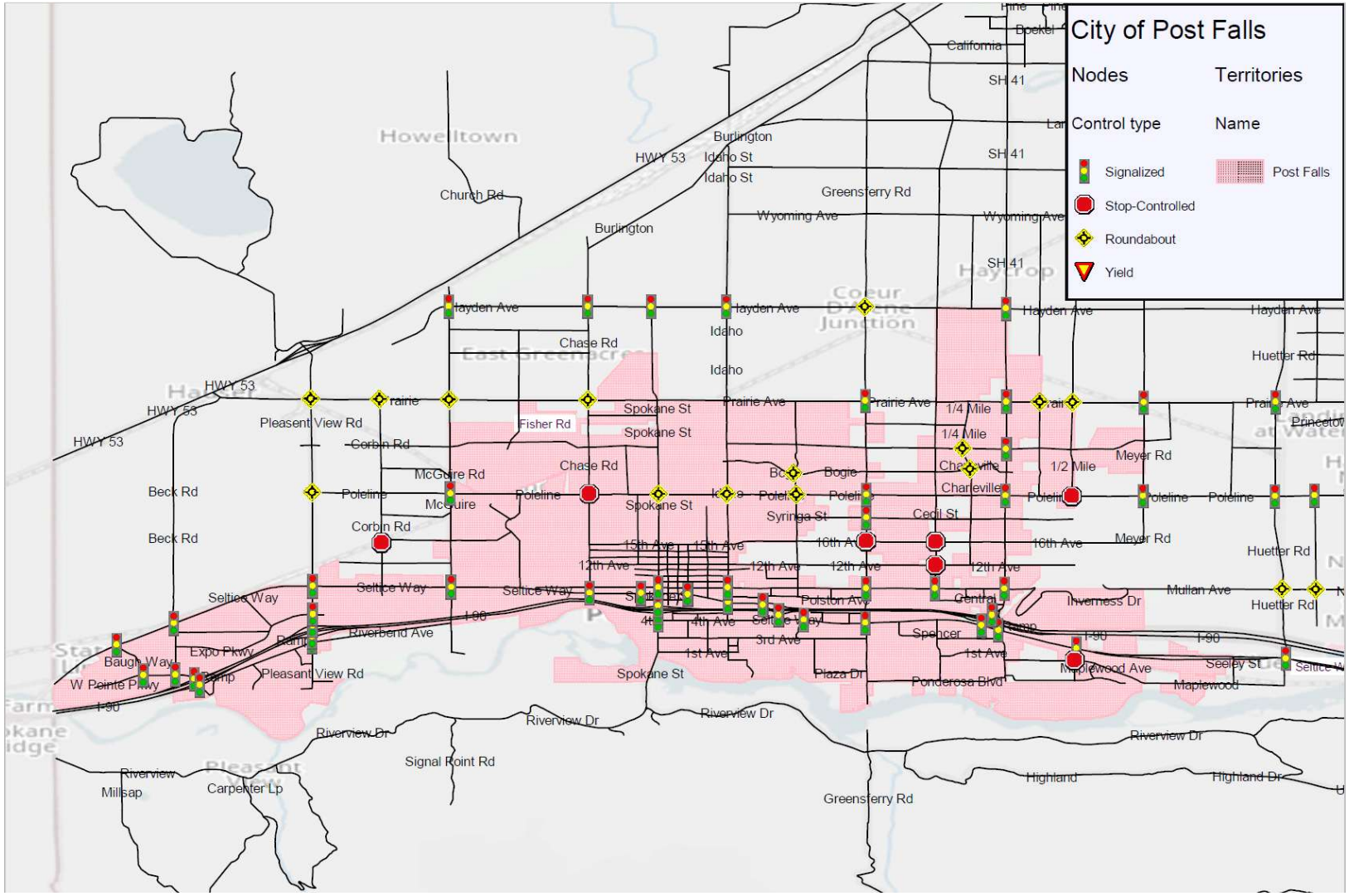


Figure 9-2: Roadway System Capacity (Year 2045)

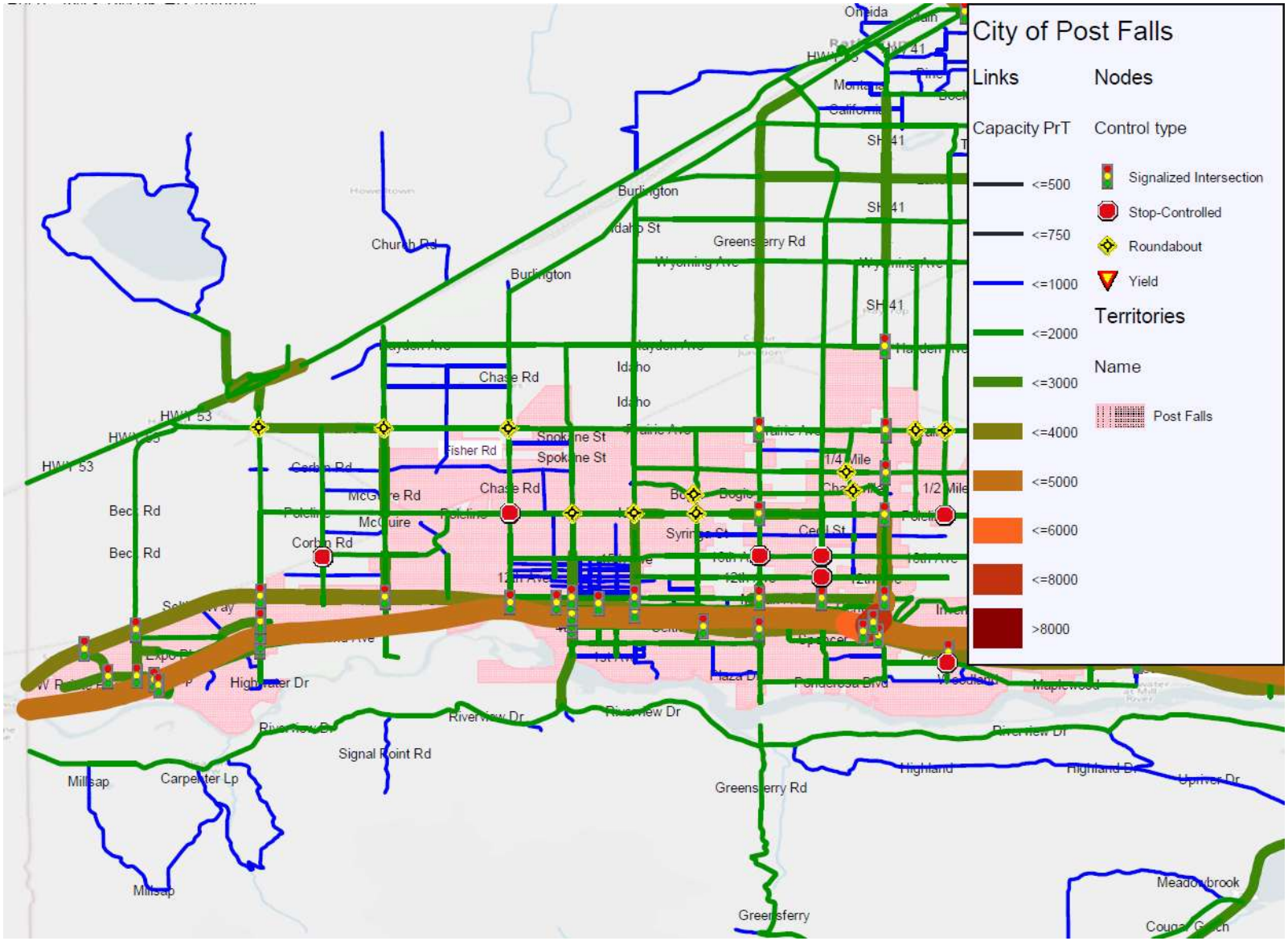


Figure 9-3: Roadway System Posted Speed (Year 2045)

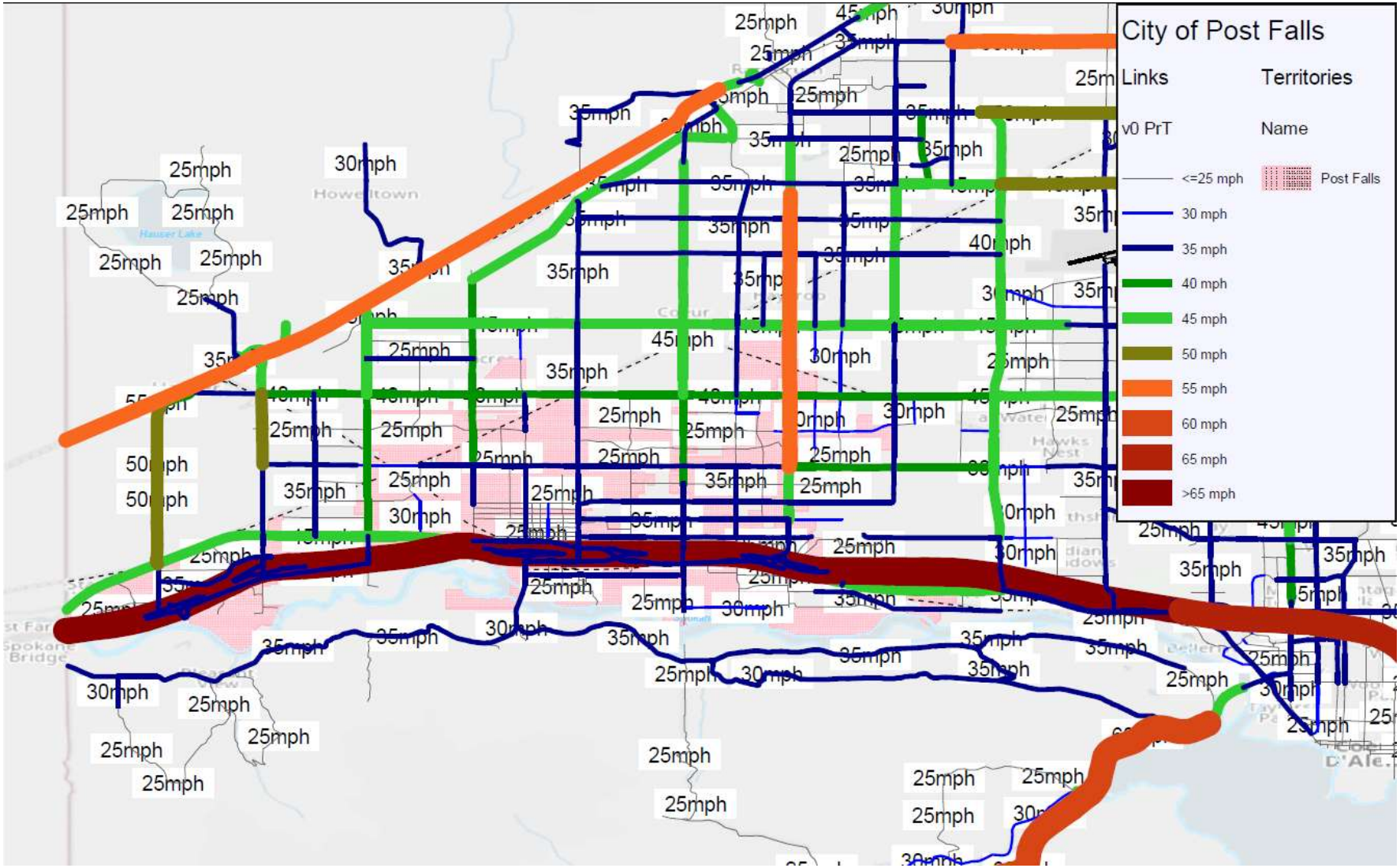
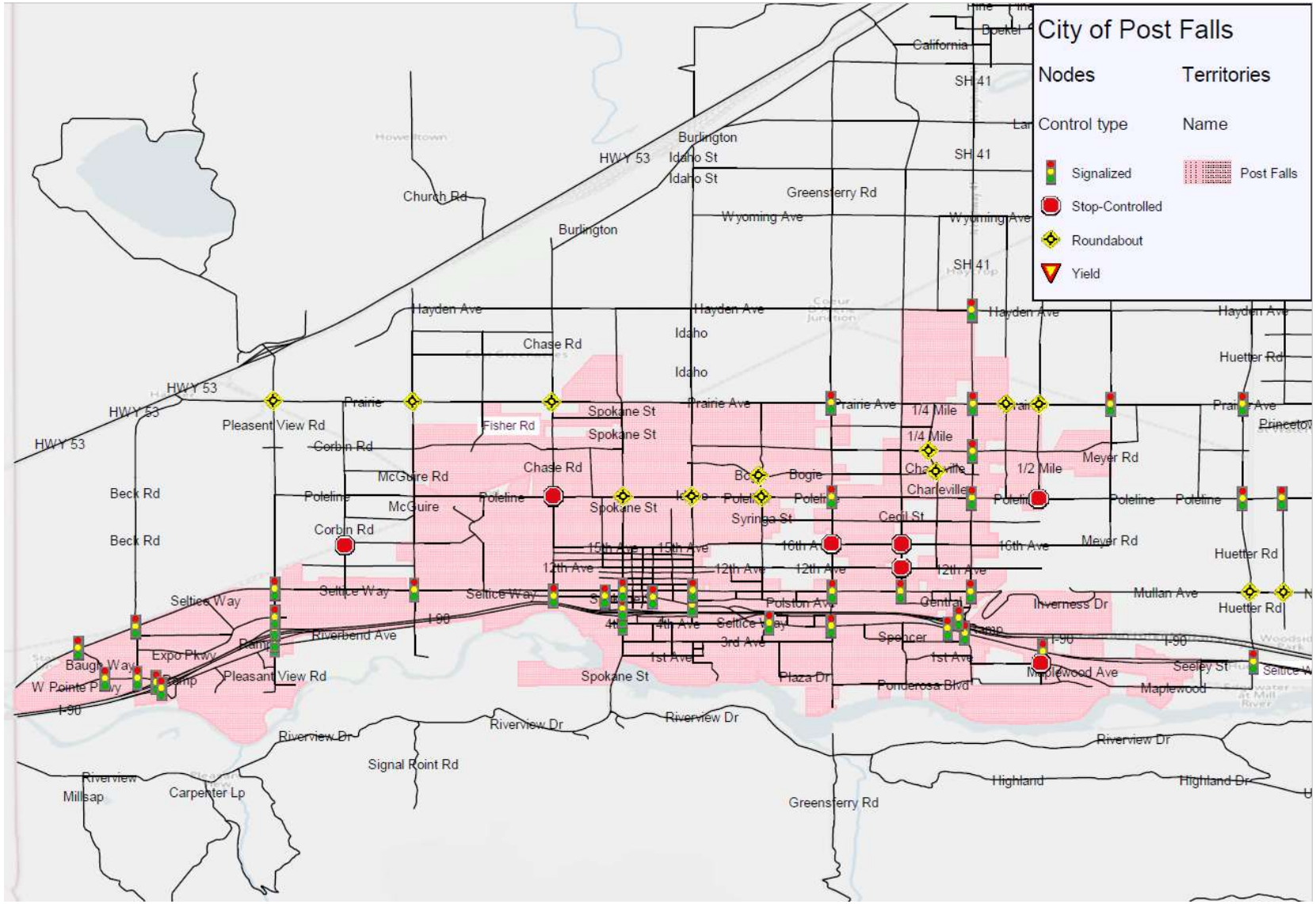


Figure 9-4: Intersection Control (2045)



9.3 Land Use

Table 9-3 compares the 2020, 2035, and 2045 land uses by category. The 2045 land uses were controlled to the overarching 2045 land uses forecast by KMPO for the City of Post Falls.

Table 9-3: Land Use Categories (Year 2045)

Land Use Type	Unit	2020	2035	2045
		Total Units Within City Extents	Total Units Within City Extents	Total Units Within City Extents
LU1: (SFDU) Single-Family Dwelling Units	Dwelling Units	13,842	19,841	25,482
LU2: (MFDU) Multi-Family Dwelling Units	Dwelling Units	3,019	10,012	13,518
LU3: (RET) Retail	Employees	2,052	3,905	5,045
LU4: (FIRES) Finance, Insurance, Real Estate Rental and Leasing Services	Employees	357	513	650
LU5: (INDUST) Industrial	Employees	2,178	3,323	3,706
LU6: (SCH) Schools	Students	6,943	8,686	10,210
LU7: (ACCOM) Accommodations	Rooms	469	577	665
LU8: (AER) Arts, Entertainment, and Recreation	Spaces	1,138	1,398	1,608
LU9: (OSFDU) Outer Single-Family Residential	Dwelling Units	0	0	0
LU10: (PSS) Post-Secondary School	Students	64	79	91
LU11: (AGRI) Agriculture	Acres	3,134	1,613	1,156
LU12: (WFRT) Waterfront Units	Dwelling Units	0	0	0
LU13: (POL) Publicly-Owned Land	Acres	1,099	1,099	1,099
LU14: (TRNWH) Transportation and Warehousing	Employees	250	307	354
LU15: (MED) Medical	Employees	2,053	3,932	5,316
LU16: (GOVT) Government	Employees	329	434	520
LU17: (ASWMR) Administrative, Support, Waste Management, and Remediation Services	Employees	374	581	744
LU18: (PSTMC) Professional, Scientific, Technical Services, Management of Companies, and Enterprises	Employees	420	889	1,241
LU19: (EDUSRV) Educational Services	Employees	967	1,268	1,485
LU20: (OTHR) Other Services (Except Public Administration)	Employees	224	315	388
LU21: (INFO) Information	Employees	122	172	210
LU22: (UTLCONST) Utilities and Construction	Employees	1,167	1,457	1,657
LU23: (FS) Food Services	Employees	1,231	2,580	3,476

9.4 Trip Generation

Trip productions and attractions are balanced in the model procedure sequence to ensure that for each production generated by the model there was an attraction. **Table 9-4** and **Table 9-5** summarize the AM and PM peak hour vehicle trips by purpose for the modeled area.

Table 9-4: AM Peak Hour Vehicle Trip Summary (2045)

Trip Purpose	Post Falls AM Peak Hour Trips (2020) (City of Post Falls)	Post Falls AM Peak Hour Trips (2035) (City of Post Falls)	Post Falls AM Peak Hour Trips (2045) (City of Post Falls)	Growth in Trips (2020 to 2045)	Growth in Trips (2035 to 2045)
Home-Based Work	3,367	6,603	8,155	142%	24%
Home-Based Retail	711	1,531	4,323	508%	182%
Home-Based Other	3,594	7,185	9,022	151%	26%
Non Home-Based	2,561	5,308	6,581	157%	24%
Home-Based School	2,719	4,884	5,959	119%	22%
Total Trips	12,952	25,512	34,041	163%	33%

Table 9-5: PM Peak Hour Vehicle Trip Summary (2045)

Trip Purpose	Post Falls AM Peak Hour Trips (2020) (City of Post Falls)	Post Falls AM Peak Hour Trips (2035) (City of Post Falls)	Post Falls AM Peak Hour Trips (2045) (City of Post Falls)	Growth in Trips (2020 to 2045)	Growth in Trips (2035 to 2045)
Home-Based Work	1,867	3,327	4,323	132%	30%
Home-Based Retail	1,781	3,257	4,234	138%	30%
Home-Based Other	7,493	12,382	15,900	112%	28%
Non Home-Based	3,899	7,225	9,277	138%	28%
Home-Based School	283	412	504	78%	22%
Total Trips	15,322	26,603	34,239	123%	29%

9.5 Traffic Assignment (2045)

Figure 9-5 illustrates the AM Peak Hour assignment, and **Figure 9-6** illustrates the PM Peak Hour assignment for the forecast year model. **Figure 9-7** illustrates the estimated average daily traffic assignment for 2045.

Figure 9-5: AM Peak Hour Model Assignment (2045)

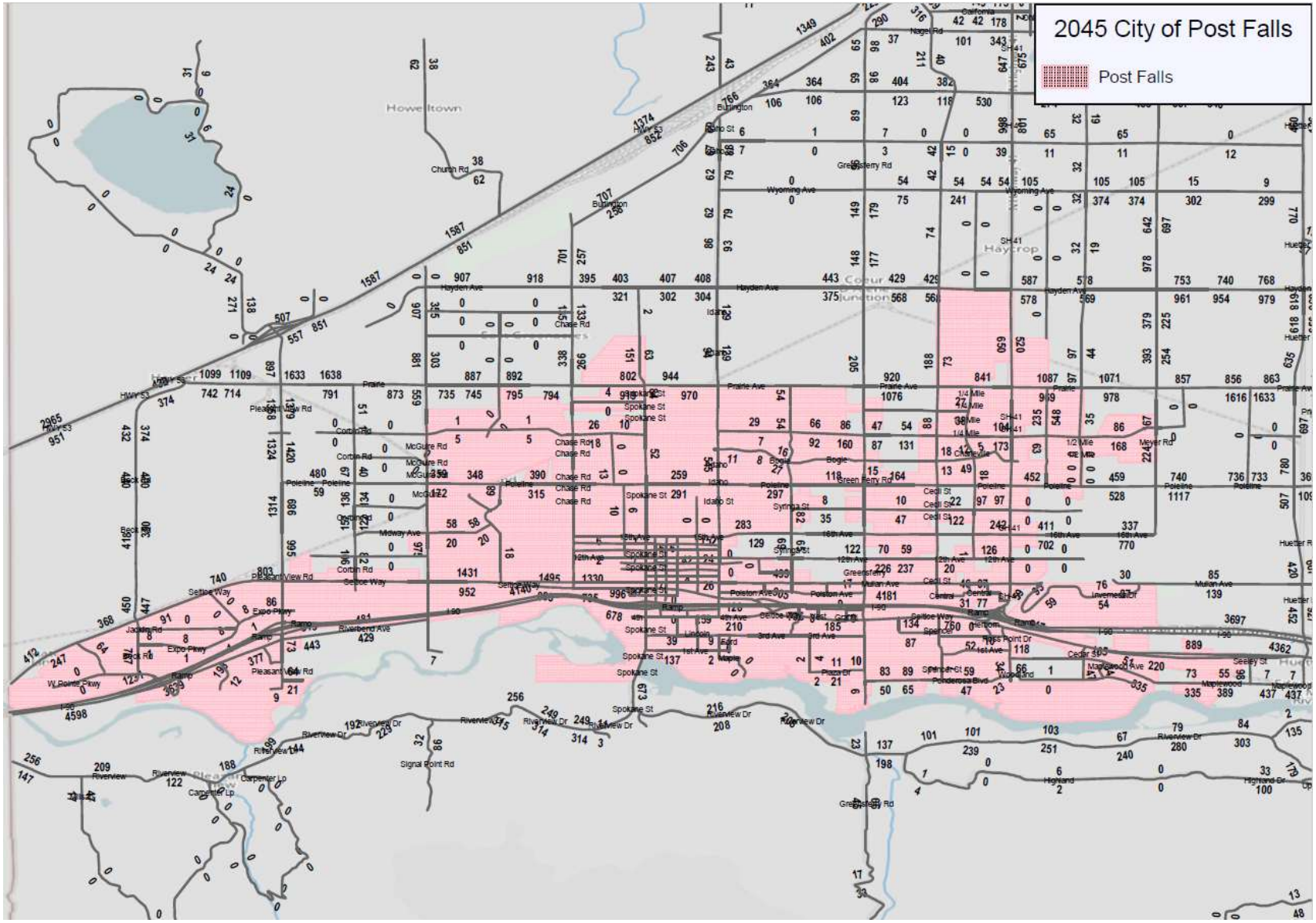


Figure 9-6: PM Peak Hour Model Assignment (2045)

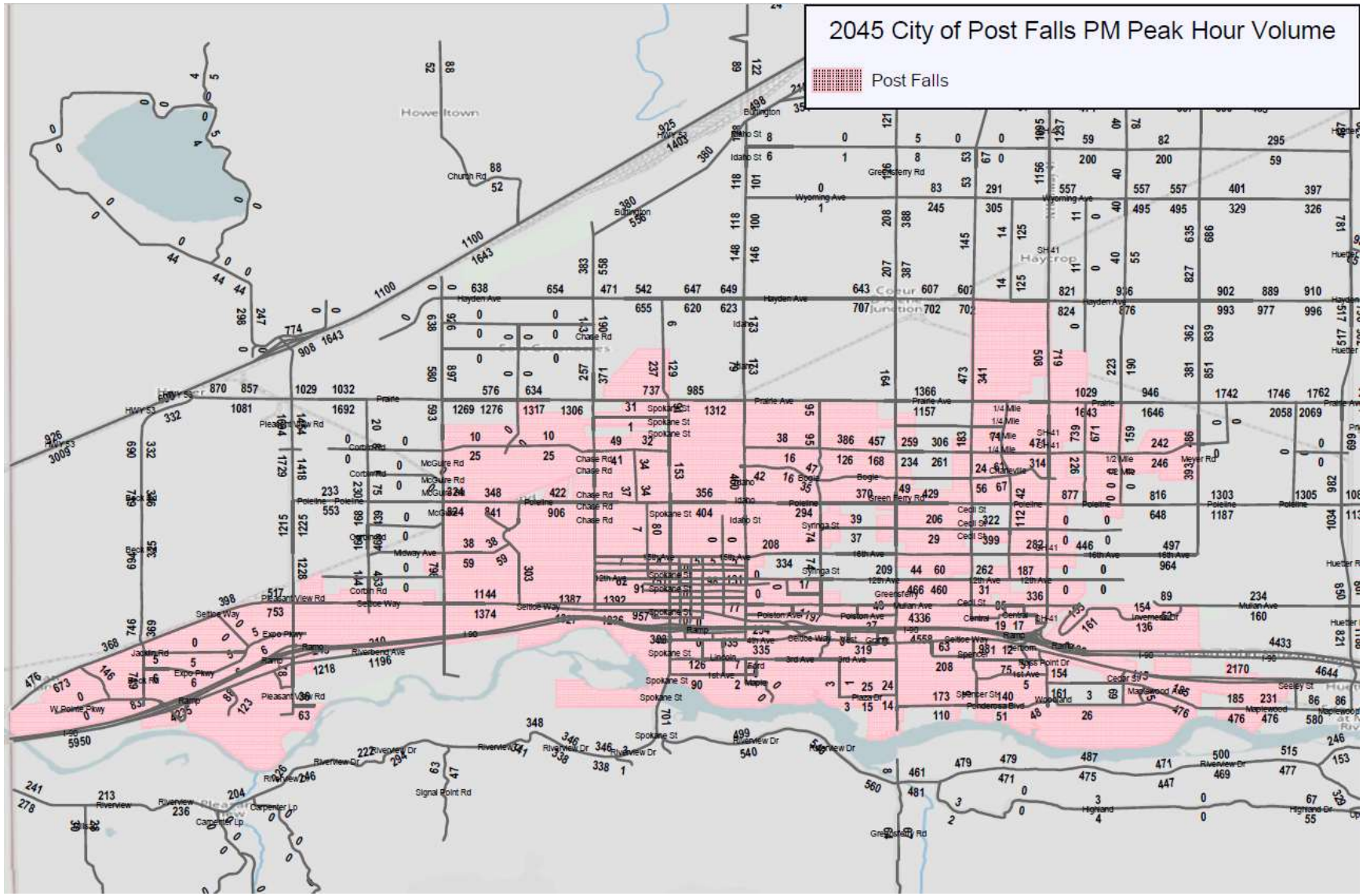
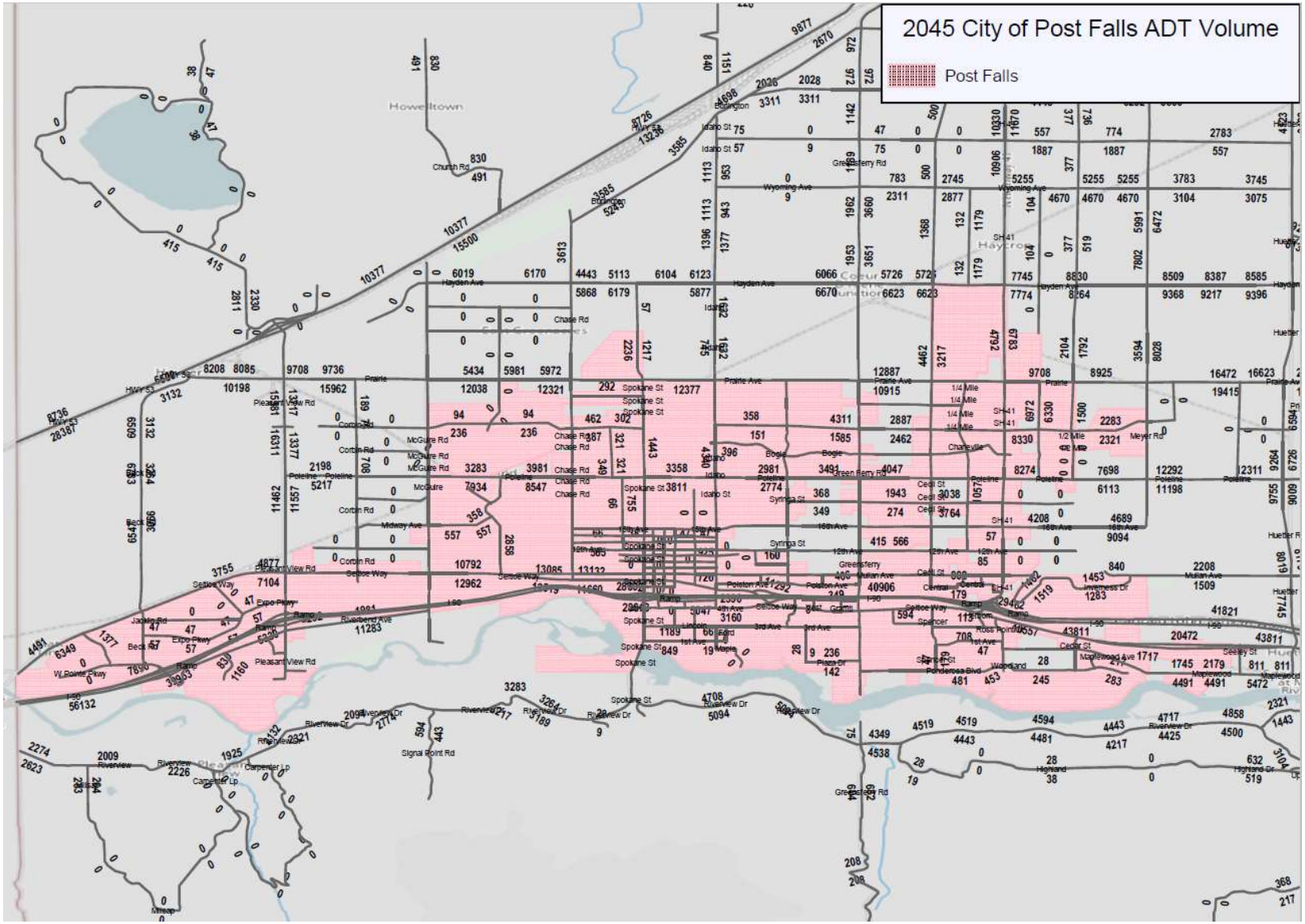


Figure 9-7: Estimated Average Daily Traffic Model Assignment (2045)



10 USER'S GUIDE

The use of the City of Post Falls model is identical to that for the KMPO regional model. The model was developed using the VISUM software platform. A basic understanding of the VISUM software program is required to manage and run the model. However, users unfamiliar with the software should be able to perform some modeling tasks with the assistance of the VISUM interactive help menu. The most recent KMPO model documentation is included in **Appendix A**.

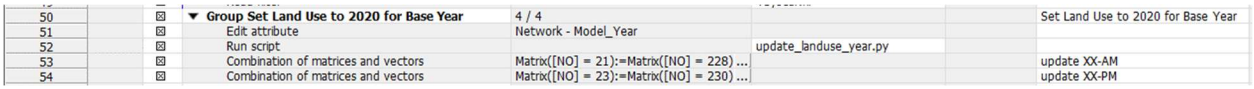
Each of the final City of Post Falls model files are zipped into a deliverable package including all filters, graphic parameters, list layouts, and VISUM version file. These zip files can be available upon request, and the newest version should be requested from the City prior to beginning any project.

Figure 10-1 illustrates the "Procedure Sequence" for running the model.

Figure 10-1: Procedure Sequence (Update Capacities Group Procedures)

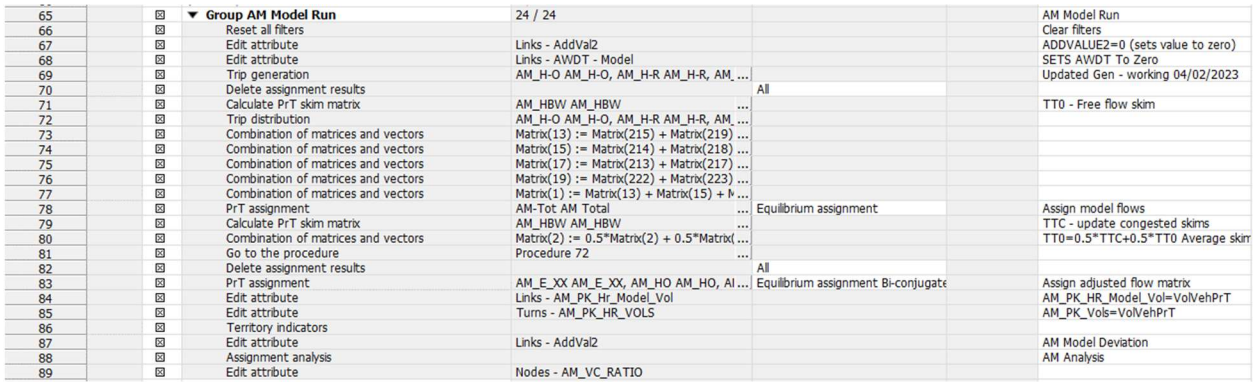
120	Procedure	Reference object(s)	Variant/file	Messages	Comment
1	▼ Group Capacity calculation - Calculate Procedures	48 / 48		✓	Capacity calculation - Calculate Procedures Upda
2	Reset all filters			✓	
3	Read filter		TSysCar.fil	✓	
4	Edit attribute	Links - CapPrT		✓	Set Link Capacity, Lanes * Cap/Lane
5	Edit attribute	Connectors - T0 TSys(C)		✓	Test to set Connector Time
6	Read filter		TWLTL-3Lane.fil	⚠ 1 warning	3 Lane Road
7	Edit attribute	Links - CapPrT		✓	Add 300 directional capacity
8	Read filter		TWLTL-5Lane.fil	⚠ 1 warning	5 Lane Road
9	Edit attribute	Links - CapPrT		✓	Add 150 directional capacity
10	Read filter		Fwy GT 2 Lanes.fil	✓	3+ Lane Fwy
11	Edit attribute	Links - CapPrT		✓	Add Cap for 3 Lane + Fwy
12	Edit attribute	Nodes - K4		✓	Set All K4 = 1.0
13	Read filter		ActiveLinksNodes.fil	✓	Start Node Computations
14	Edit attribute	Nodes - CapPrT		✓	Add all outbound link capacities
15	Read filter		ActiveLinksNodes-3plusLegs.fil	✓	3 Plus Leg Nodes
16	Edit attribute	Nodes - K4		✓	
17	Read filter		ActiveLinksNodes-2Leg.fil	✓	
18	Edit attribute	Nodes - K4		✓	
19	Read filter		ActiveLinksNodes-3Leg.fil	✓	
20	Edit attribute	Nodes - K4		✓	
21	Read filter		ActiveLinksNodes-4Leg.fil	✓	
22	Edit attribute	Nodes - K4		✓	
23	Read filter		ActiveLinksNodes-5Leg.fil	✓	
24	Edit attribute	Nodes - K4		✓	
25	Read filter		NodeCapacityFinalComputations.fil	✓	
26	Edit attribute	Nodes - CapPrT		✓	
27	Read filter		Turns-LT-TH-RT-Only.fil	✓	Turns-LT-TH-RT-Only.fil
28	Edit attribute	Turns - CapPrT		✓	Reset Turn Capacities
29	Edit attribute	Turns - t0PrT		✓	Reset Turn T0=0
30	Read filter		SingleLeftTurnsSignalsTwoWaySto	✓	Single Left Turns
31	Edit attribute	Turns - t0PrT		✓	T0=6Secs
32	Edit attribute	Turns - CapPrT		✓	TurnCap=300
33	Read filter		DualLeftTurnsSignalsTwoWayStops	✓	Dual Left Turns
34	Edit attribute	Turns - CapPrT		✓	TurnCap=275*NumLanes
35	Read filter		Uncontrolled Intersections.fil	✓	Set Uncontrolled Controls
36	Edit attribute	Nodes - ControlType		✓	1-Uncontrolled
37	Read filter		Stop 2 Way Intersections.fil	✓	Set 2 Way Stop
38	Edit attribute	Nodes - ControlType		✓	2-Partial Stop
39	Read filter		Yield 2 Way Intersections.fil	✓	Set Yield
40	Edit attribute	Nodes - ControlType		✓	6-Yield
41	Read filter		Stop All Way Intersections.fil	✓	Set All Way Stop
42	Edit attribute	Nodes - ControlType		✓	4-All Way Stop
43	Read filter		Signal Intersections.fil	✓	Set Signals
44	Edit attribute	Nodes - ControlType		✓	3-Signals
45	Read filter		Roundabout Intersections.fil	✓	Set Roundabouts
46	Edit attribute	Nodes - ControlType		✓	7-Roundabout
47	Edit attribute	Turns - t0PrT		✓	
48	Edit attribute	Turns - CapPrT		✓	
49	Read filter		TSysCar.fil	✓	

Figure 10-2: Procedure Sequence (Update Land Use Inputs Group Procedures)



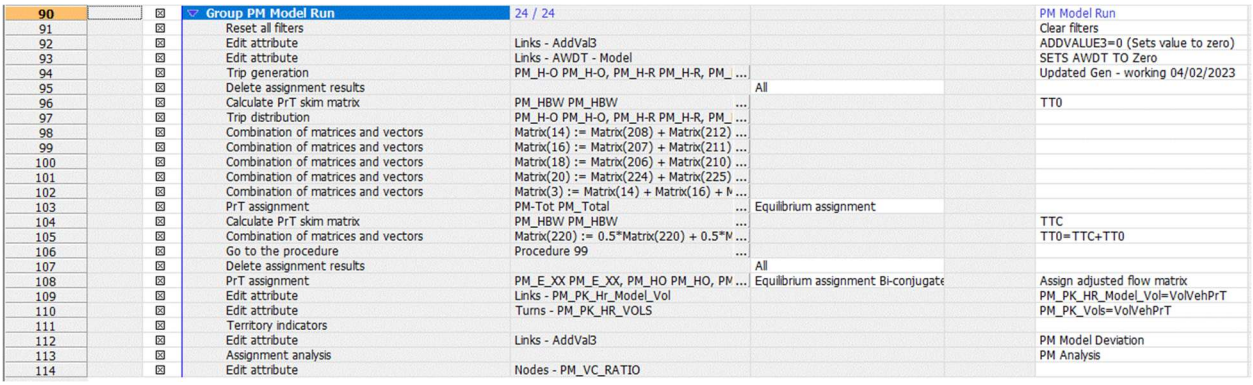
50	☒	▼ **Group Set Land Use to 2020 for Base Year**	4 / 4			Set Land Use to 2020 for Base Year
51	☒	Edit attribute	Network - Model_Year			
52	☒	Run script		update_landuse_year.py		
53	☒	Combination of matrices and vectors	Matrix([NO] = 21):=Matrix([NO] = 228) ...			update XX-AM
54	☒	Combination of matrices and vectors	Matrix([NO] = 23):=Matrix([NO] = 230) ...			update XX-PM

Figure 10-3: Procedure Sequence (Update AM Peak Hour Assignment Group Procedures)



65	☒	▼ **Group AM Model Run**	24 / 24			AM Model Run
66	☒	Reset all filters				Clear filters
67	☒	Edit attribute	Links - AddVal2			ADDVALUE2=0 (sets value to zero)
68	☒	Edit attribute	Links - AWDT - Model			SETS AWDT To Zero
69	☒	Trip generation	AM_H-O AM_H-O, AM_H-R AM_H-R, AM_ ...			Updated Gen - working 04/02/2023
70	☒	Delete assignment results		All		
71	☒	Calculate PrT skim matrix	AM_HBW AM_HBW ...			TT0 - Free flow skim
72	☒	Trip distribution	AM_H-O AM_H-O, AM_H-R AM_H-R, AM_ ...			
73	☒	Combination of matrices and vectors	Matrix(13) := Matrix(215) + Matrix(219) ...			
74	☒	Combination of matrices and vectors	Matrix(15) := Matrix(214) + Matrix(218) ...			
75	☒	Combination of matrices and vectors	Matrix(17) := Matrix(213) + Matrix(217) ...			
76	☒	Combination of matrices and vectors	Matrix(19) := Matrix(222) + Matrix(223) ...			
77	☒	Combination of matrices and vectors	Matrix(1) := Matrix(13) + Matrix(15) + M ...			
78	☒	PrT assignment	AM-Tot AM Total ...	Equilibrium assignment		Assign model flows
79	☒	Calculate PrT skim matrix	AM_HBW AM_HBW ...			TTC - update congested skims
80	☒	Combination of matrices and vectors	Matrix(2) := 0.5*Matrix(2) + 0.5*Matrix(...			TT0=0.5*TTC+0.5*TT0 Average skim
81	☒	Go to the procedure	Procedure 72 ...			
82	☒	Delete assignment results		All		
83	☒	PrT assignment	AM_E_XX AM_E_XX, AM_HO AM_HO, AI ...	Equilibrium assignment Bi-conjugate		Assign adjusted flow matrix
84	☒	Edit attribute	Links - AM_PK_Hr_Model_Vol			AM_PK_HR_Model_Vol=VolVehPrT
85	☒	Edit attribute	Turns - AM_PK_HR_VOLS			AM_PK_Vols=VolVehPrT
86	☒	Territory indicators				
87	☒	Edit attribute	Links - AddVal2			AM Model Deviation
88	☒	Assignment analysis				AM Analysis
89	☒	Edit attribute	Nodes - AM_VC_RATIO			

Figure 10-4: Procedure Sequence (Update PM Peak Hour Assignment Group Procedures)

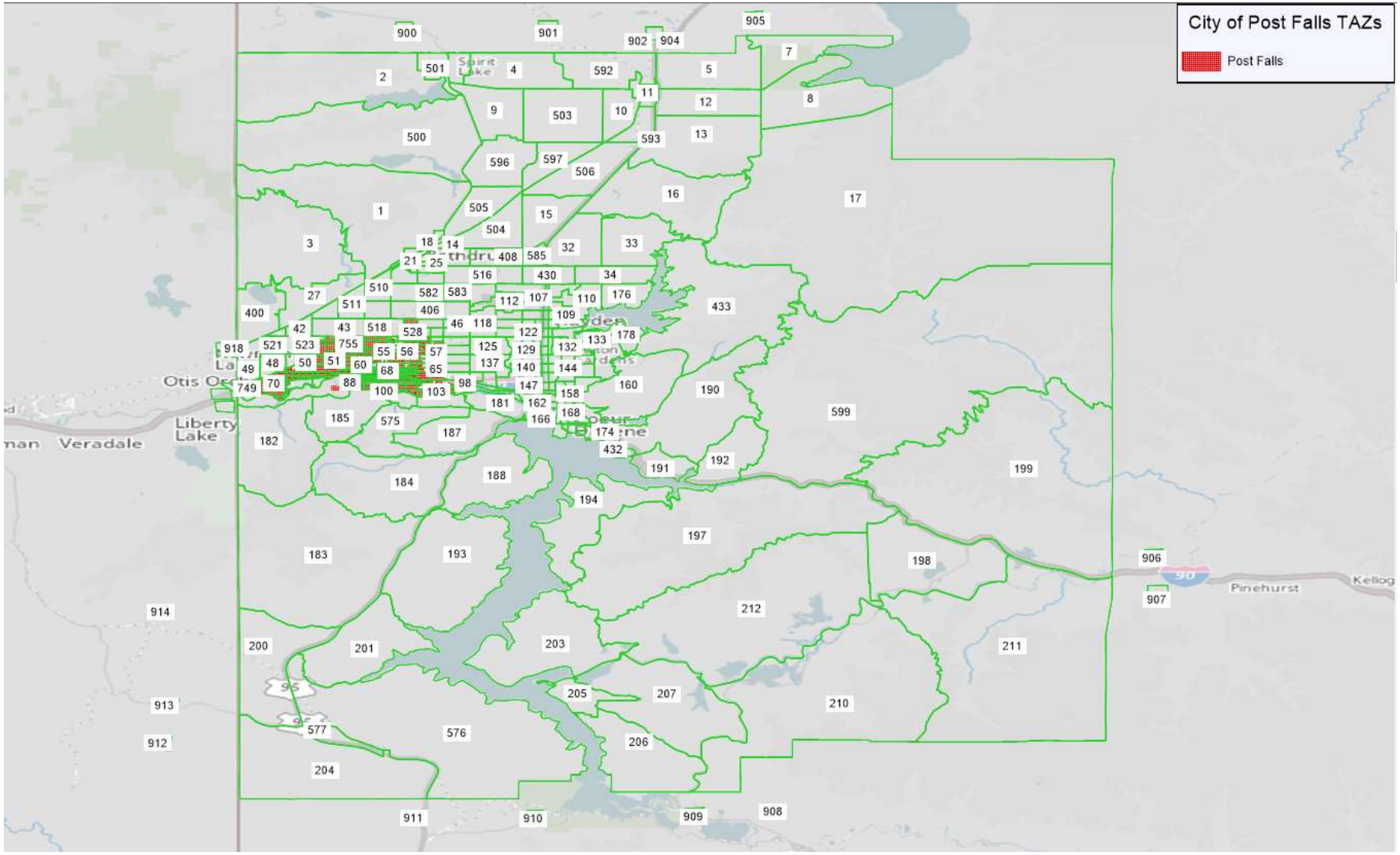


90	☒	▼ **Group PM Model Run**	24 / 24			PM Model Run
91	☒	Reset all filters				Clear filters
92	☒	Edit attribute	Links - AddVal3			ADDVALUE3=0 (Sets value to zero)
93	☒	Edit attribute	Links - AWDT - Model			SETS AWDT TO Zero
94	☒	Trip generation	PM_H-O PM_H-O, PM_H-R PM_H-R, PM_ ...			Updated Gen - working 04/02/2023
95	☒	Delete assignment results		All		
96	☒	Calculate PrT skim matrix	PM_HBW PM_HBW ...			TT0
97	☒	Trip distribution	PM_H-O PM_H-O, PM_H-R PM_H-R, PM_ ...			
98	☒	Combination of matrices and vectors	Matrix(14) := Matrix(208) + Matrix(212) ...			
99	☒	Combination of matrices and vectors	Matrix(16) := Matrix(207) + Matrix(211) ...			
100	☒	Combination of matrices and vectors	Matrix(18) := Matrix(206) + Matrix(210) ...			
101	☒	Combination of matrices and vectors	Matrix(20) := Matrix(224) + Matrix(225) ...			
102	☒	Combination of matrices and vectors	Matrix(3) := Matrix(14) + Matrix(16) + M ...			
103	☒	PrT assignment	PM-Tot PM_Total ...	Equilibrium assignment		
104	☒	Calculate PrT skim matrix	PM_HBW PM_HBW ...			TTC
105	☒	Combination of matrices and vectors	Matrix(220) := 0.5*Matrix(220) + 0.5*M ...			TT0=TTC+TT0
106	☒	Go to the procedure	Procedure 99 ...			
107	☒	Delete assignment results		All		
108	☒	PrT assignment	PM_E_XX PM_E_XX, PM_HO PM_HO, PM ...	Equilibrium assignment Bi-conjugate		Assign adjusted flow matrix
109	☒	Edit attribute	Links - PM_PK_Hr_Model_Vol			PM_PK_HR_Model_Vol=VolVehPrT
110	☒	Edit attribute	Turns - PM_PK_HR_VOLS			PM_PK_Vols=VolVehPrT
111	☒	Territory indicators				
112	☒	Edit attribute	Links - AddVal3			PM Model Deviation
113	☒	Assignment analysis				PM Analysis
114	☒	Edit attribute	Nodes - PM_VC_RATIO			

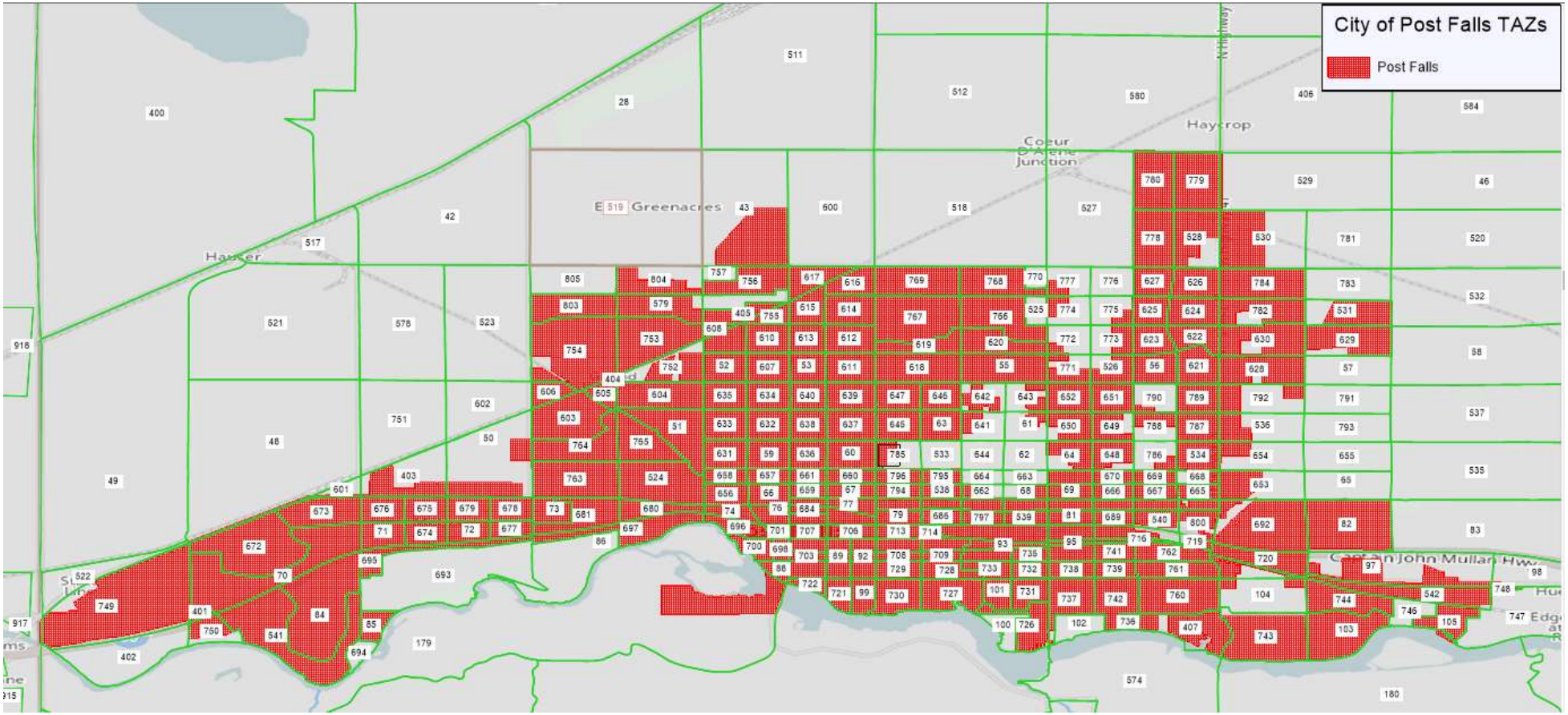
APPENDIX A –2022 KMPO BASE CALIBRATION TRAVEL DEMAND MODEL UPDATE

APPENDIX B – LAND USE DATA

Regional Aggregated Zones



Internal Disaggregated Zones



2020 Land Use By Zone

$ZONE:NO	SFDU_LU1_20	MFDU_LU2_20	RET_LU3_20	FIRES_LU4_20	INDUST_LU5_20	SCH_LU6_20	ACCOM_LU7_20	AER_LU8_20	OSFDU_LU9_20	PSS_LU10_20	AGRI_LU11_20	WFRT_LU12_20	POL_LU13_20	TRNWH_LU14_20	MED_LU15_20	GOVT_LU16_20	ASWMR_LU17_20	PSTMC_LU18_20	EDUSRV_LU19_20	OTHER_LU20_20	INFO_LU21_20	UTLCONST_LU22_20	FS_LU23_20	TOTAL_DU	TOTAL_EMP
42	3	0	0	0	0	0	0	0	0	0	0	0	74	0	0	0	0	0	0	0	0	0	0	3	0
43	315	109	0	0	0	0	0	0	0	0	18	0	6	0	0	0	0	0	1	0	0	0	0	424	1
50	63	0	3	0	3	0	0	0	0	0	10	0	0	0	0	0	0	0	0	0	0	22	0	63	28
51	249	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	249	0
52	137	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	0	0	0	0	0	0	137	0
53	83	0	0	0	0	0	0	15	0	0	0	0	2	0	1	2	7	1	0	2	0	8	0	83	21
55	226	69	0	0	0	0	0	0	0	0	0	0	0	0	2	0	1	1	0	0	0	0	0	295	4
56	54	60	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	114	1
57	0	0	1	0	0	0	0	0	0	0	29	0	5	0	0	0	0	0	0	0	0	0	0	0	1
59	97	8	0	0	1	0	0	0	0	0	0	0	0	0	2	0	4	0	0	0	0	4	0	105	12
60	99	23	0	0	1	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	1	0	122	3
61	50	1	0	0	0	0	0	0	0	0	2	0	1	0	0	0	0	1	0	1	0	0	0	51	3
62	26	0	0	0	0	0	0	0	0	0	4	0	3	1	0	0	0	0	0	0	0	2	0	26	2
63	130	0	1	0	0	0	0	1	0	0	0	0	4	0	0	0	0	0	0	0	0	3	0	130	4
64	93	0	0	0	0	0	0	0	0	0	0	0	15	0	0	0	1	0	0	0	0	0	0	93	1
65	58	0	0	0	0	0	0	10	0	0	40	0	1	0	0	0	0	0	0	0	0	0	0	58	0
66	19	18	9	0	0	438	0	0	0	0	0	0	11	0	92	0	6	1	83	0	10	0	10	37	212
67	63	6	0	2	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	1	0	0	0	70	5
68	45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	45	1
69	39	59	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	98	0
70	0	0	8	8	21	0	0	0	0	0	0	0	0	0	12	5	4	1	0	1	0	62	0	0	121
71	0	0	30	1	18	0	99	15	0	0	0	0	0	1	17	0	1	0	0	3	12	0	30	0	113
72	62	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	62	0
73	139	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	139	0
74	0	0	25	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	27
76	1	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	38	1	41
77	15	14	21	22	2	0	0	0	0	0	0	0	0	0	0	0	13	3	0	1	0	0	23	29	84
78	8	0	22	38	3	0	0	1	0	0	0	0	0	0	2	0	0	8	0	9	0	0	38	8	121
79	1	1	0	38	0	0	0	42	0	0	0	0	0	0	66	0	0	3	0	0	0	0	27	1	134
81	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
82	127	0	0	0	0	0	0	72	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	127	0
83	2	0	0	0	0	0	0	0	0	0	188	0	18	0	0	0	0	0	0	0	0	0	0	2	0
84	0	0	39	9	684	0	71	27	0	64	25	0	21	0	24	8	22	92	121	0	23	99	10	0	1131
85	118	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	118	0

$ZONE:NO	SFDU_LU1_20	MFDU_LU2_20	RET_LU3_20	FIRES_LU4_20	INDUST_LU5_20	SCH_LU6_20	ACCOM_LU7_20	AER_LU8_20	OSFDU_LU9_20	PSS_LU10_20	AGRI_LU11_20	WFRT_LU12_20	POL_LU13_20	TRNWH_LU14_20	MED_LU15_20	GOVT_LU16_20	ASWMR_LU17_20	PSTMC_LU18_20	EDUSRV_LU19_20	OTHER_LU20_20	INFO_LU21_20	UTLCONST_LU22_20	FS_LU23_20	TOTAL_DU	TOTAL_EMP
86	105	0	0	2	0	0	0	4	0	0	3	0	9	0	0	0	0	0	0	0	0	0	5	105	7
88	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
89	5	0	2	1	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	5	9
92	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7	0
93	0	0	18	0	2	0	0	0	0	0	0	0	0	0	19	0	3	0	2	5	0	3	26	0	77
95	0	0	3	8	0	0	0	0	0	0	0	0	0	0	3	0	4	2	0	11	0	0	0	0	30
97	4	0	0	0	139	0	0	0	0	0	8	0	18	5	0	26	11	0	0	0	0	11	0	4	192
98	10	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10	1
99	40	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	40	0
100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
101	87	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	87	0
102	61	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	4	0	61	6
103	229	0	1	2	1	0	0	0	0	0	0	0	0	1	0	0	2	0	0	0	1	4	0	229	11
104	228	0	0	1	5	0	0	0	0	0	0	0	2	0	54	0	1	5	0	0	0	11	0	228	77
105	62	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	62	0
401	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
402	0	0	0	0	0	0	0	0	0	0	0	0	11	0	0	0	0	0	0	0	0	0	0	0	0
403	186	62	29	0	16	0	0	0	0	0	0	0	0	0	7	0	27	0	0	0	0	256	0	248	335
404	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
405	55	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	55	0
407	13	0	0	0	0	0	0	6	0	0	0	0	26	0	0	0	0	0	0	0	0	0	0	13	0
518	34	0	0	0	2	0	0	0	0	0	210	0	6	0	0	0	0	0	0	0	0	8	0	34	10
519	92	0	0	0	72	0	0	0	0	0	168	0	3	17	0	0	0	0	0	0	0	7	0	92	96
523	65	0	0	0	0	0	0	0	0	0	62	0	0	0	14	0	4	0	0	0	0	2	0	65	20
524	0	0	1	0	0	0	0	0	0	0	61	0	12	0	0	0	0	0	0	0	0	0	8	0	9
525	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8	0
526	23	0	0	0	0	0	0	0	0	0	5	0	0	0	0	0	0	0	0	0	0	1	0	23	1
527	8	0	0	0	1	0	0	0	0	0	91	0	2	0	0	0	0	0	0	0	0	0	0	8	1
528	1	0	3	0	0	0	0	0	0	0	75	0	0	0	0	0	0	0	0	0	0	0	0	1	3
529	0	0	0	0	0	0	0	0	0	0	232	0	7	0	0	0	0	0	0	0	0	0	0	0	0
530	0	0	0	0	0	0	0	0	0	0	123	0	2	0	0	0	0	0	0	0	0	0	0	0	0
531	3	0	0	0	0	0	0	0	0	0	45	0	2	0	0	0	0	0	0	0	0	0	0	3	0
533	39	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	39	0
534	66	1	0	0	25	0	0	0	0	0	0	0	5	30	0	10	2	1	0	0	0	3	0	67	71
535	0	0	0	0	0	0	0	0	0	0	298	0	4	0	0	0	0	0	0	0	0	0	0	0	0
536	55	0	19	0	0	0	0	0	0	0	24	0	3	0	0	0	55	0	0	0	0	6	0	55	80

$ZONE:NO	SFDU_LU1_20	MFDU_LU2_20	RET_LU3_20	FIRES_LU4_20	INDUST_LU5_20	SCH_LU6_20	ACCOM_LU7_20	AER_LU8_20	OSFDU_LU9_20	PSS_LU10_20	AGRI_LU11_20	WFRT_LU12_20	POL_LU13_20	TRNWH_LU14_20	MED_LU15_20	GOVT_LU16_20	ASWMR_LU17_20	PSTMC_LU18_20	EDUSRV_LU19_20	OTHER_LU20_20	INFO_LU21_20	UTLCONST_LU22_20	FS_LU23_20	TOTAL_DU	TOTAL_EMP
537	62	0	0	0	0	0	0	0	0	0	57	0	1	0	0	0	0	1	0	1	0	3	0	62	5
538	77	0	0	1	1	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0	1	0	77	6
539	0	0	149	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	149
540	0	0	0	10	0	0	0	0	0	0	0	0	0	0	302	0	7	8	2	3	0	0	0	0	332
541	3	0	4	1	295	0	0	19	0	0	20	0	0	0	0	0	9	54	0	0	29	3	0	3	395
542	0	0	53	0	153	0	0	13	0	0	0	0	0	9	0	0	4	15	0	16	0	31	19	0	300
578	4	0	0	0	0	0	0	0	0	0	83	0	64	0	0	21	1	0	0	1	0	0	0	4	23
579	60	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	60	0
600	17	0	0	0	0	0	0	0	0	0	53	0	10	0	0	0	0	0	0	0	0	6	0	17	6
602	39	0	2	0	0	0	0	0	0	0	6	0	0	0	0	0	0	0	0	0	0	0	0	39	2
603	124	0	0	0	0	0	0	0	0	0	3	0	5	0	0	0	0	6	0	0	0	5	0	124	11
604	124	0	0	0	0	0	0	0	0	0	3	0	5	0	3	0	0	0	0	0	0	0	0	124	3
605	0	0	0	0	0	0	0	0	0	0	3	0	5	0	0	0	0	0	0	0	0	0	0	0	0
606	0	0	0	0	1	0	0	0	0	0	3	0	5	0	0	0	0	0	0	0	0	0	0	0	1
607	139	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	3	0	0	0	2	0	139	4
608	29	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	29	0
609	107	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	107	0
610	134	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	3	0	0	0	2	0	134	4
611	83	0	0	0	0	0	0	21	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	83	0
612	83	0	0	0	0	0	0	21	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	83	0
613	52	0	0	0	0	0	0	15	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	52	0
614	83	0	0	0	0	0	0	21	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	83	0
615	26	0	0	0	0	0	0	16	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	26	0
616	83	0	0	0	0	0	0	16	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	83	0
617	26	0	0	0	0	0	0	19	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	26	0
618	230	70	0	0	0	0	0	0	0	0	0	0	0	0	2	0	1	1	0	0	0	0	0	300	5
619	108	33	0	0	0	0	0	4	0	0	0	0	34	0	1	0	1	0	0	0	0	0	0	141	2
620	148	45	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	193	3
621	60	67	5	12	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	5	126	23
622	48	54	0	0	0	0	0	4	0	0	0	0	14	0	0	0	0	0	0	0	0	0	0	102	0
623	66	74	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	139	0
624	59	66	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	12	0	0	0	0	125	12
625	66	74	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	139	0
626	58	65	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	123	0
627	0	0	0	0	0	0	0	0	0	0	0	0	14	0	0	0	0	0	0	0	0	14	0	0	14
628	78	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	78	1

$ZONE:NO	SFDU_LU1_20	MFDU_LU2_20	RET_LU3_20	FIRES_LU4_20	INDUST_LU5_20	SCH_LU6_20	ACCOM_LU7_20	AER_LU8_20	OSFDU_LU9_20	PSS_LU10_20	AGRI_LU11_20	WFRT_LU12_20	POL_LU13_20	TRNWH_LU14_20	MED_LU15_20	GOVT_LU16_20	ASWMR_LU17_20	PSTMC_LU18_20	EDUSRV_LU19_20	OTHER_LU20_20	INFO_LU21_20	UTLCONST_LU22_20	FS_LU23_20	TOTAL_DU	TOTAL_EMP
629	39	0	1	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	39	3
630	39	0	1	0	0	0	0	0	0	0	29	0	5	0	0	0	0	0	0	0	0	0	0	39	1
631	97	8	0	0	0	0	0	0	0	0	0	0	0	0	2	0	4	0	0	0	0	4	0	104	11
632	102	8	0	0	0	0	0	0	0	0	0	0	0	0	2	0	4	0	0	0	0	5	0	110	12
633	101	8	0	0	0	637	0	0	0	0	0	0	18	0	2	0	4	0	67	0	0	5	0	110	79
634	93	8	0	0	0	0	0	0	0	0	0	0	0	0	2	0	4	0	0	0	0	4	0	101	11
635	91	7	0	0	0	0	0	5	0	0	0	0	18	0	2	0	4	0	0	0	0	4	0	99	10
636	74	18	0	0	1	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	1	0	92	3
637	105	25	0	0	1	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	1	0	130	4
638	77	18	0	0	1	820	0	0	0	0	0	0	0	0	1	0	1	0	78	0	0	1	0	96	81
639	95	23	0	0	1	0	0	4	0	0	0	0	20	0	1	0	1	0	0	0	0	1	0	118	3
640	69	16	0	0	1	0	0	4	0	0	0	0	20	0	1	0	1	0	0	0	0	1	0	86	2
641	25	0	0	0	0	0	0	0	0	0	2	0	1	0	0	0	0	2	0	1	0	0	0	26	3
642	151	2	0	0	0	0	0	0	0	0	2	0	1	0	0	0	0	2	0	1	0	0	0	153	3
643	25	0	0	0	0	0	0	0	0	0	2	0	1	0	0	0	0	1	0	1	0	0	0	26	3
644	26	0	0	0	0	0	0	0	0	0	4	0	3	0	0	0	0	0	0	0	0	1	0	26	2
645	140	0	1	0	0	0	0	1	0	0	0	0	5	0	0	0	0	0	0	0	0	4	0	140	5
646	114	0	0	0	0	0	0	1	0	0	0	0	4	0	0	0	0	0	0	0	0	3	0	114	4
647	129	0	1	0	0	0	0	1	0	0	0	0	4	0	0	0	0	0	0	0	0	3	0	129	4
648	93	0	0	0	0	0	0	0	0	0	0	0	13	0	0	0	1	0	0	0	0	0	0	93	1
649	93	0	0	0	0	0	0	0	0	0	0	0	13	0	0	0	1	0	0	0	0	0	0	93	1
650	93	0	0	0	0	0	0	0	0	0	0	0	14	0	0	0	1	0	0	0	0	0	0	93	1
651	0	0	0	0	0	1047	0	0	0	0	0	0	14	0	0	0	1	0	85	0	0	0	0	0	86
652	0	0	0	0	0	1047	0	0	0	0	0	0	14	0	0	0	1	0	85	0	0	0	0	0	86
653	58	0	0	0	0	0	0	10	0	0	0	0	0	0	16	0	0	1	0	6	0	0	49	58	71
654	58	185	0	2	0	0	0	10	0	0	0	0	0	0	16	0	0	1	0	6	0	0	0	243	24
655	60	0	0	0	0	0	0	10	0	0	40	0	0	0	0	0	0	0	0	0	0	0	0	60	0
656	20	19	10	0	0	464	0	0	0	0	0	0	11	46	0	0	7	2	88	0	11	43	0	39	206
657	13	12	6	0	0	296	0	0	0	0	0	0	7	0	0	0	4	1	56	0	7	0	10	25	84
658	13	12	6	0	0	296	0	0	0	0	0	0	7	0	0	0	4	1	56	0	7	0	0	25	74
659	47	5	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	52	4
660	62	6	0	2	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	1	0	0	0	68	5
661	47	5	0	1	0	0	0	0	0	0	0	0	0	0	50	0	1	1	0	0	0	0	0	51	54
662	15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	1	0	15	3
663	45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	45	1
664	45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	45	1

$ZONE:NO	SFDU_LU1_20	MFDU_LU2_20	RET_LU3_20	FIRES_LU4_20	INDUST_LU5_20	SCH_LU6_20	ACCOM_LU7_20	AER_LU8_20	OSFDU_LU9_20	PSS_LU10_20	AGRI_LU11_20	WFRT_LU12_20	POL_LU13_20	TRNWH_LU14_20	MED_LU15_20	GOVT_LU16_20	ASWMR_LU17_20	PSTMC_LU18_20	EDUSRV_LU19_20	OTHER_LU20_20	INFO_LU21_20	UTLCONST_LU22_20	FS_LU23_20	TOTAL_DU	TOTAL_EMP
665	37	0	0	0	2	0	0	0	0	0	0	0	7	0	0	0	0	0	0	0	0	4	0	37	6
666	36	59	8	15	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	11	95	34
667	40	0	8	15	0	0	0	0	0	0	0	0	0	0	12	0	0	1	0	0	0	0	11	40	46
668	32	0	0	0	2	0	0	0	0	0	0	0	7	0	0	0	0	0	0	0	0	4	0	32	6
669	34	118	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	152	0
670	32	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	32	0
671	37	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	37	0
672	296	0	0	0	0	0	0	4	0	0	0	0	9	0	0	0	0	0	0	0	0	0	0	296	0
673	0	0	8	8	21	0	0	0	0	0	0	0	0	0	12	5	4	1	0	1	0	62	0	0	121
674	119	120	0	0	0	0	0	13	0	0	3	0	1	0	0	0	0	0	0	2	0	0	0	239	2
675	119	0	0	0	9	0	0	14	0	0	3	0	1	0	0	0	0	0	0	3	0	0	0	119	12
676	0	120	30	1	18	0	0	15	0	0	0	0	0	1	17	0	1	0	0	3	12	0	30	120	113
677	51	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	51	0
678	71	0	0	0	0	0	0	0	0	0	0	0	0	0	9	0	1	2	0	2	0	32	0	71	44
679	74	0	5	3	0	0	0	0	0	0	0	0	0	0	9	0	1	2	0	2	0	32	0	74	52
680	0	0	44	0	0	0	0	172	0	0	0	0	0	0	0	0	0	0	0	3	0	3	0	0	50
681	63	0	72	1	0	0	0	0	0	0	0	0	34	0	0	55	0	0	0	0	0	5	0	63	132
682	1	49	13	0	0	0	0	2	0	0	0	0	5	0	0	0	0	1	0	0	0	0	4	50	18
683	6	0	21	22	2	0	0	0	0	0	0	0	0	0	31	0	13	3	0	1	0	0	23	6	115
684	8	0	10	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	76	8	86
685	16	0	14	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	38	16	54
686	1	1	0	0	0	0	0	41	0	0	0	0	0	0	111	42	0	5	0	0	0	0	0	1	157
687	0	0	0	0	0	0	0	26	0	0	0	0	0	0	221	42	0	10	0	0	0	0	0	1	273
688	0	0	132	0	0	0	0	34	0	0	0	0	0	0	44	0	0	2	0	0	0	0	27	1	205
689	133	0	171	0	0	0	0	0	0	0	0	0	0	0	262	0	0	0	0	6	0	0	17	133	456
690	133	0	171	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	0	0	17	133	194
691	0	0	0	0	0	0	0	133	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
692	127	0	15	11	1	0	0	72	0	0	0	0	3	0	0	0	2	0	12	37	0	4	65	127	147
693	78	0	0	0	9	0	0	15	0	0	26	0	47	0	0	0	12	0	0	0	0	4	0	78	25
694	0	0	0	0	0	0	0	0	0	0	3	0	5	0	0	0	0	0	0	0	0	0	0	0	0
695	0	0	5	2	9	0	84	0	0	0	0	0	0	0	0	0	12	0	0	0	0	4	14	0	46
696	0	70	0	0	0	0	0	1	0	0	1	0	2	0	0	0	0	0	0	0	0	0	0	70	0
697	45	0	0	0	0	0	0	2	0	0	2	0	5	0	0	0	0	0	0	0	0	0	0	45	0
698	0	0	0	1	0	0	0	0	0	0	0	0	0	0	57	0	0	0	0	0	0	0	0	0	58
700	0	0	0	0	7	0	0	42	0	0	0	0	20	0	0	0	0	0	0	0	0	0	0	0	7
701	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	34	0	34

$ZONE:NO	SFDU_LU1_20	MFDU_LU2_20	RET_LU3_20	FIRES_LU4_20	INDUST_LU5_20	SCH_LU6_20	ACCOM_LU7_20	AER_LU8_20	OSFDU_LU9_20	PSS_LU10_20	AGRI_LU11_20	WFRT_LU12_20	POL_LU13_20	TRNWH_LU14_20	MED_LU15_20	GOVT_LU16_20	ASWMR_LU17_20	PSTMC_LU18_20	EDUSRV_LU19_20	OTHER_LU20_20	INFO_LU21_20	UTLCONST_LU22_20	FS_LU23_20	TOTAL_DU	TOTAL_EMP
702	0	33	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	33	0
703	7	0	4	1	5	0	0	0	0	0	0	0	0	0	47	0	0	0	0	0	0	3	18	7	77
704	8	0	4	1	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8	11
705	12	14	6	2	8	0	0	0	0	0	0	0	0	0	0	0	3	8	0	0	0	0	18	26	44
706	16	0	8	2	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	13	0	0	0	16	34
707	12	0	6	2	8	167	0	2	0	0	0	0	11	0	0	83	3	8	0	13	0	0	0	12	122
708	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	0	7	5
709	0	0	0	1	0	0	0	1	0	0	0	0	9	0	0	0	1	0	0	0	0	5	0	0	7
710	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
711	0	19	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	19	0
712	0	172	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	28	172	28
713	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8	10	0	0	0	0	0	0	0	0	18
714	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
715	0	0	160	18	0	0	0	0	0	0	0	0	0	0	19	0	3	23	0	5	0	3	236	0	466
716	0	0	3	8	0	0	0	0	0	0	0	0	0	0	0	0	4	2	0	11	0	0	26	0	53
717	6	0	3	8	31	0	47	0	0	0	0	0	0	0	0	0	4	2	0	11	0	0	0	6	58
718	0	0	3	8	31	0	0	0	0	0	0	0	0	0	0	0	4	2	0	11	0	0	26	0	84
719	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
720	4	0	6	2	0	0	0	0	0	0	8	0	18	5	0	0	11	0	0	0	0	11	8	4	43
721	40	0	0	0	0	0	0	61	0	0	0	0	13	0	0	0	0	0	0	0	0	0	0	40	0
722	0	70	3	0	8	0	168	0	0	0	0	0	0	1	0	0	1	1	0	3	0	7	0	70	23
723	40	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	40	0
724	40	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	40	0
725	40	0	0	0	8	0	0	0	0	0	0	0	0	1	0	0	1	1	0	3	0	7	0	40	21
726	121	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	121	0
727	61	0	0	0	0	0	0	17	0	0	0	0	19	0	0	0	0	0	0	0	0	0	0	61	0
728	45	38	0	0	20	0	0	11	0	0	0	0	13	22	0	21	0	0	0	0	0	39	0	83	102
729	45	0	0	0	0	0	0	11	0	0	0	0	13	0	6	0	0	0	0	0	0	0	0	45	6
730	30	0	0	2	0	0	0	17	0	0	0	0	19	0	0	0	0	0	0	0	0	0	0	30	2
731	104	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	104	0
732	66	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	66	0
733	73	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0	73	3
734	63	163	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	226	0
735	53	0	0	4	0	0	0	0	0	0	0	0	4	55	0	0	1	0	0	0	0	14	0	53	74
736	17	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	17	0
737	148	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	148	2

$ZONE:NO	SFDU_LU1_20	MFDU_LU2_20	RET_LU3_20	FIRES_LU4_20	INDUST_LU5_20	SCH_LU6_20	ACCOM_LU7_20	AER_LU8_20	OSFDU_LU9_20	PSS_LU10_20	AGRI_LU11_20	WFRT_LU12_20	POL_LU13_20	TRNWH_LU14_20	MED_LU15_20	GOVT_LU16_20	ASWMR_LU17_20	PSTMC_LU18_20	EDUSRV_LU19_20	OTHER_LU20_20	INFO_LU21_20	UTLCONST_LU22_20	FS_LU23_20	TOTAL_DU	TOTAL_EMP
738	0	0	0	0	68	0	0	0	0	0	62	0	0	0	0	0	0	6	0	0	0	0	0	0	75
739	39	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	39	1
740	0	0	0	0	0	0	0	1	0	0	0	0	5	0	0	0	0	0	0	0	0	0	0	0	1
741	40	36	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	76	1
742	143	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	48	0	0	0	0	143	50
743	229	0	1	2	1	0	0	15	0	0	0	0	36	1	0	0	2	0	0	0	1	4	0	229	11
744	156	18	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	174	0
745	79	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	79	0
746	0	0	0	0	0	0	0	0	0	0	0	0	9	0	0	0	0	0	0	0	0	0	0	0	0
747	62	1	1	1	5	0	0	0	0	0	37	0	0	0	0	0	4	25	0	1	0	28	0	63	65
748	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	2
749	6	78	429	0	134	0	0	0	0	0	0	0	2	34	0	0	1	0	0	2	0	11	10	84	621
750	0	0	0	0	81	0	0	0	0	0	0	0	0	0	0	0	0	0	19	0	9	0	0	0	109
751	21	0	0	0	0	0	0	0	0	0	45	0	1	0	0	0	0	0	0	0	0	0	0	21	0
752	77	0	0	0	0	0	0	0	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	77	0
753	115	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	115	0
754	192	0	0	1	2	0	0	7	0	0	0	0	36	16	0	0	3	1	0	1	1	42	0	192	67
755	28	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	28	0
756	165	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	165	0
757	25	0	0	2	1	0	0	0	0	0	0	0	0	0	0	0	4	2	0	0	0	0	0	25	9
758	3	0	0	0	0	0	0	0	0	0	18	0	3	0	4	0	0	0	0	0	0	6	0	3	10
760	206	0	0	0	0	499	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	206	0
761	39	176	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	214	0
762	0	176	0	6	6	0	0	0	0	0	0	0	0	0	17	0	0	39	0	0	0	4	79	176	151
763	0	0	0	1	177	0	0	0	0	0	0	0	0	0	1	0	1	0	3	0	0	30	0	0	213
764	141	122	0	0	0	418	0	1	0	0	0	0	0	0	0	0	0	0	52	0	0	0	0	263	52
765	0	0	0	0	0	0	0	0	0	0	61	0	12	0	0	0	0	0	0	0	0	0	0	0	0
766	33	0	0	0	0	413	0	0	0	0	61	0	4	0	0	0	0	15	48	0	0	0	0	33	63
767	100	0	0	0	2	0	0	0	0	0	61	0	4	0	0	0	0	0	0	0	0	0	0	100	2
768	17	0	0	0	0	0	0	0	0	0	61	0	4	0	0	0	0	0	0	0	0	0	0	17	0
769	0	0	0	0	0	0	0	0	0	0	61	0	4	0	0	0	0	0	0	0	0	0	0	0	0
770	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8	0
771	24	0	0	0	0	0	0	0	0	0	5	0	0	0	3	0	0	0	0	0	0	0	0	24	3
772	24	0	0	0	0	0	0	0	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	24	0
773	24	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	24	0
774	24	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	24	0

$ZONE:NO	SFDU_LU1_20	MFDU_LU2_20	RET_LU3_20	FIRES_LU4_20	INDUST_LU5_20	SCH_LU6_20	ACCOM_LU7_20	AER_LU8_20	OSFDU_LU9_20	PSS_LU10_20	AGRI_LU11_20	WFRT_LU12_20	POL_LU13_20	TRNWH_LU14_20	MED_LU15_20	GOVT_LU16_20	ASWMR_LU17_20	PSTMC_LU18_20	EDUSRV_LU19_20	OTHER_LU20_20	INFO_LU21_20	UTLCONST_LU22_20	FS_LU23_20	TOTAL_DU	TOTAL_EMP
775	24	0	0	0	0	0	0	0	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	24	0
776	24	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	24	0
777	24	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	24	0
778	1	0	3	0	0	0	0	0	0	0	67	0	0	0	0	0	0	0	0	0	0	0	0	1	3
779	1	0	3	0	0	0	0	0	0	0	75	0	0	0	0	0	0	0	0	0	0	0	0	1	3
780	1	0	3	0	0	0	0	0	0	0	66	0	0	0	0	0	0	0	0	0	0	0	0	1	3
781	11	0	0	0	0	0	0	0	0	0	123	0	2	0	0	0	0	0	0	0	0	0	0	11	0
782	0	0	0	0	0	0	0	0	0	0	45	0	2	0	0	0	5	0	0	3	0	40	0	0	48
783	0	0	0	0	0	0	0	0	0	0	56	0	2	0	0	0	0	0	0	0	0	0	0	0	0
784	0	0	0	0	0	0	0	0	0	0	54	0	2	0	0	0	0	0	0	0	0	0	0	0	0
785	39	1	25	4	1	0	0	0	0	0	0	0	3	5	7	0	9	0	3	0	0	0	0	40	54
786	66	0	0	0	0	0	0	0	0	0	0	0	5	0	0	0	2	1	0	1	0	0	0	66	4
787	0	0	0	0	0	0	0	0	0	0	0	0	5	0	0	0	2	1	0	0	0	0	0	0	3
788	66	0	0	8	0	401	0	0	0	0	0	0	5	0	0	0	2	1	42	1	0	0	0	66	54
789	0	0	25	0	0	0	0	0	0	0	0	0	5	0	0	0	2	1	0	0	0	0	0	0	28
790	66	0	0	0	0	0	0	0	0	0	0	0	5	0	0	0	2	1	0	0	0	0	0	66	3
791	0	0	0	0	0	0	0	0	0	0	25	0	4	0	0	0	0	0	0	0	0	0	0	0	0
792	9	0	0	0	0	0	0	0	0	0	25	0	4	0	0	0	0	0	0	0	0	0	0	9	0
793	27	0	0	0	0	0	0	0	0	0	25	0	3	0	0	0	0	0	0	0	0	0	0	27	0
794	86	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	86	4
795	75	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	75	3
796	85	1	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	86	4
797	0	0	50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	14	0	0	0	0	0	0	64
798	0	0	50	0	0	0	0	0	0	0	0	0	5	0	0	0	0	0	0	0	0	0	0	0	50
799	0	0	0	0	0	0	0	0	0	0	0	0	0	0	426	0	0	0	0	0	0	0	0	0	426
800	8	0	9	13	22	0	0	0	0	0	0	0	0	0	0	0	9	9	2	4	0	57	24	8	149
801	0	0	18	5	0	0	0	0	0	0	0	0	0	0	0	0	4	4	1	2	0	0	48	0	82
802	0	0	18	6	0	0	0	0	0	0	0	0	0	0	0	0	4	4	1	2	0	0	48	0	83
803	60	0	0	0	0	0	0	0	0	0	0	0	5	0	0	0	0	0	0	0	0	0	0	60	0
804	60	0	0	3	1	0	0	0	0	0	1	0	0	0	1	0	0	1	0	0	0	21	0	60	27
805	20	0	0	0	0	0	0	0	0	0	10	0	0	0	0	0	0	0	0	0	0	0	0	20	0

2035 Land Use By Zone

$ZONE:NO	SFDU_LU1_35	MFDU_LU2_35	RET_LU3_35	FIRES_LU4_35	INDUST_LU5_35	SCH_LU6_35	ACCOM_LU7_35	AER_LU8_35	OSFDU_LU9_35	PSS_LU10_35	AGRI_LU11_35	WFRT_LU12_35	POL_LU13_35	TRNWH_LU14_35	MED_LU15_35	GOVT_LU16_35	ASWMR_LU17_35	PSTMC_LU18_35	EDUSRV_LU19_35	OTHER_LU35_35	INFO_LU21_35	UTLCONST_LU22_35	FS_LU23_35	TOTAL_DU	TOTAL_EMP
42	243	320	0	0	0	551	0	0	0	0	0	0	74	0	0	0	0	0	69	0	0	0	0	1257	69
43	619	510	0	0	0	529	0	0	0	0	14	0	6	0	0	0	0	0	66	0	0	0	0	1745	66
50	112	0	4	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	27	0	146	35
51	378	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	378	0
52	138	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	0	0	0	0	0	0	142	0
53	92	2	0	0	0	0	0	19	0	0	0	0	2	0	1	2	9	1	0	2	0	10	0	139	25
55	226	69	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	1	0	0	0	0	0	300	5
56	58	109	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	169	1
57	0	0	1	0	0	0	0	0	0	0	0	0	5	0	0	0	0	0	0	0	0	0	0	6	1
59	101	8	0	0	1	0	0	0	0	0	0	0	0	0	3	0	5	0	0	0	0	5	0	123	14
60	100	27	0	0	1	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	1	0	131	4
61	94	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	2	0	1	0	0	0	100	4
62	70	0	0	0	0	0	0	0	0	0	0	0	3	1	0	0	0	0	0	0	0	2	0	75	3
63	130	0	1	0	0	0	0	1	0	0	0	0	4	0	0	0	0	0	0	0	0	4	0	141	5
64	106	0	0	0	0	0	0	0	0	0	0	0	15	0	2	0	1	0	0	0	0	0	0	124	3
65	64	0	0	0	0	0	0	12	0	0	32	0	1	0	0	0	0	0	0	0	0	0	0	109	0
66	30	18	11	0	0	439	0	0	0	0	0	0	11	0	107	0	8	2	93	0	12	0	11	742	243
67	69	6	0	2	0	0	0	0	0	0	0	0	0	0	0	0	2	1	0	1	0	0	0	82	6
68	45	0	28	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	14	88	43
69	49	59	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	108	0
70	0	0	9	10	26	0	0	0	0	0	0	0	0	0	14	6	5	1	0	1	0	77	0	147	147
71	0	0	35	1	23	0	122	19	0	0	0	0	0	1	20	0	1	0	0	4	15	0	35	274	134
72	62	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	62	0
73	139	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	139	0
74	0	0	29	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	31	31
76	1	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	44	49	48
77	15	14	25	27	2	0	0	0	0	0	0	0	0	0	0	0	16	4	0	1	0	0	27	129	100
78	9	16	26	47	4	0	0	1	0	0	0	0	0	0	7	0	0	10	0	11	0	0	44	176	150
79	1	1	0	47	0	0	0	51	0	0	0	0	0	0	79	0	0	4	0	0	0	0	35	217	164
81	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
82	127	0	0	0	0	0	0	89	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	215	0
83	202	90	0	0	0	273	0	0	0	0	151	0	18	0	0	0	0	0	34	0	0	0	0	768	34
84	0	0	45	11	844	0	87	33	0	79	0	0	21	0	28	10	27	114	149	0	28	165	11	1652	1432
85	118	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	118	0
86	105	0	0	2	0	0	0	5	0	0	0	0	9	0	43	0	0	0	0	0	0	0	6	170	51
88	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
89	4	0	3	1	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	15	10

$ZONE:NO	SFDU_LU1_35	MFDU_LU2_35	RET_LU3_35	FIRES_LU4_35	INDUST_LU5_35	SCH_LU6_35	ACCOM_LU7_35	AER_LU8_35	OSFDU_LU9_35	PSS_LU10_35	AGRI_LU11_35	WFRT_LU12_35	POL_LU13_35	TRNWH_LU14_35	MED_LU15_35	GOVT_LU16_35	ASWMR_LU17_35	PSTMC_LU18_35	EDUSRV_LU19_35	OTHER_LU35_35	INFO_LU21_35	UTLCONST_LU22_35	FS_LU23_35	TOTAL_DU	TOTAL_EMP
92	37	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	37	0
93	0	0	21	0	2	0	0	0	0	0	0	0	0	0	22	0	3	0	2	6	0	4	31	89	89
95	0	0	4	10	0	0	0	0	0	0	0	0	0	0	4	0	4	3	0	13	0	0	0	37	37
97	4	0	0	0	171	0	0	0	0	0	0	0	18	6	0	32	14	0	0	0	0	14	0	258	236
98	10	100	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	111	1
99	39	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	39	0
100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
101	88	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	88	0
102	81	0	1	0	0	0	0	0	0	0	0	0	0	0	52	0	0	0	0	0	0	5	0	139	58
103	229	0	1	3	1	0	0	0	0	0	0	0	0	1	24	0	2	0	0	0	1	5	0	266	37
104	228	0	0	1	6	0	0	0	0	0	0	0	2	0	63	0	1	6	0	0	0	14	0	321	91
105	119	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	119	0
401	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	1
402	0	0	0	0	0	0	0	0	0	0	0	0	11	0	0	0	0	0	0	0	0	0	0	11	0
403	186	142	34	0	20	0	0	0	0	0	0	0	0	0	8	0	33	0	0	0	0	315	0	738	410
404	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
405	67	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	67	0
407	13	0	0	0	0	0	0	7	0	0	0	0	26	0	0	0	0	0	0	0	0	0	0	46	0
518	34	0	6	0	2	0	0	0	0	0	168	0	6	0	5	0	0	0	0	0	0	10	14	245	37
519	92	0	6	0	89	0	0	0	0	0	135	0	3	21	0	0	0	0	0	0	0	9	14	369	139
523	125	0	17	0	0	0	0	0	0	0	50	0	0	0	21	0	5	0	0	0	0	2	14	234	59
524	0	0	1	0	0	0	0	0	0	0	49	0	12	0	0	0	0	0	0	0	0	0	9	71	10
525	45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	45	0
526	108	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	109	1
527	158	500	65	5	50	0	0	0	0	0	73	0	2	0	32	0	7	12	0	6	1	0	24	935	202
528	1	80	253	15	2	0	0	0	0	0	27	0	0	0	184	0	22	44	0	9	0	0	207	844	736
529	0	0	0	0	0	0	0	0	0	0	186	0	7	0	0	0	0	0	0	0	0	0	11	204	11
530	0	140	469	28	4	0	0	0	0	0	51	0	2	0	342	0	41	82	0	17	0	0	385	1561	1368
531	230	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	232	0
533	89	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	92	0
534	76	1	0	0	31	0	0	0	0	0	0	0	5	37	0	12	3	1	0	0	0	4	0	169	87
535	200	0	0	0	0	0	0	0	0	0	239	0	4	0	0	0	0	0	0	0	0	0	0	443	0
536	235	45	22	0	0	0	0	0	0	0	20	0	3	0	0	0	68	0	0	0	0	7	0	400	97
537	62	0	14	0	0	0	0	0	0	0	45	0	1	0	0	0	0	1	0	1	0	4	11	139	31
538	77	0	0	1	1	0	0	0	0	0	0	0	0	0	4	0	0	0	0	0	0	1	0	85	8
539	0	0	174	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	174	174
540	0	0	0	13	0	0	0	0	0	0	0	0	0	0	351	0	9	10	2	4	0	0	0	388	388
541	3	0	5	1	363	0	0	23	0	0	0	0	0	0	0	0	11	67	0	0	36	4	0	513	487
542	0	0	61	0	188	0	0	16	0	0	0	0	0	11	0	0	5	18	0	20	0	38	22	379	363

$ZONE:NO	SFDU_LU1_35	MFDU_LU2_35	RET_LU3_35	FIRES_LU4_35	INDUST_LU5_35	SCH_LU6_35	ACCOM_LU7_35	AER_LU8_35	OSFDU_LU9_35	PSS_LU10_35	AGRI_LU11_35	WFRT_LU12_35	POL_LU13_35	TRNWH_LU14_35	MED_LU15_35	GOVT_LU16_35	ASWMR_LU17_35	PSTMC_LU18_35	EDUSRV_LU19_35	OTHER_LU35_35	INFO_LU21_35	UTLCONST_LU22_35	FS_LU23_35	TOTAL_DU	TOTAL_EMP
578	29	58	0	0	0	0	0	0	0	0	66	0	64	0	0	26	1	0	0	1	0	0	0	245	28
579	60	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	60	0
600	33	0	0	0	0	0	0	0	0	0	42	0	10	0	0	0	0	0	0	0	0	7	0	91	7
602	70	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	73	2
603	189	156	0	0	0	0	0	0	0	0	0	0	5	0	0	0	0	7	0	0	0	6	0	363	13
604	189	0	0	0	0	0	0	0	0	0	0	0	5	0	4	0	0	0	0	0	0	0	0	198	4
605	0	0	0	0	0	0	0	0	0	0	0	0	5	0	0	0	0	0	0	0	0	0	0	5	0
606	0	0	0	0	1	0	0	0	0	0	0	0	5	0	0	0	0	0	0	0	0	0	0	6	1
607	140	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	3	0	0	0	2	0	148	5
608	29	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	30	0
609	108	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	111	0
610	135	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	3	0	0	0	2	0	144	5
611	92	2	0	0	0	0	0	26	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	123	0
612	92	2	0	0	0	0	0	25	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	122	0
613	57	1	0	0	0	0	0	18	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	79	0
614	92	2	0	0	0	0	0	26	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	123	0
615	29	1	0	0	0	0	0	20	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	51	0
616	92	2	0	0	0	0	0	20	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	116	0
617	29	1	0	0	0	0	0	23	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	55	0
618	230	70	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	1	0	0	0	0	0	305	5
619	108	33	0	0	0	0	0	5	0	0	0	0	34	0	1	0	1	0	0	0	0	0	0	182	2
620	148	45	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	196	3
621	64	121	27	7	0	0	0	0	0	0	0	0	0	0	18	0	2	5	0	1	0	0	23	268	83
622	52	98	27	2	0	0	0	5	0	0	0	0	14	0	19	0	2	5	0	1	0	0	22	247	78
623	49	92	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	140	0
624	64	120	31	2	0	0	0	0	0	0	0	0	0	0	23	0	3	5	5	1	0	0	26	279	96
625	44	83	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	127	0
626	62	117	47	3	0	0	0	0	0	0	0	0	0	0	34	0	4	8	0	2	0	0	39	316	137
627	50	94	0	0	0	0	0	0	0	0	0	0	14	0	0	0	0	0	0	0	0	17	0	175	17
628	407	119	29	2	0	0	0	0	0	0	0	0	0	0	21	0	2	5	0	1	0	0	23	609	83
629	203	0	1	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	207	4
630	203	119	57	4	1	265	0	0	0	0	0	0	5	0	41	0	5	10	0	2	0	0	46	758	166
631	101	8	0	0	0	0	0	0	0	0	0	0	0	0	3	0	5	0	0	0	0	5	0	122	13
632	106	9	0	0	0	0	0	0	0	0	0	0	0	0	3	0	5	0	0	0	0	6	0	129	14
633	106	9	0	0	0	754	0	0	0	0	0	0	18	0	3	0	5	0	95	0	0	6	0	995	109
634	97	8	0	0	0	0	0	0	0	0	0	0	0	0	3	0	5	0	0	0	0	5	0	118	13
635	95	8	0	0	0	0	0	6	0	0	0	0	18	0	3	0	5	0	0	0	0	5	0	139	13
636	75	20	0	0	1	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	1	0	98	3
637	106	29	0	0	1	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	1	0	139	4

$ZONE:NO	SFDU_LU1_35	MFDU_LU2_35	RET_LU3_35	FIRES_LU4_35	INDUST_LU5_35	SCH_LU6_35	ACCOM_LU7_35	AER_LU8_35	OSFDU_LU9_35	PSS_LU10_35	AGRI_LU11_35	WFRT_LU12_35	POL_LU13_35	TRNWH_LU14_35	MED_LU15_35	GOVT_LU16_35	ASWMR_LU17_35	PSTMC_LU18_35	EDUSRV_LU19_35	OTHER_LU35_35	INFO_LU21_35	UTLCONST_LU22_35	FS_LU23_35	TOTAL_DU	TOTAL_EMP
638	78	21	0	0	1	800	0	0	0	0	0	0	0	0	1	0	1	0	75	0	0	1	0	978	78
639	96	26	0	0	1	0	0	5	0	0	0	0	20	0	1	0	1	0	0	0	0	1	0	151	4
640	70	19	0	0	1	0	0	5	0	0	0	0	20	0	1	0	1	0	0	0	0	1	0	116	3
641	47	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	2	0	2	0	0	0	52	4
642	283	2	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	2	0	2	0	0	0	290	4
643	47	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	2	0	1	0	0	0	52	4
644	70	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0	2	0	74	2
645	140	0	1	0	0	0	0	1	0	0	0	0	5	0	0	0	0	0	0	0	0	4	0	151	5
646	114	0	0	0	0	0	0	1	0	0	0	0	4	0	0	0	0	0	0	0	0	4	0	123	4
647	129	0	1	0	0	0	0	1	0	0	0	0	4	0	0	0	0	0	0	0	0	4	0	140	5
648	106	0	0	0	0	0	0	0	0	0	0	0	13	0	1	0	1	0	0	0	0	0	0	122	3
649	106	0	0	0	0	0	0	0	0	0	0	0	13	0	1	0	1	0	0	0	0	0	0	122	3
650	106	0	0	0	0	0	0	0	0	0	0	0	14	0	2	0	1	0	0	0	0	0	0	123	3
651	0	0	0	0	0	975	0	0	0	0	0	0	14	0	1	0	1	0	85	0	0	0	0	1076	87
652	0	0	28	0	0	975	0	0	0	0	0	0	14	0	2	0	1	0	85	0	0	0	0	1105	115
653	65	0	50	3	0	0	0	12	0	0	0	0	0	0	43	0	4	9	0	4	0	0	63	253	176
654	65	225	0	2	0	0	0	12	0	0	0	0	0	0	23	0	0	1	0	8	0	0	0	335	33
655	67	0	0	0	0	0	0	12	0	0	32	0	0	0	0	0	0	0	0	0	0	0	0	112	0
656	32	19	11	0	0	466	0	0	0	0	0	0	11	57	0	0	8	2	98	0	13	53	0	772	243
657	20	12	7	0	0	297	0	0	0	0	0	0	7	0	0	0	5	1	63	0	8	0	11	433	96
658	20	12	7	0	0	297	0	0	0	0	0	0	7	0	0	0	5	1	63	0	8	0	0	422	85
659	51	5	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	61	4
660	68	6	0	2	0	0	0	0	0	0	0	0	0	0	0	0	2	1	0	1	0	0	0	80	6
661	51	5	0	1	0	0	0	0	0	0	0	0	0	0	58	0	1	1	0	0	0	0	0	118	62
662	15	0	28	0	0	0	0	0	0	0	0	0	0	0	13	0	2	0	0	0	0	1	14	73	58
663	45	0	28	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	14	88	43
664	45	0	28	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	14	88	43
665	46	0	38	2	1	0	0	0	0	0	0	0	7	0	28	0	3	7	0	1	0	2	31	165	113
666	45	59	10	18	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	13	145	41
667	50	0	10	18	0	0	0	0	0	0	0	0	0	0	14	0	0	1	0	0	0	0	13	105	55
668	40	0	0	0	2	0	0	0	0	0	0	0	7	0	0	0	0	0	0	0	0	5	0	53	7
669	42	118	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	160	0
670	39	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	39	0
671	46	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	46	0
672	356	804	0	0	0	0	0	5	0	0	0	0	9	0	0	0	0	0	0	0	0	0	0	1174	0
673	0	0	9	10	26	0	0	0	0	0	0	0	0	0	14	6	5	1	0	1	0	77	0	147	147
674	119	212	0	0	0	0	0	16	0	0	0	0	1	0	0	0	0	0	0	3	0	0	0	350	3
675	119	0	0	0	11	0	0	17	0	0	0	0	1	0	0	0	0	0	0	3	0	0	0	153	15
676	0	212	35	1	23	0	0	18	0	0	0	0	0	1	20	0	1	0	0	4	15	0	35	363	134

$ZONE:NO	SFDU_LU1_35	MFDU_LU2_35	RET_LU3_35	FIRES_LU4_35	INDUST_LU5_35	SCH_LU6_35	ACCOM_LU7_35	AER_LU8_35	OSFDU_LU9_35	PSS_LU10_35	AGRI_LU11_35	WFRT_LU12_35	POL_LU13_35	TRNWH_LU14_35	MED_LU15_35	GOVT_LU16_35	ASWMR_LU17_35	PSTMC_LU18_35	EDUSRV_LU19_35	OTHER_LU35_35	INFO_LU21_35	UTLCONST_LU22_35	FS_LU23_35	TOTAL_DU	TOTAL_EMP
677	51	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	51	0
678	71	11	0	0	0	0	0	0	0	0	0	0	0	0	10	0	1	2	0	2	0	40	0	136	54
679	74	0	6	4	0	0	0	0	0	0	0	0	0	0	10	0	1	2	0	2	0	40	0	138	64
680	0	0	51	0	0	0	0	212	0	0	0	0	0	0	0	0	0	0	0	4	0	3	0	271	59
681	63	0	84	1	0	0	0	0	0	0	0	0	34	0	0	68	0	0	0	0	0	6	0	255	158
682	1	69	15	0	0	0	0	2	0	0	0	0	5	0	0	0	0	1	0	0	0	0	5	98	21
683	6	0	25	27	2	0	0	0	0	0	0	0	0	0	36	0	16	4	0	1	0	0	27	142	136
684	9	0	11	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	88	110	101
685	19	0	16	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	44	82	63
686	1	1	0	0	0	0	0	51	0	0	0	0	0	0	132	51	0	6	0	0	0	0	0	241	189
687	0	0	0	0	0	0	0	32	0	0	0	0	0	0	264	51	0	13	0	0	0	0	0	360	327
688	0	0	157	0	0	0	0	42	0	0	0	0	0	0	53	0	0	3	0	0	0	0	35	290	247
689	133	0	199	0	0	0	0	0	0	0	0	0	0	0	305	0	0	0	0	7	0	0	20	664	531
690	133	0	199	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7	0	0	20	359	226
691	0	0	0	0	0	0	0	164	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	164	0
692	127	0	25	14	1	0	0	89	0	0	0	0	3	0	0	0	2	0	15	46	0	5	76	402	184
693	78	0	0	0	11	0	0	18	0	0	0	0	47	0	0	0	15	0	0	0	0	5	0	174	31
694	0	0	0	0	0	0	0	0	0	0	0	0	5	0	0	0	0	0	0	0	0	0	0	5	0
695	0	0	6	2	11	0	103	0	0	0	0	0	0	0	0	0	15	0	0	0	0	5	16	158	55
696	0	70	0	0	0	0	0	1	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	73	0
697	45	0	0	0	0	0	0	3	0	0	0	0	5	0	0	0	0	0	0	0	0	0	0	53	0
698	0	0	0	1	0	0	0	0	0	0	0	0	0	0	92	0	0	0	0	0	0	0	0	93	93
700	0	0	0	0	9	0	0	52	0	0	0	0	20	0	0	0	0	0	0	0	0	0	0	81	9
701	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	40	40	40
702	0	301	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	301	0
703	7	0	4	1	6	0	0	0	0	0	0	0	0	0	60	0	0	0	0	0	0	3	21	103	96
704	8	0	5	1	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	21	13
705	11	193	7	2	10	0	0	0	0	0	0	0	0	0	0	0	3	9	0	0	0	0	21	256	52
706	15	0	9	3	13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	16	0	0	0	56	41
707	11	0	7	2	10	198	0	2	0	0	0	0	11	0	0	102	3	9	0	16	0	0	0	371	149
708	37	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	0	43	6
709	0	0	0	1	0	0	0	1	0	0	0	0	9	0	0	0	1	0	0	0	0	6	0	18	8
710	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
711	0	32	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	32	0
712	0	290	17	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	32	339	49
713	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9	12	0	0	0	0	0	0	0	21	21
714	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
715	0	0	186	22	0	0	0	0	0	0	0	0	0	0	22	0	3	28	0	6	0	4	275	545	545
716	0	0	4	10	0	0	0	0	0	0	0	0	0	0	0	0	4	3	0	13	0	0	30	63	63

$ZONE:NO	SFDU_LU1_35	MFDU_LU2_35	RET_LU3_35	FIRES_LU4_35	INDUST_LU5_35	SCH_LU6_35	ACCOM_LU7_35	AER_LU8_35	OSFDU_LU9_35	PSS_LU10_35	AGRI_LU11_35	WFRT_LU12_35	POL_LU13_35	TRNWH_LU14_35	MED_LU15_35	GOVT_LU16_35	ASWMR_LU17_35	PSTMC_LU18_35	EDUSRV_LU19_35	OTHER_LU35_35	INFO_LU21_35	UTLCONST_LU22_35	FS_LU23_35	TOTAL_DU	TOTAL_EMP
717	6	0	4	10	38	0	58	0	0	0	0	0	0	0	0	0	4	3	0	13	0	0	0	135	71
718	0	0	4	10	38	0	0	0	0	0	0	0	0	0	0	0	4	3	0	13	0	0	30	101	101
719	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
720	4	0	7	2	0	0	0	0	0	0	0	0	18	6	0	0	14	0	0	0	0	14	9	73	51
721	39	0	0	0	0	0	0	75	0	0	0	0	13	0	0	0	0	0	0	0	0	0	0	127	0
722	0	484	4	0	10	0	207	0	0	0	0	0	0	1	0	0	1	1	0	4	0	9	0	719	28
723	39	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	39	0
724	39	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	39	0
725	39	0	0	0	10	0	0	0	0	0	0	0	0	1	0	0	1	1	0	4	0	9	0	64	25
726	121	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	121	0
727	61	0	0	0	0	0	0	21	0	0	0	0	19	0	0	0	0	0	0	0	0	0	0	101	0
728	45	38	0	0	25	0	0	14	0	0	0	0	13	27	0	26	0	0	0	0	0	48	0	236	126
729	45	0	0	0	0	0	0	14	0	0	0	0	13	0	7	0	0	0	0	0	0	0	0	79	7
730	30	0	0	2	0	0	0	21	0	0	0	0	19	0	0	0	0	0	0	0	0	0	0	73	2
731	105	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	105	0
732	66	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	66	0
733	74	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	0	0	0	0	78	4
734	63	191	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	254	0
735	54	0	0	5	0	0	0	0	0	0	0	0	4	68	0	0	1	0	0	0	0	17	0	149	91
736	23	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	23	0
737	197	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	199	2
738	0	0	1	0	84	0	0	0	0	0	0	0	0	0	0	0	0	7	0	0	0	0	0	92	92
739	52	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	53	1
740	0	0	1	0	0	0	0	1	0	0	0	0	5	0	0	0	0	0	0	0	0	0	0	7	1
741	54	576	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	631	1
742	191	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	59	0	0	0	0	252	61
743	229	0	1	3	1	0	0	18	0	0	0	0	36	1	24	0	2	0	0	0	1	5	0	320	37
744	156	154	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	310	0
745	79	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	79	0
746	0	0	0	0	0	0	0	0	0	0	0	0	9	0	0	0	0	0	0	0	0	0	0	9	0
747	119	27	1	1	6	0	0	0	0	0	0	0	0	0	0	0	5	31	0	1	0	34	0	225	79
748	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	2	0	3	3
749	6	488	498	0	165	0	0	0	0	0	0	0	2	42	0	0	1	0	0	2	0	14	11	1229	733
750	83	286	28	0	100	0	0	0	0	0	0	0	0	0	5	0	0	0	23	0	11	0	11	547	178
751	21	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	6	28	6
752	99	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	99	0
753	148	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	148	0
754	247	0	0	1	2	0	0	9	0	0	0	0	36	20	0	0	4	1	0	1	1	52	0	374	82
755	34	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	34	0

$ZONE:NO	SFDU_LU1_35	MFDU_LU2_35	RET_LU3_35	FIRES_LU4_35	INDUST_LU5_35	SCH_LU6_35	ACCOM_LU7_35	AER_LU8_35	OSFDU_LU9_35	PSS_LU10_35	AGRI_LU11_35	WFRT_LU12_35	POL_LU13_35	TRNWH_LU14_35	MED_LU15_35	GOVT_LU16_35	ASWMR_LU17_35	PSTMC_LU18_35	EDUSRV_LU19_35	OTHER_LU35_35	INFO_LU21_35	UTLCONST_LU22_35	FS_LU23_35	TOTAL_DU	TOTAL_EMP
756	201	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	201	0
757	30	0	0	2	1	0	0	0	0	0	0	0	0	0	0	0	5	2	0	0	0	0	0	40	10
758	3	0	0	0	0	0	0	0	0	0	0	0	3	0	5	0	0	0	0	0	0	7	0	18	12
760	206	0	0	0	0	591	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	797	0
761	39	246	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	284	0
762	0	246	0	7	7	0	0	0	0	0	0	0	0	0	20	0	0	48	0	0	0	5	92	425	179
763	0	0	0	1	218	0	0	0	0	0	0	0	0	0	1	0	1	0	3	0	0	37	0	261	261
764	471	212	0	0	0	400	0	1	0	0	0	0	0	0	0	0	0	0	53	0	0	0	0	1137	53
765	0	0	0	0	0	0	0	0	0	0	49	0	12	0	0	0	0	0	0	0	0	0	0	61	0
766	179	0	0	0	0	400	0	0	0	0	0	0	4	0	0	0	0	18	48	0	0	0	0	649	66
767	538	160	0	0	2	0	0	0	0	0	0	0	4	0	0	0	0	0	0	0	0	0	8	712	10
768	90	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	0	0	0	0	0	0	94	0
769	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	0	0	0	0	0	0	4	0
770	45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	45	0
771	111	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	0	0	0	0	115	4
772	113	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	113	0
773	113	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	113	0
774	110	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	110	0
775	111	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	111	0
776	111	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	111	0
777	112	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	112	0
778	1	71	11	3	196	0	0	0	0	0	24	0	0	0	6	2	6	27	0	0	7	0	4	358	262
779	1	79	11	3	196	0	0	0	0	0	27	0	0	0	6	2	6	27	0	0	7	0	4	369	262
780	1	70	11	3	196	0	0	0	0	0	24	0	0	0	6	2	6	27	0	0	7	0	4	357	262
781	111	140	46	3	0	0	0	0	0	0	51	0	2	0	33	0	4	8	0	2	0	0	37	437	133
782	0	0	22	1	0	0	0	0	0	0	0	0	2	0	16	0	4	4	0	2	0	29	18	98	96
783	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	2	0
784	0	0	50	3	0	0	0	0	0	0	0	0	2	0	441	24	4	15	0	2	0	0	41	582	580
785	89	1	29	5	1	0	0	0	0	0	0	0	3	6	8	0	11	0	4	0	0	0	0	157	64
786	76	0	0	0	0	0	0	0	0	0	0	0	5	0	0	0	3	1	0	1	0	0	0	86	5
787	0	0	28	2	0	0	0	0	0	0	0	0	5	0	0	0	3	71	23	1	0	0	23	156	151
788	76	0	0	10	0	475	0	0	0	0	0	0	5	0	0	0	3	1	52	1	0	0	0	622	66
789	0	0	49	2	0	0	0	0	0	0	0	0	5	0	28	0	4	7	0	1	0	0	31	127	122
790	76	0	0	0	0	0	0	0	0	0	0	0	5	0	0	0	3	1	0	0	0	0	0	84	4
791	0	45	0	0	0	0	0	0	0	0	20	0	4	0	0	0	0	0	0	0	0	0	0	69	0
792	39	45	9	1	0	0	0	0	0	0	20	0	4	0	7	0	1	2	0	0	0	0	8	136	28
793	117	45	0	0	0	0	0	0	0	0	20	0	3	0	0	0	0	0	0	0	0	0	0	186	0
794	86	0	0	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	91	5
795	75	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	79	4

$ZONE:NO	SFDU_LU1_35	MFDU_LU2_35	RET_LU3_35	FIRES_LU4_35	INDUST_LU5_35	SCH_LU6_35	ACCOM_LU7_35	AER_LU8_35	OSFDU_LU9_35	PSS_LU10_35	AGRI_LU11_35	WFRT_LU12_35	POL_LU13_35	TRNWH_LU14_35	MED_LU15_35	GOVT_LU16_35	ASWMR_LU17_35	PSTMC_LU18_35	EDUSRV_LU19_35	OTHER_LU35_35	INFO_LU21_35	UTLCONST_LU22_35	FS_LU23_35	TOTAL_DU	TOTAL_EMP
796	85	1	0	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	91	4
797	0	0	58	0	0	0	0	0	0	0	0	0	0	0	0	0	0	17	0	0	0	0	0	75	75
798	0	0	58	0	0	0	0	0	0	0	0	0	5	0	0	0	0	0	0	0	0	0	0	63	58
799	0	0	0	0	0	0	0	0	0	0	0	0	0	0	496	0	0	0	0	0	0	0	0	496	496
800	8	0	11	15	27	0	0	0	0	0	0	0	0	0	0	0	11	11	3	4	0	70	28	189	181
801	0	0	22	6	0	0	0	0	0	0	0	0	0	0	0	0	5	5	1	2	0	0	56	96	96
802	0	0	22	7	0	0	0	0	0	0	0	0	0	0	0	0	5	5	1	2	0	0	56	99	99
803	60	0	0	0	0	0	0	0	0	0	0	0	5	0	0	0	0	0	0	0	0	0	0	65	0
804	60	0	0	4	1	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	26	0	93	33
805	20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	20	0

2045 Land Use By Zone

$ZONE:NO	SFDU_LU1_45	MFDU_LU2_45	RET_LU3_45	FIRES_LU4_45	INDUST_LU5_45	SCH_LU6_45	ACCOM_LU7_45	AER_LU8_45	OSFDU_LU9_45	PSS_LU10_45	AGRI_LU11_45	WFRT_LU12_45	POL_LU13_45	TRNWH_LU14_45	MED_LU15_45	GOVT_LU16_45	ASWMR_LU17_45	PSTMC_LU18_45	EDUSRV_LU19_45	OTHER_LU45_45	INFO_LU21_45	UTLCONST_LU22_45	FS_LU23_45	TOTAL_DU	TOTAL_EMP
42	418	643	0	0	0	667	0	0	0	0	0	0	74	0	0	0	0	0	83	0	0	0	0	1061	83
43	856	638	0	0	0	898	0	0	0	0	12	0	6	0	0	0	0	0	113	0	0	0	0	1494	113
50	140	149	4	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	31	0	289	39
51	378	78	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	456	0
52	138	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	0	0	0	0	0	0	138	0
53	92	2	0	0	0	0	0	22	0	0	0	0	2	0	1	3	10	1	0	3	0	11	0	93	29
55	226	69	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	1	0	0	0	0	0	295	6
56	58	109	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	168	1
57	0	0	1	0	0	0	0	0	0	0	0	0	5	0	0	0	0	0	0	0	0	0	0	0	1
59	102	9	0	0	1	0	0	0	0	0	0	0	0	0	3	0	6	0	0	0	0	6	0	111	16
60	101	31	0	0	1	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	1	0	131	5
61	118	2	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	2	0	2	0	0	0	120	4
62	107	0	0	0	0	0	0	0	0	0	0	0	3	1	0	0	0	0	0	0	0	2	0	107	3
63	130	0	1	0	0	0	0	2	0	0	0	0	4	0	0	0	0	0	0	0	0	5	0	130	6
64	116	0	0	0	0	0	0	0	0	0	0	0	15	0	0	0	1	0	0	0	0	0	0	116	2
65	149	0	0	0	0	0	0	14	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	149	0
66	30	25	12	0	0	556	0	0	0	0	0	0	11	0	119	0	9	2	113	0	14	0	13	55	281
67	70	6	0	2	0	0	0	0	0	0	0	0	0	0	0	0	2	2	0	1	0	0	0	77	7
68	84	33	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	117	2
69	49	59	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	108	0
70	0	0	25	12	30	0	0	0	0	0	0	0	0	0	15	7	6	2	0	1	0	88	0	0	183
71	0	0	39	2	26	0	140	22	0	0	0	0	0	1	22	0	1	0	0	4	17	0	39	0	150
72	115	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	118	0
73	139	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	139	0
74	0	0	32	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	35
76	1	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	49	1	53
77	15	14	27	31	2	0	0	0	0	0	0	0	0	0	0	0	18	4	0	2	0	0	30	29	112
78	9	9	29	54	5	0	0	1	0	0	0	0	0	0	3	0	0	11	0	13	0	0	49	18	163
79	1	1	0	54	0	0	0	59	0	0	0	0	0	0	101	0	0	4	0	0	0	0	35	1	193
81	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
82	127	0	0	0	0	0	0	102	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	127	0
83	608	205	50	0	0	442	0	0	0	0	0	0	18	0	10	0	0	0	55	0	0	0	20	813	135
84	0	0	50	13	969	0	101	38	0	91	0	0	21	0	31	11	31	131	171	0	33	190	23	0	1653

$ZONE:NO	SFDU_LU1_45	MFDU_LU2_45	RET_LU3_45	FIRES_LU4_45	INDUST_LU5_45	SCH_LU6_45	ACCOM_LU7_45	AER_LU8_45	OSFDU_LU9_45	PSS_LU10_45	AGRI_LU11_45	WFRT_LU12_45	POL_LU13_45	TRNWH_LU14_45	MED_LU15_45	GOVT_LU16_45	ASWMR_LU17_45	PSTMC_LU18_45	EDUSRV_LU19_45	OTHER_LU45_45	INFO_LU21_45	UTLCONST_LU22_45	FS_LU23_45	TOTAL_DU	TOTAL_EMP
85	219	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	219	0
86	195	0	0	3	0	0	0	6	0	0	0	0	9	0	0	0	0	0	0	0	0	0	6	195	9
88	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
89	4	0	4	1	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	4	13
92	37	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	37	0
93	0	0	23	0	3	0	0	0	0	0	0	0	0	0	24	0	4	0	3	7	0	4	34	0	101
95	0	0	4	11	0	0	0	0	0	0	0	0	0	0	4	0	5	3	0	15	0	0	0	0	42
97	7	0	0	0	197	0	0	0	0	0	6	0	18	7	0	37	16	0	0	0	0	16	0	7	272
98	19	192	5	0	1	0	0	0	0	0	0	0	0	0	5	0	0	0	0	0	0	0	0	211	11
99	39	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	39	0
100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
101	88	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	88	0
102	81	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	6	0	81	9
103	229	0	1	3	2	0	0	0	0	0	0	0	0	1	0	0	2	0	0	0	2	6	0	229	15
104	228	0	0	1	7	0	0	0	0	0	0	0	2	0	69	0	1	7	0	0	0	16	0	228	101
105	184	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	184	0
401	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	2
402	0	0	0	0	0	0	0	0	0	0	0	0	11	0	0	0	0	0	0	0	0	0	0	0	0
403	327	142	37	0	23	0	0	0	0	0	0	0	0	0	9	0	38	0	0	0	0	363	0	469	470
404	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
405	85	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	85	0
407	13	0	0	0	0	0	0	8	0	0	0	0	26	0	0	0	0	0	0	0	0	0	0	13	0
518	359	0	0	0	3	0	0	0	0	0	145	0	6	0	0	0	0	0	0	0	0	11	0	359	14
519	245	0	0	0	102	0	0	0	0	0	116	0	3	24	0	0	0	0	0	0	0	10	0	245	136
523	217	0	0	0	0	0	0	0	0	0	43	0	0	0	18	0	6	0	0	0	0	3	0	217	27
524	0	0	1	0	0	0	0	0	0	0	0	0	12	0	0	0	0	0	0	0	0	0	10	0	11
525	61	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	61	0
526	112	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	112	1
527	158	767	115	8	48	0	0	0	0	0	63	0	2	0	56	0	13	21	0	11	2	0	42	925	316
528	1	129	444	27	2	0	0	0	0	0	52	0	0	0	324	0	39	78	0	16	0	0	364	130	1292
529	369	212	0	0	0	0	0	0	0	0	161	0	7	0	0	0	0	0	0	0	0	0	0	581	0
530	0	140	826	50	4	0	0	0	0	0	0	0	2	0	603	0	72	144	0	29	0	0	678	140	2407
531	389	327	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	716	0
533	117	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	117	0
534	85	66	0	0	35	0	0	0	0	0	0	0	5	42	0	14	3	1	0	0	0	4	0	151	99

$ZONE:NO	SFDU_LU1_45	MFDU_LU2_45	RET_LU3_45	FIRES_LU4_45	INDUST_LU5_45	SCH_LU6_45	ACCOM_LU7_45	AER_LU8_45	OSFDU_LU9_45	PSS_LU10_45	AGRI_LU11_45	WFRT_LU12_45	POL_LU13_45	TRNWH_LU14_45	MED_LU15_45	GOVT_LU16_45	ASWMR_LU17_45	PSTMC_LU18_45	EDUSRV_LU19_45	OTHER_LU45_45	INFO_LU21_45	UTLCONST_LU22_45	FS_LU23_45	TOTAL_DU	TOTAL_EMP
535	200	299	0	0	0	0	0	0	0	0	206	0	4	0	0	0	0	0	0	0	0	0	0	499	0
536	503	175	40	0	0	0	0	0	0	0	17	0	3	0	0	0	78	0	0	0	0	8	0	677	126
537	115	0	0	0	0	0	0	0	0	0	39	0	1	0	0	0	0	1	0	1	0	4	0	115	6
538	77	0	0	1	2	0	0	0	0	0	0	0	0	0	54	0	0	0	0	0	0	1	0	77	59
539	0	0	193	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	193
540	0	0	0	15	0	0	0	0	0	0	0	0	0	0	390	0	10	11	2	4	0	0	0	0	433
541	6	0	5	1	418	0	0	27	0	0	0	0	0	0	0	0	13	76	0	0	41	4	0	6	558
542	0	0	68	0	217	0	0	18	0	0	0	0	0	13	0	0	6	21	0	23	0	44	25	0	417
578	56	58	0	0	0	0	0	0	0	0	58	0	64	0	0	30	1	0	0	1	0	0	0	114	32
579	111	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	111	0
600	45	0	0	0	0	0	0	0	0	0	37	0	10	0	0	0	0	0	0	0	0	8	0	45	8
602	88	94	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	182	2
603	189	39	0	0	0	0	0	0	0	0	0	0	5	0	0	0	0	8	0	0	0	7	0	228	15
604	189	39	0	0	0	0	0	0	0	0	0	0	5	0	4	0	0	0	0	0	0	0	0	228	4
605	0	0	0	0	0	0	0	0	0	0	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0
606	0	0	0	0	1	0	0	0	0	0	0	0	5	0	0	0	0	0	0	0	0	0	0	0	1
607	140	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	4	0	0	0	2	0	140	6
608	29	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	29	0
609	108	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	108	0
610	135	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	4	0	0	0	2	0	135	6
611	92	2	0	0	0	0	0	30	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	93	0
612	92	2	0	0	0	0	0	29	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	93	0
613	57	1	0	0	0	0	0	21	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	58	0
614	92	2	0	0	0	0	0	30	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	93	0
615	29	1	0	0	0	0	0	23	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	29	0
616	92	2	0	0	0	0	0	23	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	93	0
617	29	1	0	0	0	0	0	27	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	29	0
618	230	70	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	1	0	0	0	0	0	300	6
619	108	33	0	0	0	0	0	6	0	0	0	0	34	0	1	0	1	0	0	0	0	0	0	141	3
620	148	45	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1	0	0	0	0	0	193	4
621	64	121	6	17	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	6	185	30
622	52	98	47	3	0	0	0	6	0	0	0	0	14	0	34	0	4	8	0	2	0	0	39	150	137
623	49	92	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	140	0
624	64	120	55	3	0	0	0	0	0	0	0	0	0	0	40	0	5	10	0	2	0	0	46	183	162
625	44	83	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	127	0

$ZONE:NO	SFDU_LU1_45	MFDU_LU2_45	RET_LU3_45	FIRES_LU4_45	INDUST_LU5_45	SCH_LU6_45	ACCOM_LU7_45	AER_LU8_45	OSFDU_LU9_45	PSS_LU10_45	AGRI_LU11_45	WFRT_LU12_45	POL_LU13_45	TRNWH_LU14_45	MED_LU15_45	GOVT_LU16_45	ASWMR_LU17_45	PSTMC_LU18_45	EDUSRV_LU19_45	OTHER_LU45_45	INFO_LU21_45	UTLCONST_LU22_45	FS_LU23_45	TOTAL_DU	TOTAL_EMP
626	62	117	83	5	0	0	0	0	0	0	0	0	0	0	61	0	7	15	0	3	0	0	68	179	242
627	50	94	0	0	0	0	0	0	0	0	0	0	14	0	0	0	0	0	0	0	0	20	0	144	20
628	494	119	50	3	0	0	0	0	0	0	0	0	0	0	36	0	4	9	0	2	0	0	41	613	145
629	247	60	1	0	0	335	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0	307	5
630	247	60	100	6	0	0	0	0	0	0	0	0	5	0	73	0	9	17	0	4	0	0	82	307	291
631	102	9	0	0	0	0	0	0	0	0	0	0	0	0	3	0	6	0	0	0	0	6	0	111	15
632	108	9	0	0	0	0	0	0	0	0	0	0	0	0	3	0	6	0	0	0	0	7	0	117	16
633	107	9	0	0	0	867	0	0	0	0	0	0	18	0	3	0	6	0	95	0	0	7	0	117	111
634	99	8	0	0	0	0	0	0	0	0	0	0	0	0	3	0	6	0	0	0	0	6	0	107	15
635	96	8	0	0	0	0	0	7	0	0	0	0	18	0	3	0	5	0	0	0	0	6	0	105	14
636	75	23	0	0	1	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	1	0	98	4
637	107	32	0	0	1	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	1	0	139	5
638	79	24	0	0	1	800	0	0	0	0	0	0	0	0	1	0	1	0	71	0	0	1	0	103	75
639	97	29	0	0	1	0	0	6	0	0	0	0	20	0	1	0	1	0	0	0	0	1	0	126	5
640	71	21	0	0	1	0	0	6	0	0	0	0	20	0	1	0	1	0	0	0	0	1	0	92	3
641	59	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	2	0	2	0	0	0	60	4
642	355	5	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	2	0	2	0	0	0	360	4
643	59	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	2	0	2	0	0	0	60	4
644	107	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0	2	0	107	2
645	140	0	1	0	0	0	0	2	0	0	0	0	5	0	0	0	0	0	0	0	0	5	0	140	6
646	114	0	1	0	0	0	0	1	0	0	0	0	4	0	0	0	0	0	0	0	0	4	0	114	5
647	129	0	1	0	0	0	0	2	0	0	0	0	4	0	0	0	0	0	0	0	0	5	0	129	6
648	116	0	0	0	0	0	0	0	0	0	0	0	13	0	0	0	1	0	0	0	0	0	0	116	2
649	116	0	0	0	0	0	0	0	0	0	0	0	13	0	0	0	1	0	0	0	0	0	0	116	2
650	116	0	0	0	0	0	0	0	0	0	0	0	14	0	0	0	1	0	0	0	0	0	0	116	2
651	0	0	0	0	0	975	0	0	0	0	0	0	14	0	0	0	1	0	85	0	0	0	0	0	86
652	0	0	0	0	0	975	0	0	0	0	0	0	14	0	0	0	1	0	85	0	0	0	0	0	86
653	149	0	89	5	0	0	0	14	0	0	0	0	0	0	65	0	8	16	0	3	0	0	73	149	258
654	149	225	5	3	0	0	0	14	0	0	0	0	0	0	33	0	0	1	0	9	0	0	0	374	50
655	155	0	0	0	0	0	0	14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	155	0
656	32	26	13	0	0	590	0	0	0	0	0	0	11	65	0	0	9	2	120	0	15	61	0	58	285
657	20	17	8	0	0	377	0	0	0	0	0	0	7	0	0	0	6	1	76	0	10	0	13	37	114
658	20	17	8	0	0	376	0	0	0	0	0	0	7	0	0	0	6	1	76	0	10	0	0	37	101
659	52	5	0	2	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	1	0	0	0	57	5
660	69	6	0	2	0	0	0	0	0	0	0	0	0	0	0	0	2	2	0	1	0	0	0	75	7

$ZONE:NO	SFDU_LU1_45	MFDU_LU2_45	RET_LU3_45	FIRES_LU4_45	INDUST_LU5_45	SCH_LU6_45	ACCOM_LU7_45	AER_LU8_45	OSFDU_LU9_45	PSS_LU10_45	AGRI_LU11_45	WFRT_LU12_45	POL_LU13_45	TRNWH_LU14_45	MED_LU15_45	GOVT_LU16_45	ASWMR_LU17_45	PSTMC_LU18_45	EDUSRV_LU19_45	OTHER_LU45_45	INFO_LU21_45	UTLCONST_LU22_45	FS_LU23_45	TOTAL_DU	TOTAL_EMP
661	52	5	0	2	0	0	0	0	0	0	0	0	0	0	65	0	1	1	0	1	0	0	0	57	70
662	28	11	0	0	0	0	0	0	0	0	0	0	0	0	85	0	3	0	0	0	0	1	0	39	89
663	84	33	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	117	2
664	84	33	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	117	1
665	46	0	67	4	0	0	0	0	0	0	0	0	7	0	49	0	6	12	0	2	0	0	55	46	194
666	45	59	11	21	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	14	104	46
667	50	0	11	21	0	0	0	0	0	0	0	0	0	0	26	0	0	2	0	0	0	0	14	50	72
668	40	0	0	0	2	0	0	0	0	0	0	0	7	0	0	0	0	0	0	0	0	6	0	40	8
669	42	118	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	160	0
670	39	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	39	0
671	46	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	46	0
672	356	804	0	0	0	0	0	6	0	0	0	0	9	0	0	0	0	0	0	0	0	0	0	1160	0
673	0	0	25	12	30	0	0	0	0	0	0	0	0	0	15	7	6	2	0	1	0	88	0	0	183
674	119	212	0	0	0	0	0	18	0	0	0	0	1	0	0	0	0	0	0	4	0	0	0	331	4
675	119	0	0	0	13	0	0	20	0	0	0	0	1	1	0	0	0	0	0	4	0	0	0	119	18
676	0	212	39	2	26	0	0	21	0	0	0	0	0	1	22	0	1	0	0	4	17	0	39	212	150
677	95	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	97	0
678	132	3	0	0	0	0	0	0	0	0	0	0	0	0	11	0	1	2	0	2	0	46	0	135	61
679	138	3	6	4	0	0	0	0	0	0	0	0	0	0	11	0	1	2	0	2	0	46	0	141	71
680	0	0	57	0	0	0	0	243	0	0	0	0	0	0	0	0	0	0	0	4	0	4	0	0	65
681	63	0	93	1	0	0	0	0	0	0	0	0	34	0	0	78	0	0	0	0	0	7	0	63	178
682	1	69	17	0	0	0	0	3	0	0	0	0	5	0	0	0	0	1	0	0	0	0	5	70	23
683	6	0	27	31	2	0	0	0	0	0	0	0	0	0	40	0	18	4	0	2	0	0	30	6	152
684	9	9	12	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	98	18	112
685	19	17	18	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	49	36	70
686	1	1	0	0	0	0	0	58	0	0	0	0	0	0	168	59	0	7	0	0	0	0	0	1	233
687	0	0	0	0	0	0	0	37	0	0	0	0	0	0	336	59	0	14	0	0	0	0	0	1	408
688	0	0	171	0	0	0	0	48	0	0	0	0	0	0	67	0	0	3	0	0	0	0	35	1	275
689	133	0	221	0	0	0	0	0	0	0	0	0	0	0	339	0	0	0	0	8	0	0	22	133	590
690	133	0	221	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8	0	0	22	133	251
691	0	0	0	0	0	0	0	188	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
692	127	0	19	16	1	0	0	102	0	0	0	0	3	0	0	0	3	0	17	52	0	6	84	127	198
693	146	0	0	0	13	0	0	21	0	0	0	0	47	0	0	0	17	0	0	0	0	5	0	146	35
694	0	0	0	0	0	0	0	0	0	0	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0
695	0	0	6	3	13	0	119	0	0	0	0	0	0	0	0	0	17	0	0	0	0	5	18	0	62

$ZONE:NO	SFDU_LU1_45	MFDU_LU2_45	RET_LU3_45	FIRES_LU4_45	INDUST_LU5_45	SCH_LU6_45	ACCOM_LU7_45	AER_LU8_45	OSFDU_LU9_45	PSS_LU10_45	AGRI_LU11_45	WFRT_LU12_45	POL_LU13_45	TRNWH_LU14_45	MED_LU15_45	GOVT_LU16_45	ASWMR_LU17_45	PSTMC_LU18_45	EDUSRV_LU19_45	OTHER_LU45_45	INFO_LU21_45	UTLCONST_LU22_45	FS_LU23_45	TOTAL_DU	TOTAL_EMP
696	0	131	0	0	0	0	0	1	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	131	0
697	83	0	0	0	0	0	0	3	0	0	0	0	5	0	0	0	0	0	0	0	0	0	0	83	0
698	0	0	0	1	0	0	0	0	0	0	0	0	0	0	84	0	0	0	0	0	0	0	0	0	85
700	0	0	0	0	10	0	0	59	0	0	0	0	20	0	0	0	0	0	0	0	0	0	0	0	10
701	0	0	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	69	0	79
702	0	301	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	301	0
703	7	0	6	1	7	0	0	0	0	0	0	0	0	0	61	0	0	0	0	0	0	4	37	7	116
704	8	0	7	2	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8	16
705	11	285	10	2	11	0	0	0	0	0	0	0	0	0	0	0	4	11	0	0	0	0	37	296	74
706	15	0	13	3	15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	19	0	0	0	15	50
707	11	0	10	2	11	227	0	3	0	0	0	0	11	0	0	117	4	11	0	19	0	0	0	11	173
708	37	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7	0	37	7
709	0	0	0	1	0	0	0	1	0	0	0	0	9	0	0	0	1	0	0	0	0	7	0	0	9
710	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
711	0	198	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	198	0
712	0	198	30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	61	198	91
713	0	0	0	0	0	0	0	0	0	0	0	0	0	0	20	14	0	0	0	0	0	0	0	0	34
714	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
715	0	0	207	25	0	0	0	0	0	0	0	0	0	0	24	0	4	33	0	7	0	4	305	0	609
716	0	0	4	11	0	0	0	0	0	0	0	0	0	0	0	0	5	3	0	15	0	0	41	0	78
717	12	0	4	11	44	0	67	0	0	0	0	0	0	0	0	0	5	3	0	15	0	0	0	12	82
718	0	0	4	11	44	0	0	0	0	0	0	0	0	0	0	0	5	3	0	15	0	0	41	0	122
719	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
720	7	0	7	3	0	0	0	0	0	0	6	0	18	7	0	0	16	0	0	0	0	16	10	7	58
721	39	0	0	0	0	0	0	86	0	0	0	0	13	0	0	0	0	0	0	0	0	0	0	39	0
722	0	576	4	0	12	0	238	0	0	0	0	0	0	2	0	0	2	1	0	4	0	10	0	576	33
723	39	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	39	0
724	39	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	39	0
725	39	0	0	0	12	0	0	0	0	0	0	0	0	2	0	0	2	1	0	4	0	10	20	39	49
726	121	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	121	0
727	61	0	0	0	0	0	0	24	0	0	0	0	19	0	0	0	0	0	0	0	0	0	0	61	0
728	45	38	0	0	28	0	0	16	0	0	0	0	13	31	0	30	0	0	0	0	0	55	0	83	144
729	45	0	0	0	0	0	0	16	0	0	0	0	13	0	7	0	0	0	0	0	0	0	0	45	7
730	30	0	0	3	0	0	0	24	0	0	0	0	19	0	0	0	0	0	0	0	0	0	0	30	3
731	105	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	105	0

$ZONE:NO	SFDU_LU1_45	MFDU_LU2_45	RET_LU3_45	FIRES_LU4_45	INDUST_LU5_45	SCH_LU6_45	ACCOM_LU7_45	AER_LU8_45	OSFDU_LU9_45	PSS_LU10_45	AGRI_LU11_45	WFRT_LU12_45	POL_LU13_45	TRNWH_LU14_45	MED_LU15_45	GOVT_LU16_45	ASWMR_LU17_45	PSTMC_LU18_45	EDUSRV_LU19_45	OTHER_LU45_45	INFO_LU21_45	UTLCONST_LU22_45	FS_LU23_45	TOTAL_DU	TOTAL_EMP
732	66	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	66	0
733	74	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	0	0	0	0	74	4
734	63	191	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	254	0
735	54	0	0	6	0	0	0	0	0	0	0	0	4	78	0	0	1	0	0	0	0	20	0	54	105
736	23	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	23	0
737	197	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	197	3
738	0	0	1	0	96	0	0	0	0	0	0	0	0	0	0	0	0	8	0	0	0	0	0	0	105
739	52	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	52	1
740	0	0	1	0	0	0	0	1	0	0	0	0	5	0	0	0	0	0	0	0	0	0	0	0	1
741	54	805	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	859	1
742	191	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	68	1	0	0	0	191	71
743	229	0	1	3	2	0	0	21	0	0	0	0	36	1	0	0	2	0	0	0	2	6	0	229	15
744	156	176	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	332	0
745	79	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	79	0
746	0	0	0	0	0	0	0	0	0	0	0	0	9	0	0	0	0	0	0	0	0	0	0	0	0
747	184	78	1	1	7	0	0	0	0	0	0	0	0	0	0	0	6	35	0	2	0	39	0	262	90
748	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	0	0	4
749	10	488	579	0	190	0	0	0	0	0	0	0	2	49	0	0	1	0	0	3	0	16	33	498	871
750	159	481	0	0	115	0	0	0	0	0	0	0	0	0	0	0	0	0	27	0	13	0	0	640	155
751	36	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	36	0
752	99	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	99	0
753	148	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	148	0
754	247	0	0	1	3	0	0	10	0	0	0	0	36	23	0	0	4	1	0	1	1	59	0	247	93
755	43	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	43	0
756	256	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	256	0
757	38	0	0	3	1	0	0	0	0	0	0	0	0	0	0	0	6	3	0	0	0	0	0	38	13
758	4	0	0	0	0	0	0	0	0	0	0	0	3	0	5	0	0	0	0	0	0	8	0	4	13
760	206	0	0	0	0	678	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	206	0
761	39	246	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	284	0
762	0	246	0	8	8	0	0	0	0	0	0	0	0	0	22	0	0	55	0	0	0	6	102	246	201
763	0	0	0	1	251	0	0	0	0	0	0	0	0	0	1	0	1	0	3	0	0	42	0	0	299
764	748	212	0	0	0	450	0	1	0	0	0	0	0	0	0	0	0	0	60	0	0	0	0	960	60
765	0	0	0	0	0	0	0	0	0	0	0	0	12	0	0	0	0	0	0	0	0	0	0	0	0
766	244	0	0	0	0	450	0	0	0	0	0	0	4	0	0	0	0	21	54	0	0	0	0	244	75
767	731	308	0	0	3	0	0	0	0	0	0	0	4	0	0	0	0	0	0	0	0	0	0	1039	3

$ZONE:NO	SFDU_LU1_45	MFDU_LU2_45	RET_LU3_45	FIRES_LU4_45	INDUST_LU5_45	SCH_LU6_45	ACCOM_LU7_45	AER_LU8_45	OSFDU_LU9_45	PSS_LU10_45	AGRI_LU11_45	WFRT_LU12_45	POL_LU13_45	TRNWH_LU14_45	MED_LU15_45	GOVT_LU16_45	ASWMR_LU17_45	PSTMC_LU18_45	EDUSRV_LU19_45	OTHER_LU45_45	INFO_LU21_45	UTLCONST_LU22_45	FS_LU23_45	TOTAL_DU	TOTAL_EMP
768	122	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	0	0	0	0	0	0	122	0
769	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0
770	61	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	61	0
771	114	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	0	0	0	0	114	4
772	117	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	117	0
773	117	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	117	0
774	114	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	114	0
775	115	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	115	0
776	114	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	114	0
777	115	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	115	0
778	1	114	18	5	190	0	0	0	0	0	46	0	0	0	11	4	11	47	0	0	12	0	7	115	305
779	1	128	18	5	190	0	0	0	0	0	52	0	0	0	11	4	11	47	0	0	12	0	7	129	305
780	1	113	18	5	190	0	0	0	0	0	46	0	0	0	11	4	11	47	0	0	12	0	7	115	305
781	461	140	80	5	0	0	0	0	0	0	0	0	2	0	59	0	7	14	0	3	0	0	66	601	234
782	0	0	39	2	0	0	0	0	0	0	0	0	2	0	28	0	3	7	0	1	0	20	32	0	133
783	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0
784	0	0	89	5	0	0	0	0	0	0	0	0	2	0	777	43	8	26	0	3	0	0	73	0	1024
785	117	1	32	6	1	0	0	0	0	0	0	0	3	7	9	0	13	0	4	0	0	0	0	118	72
786	85	0	0	0	0	0	0	0	0	0	0	0	5	0	0	0	3	1	0	2	0	0	0	85	6
787	0	0	50	3	0	0	0	0	0	0	0	0	5	0	0	0	4	125	40	2	0	0	41	0	265
788	85	0	0	11	0	546	0	0	0	0	0	0	5	0	0	0	3	1	59	2	0	0	0	85	75
789	0	0	67	4	0	0	0	0	0	0	0	0	5	0	49	0	6	12	0	2	0	0	55	0	194
790	85	0	0	0	0	0	0	0	0	0	0	0	5	0	0	0	3	1	0	0	0	0	0	85	4
791	0	0	0	0	0	0	0	0	0	0	17	0	4	0	0	0	0	0	0	0	0	0	0	0	0
792	84	29	17	1	0	0	0	0	0	0	17	0	4	0	12	0	1	3	0	1	0	0	14	113	48
793	251	87	0	0	0	0	0	0	0	0	17	0	3	0	0	0	0	0	0	0	0	0	0	339	0
794	86	0	0	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	86	5
795	75	0	0	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	75	5
796	85	1	0	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	86	5
797	0	0	64	0	0	0	0	0	0	0	0	0	0	0	0	0	0	20	0	0	0	0	0	0	84
798	0	0	64	0	0	0	0	0	0	0	0	0	5	0	0	0	0	0	0	0	0	0	0	0	64
799	0	0	0	0	0	0	0	0	0	0	0	0	0	0	644	0	0	0	0	0	0	0	0	0	644
800	14	0	12	18	31	0	0	0	0	0	0	0	0	0	0	0	13	13	3	5	0	81	31	14	206
801	0	0	24	7	0	0	0	0	0	0	0	0	0	0	0	0	5	5	1	2	0	0	62	0	107
802	0	0	24	8	0	0	0	0	0	0	0	0	0	0	0	0	6	6	1	2	0	0	62	0	109

$ZONE:NO	SFDU_LU1_45	MFDU_LU2_45	RET_LU3_45	FIRES_LU4_45	INDUST_LU5_45	SCH_LU6_45	ACCOM_LU7_45	AER_LU8_45	OSFDU_LU9_45	PSS_LU10_45	AGRI_LU11_45	WFRT_LU12_45	POL_LU13_45	TRNWH_LU14_45	MED_LU15_45	GOVT_LU16_45	ASWMR_LU17_45	PSTMC_LU18_45	EDUSRV_LU19_45	OTHER_LU45_45	INFO_LU21_45	UTLCONST_LU22_45	FS_LU23_45	TOTAL_DU	TOTAL_EMP
803	111	0	0	0	0	0	0	0	0	0	0	0	5	0	0	0	0	0	0	0	0	0	0	111	0
804	111	0	0	4	1	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	30	0	111	37
805	37	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	37	0

APPENDIX C – EXTERNAL TRIP TABLES

2020 External to External Vehicle Trips

AM Peak Hour External to External Vehicle Trips

Zone	900	901	902	903	904	905	906	907	908	909	910	911	912	913	914	915	916	917	918	Total
900	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	147	**148**
901	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
902	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
903	0	0	0	0	0	0	2	12	0	0	0	32	0	5	1	1	19	0	3	**75**
904	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	**1**
905	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	**2**
906	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	**2**
907	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	166	6	0	**172**
908	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
909	0	0	0	0	0	0	0	4	0	0	0	0	0	0	0	0	15	0	0	**20**
910	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**1**
911	0	0	0	46	0	0	0	6	0	0	0	0	0	27	7	0	4	0	0	**91**
912	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
913	0	0	0	0	0	0	0	0	0	0	0	45	0	0	0	0	0	0	0	**45**
914	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	**1**
915	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**2**
916	0	0	0	11	0	0	1	134	0	0	0	3	0	1	1	0	0	0	0	**151**
917	0	0	0	4	0	0	8	8	0	0	0	0	0	0	0	0	0	0	0	**21**
918	0	0	0	17	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**18**
Total	**1**	**0**	**0**	**80**	**1**	**0**	**11**	**165**	**0**	**0**	**0**	**80**	**0**	**34**	**10**	**2**	**205**	**7**	**152**	**748**

PM Peak Hour External to External Vehicle Trips

Zone	900	901	902	903	904	905	906	907	908	909	910	911	912	913	914	915	916	917	918	Total
900	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	16	56	**72**
901	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
902	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
903	1	0	0	0	0	0	0	0	0	0	2	72	0	9	1	0	0	0	0	**85**
904	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
905	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
906	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	11	0	0	**11**
907	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	132	0	0	**132**
908	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
909	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
910	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	**3**
911	0	0	0	54	0	0	0	22	0	0	0	0	0	14	0	0	3	1	0	**94**
912	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	**1**
913	0	0	0	1	0	0	0	0	0	0	8	35	0	0	0	0	0	1	0	**45**
914	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7	0	**8**
915	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	**1**
916	25	0	0	1	0	0	1	109	0	1	0	4	0	5	1	0	0	0	0	**147**
917	30	0	0	9	0	0	1	2	0	0	0	3	0	6	1	0	0	0	0	**52**
918	0	0	0	20	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	**22**
Total	**56**	**0**	**0**	**86**	**1**	**2**	**1**	**133**	**0**	**1**	**11**	**115**	**1**	**36**	**2**	**1**	**146**	**25**	**57**	**673**

2035 External to External Vehicle Trips

AM Peak Hour External to External Vehicle Trips

Zone	900	901	902	903	904	905	906	907	908	909	910	911	912	913	914	915	916	917	918	Total
900	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	255	**255**
901	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
902	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
903	1	0	0	0	0	0	3	18	0	0	0	45	0	7	1	1	28	0	5	**110**
904	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	**1**
905	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	2	**3**
906	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	**2**
907	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	251	9	0	**261**
908	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
909	0	0	0	0	0	0	0	5	0	0	0	0	0	0	0	0	19	0	0	**25**
910	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**1**
911	0	0	0	66	0	0	0	9	0	0	0	0	0	37	10	0	5	0	0	**129**
912	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**1**
913	0	0	0	0	0	0	0	0	0	0	0	61	0	0	0	0	0	0	0	**62**
914	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	**2**
915	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	**3**
916	0	0	0	16	0	0	1	203	0	0	0	4	0	2	2	0	0	0	0	**229**
917	0	0	0	6	1	0	12	12	0	0	0	0	0	0	0	0	0	0	0	**31**
918	0	0	0	31	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**32**
Total	**1**	**0**	**0**	**121**	**2**	**1**	**16**	**249**	**0**	**0**	**0**	**111**	**0**	**46**	**14**	**4**	**306**	**11**	**263**	**1146**

PM Peak Hour External to External Vehicle Trips

Zone	900	901	902	903	904	905	906	907	908	909	910	911	912	913	914	915	916	917	918	Total
900	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	23	98	**121**
901	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
902	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
903	1	0	0	0	0	0	0	0	0	0	2	103	0	13	1	0	0	0	0	**121**
904	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
905	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**1**
906	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	17	0	0	**17**
907	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	200	0	0	**201**
908	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
909	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
910	0	0	0	2	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	**4**
911	0	0	0	77	0	0	0	32	0	0	0	0	1	19	0	0	4	2	0	**134**
912	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	**1**
913	0	0	0	1	0	0	0	0	0	0	11	48	0	0	0	0	0	1	0	**62**
914	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	11	0	**11**
915	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	**1**
916	36	0	0	2	0	0	1	165	0	1	0	6	0	8	1	0	0	0	0	**220**
917	45	0	0	13	1	0	1	2	0	0	0	5	0	9	1	0	0	0	0	**76**
918	0	0	0	36	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	**39**
Total	82	0	0	131	1	3	2	201	0	1	15	162	1	50	4	1	221	37	98	**1010**

2045 External to External Vehicle Trips

AM Peak Hour External to External Vehicle Trips

Zone	900	901	902	903	904	905	906	907	908	909	910	911	912	913	914	915	916	917	918	Total
900	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	367	**368**
901	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
902	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**1**
903	1	0	0	0	0	0	4	24	0	0	0	57	0	9	2	2	37	0	7	**143**
904	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	**1**
905	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	3	**5**
906	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2	0	**3**
907	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	332	12	0	**344**
908	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
909	0	0	0	0	0	0	0	6	0	0	0	0	0	0	0	0	22	0	0	**28**
910	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**1**
911	0	0	0	84	0	0	0	12	0	0	0	0	0	46	12	0	7	0	0	**162**
912	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**1**
913	0	0	0	0	0	0	0	0	0	0	0	76	0	0	0	0	0	0	0	**76**
914	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	**2**
915	0	0	1	2	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	**3**
916	0	0	0	21	0	0	2	268	0	0	0	5	0	2	3	0	0	0	0	**301**
917	0	0	0	7	1	0	16	16	0	0	0	0	0	0	0	0	0	0	0	**41**
918	0	0	0	45	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	**47**
Total	**2**	**0**	**1**	**160**	**3**	**1**	**22**	**327**	**0**	**0**	**0**	**139**	**1**	**57**	**17**	**5**	**400**	**14**	**379**	**1528**

PM Peak Hour External to External Vehicle Trips

Zone	900	901	902	903	904	905	906	907	908	909	910	911	912	913	914	915	916	917	918	Total
900	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	30	141	**171**
901	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
902	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
903	1	0	0	0	0	0	0	0	0	0	3	131	0	17	2	0	0	0	0	**154**
904	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
905	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	**1**
906	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	23	0	0	**23**
907	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	264	0	0	**265**
908	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
909	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
910	0	0	0	3	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	**4**
911	0	0	0	97	0	0	0	41	0	0	0	0	1	23	0	0	5	2	0	**170**
912	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	**2**
913	0	0	0	1	0	0	0	0	0	0	14	59	0	0	0	0	1	1	0	**77**
914	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	14	0	**14**
915	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	**2**
916	47	0	0	3	0	0	2	218	0	2	0	7	0	10	1	0	0	0	0	**289**
917	58	0	0	17	1	0	1	3	0	0	0	6	0	11	1	0	0	0	0	**99**
918	0	0	0	52	1	5	0	0	0	0	0	0	0	0	0	0	0	0	0	**57**
Total	**106**	**0**	**0**	**173**	**2**	**5**	**3**	**264**	**0**	**2**	**19**	**204**	**1**	**63**	**5**	**1**	**292**	**48**	**141**	**1327**

APPENDIX D – TRAFFIC COUNT DATA

No	Location	2022 AM Peak Hour	2022 PM Peak Hour
4	Spokane River Xing - Spokane St S/O	146	329
10	Spokane St - Sletice Way E/O		755
11	Seltice Way - Idaho E/O		645
20	Hwy 41 - Mullan W/O		744
21	Mullan - Hwy 41 S/O		1131
27	Kathleen - Ramsey Rd S/O	938	
28	Kathleen - Hwy 95 S/O	1319	1526
32	SH 41 - Poleline W/O	421	375
33	Poleline - SH 41 S/O	612	996
44	Poleline - Pleasant View S/O	146	350
45	Pleasantview - Prairie E/O	113	237
52	Idaho - Prairie E/O		448
54	Greensferry - Prairie E/O	205	225
55	Prairie - Greensferry S/O	160	218
57	Prairie - SH 41 S/O	683	718
60	Huetter - Hayden W/O	369	341
61	Hayden - Huetter S/O	157	251
64	Greensferry - Hayden E/O	184	175
67		687	1091
71	Appleway - 15th S/O	262	462
73	Harrison - Government Way S/O	219	278
76	Harrison - 15th S/O	182	395
82	Pleasant View - Hwy 53 E/O	528	
83	McGuire - SH53 E/O	354	755
84	Pleasant View - WB Off	302	372
86	Pleasant View EB On	254	412
87	Pleasant View EB Off	190	421
90	Beck Rd - Seltice Way W/O	166	426
93	SH 53 @ Washington Line	226	715
114	Sh 41 - Lancaster Rd W/O	48	43
116	SH 41 - Seltice W/O		661
117	SH 41 - I90 WB Off Ramp	444	898
118	SH 41 - I90 WB On Ramp	743	715
120	SH 41 - I90 EB Off Ramp	451	866
124	Ramsey Rd - Ohio Match E/O	20	12
127	Ramsey Rd - Boekel Rd E/O	111	55
129	Ramsey Rd - Wyoming E/O	149	258
130	Ramsey Rd - Miles Ave E/O	28	74
131	Ramsey Rd - Hayden Ave E/O	351	408
132	Ramsey Rd - Honeysuckle rd E/O	175	337
133	Ramsey Rd - Prairie Ave E/O	797	862
135	Ramsey Rd - Hanley Ave E/O	342	856
136	Ramsey Rd - Dalton Ave E/O	288	243
140	Ramsey Rd/NW Blvd - Ironwood Dr E/O	282	846
145	Govt Way - Lancaster E/O	164	208
147	Govt Way - Miles Ave E/O	78	160

No	Location	2022 AM Peak Hour	2022 PM Peak Hour
148	Govt Way - Hayden Rd E/O	194	262
149	Govt Way - Honeysuckle E/O	152	288
150	Govt Way - Prairie Rd E/O	202	441
151	Govt Way - Wilbur E/O	22	40
152	Govt Way - Hanley Ave E/O	312	386
153	Govt Way - Dalton Ave E/O	329	374
154	Govt Way - Margaret E/O	321	569
155	Govt Way - Neider E/O	185	363
161	Govt Way - Harrison E/O	270	280
164	US 95 - Ohio Match Rd E/O	41	33
170	US 95 - Hayden Rd E/O	396	617
172	US 95 Prairie Ave E/O	455	841
174	US 95 - Hanley E/O	350	544
176	US 95 - Kathlenn Ave E/O	444	667
178	US 95 - Appleway Ave E/O	459	767
180	US 95 - I90 WB On Ramp E/O	697	1041
210	SH 53 - Ramsey Rd N/O	78	275
218	Lancaster - Govt Way S/O	131	330
221	Lancaster - English Point S/O	23	59
232	Prairie Rd - Ramsey S/O	537	982
233	Prairie Rd - US 95 S/O SB	1481	1506
234	Prairie Rd - Govt Way S/O	568	615
245	Mullan/Kathleen S/O	296	472
246	Mullen/Kathleen/Margaret - 15th S/O	411	478
247	Appleway/Best - 4th S/O	301	1077
265	Lancaster Rd - Strahorn Rd S/O	28	41
267	Washington Line - SH 58	88	123
268	SH 3 @ Benewah Co Line	61	100
270	LaTour Creek Rd S/O I90	19	18
274	Ohio Match Rd E/O Rimrock		14
277	Perimeter Rd N of SH 54	9	40
278	US 95 N of Athol	350	537
281	E Twin Lakes Rd near SH 41	35	115
286	Powerline Rd S of Brunner	52	121
289	Cougar Gulch Rd W/O US 95	31	64
290	Rockford Bay Rd E/O US 95	71	91
294	Conkling Rd E/O US 95	16	35
297	Burma Rd S of Gozzer	27	27
302	US 95 South of Worley	200	324
307	I 90 @ 15th St WB On Ramp	684	438
308	I 90 @ 15th St WB Off Ramp	66	134
310	I 90 @ 15th St EB Off Ramp	312	628
312	Prairie Ave - 4th S/O	282	455
316	Prairie Rd - Atlas S/O	346	474
317	I 90 & Seltice Way WB Off Ramp	371	654
318	I 90 & Seltice Way EB On	402	315
320		858	1701
321	US 95 & Government Way	45	130
323	Ramsey Rd - Wilbur Rd E/O	46	185
330	Howard N/O Appleway	48	92

No	Location	2022 AM Peak Hour	2022 PM Peak Hour
335	McGuire Rd S/O Hayden Ave	131	147
363	Prairie E/O SH41		499
382	Ramsey Rd S/O Hayden Ave	284	313
388	Kathleen - Hwy 95 S/O	884	1503
389	Poleline/Hanley - US 95 S/O	1436	1515
700	Baugh Wy N/O Pointe Pkwy Approach	59	99
702	Pointe Pkwy W/O Baugh Wy Approach	44	191
703	Pointe Pkwy E/O Baugh Wy Approach	76	255
705	Baugh Wy S/O Seltice Wy Approach	44	253
706	Seltice Wy W/O Baugh Wy Approach	209	337
707	Seltice Wy E/O Baugh Wy Approach	217	350
708	Bay St N/O Seltice Wy Approach	56	159
709	Bay St N/O Seltice Wy Approach	121	158
710	Seltice Wy W/O Bay St Approach	412	605
711	Seltice Wy E/O Bay St Approach	371	628
712	Beck Rd N/O Pointe Pkwy Approach	166	202
713	Beck Rd S/O Pointe Pkwy Approach	178	262
714	Pointe Pkwy W/O Beck Rd Approach	85	227
715	Pointe Pkwy E/O Beck Rd Approach	293	577
717	Beck Rd S/O Prairie Ave Approach		139
718	Prairie Ave W/O Beck Rd Approach		295
719	Prairie Ave E/O Beck Rd Approach		162
720	Beck Rd N/O Seltice Wy Approach	107	178
721	Beck Rd S/O Seltice Wy Approach	148	218
722	Seltice Wy W/O Beck Rd Approach	183	396
723	Seltice Wy E/O Beck Rd Approach	197	300
724	Cecil Rd N/O 12th Ave Approach		180
725	Cecil Rd S/O 12th Ave Approach		342
726	12th Ave W/O Cecil Rd Approach		67
727	12th Ave E/O Cecil Rd Approach		60
728	Cecil Rd N/O Mullan Ave Approach	217	259
729	Cecil Rd S/O Mullan Ave Approach	163	475
730	Mullan Ave W/O Cecil Rd Approach	454	782
731	Mullan Ave E/O Cecil Rd Approach	396	629
732	Cecil Rd N/O Poleline Ave Approach	138	76
733	Cecil Rd S/O Poleline Ave Approach	189	279
734	Poleline Ave W/O Cecil Rd Approach	425	331
735	Poleline Ave E/O Cecil Rd Approach	231	292
737	Cecil Rd S/O Prairie Ave Approach		43
738	Prairie Ave W/O Cecil Rd Approach	205	322
739	Prairie Ave E/O Cecil Rd Approach		470
740	Cedar St N/O Maplewood Ave Approach		173
741	Cedar St S/O Maplewood Ave Approach		43
742	Maplewood Ave W/O Cedar St Approach		41
743	Maplewood Ave E/O Cedar St Approach		92
745	Cedar St S/O Seltice Wy Approach	198	127
746	Seltice Wy W/O Cedar St Approach	599	646
747	Seltice Wy E/O Cedar St Approach	328	645
748	Chase Rd N/O 12th Ave Approach		147
749	Chase Rd S/O 12th Ave Approach		182

No	Location	2022 AM Peak Hour	2022 PM Peak Hour
751	12th Ave E/O Chase Rd Approach		27
752	Chase Rd N/O Mullan Ave Approach		205
753	Chase Rd S/O Mullan Ave Approach		274
754	Mullan Ave W/O Chase Rd Approach		13
755	Mullan Ave E/O Chase Rd Approach		101
756	Chase Rd N/O Poleline Ave Approach		285
757	Chase Rd S/O Poleline Ave Approach		160
758	Poleline Ave W/O Chase Rd Approach		77
759	Poleline Ave E/O Chase Rd Approach		271
760	Chase Rd N/O Prairie Ave Approach	91	134
761	Chase Rd S/O Prairie Ave Approach	173	178
762	Prairie Ave W/O Chase Rd Approach	198	374
763	Prairie Ave E/O Chase Rd Approach	189	264
764	Chase Rd N/O Seltice Wy Approach	242	202
766	Seltice Wy W/O Chase Rd Approach	464	703
767	Seltice Wy E/O Chase Rd Approach	351	641
769	Clearwater Loop S/O Riverbend Ave Approach		159
770	Riverbend Ave W/O Clearwater Loop Approach		97
771	Riverbend Ave E/O Clearwater Loop Approach		178
773	Compton St S/O Seltice Wy Approach	29	52
774	Seltice Wy W/O Compton St Approach	527	673
775	Seltice Wy E/O Compton St Approach	360	629
776	Corbin Rd N/O Poleline Rd Approach		22
777	Corbin Rd S/O Poleline Rd Approach		28
778	Poleline Rd W/O Corbin Rd Approach		24
779	Poleline Rd E/O Corbin Rd Approach		10
781	Corbin Rd S/O Prairie Ave Approach		17
782	Prairie Ave W/O Corbin Rd Approach		396
783	Prairie Ave E/O Corbin Rd Approach		265
784	Corbin Rd N/O Seltice Wy Approach		63
785	Corbin Rd S/O Seltice Wy Approach		40
786	Seltice Wy W/O Corbin Rd Approach		614
787	Seltice Wy E/O Corbin Rd Approach		518
788	Greensferry Rd N/O E 12th Ave Approach		316
789	Greensferry Rd S/O E 12th Ave Approach		463
790	E 12th Ave W/O Greensferry Rd Approach		45
791	E 12th Ave E/O Greensferry Rd Approach		91
792	Greensferry Rd N/O E 16th Ave Approach		276
793	Greensferry Rd S/O E 16th Ave Approach		373
794	E 16th Ave W/O Greensferry Rd Approach		85
795	E 16th Ave E/O Greensferry Rd Approach		127
796	Greensferry Rd N/O E 3rd Ave Approach		292
797	Greensferry Rd S/O E 3rd Ave Approach		150
798	E 3rd Ave W/O Greensferry Rd Approach		170
800	Greensferry Rd N/O Hayden Ave Approach		151
801	Greensferry Rd S/O Hayden Ave Approach		173
802	Hayden Ave W/O Greensferry Rd Approach		330
803	Hayden Ave E/O Greensferry Rd Approach	139	289
804	Greensferry Rd N/O Mullan Ave Approach	407	347
805	Greensferry Rd S/O Mullan Ave Approach	311	557

No	Location	2022 AM Peak Hour	2022 PM Peak Hour
806	Mullan Ave W/O Greensferry Rd Approach	338	623
807	Mullan Ave E/O Greensferry Rd Approach	419	659
808	Greensferry Rd N/O Poleline Ave Approach	354	302
809	Greensferry Rd S/O Poleline Ave Approach	247	344
810	Poleline Ave W/O Greensferry Rd Approach	480	297
811	Poleline Ave E/O Greensferry Rd Approach	271	384
812	Greensferry Rd N/O Prairie Ave Approach	171	143
813	Greensferry Rd S/O Prairie Ave Approach	170	245
814	Prairie Ave W/O Greensferry Rd Approach	379	329
815	Prairie Ave E/O Greensferry Rd Approach	222	401
816	Greensferry Rd N/O Seltice Wy Approach	361	522
817	Greensferry Rd S/O Seltice Wy Approach	274	328
818	Seltice Wy W/O Greensferry Rd Approach	396	656
819	Seltice Wy E/O Greensferry Rd Approach	351	621
820	Henry St N/O Mullan Ave Approach		9
821	Henry St S/O Mullan Ave Approach		46
822	Mullan Ave W/O Henry St Approach		324
823	Mullan Ave E/O Henry St Approach		291
824	Henry St N/O Seltice Wy Approach	13	36
825	Henry St S/O Seltice Wy Approach	11	21
826	Seltice Wy W/O Henry St Approach	434	577
827	Seltice Wy E/O Henry St Approach	369	692
828	Huetter Rd N/O Mullan Rd Approach		234
829	Huetter Rd S/O Mullan Rd Approach		446
830	Mullan Rd W/O Huetter Rd Approach		67
832	Huetter Rd N/O Poleline Ave Approach		274
833	Huetter Rd S/O Poleline Ave Approach		458
834	Poleline Ave W/O Huetter Rd Approach		95
836	Huetter Rd N/O Prairie Ave Approach	206	169
837	Huetter Rd S/O Prairie Ave Approach	238	428
838	Prairie Ave W/O Huetter Rd Approach	734	651
839	Prairie Ave E/O Huetter Rd Approach	644	912
840	Huetter Rd N/O Seltice Wy Approach	352	238
841	Huetter Rd S/O Seltice Wy Approach	105	98
842	Seltice Wy W/O Huetter Rd Approach	473	587
843	Seltice Wy E/O Huetter Rd Approach	356	850
844	Idaho Rd N/O 12th Ave Approach		416
845	Idaho Rd S/O 12th Ave Approach		760
846	12th Ave W/O Idaho Rd Approach		8
847	12th Ave E/O Idaho Rd Approach		52
848	Idaho Rd N/O 15th Ave Approach		447
849	Idaho Rd S/O 15th Ave Approach		639
850	15th Ave W/O Idaho Rd Approach		72
851	15th Ave E/O Idaho Rd Approach		61
852	Idaho Rd N/O 4th Ave Approach		159
854	4th Ave W/O Idaho Rd Approach		248
855	4th Ave E/O Idaho Rd Approach		56
856	Idaho Rd N/O Mullan Ave Approach	581	488
857	Idaho Rd S/O Mullan Ave Approach	346	764
858	Mullan Ave W/O Idaho Rd Approach	286	357

No	Location	2022 AM Peak Hour	2022 PM Peak Hour
859	Mullan Ave E/O Idaho Rd Approach	251	476
860	Idaho Rd N/O Poleline Ave Approach	383	332
861	Idaho Rd S/O Poleline Ave Approach	262	499
862	Poleline Ave W/O Idaho Rd Approach	419	402
863	Poleline Ave E/O Idaho Rd Approach	388	384
864	Idaho Rd N/O Polston Ave Approach		539
865	Idaho Rd S/O Polston Ave Approach		736
867	Polston Ave E/O Idaho Rd Approach		206
868	Idaho Rd N/O Prairie Ave Approach	94	88
869	Idaho Rd S/O Prairie Ave Approach	199	272
870	Prairie Ave W/O Idaho Rd Approach	421	395
871	Prairie Ave E/O Idaho Rd Approach	210	391
872	Idaho Rd N/O Seltice Wy Approach	538	591
873	Idaho Rd S/O Seltice Wy Approach	158	169
874	Seltice Wy W/O Idaho Rd Approach	401	575
875	Seltice Wy E/O Idaho Rd Approach	414	914
876	Lincoln St N/O E 3rd St Approach		53
877	Lincoln St S/O E 3rd St Approach		38
878	E 3rd St W/O Lincoln St Approach		158
879	E 3rd St E/O Lincoln St Approach		201
880	N McGuire Rd N/O W Grange Ave Approach		153
881	N McGuire Rd S/O W Grange Ave Approach		207
882	W Grange Ave W/O N McGuire Rd Approach		2
883	W Grange Ave E/O N McGuire Rd Approach		9
884	McGuire Rd N/O Hayden Ave Approach		155
885	McGuire Rd S/O Hayden Ave Approach	106	190
886	Hayden Ave W/O McGuire Rd Approach		10
887	Hayden Ave E/O McGuire Rd Approach		228
888	McGuire Rd N/O Poleline Rd Approach		171
889	McGuire Rd S/O Poleline Rd Approach		243
890	Poleline Rd W/O McGuire Rd Approach		12
891	Poleline Rd E/O McGuire Rd Approach		8
892	McGuire Rd N/O Prairie Ave Approach	153	187
893	McGuire Rd S/O Prairie Ave Approach	105	181
894	Prairie Ave W/O McGuire Rd Approach	180	404
895	Prairie Ave E/O McGuire Rd Approach	205	200
896	McGuire Rd N/O Seltice Wy Approach	215	209
897	McGuire Rd S/O Seltice Wy Approach	119	213
898	Seltice Wy W/O McGuire Rd Approach	389	591
899	Seltice Wy E/O McGuire Rd Approach	386	582
900	Meyer Rd N/O Poleline Ave Approach		62
901	Meyer Rd S/O Poleline Ave Approach		31
902	Poleline Ave W/O Meyer Rd Approach		126
903	Poleline Ave E/O Meyer Rd Approach		176
904	Meyer Rd N/O Prairie Ave Approach	157	116
905	Meyer Rd S/O Prairie Ave Approach	75	62
906	Prairie Ave W/O Meyer Rd Approach	580	556
907	Prairie Ave E/O Meyer Rd Approach	523	783
908	Pleasant View Rd N/O I-90 EB Ramps Approach	432	370
909	Pleasant View Rd S/O I-90 EB Ramps Approach	141	350

No	Location	2022 AM Peak Hour	2022 PM Peak Hour
910	I-90 EB Ramps W/O Pleasant View Rd Approach	362	464
912	Pleasant View Rd N/O I-90 WB Ramps Approach	600	535
913	Pleasant View Rd S/O I-90 WB Ramps Approach	204	370
915	I-90 WB Ramps E/O Pleasant View Rd Approach	310	348
916	Pleasant View Rd N/O Jacklin Rd Approach	472	407
917	Pleasant View Rd S/O Jacklin Rd Approach	313	540
918	Jacklin Rd W/O Pleasant View Rd Approach	202	198
919	Jacklin Rd E/O Pleasant View Rd Approach	130	141
920	Pleasant View Rd N/O Poleline Rd Approach		298
921	Pleasant View Rd S/O Poleline Rd Approach	146	351
923	Poleline Rd E/O Pleasant View Rd Approach		15
924	Pleasant View Rd N/O Prairie Ave Approach	184	139
925	Pleasant View Rd S/O Prairie Ave Approach	183	357
926	Prairie Ave W/O Pleasant View Rd Approach	166	286
927	Prairie Ave E/O Pleasant View Rd Approach	159	195
928	Pleasant View Rd N/O Riverbend Ave Approach	272	270
929	Pleasant View Rd S/O Riverbend Ave Approach	63	190
930	Riverbend Ave W/O Pleasant View Rd Approach	77	253
931	Riverbend Ave E/O Pleasant View Rd Approach	100	114
932	Pleasant View Rd N/O Seltice Wy Approach	334	321
933	Pleasant View Rd S/O Seltice Wy Approach	236	417
934	Seltice Wy W/O Pleasant View Rd Approach	209	423
935	Seltice Wy E/O Pleasant View Rd Approach	436	426
937	Pleasant View Rd S/O SH-53 Approach		254
938	SH-53 W/O Pleasant View Rd Approach		566
939	SH-53 E/O Pleasant View Rd Approach	750	461
940	W Pointe Pkwy N/O I-90 EB Ramps Approach	177	262
941	W Pointe Pkwy S/O I-90 EB Ramps Approach	56	178
942	I-90 EB Ramps W/O W Pointe Pkwy Approach	170	350
944	W Pointe Pkwy N/O I-90 WB Ramps Approach	365	365
945	W Pointe Pkwy S/O I-90 WB Ramps Approach	164	164
947	I-90 WB Ramps E/O W Pointe Pkwy Approach	200	260
948	S Spencer St N/O E Ponderosa Blvd Approach		14
950	E Ponderosa Blvd W/O S Spencer St Approach		90
951	E Ponderosa Blvd E/O S Spencer St Approach		59
952	Seltice Wy N/O 4th Ave Approach	574	747
953	Seltice Wy S/O 4th Ave Approach	419	660
954	4th Ave W/O Seltice Wy Approach	110	126
956	Seltice Wy N/O I-90 WB Off-Ramp Approach	496	636
957	Seltice Wy S/O I-90 WB Off-Ramp Approach	330	579
959	I-90 WB Off-Ramp E/O Seltice Wy Approach	272	474
961	N Spencer St S/O E Seltice Wy Approach	141	101
962	E Seltice Wy W/O N Spencer St Approach	399	565
963	E Seltice Wy E/O N Spencer St Approach	304	611
964	N Spokane St N/O 12th Ave Approach		419
965	N Spokane St S/O 12th Ave Approach		732
966	12th Ave W/O N Spokane St Approach		31
967	12th Ave E/O N Spokane St Approach		18
968	N Spokane St N/O 15th Ave Approach		359
969	N Spokane St S/O 15th Ave Approach		671

No	Location	2022 AM Peak Hour	2022 PM Peak Hour
970	15th Ave W/O N Spokane St Approach		40
971	15th Ave E/O N Spokane St Approach		29
972	N Spokane St N/O 3rd Ave Approach		432
973	N Spokane St S/O 3rd Ave Approach		316
975	3rd Ave E/O N Spokane St Approach		31
976	Spokane St N/O 4th Ave Approach	395	642
977	Spokane St S/O 4th Ave Approach	420	384
978	4th Ave W/O Spokane St Approach	25	90
979	4th Ave E/O Spokane St Approach	144	154
980	N Spokane St N/O 7th Ave Approach		763
981	N Spokane St S/O 7th Ave Approach	556	1057
982	7th Ave W/O N Spokane St Approach		85
983	7th Ave E/O N Spokane St Approach		35
984	Spokane St N/O I-90 EB Ramps Approach	618	556
985	Spokane St S/O I-90 EB Ramps Approach	445	522
986	I-90 EB Ramps W/O Spokane St Approach	399	861
988	Spokane St N/O I-90 WB Ramps Approach	992	822
989	Spokane St S/O I-90 WB Ramps Approach	601	907
991	I-90 WB Ramps E/O Spokane St Approach	270	495
992	Spokane St N/O Mullan Ave Approach	722	514
993	Spokane St S/O Mullan Ave Approach	429	797
994	Mullan Ave W/O Spokane St Approach	57	110
995	Mullan Ave E/O Spokane St Approach	132	260
996	Spokane St N/O Poleline Ave Approach	191	177
997	Spokane St S/O Poleline Ave Approach	159	538
998	Poleline Ave W/O Spokane St Approach	223	195
999	Poleline Ave E/O Spokane St Approach	256	411
1000	Spokane St N/O Prairie Ave Approach	126	73
1001	Spokane St S/O Prairie Ave Approach	70	128
1002	Prairie Ave W/O Spokane St Approach	98	266
1003	Prairie Ave E/O Spokane St Approach	99	236
1004	Spokane St N/O Seltice Wy Approach	701	520
1005	Spokane St S/O Seltice Wy Approach	534	993
1006	Seltice Wy W/O Spokane St Approach	550	641
1007	Seltice Wy E/O Spokane St Approach	339	752
1008	N Syringa St N/O 16th Ave Approach		63
1009	N Syringa St S/O 16th Ave Approach		87
1010	16th Ave W/O N Syringa St Approach		67
1011	16th Ave E/O N Syringa St Approach		89
1012	N Syringa St N/O E Mullan Ave Approach		55
1013	N Syringa St S/O E Mullan Ave Approach		85
1014	E Mullan Ave W/O N Syringa St Approach		636
1015	E Mullan Ave E/O N Syringa St Approach		475
1016	N Syringa St N/O Poleline Ave Approach	150	106
1017	N Syringa St S/O Poleline Ave Approach	61	70
1018	Poleline Ave W/O N Syringa St Approach	440	342
1019	Poleline Ave E/O N Syringa St Approach	255	380
2000	Baugh Wy N/O Pointe Pkwy Departure	38	132
2002	Pointe Pkwy W/O Baugh Wy Departure	57	188
2003	Pointe Pkwy E/O Baugh Wy Departure	85	226

No	Location	2022 AM Peak Hour	2022 PM Peak Hour
2005	Baugh Wy S/O Seltice Wy Departure	111	201
2006	Seltice Wy W/O Baugh Wy Departure	210	436
2007	Seltice Wy E/O Baugh Wy Departure	156	385
2008	Bay St N/O Seltice Wy Departure	51	121
2009	Bay St N/O Seltice Wy Departure	106	217
2010	Seltice Wy W/O Bay St Departure	409	657
2011	Seltice Wy E/O Bay St Departure	395	556
2012	Beck Rd N/O Pointe Pkwy Departure	148	253
2013	Beck Rd S/O Pointe Pkwy Departure	178	252
2014	Pointe Pkwy W/O Beck Rd Departure	75	247
2015	Pointe Pkwy E/O Beck Rd Departure	321	516
2017	Beck Rd S/O Prairie Ave Departure		113
2018	Prairie Ave W/O Beck Rd Departure		209
2019	Prairie Ave E/O Beck Rd Departure		273
2020	Beck Rd N/O Seltice Wy Departure	103	161
2021	Beck Rd S/O Seltice Wy Departure	129	164
2022	Seltice Wy W/O Beck Rd Departure	224	347
2023	Seltice Wy E/O Beck Rd Departure	192	350
2024	Cecil Rd N/O 12th Ave Departure		305
2025	Cecil Rd S/O 12th Ave Departure		201
2026	12th Ave W/O Cecil Rd Departure		88
2027	12th Ave E/O Cecil Rd Departure		54
2028	Cecil Rd N/O Mullan Ave Departure	168	442
2029	Cecil Rd S/O Mullan Ave Departure	166	287
2032	Cecil Rd N/O Poleline Ave Departure	49	142
2033	Cecil Rd S/O Poleline Ave Departure	281	185
2034	Poleline Ave W/O Cecil Rd Departure	404	380
2035	Poleline Ave E/O Cecil Rd Departure	250	271
2037	Cecil Rd S/O Prairie Ave Departure		43
2038	Prairie Ave W/O Cecil Rd Departure	181	401
2039	Prairie Ave E/O Cecil Rd Departure		419
2040	Cedar St N/O Maplewood Ave Departure		110
2041	Cedar St S/O Maplewood Ave Departure		74
2042	Maplewood Ave W/O Cedar St Departure		59
2043	Maplewood Ave E/O Cedar St Departure		107
2045	Cedar St S/O Seltice Wy Departure	87	162
2046	Seltice Wy W/O Cedar St Departure	422	674
2047	Seltice Wy E/O Cedar St Departure	615	581
2048	Chase Rd N/O 12th Ave Departure		182
2049	Chase Rd S/O 12th Ave Departure		152
2051	12th Ave E/O Chase Rd Departure		22
2052	Chase Rd N/O Mullan Ave Departure		293
2053	Chase Rd S/O Mullan Ave Departure		197
2054	Mullan Ave W/O Chase Rd Departure		19
2055	Mullan Ave E/O Chase Rd Departure		85
2056	Chase Rd N/O Poleline Ave Departure		327
2057	Chase Rd S/O Poleline Ave Departure		155
2058	Poleline Ave W/O Chase Rd Departure		99
2059	Poleline Ave E/O Chase Rd Departure		212
2060	Chase Rd N/O Prairie Ave Departure	93	108

No	Location	2022 AM Peak Hour	2022 PM Peak Hour
2061	Chase Rd S/O Prairie Ave Departure	144	224
2062	Prairie Ave W/O Chase Rd Departure	187	249
2063	Prairie Ave E/O Chase Rd Departure	226	371
2064	Chase Rd N/O Seltice Wy Departure	178	251
2066	Seltice Wy W/O Chase Rd Departure	368	622
2067	Seltice Wy E/O Chase Rd Departure	511	673
2069	Clearwater Loop S/O Riverbend Ave Departure		111
2070	Riverbend Ave W/O Clearwater Loop Departure		158
2071	Riverbend Ave E/O Clearwater Loop Departure		164
2073	Compton St S/O Seltice Wy Departure	45	54
2074	Seltice Wy W/O Compton St Departure	370	648
2075	Seltice Wy E/O Compton St Departure	500	651
2076	Corbin Rd N/O Poleline Rd Departure		28
2077	Corbin Rd S/O Poleline Rd Departure		21
2078	Poleline Rd W/O Corbin Rd Departure		16
2079	Poleline Rd E/O Corbin Rd Departure		19
2081	Corbin Rd S/O Prairie Ave Departure		22
2082	Prairie Ave W/O Corbin Rd Departure		257
2083	Prairie Ave E/O Corbin Rd Departure		399
2084	Corbin Rd N/O Seltice Wy Departure		98
2085	Corbin Rd S/O Seltice Wy Departure		90
2086	Seltice Wy W/O Corbin Rd Departure		470
2087	Seltice Wy E/O Corbin Rd Departure		578
2088	Greensferry Rd N/O E 12th Ave Departure		377
2089	Greensferry Rd S/O E 12th Ave Departure		337
2090	E 12th Ave W/O Greensferry Rd Departure		87
2091	E 12th Ave E/O Greensferry Rd Departure		113
2092	Greensferry Rd N/O E 16th Ave Departure		360
2093	Greensferry Rd S/O E 16th Ave Departure		304
2094	E 16th Ave W/O Greensferry Rd Departure		89
2095	E 16th Ave E/O Greensferry Rd Departure		107
2096	Greensferry Rd N/O E 3rd Ave Departure		235
2097	Greensferry Rd S/O E 3rd Ave Departure		235
2098	E 3rd Ave W/O Greensferry Rd Departure		142
2100	Greensferry Rd N/O Hayden Ave Departure		173
2101	Greensferry Rd S/O Hayden Ave Departure		160
2102	Hayden Ave W/O Greensferry Rd Departure		345
2103	Hayden Ave E/O Greensferry Rd Departure	184	255
2104	Greensferry Rd N/O Mullan Ave Departure	231	470
2105	Greensferry Rd S/O Mullan Ave Departure	419	437
2106	Mullan Ave W/O Greensferry Rd Departure	365	487
2107	Mullan Ave E/O Greensferry Rd Departure	459	792
2108	Greensferry Rd N/O Poleline Ave Departure	200	353
2109	Greensferry Rd S/O Poleline Ave Departure	264	299
2110	Poleline Ave W/O Greensferry Rd Departure	245	371
2111	Poleline Ave E/O Greensferry Rd Departure	644	304
2112	Greensferry Rd N/O Prairie Ave Departure	104	171
2113	Greensferry Rd S/O Prairie Ave Departure	268	261
2114	Prairie Ave W/O Greensferry Rd Departure	206	393
2115	Prairie Ave E/O Greensferry Rd Departure	305	307

No	Location	2022 AM Peak Hour	2022 PM Peak Hour
2116	Greensferry Rd N/O Seltice Wy Departure	350	504
2117	Greensferry Rd S/O Seltice Wy Departure	180	403
2118	Seltice Wy W/O Greensferry Rd Departure	401	617
2119	Seltice Wy E/O Greensferry Rd Departure	452	602
2120	Henry St N/O Mullan Ave Departure		15
2121	Henry St S/O Mullan Ave Departure		25
2122	Mullan Ave W/O Henry St Departure		277
2123	Mullan Ave E/O Henry St Departure		353
2124	Henry St N/O Seltice Wy Departure	24	32
2125	Henry St S/O Seltice Wy Departure	10	11
2126	Seltice Wy W/O Henry St Departure	362	700
2127	Seltice Wy E/O Henry St Departure	430	582
2128	Huetter Rd N/O Mullan Rd Departure		465
2129	Huetter Rd S/O Mullan Rd Departure		220
2130	Mullan Rd W/O Huetter Rd Departure		62
2132	Huetter Rd N/O Poleline Ave Departure		427
2133	Huetter Rd S/O Poleline Ave Departure		225
2134	Poleline Ave W/O Huetter Rd Departure		175
2136	Huetter Rd N/O Prairie Ave Departure	162	166
2137	Huetter Rd S/O Prairie Ave Departure	320	268
2138	Prairie Ave W/O Huetter Rd Departure	497	797
2139	Prairie Ave E/O Huetter Rd Departure	843	929
2140	Huetter Rd N/O Seltice Wy Departure	200	444
2141	Huetter Rd S/O Seltice Wy Departure	67	130
2142	Seltice Wy W/O Huetter Rd Departure	334	638
2143	Seltice Wy E/O Huetter Rd Departure	685	561
2144	Idaho Rd N/O 12th Ave Departure		749
2145	Idaho Rd S/O 12th Ave Departure		418
2146	12th Ave W/O Idaho Rd Departure		23
2147	12th Ave E/O Idaho Rd Departure		46
2148	Idaho Rd N/O 15th Ave Departure		605
2149	Idaho Rd S/O 15th Ave Departure		475
2150	15th Ave W/O Idaho Rd Departure		68
2151	15th Ave E/O Idaho Rd Departure		71
2152	Idaho Rd N/O 4th Ave Departure		137
2154	4th Ave W/O Idaho Rd Departure		138
2155	4th Ave E/O Idaho Rd Departure		189
2156	Idaho Rd N/O Mullan Ave Departure	307	751
2157	Idaho Rd S/O Mullan Ave Departure	561	576
2158	Mullan Ave W/O Idaho Rd Departure	182	304
2159	Mullan Ave E/O Idaho Rd Departure	414	454
2160	Idaho Rd N/O Poleline Ave Departure	190	403
2161	Idaho Rd S/O Poleline Ave Departure	485	413
2162	Poleline Ave W/O Idaho Rd Departure	338	428
2163	Poleline Ave E/O Idaho Rd Departure	439	373
2164	Idaho Rd N/O Polston Ave Departure		764
2165	Idaho Rd S/O Polston Ave Departure		580
2167	Polston Ave E/O Idaho Rd Departure		124
2168	Idaho Rd N/O Prairie Ave Departure	98	100
2169	Idaho Rd S/O Prairie Ave Departure	270	272

No	Location	2022 AM Peak Hour	2022 PM Peak Hour
2170	Prairie Ave W/O Idaho Rd Departure	172	431
2171	Prairie Ave E/O Idaho Rd Departure	384	406
2172	Idaho Rd N/O Seltice Wy Departure	408	677
2173	Idaho Rd S/O Seltice Wy Departure	172	197
2174	Seltice Wy W/O Idaho Rd Departure	353	693
2175	Seltice Wy E/O Idaho Rd Departure	578	628
2176	Lincoln St N/O E 3rd St Departure		43
2177	Lincoln St S/O E 3rd St Departure		37
2178	E 3rd St W/O Lincoln St Departure		166
2179	E 3rd St E/O Lincoln St Departure		203
2180	N McGuire Rd N/O W Grange Ave Departure		190
2181	N McGuire Rd S/O W Grange Ave Departure		156
2182	W Grange Ave W/O N McGuire Rd Departure		6
2183	W Grange Ave E/O N McGuire Rd Departure		17
2184	McGuire Rd N/O Hayden Ave Departure		166
2185	McGuire Rd S/O Hayden Ave Departure	131	159
2186	Hayden Ave W/O McGuire Rd Departure		12
2187	Hayden Ave E/O McGuire Rd Departure		265
2188	McGuire Rd N/O Poleline Rd Departure		244
2189	McGuire Rd S/O Poleline Rd Departure		161
2190	Poleline Rd W/O McGuire Rd Departure		15
2191	Poleline Rd E/O McGuire Rd Departure		15
2192	McGuire Rd N/O Prairie Ave Departure	128	227
2193	McGuire Rd S/O Prairie Ave Departure	120	149
2194	Prairie Ave W/O McGuire Rd Departure	255	265
2195	Prairie Ave E/O McGuire Rd Departure	140	330
2196	McGuire Rd N/O Seltice Wy Departure	167	310
2197	McGuire Rd S/O Seltice Wy Departure	78	163
2198	Seltice Wy W/O McGuire Rd Departure	406	499
2199	Seltice Wy E/O McGuire Rd Departure	458	623
2200	Meyer Rd N/O Poleline Ave Departure		44
2201	Meyer Rd S/O Poleline Ave Departure		47
2202	Poleline Ave W/O Meyer Rd Departure		182
2203	Poleline Ave E/O Meyer Rd Departure		121
2204	Meyer Rd N/O Prairie Ave Departure	113	153
2205	Meyer Rd S/O Prairie Ave Departure	71	88
2206	Prairie Ave W/O Meyer Rd Departure	430	622
2207	Prairie Ave E/O Meyer Rd Departure	722	653
2208	Pleasant View Rd N/O I-90 EB Ramps Departure	198	373
2209	Pleasant View Rd S/O I-90 EB Ramps Departure	267	280
2211	I-90 EB Ramps E/O Pleasant View Rd Departure	322	420
2212	Pleasant View Rd N/O I-90 WB Ramps Departure	321	545
2213	Pleasant View Rd S/O I-90 WB Ramps Departure	430	376
2214	I-90 WB Ramps W/O Pleasant View Rd Departure	362	331
2216	Pleasant View Rd N/O Jacklin Rd Departure	236	391
2217	Pleasant View Rd S/O Jacklin Rd Departure	605	550
2218	Jacklin Rd W/O Pleasant View Rd Departure	175	191
2219	Jacklin Rd E/O Pleasant View Rd Departure	100	154
2220	Pleasant View Rd N/O Poleline Rd Departure		349
2221	Pleasant View Rd S/O Poleline Rd Departure	297	277

No	Location	2022 AM Peak Hour	2022 PM Peak Hour
2223	Poleline Rd E/O Pleasant View Rd Departure		14
2224	Pleasant View Rd N/O Prairie Ave Departure	103	203
2225	Pleasant View Rd S/O Prairie Ave Departure	290	246
2226	Prairie Ave W/O Pleasant View Rd Departure	147	182
2227	Prairie Ave E/O Pleasant View Rd Departure	154	323
2228	Pleasant View Rd N/O Riverbend Ave Departure	133	350
2229	Pleasant View Rd S/O Riverbend Ave Departure	98	68
2230	Riverbend Ave W/O Pleasant View Rd Departure	227	180
2231	Riverbend Ave E/O Pleasant View Rd Departure	54	230
2232	Pleasant View Rd N/O Seltice Wy Departure	200	343
2233	Pleasant View Rd S/O Seltice Wy Departure	502	414
2234	Seltice Wy W/O Pleasant View Rd Departure	252	293
2235	Seltice Wy E/O Pleasant View Rd Departure	261	537
2237	Pleasant View Rd S/O SH-53 Departure		143
2238	SH-53 W/O Pleasant View Rd Departure		457
2239	SH-53 E/O Pleasant View Rd Departure	528	680
2240	W Pointe Pkwy N/O I-90 EB Ramps Departure	208	430
2241	W Pointe Pkwy S/O I-90 EB Ramps Departure	116	66
2243	I-90 EB Ramps E/O W Pointe Pkwy Departure	110	220
2244	W Pointe Pkwy N/O I-90 WB Ramps Departure	289	289
2245	W Pointe Pkwy S/O I-90 WB Ramps Departure	216	216
2246	I-90 WB Ramps W/O W Pointe Pkwy Departure	119	360
2248	S Spencer St N/O E Ponderosa Blvd Departure		19
2250	E Ponderosa Blvd W/O S Spencer St Departure		63
2251	E Ponderosa Blvd E/O S Spencer St Departure		80
2252	Seltice Wy N/O 4th Ave Departure	325	579
2253	Seltice Wy S/O 4th Ave Departure	433	623
2254	4th Ave W/O Seltice Wy Departure	17	31
2255	4th Ave E/O Seltice Wy Departure	329	299
2256	Seltice Wy N/O I-90 WB Off-Ramp Departure	532	940
2257	Seltice Wy S/O I-90 WB Off-Ramp Departure	567	749
2261	N Spencer St S/O E Seltice Wy Departure	54	168
2262	E Seltice Wy W/O N Spencer St Departure	379	600
2263	E Seltice Wy E/O N Spencer St Departure	410	509
2264	N Spokane St N/O 12th Ave Departure		714
2265	N Spokane St S/O 12th Ave Departure		431
2266	12th Ave W/O N Spokane St Departure		41
2267	12th Ave E/O N Spokane St Departure		14
2268	N Spokane St N/O 15th Ave Departure		589
2269	N Spokane St S/O 15th Ave Departure		392
2270	15th Ave W/O N Spokane St Departure		58
2271	15th Ave E/O N Spokane St Departure		60
2272	N Spokane St N/O 3rd Ave Departure		315
2273	N Spokane St S/O 3rd Ave Departure		297
2275	3rd Ave E/O N Spokane St Departure		168
2276	Spokane St N/O 4th Ave Departure	445	504
2277	Spokane St S/O 4th Ave Departure	287	484
2278	4th Ave W/O Spokane St Departure	52	71
2279	4th Ave E/O Spokane St Departure	200	211
2280	N Spokane St N/O 7th Ave Departure	542	1007

No	Location	2022 AM Peak Hour	2022 PM Peak Hour
2281	N Spokane St S/O 7th Ave Departure		837
2282	7th Ave W/O N Spokane St Departure		48
2283	7th Ave E/O N Spokane St Departure		48
2284	Spokane St N/O I-90 EB Ramps Departure	599	913
2285	Spokane St S/O I-90 EB Ramps Departure	398	658
2288	Spokane St N/O I-90 WB Ramps Departure	570	1083
2289	Spokane St S/O I-90 WB Ramps Departure	592	573
2290	I-90 WB Ramps W/O Spokane St Departure	725	523
2292	Spokane St N/O Mullan Ave Departure	340	720
2293	Spokane St S/O Mullan Ave Departure	687	512
2294	Mullan Ave W/O Spokane St Departure	78	142
2295	Mullan Ave E/O Spokane St Departure	235	307
2296	Spokane St N/O Poleline Ave Departure	78	278
2297	Spokane St S/O Poleline Ave Departure	442	328
2298	Poleline Ave W/O Spokane St Departure	98	328
2299	Poleline Ave E/O Spokane St Departure	211	386
2300	Spokane St N/O Prairie Ave Departure	11	126
2301	Spokane St S/O Prairie Ave Departure	108	127
2302	Prairie Ave W/O Spokane St Departure	94	150
2303	Prairie Ave E/O Spokane St Departure	181	300
2304	Spokane St N/O Seltice Wy Departure	413	838
2305	Spokane St S/O Seltice Wy Departure	924	771
2306	Seltice Wy W/O Spokane St Departure	320	645
2307	Seltice Wy E/O Spokane St Departure	404	663
2308	N Syringa St N/O 16th Ave Departure		96
2309	N Syringa St S/O 16th Ave Departure		44
2310	16th Ave W/O N Syringa St Departure		81
2311	16th Ave E/O N Syringa St Departure		86
2312	N Syringa St N/O E Mullan Ave Departure		82
2313	N Syringa St S/O E Mullan Ave Departure		28
2314	E Mullan Ave W/O N Syringa St Departure		498
2315	E Mullan Ave E/O N Syringa St Departure		648
2316	N Syringa St N/O Poleline Ave Departure	54	153
2317	N Syringa St S/O Poleline Ave Departure	50	70
2318	Poleline Ave W/O N Syringa St Departure	360	384
2319	Poleline Ave E/O N Syringa St Departure	442	291

APPENDIX E – ASSIGNMENT VALIDATION

COUNT VOLUME COMPARISON (2020)

ortation Master Plan Count - Volume Comparison - (12080_PostFallsTMP) - V5 AM Trip Gen V5 PM Tr			
Functional Classification	**AM Peak Hour Counts**	**AM Peak Hour Volumes**	**AM Peak Hour % (Count / Volume)**
Freeway	27,410	27,646	0.9%
Principal Arterial	42,067	39,494	-6.5%
Minor Arterial	58,570	57,155	-2.5%
Collector	6,443	6,569	1.9%
Local	329	326	-0.9%
	134,819	131,190	-2.8%
**Note: Travel statistics do not include travel on centroids.*			

an Count - Volume Comparison - (12080_PostFallsTMP) - V5 AM	
Number of Counts	**AM Peak Hour**
Freeway	12
Principal Arterial	108
Minor Arterial	166
Collector	41
Local	2
Total Number of Counts	329
**Note: Collectors are the lowest functional classified facilities in the model network and the model is not validated for counts on collectors.*	

an Count - Volume Comparison - (12080_PostFallsTMP) - V5 AM	
	ADT
FHWA Criteria:	
Freeway +/- 7%	1%
Major Arterials +/- 10%	-7%
Minor Arterials +/- 15%	-2%
**Note: FHWA Criteria was obtained from the Model Validation and Reasonableness Checking Manual*	

an Count - Volume Comparison - (12080_PostFallsTMP) - V5 AM	
	ADT
FHWA Recommended Guidance:	
(Periods: <40=Green, 40-45=Yellow, >45=Red)	
(Day: <30=Green, 30-35=Yellow, >35=Red)	
%RMSE =	39
**Note: FHWA Criteria was obtained from the Model Validation and Reasonableness Checking Manual*	

an Count - Volume Comparison - (12080_PostFallsTMP) - V5 AM	
FHWA Criteria:	**ADT**
Coefficient of Determination (R^2) (>=0.88=Green, <0.88=Red)	0.92
**Note: FHWA Criteria was obtained from the Model Validation and Reasonableness Checking Manual*	

ortation Master Plan Count - Volume Comparison - (12080_PostFallsTMP) - V5 AM Trip Gen V5 PM Tr			
Functional Classification	**PM Peak Hour Counts**	**PM Peak Hour Volumes**	**PM Peak Hour % (Count / Volume)**
Freeway	35,113	34,478	-1.8%
Principal Arterial	63,919	64,987	1.6%
Minor Arterial	89,757	94,596	5.1%
Collector	20,338	18,696	-8.8%
Local	1,312	1,404	6.6%
	210,439	214,161	1.7%

**Note: Travel statistics do not include travel on centroids.*

an Count - Volume Comparison - (12080_PostFallsTMP) - V5 AM	
Number of Counts	**PM Peak Hour**
Freeway	12
Principal Arterial	118
Minor Arterial	224
Collector	103
Local	6
Total Number of Counts	463

**Note: Collectors are the lowest functional classified facilities in the model network and the model is not validated for counts on collectors.*

an Count - Volume Comparison - (12080_PostFallsTMP) - V5 AM	
	ADT
FHWA Criteria:	
Freeway +/- 7%	-2%
Major Arterials +/- 10%	2%
Minor Arterials +/- 15%	5%

**Note: FHWA Criteria was obtained from the Model Validation and Reasonableness Checking Manual*

an Count - Volume Comparison - (12080_PostFallsTMP) - V5 AM	
	ADT
FHWA Recommended Guidance:	
(Periods: <40=Green, 40-45=Yellow, >45=Red)	
(Day: <30=Green, 30-35=Yellow, >35=Red)	
%RMSE =	37

**Note: FHWA Criteria was obtained from the Model Validation and Reasonableness Checking Manual*

an Count - Volume Comparison - (12080_PostFallsTMP) - V5 AM	
FHWA Criteria:	**ADT**
Coefficient of Determination (R^2) (>=0.88=Green, <0.88=Red)	0.93

**Note: FHWA Criteria was obtained from the Model Validation and Reasonableness Checking Manual*

AM PEAK HOUR SCREENLINES

AM Peak Hour								
Screenline Name	Number of Counts	Total Sum of Counts	Total Sum of Screenline Capacity	Total Sum of Screenline Volume	Total Volumes at Locations with Counts	Total Volume/ Capacity Ratio	Volume/ Count Ratio	FHWA Pass/Fail Criteria
1 Post Falls South of Hayden Avenue	2	606	12,000	1,831	574	0.15	0.95	PASS
2 Post Falls North of Prairie Avenue	7	2,063	16,500	2,743	2,667	0.17	1.29	PASS
3 Post Falls South of Prairie Avenue	9	4,027	26,900	3,980	3,955	0.15	0.98	PASS
4 Post Falls North of I-90	9	3,765	58,400	7,675	3,375	0.13	0.90	PASS
5 Post Falls South of I-90	5	1,595	34,550	3,782	1,561	0.11	0.98	PASS
6 Post Falls West of Pleasant View Rd	5	1,892	28,000	5,842	1,798	0.21	0.95	PASS
7 Post Falls West of Idaho St	5	6,265	31,000	6,062	4,882	0.20	0.78	PASS
8 Post Falls East of Idaho St	6	7,525	45,150	7,256	6,241	0.16	0.83	PASS
9 Post Falls West of SH-41 (East of Cecil)	4	2,334	46,200	7,212	1,801	0.16	0.77	PASS
10 Post Falls East of SH-41 (West of Meyer)	3	5,337	30,600	7,125	5,525	0.23	1.04	PASS
11 Post Falls West of Huetter Road	2	1,895	25,700	6,571	1,255	0.26	0.66	PASS
12 Post Falls East of McGuire Road	4	5,926	29,100	6,037	5,672	0.21	0.96	PASS
Combined Screenline Totals	61	43,230		66,116	39,306		0.91	
** All Counts are for 2022								

PM PEAK HOUR SCREENLINES

PM Peak Hour								
Screenline Name	Number of Counts	Total Sum of Counts	Total Sum of Screenline Capacity	Total Sum of Screenline Volume	Total Volumes at Locations with Counts	Total Volume/ Capacity Ratio	Volume/ Count Ratio	FHWA Pass/Fail Criteria
1 Post Falls South of Hayden Avenue	3	1,104	12,000	2,825	1,478	0.24	1.34	PASS
2 Post Falls North of Prairie Avenue	7	2,511	16,500	3,924	3,707	0.24	1.48	PASS
3 Post Falls South of Prairie Avenue	11	5,092	26,900	6,038	6,015	0.22	1.18	PASS
4 Post Falls North of I-90	13	8,213	58,400	12,051	8,369	0.21	1.02	PASS
5 Post Falls South of I-90	9	3,652	34,550	5,620	4,180	0.16	1.14	PASS
6 Post Falls West of Pleasant View Rd	6	2,711	28,000	7,319	2,742	0.26	1.01	PASS
7 Post Falls West of Idaho St	8	8,255	31,000	7,762	6,654	0.25	0.81	PASS
8 Post Falls East of Idaho St	10	10,271	45,150	10,317	9,465	0.23	0.92	PASS
9 Post Falls West of SH-41 (East of Cecil)	5	3,141	46,200	10,385	2,896	0.22	0.92	PASS
10 Post Falls East of SH-41 (West of Meyer)	4	7,903	30,600	10,787	8,565	0.35	1.08	PASS
11 Post Falls West of Huetter Road	3	2,498	25,700	10,323	3,165	0.40	1.27	PASS
12 Post Falls East of McGuire Road	7	7,868	29,100	7,975	7,824	0.27	0.99	PASS
Combined Screenline Totals	86	63,219		95,326	65,060		1.03	
** All Counts are for 2022								

APPENDIX F – INTERIM AND FORECAST YEAR NO BUILD PROJECTS

SHORT-TERM ROAD IMPROVEMENT PROJECTS (THROUGH 2025)

ID	Location	Project Description	Est. Cost (2020)
1	Kathleen Avenue	Add EB turn lane	$785,000
2	15th Street	Widen to three lanes	$2,400,000
3	Atlas Road	Widen to three lanes	$6,900,000
4	Kathleen Avenue/Margaret Avenue	Widen to three lanes	$1,550,000
5	Sherman Avenue	Revitalization	$6,000,000
6	Hayden Avenue	Reconstruct 4 lane section	$1,500,000
7	Ramsey Road	Construct new 3 lane section	$6,900,000
8	12th Avenue	Construct urban collector	$458,000
9	Prairie Avenue	Reconstruct to 5 lanes	$4,973,000
10	Spokane Street	Construct Major Collector	$652,000
11	Cecil Road	Reconstruct	$205,000
12	Cecil Road	Reconstruct	$294,000
13	Cecil Road	Reconstruct	$393,000
14	16th Avenue	Widen section w/ sidewalks	$800,000
15	Horsehaven Avenue	Construct Minor Collector	$928,000
16	Bluegrass/Hope Avenue	Construct Major Collector	$1,236,000
17	Hope Avenue	Construct Major Collector	$686,000
18	McGuire Road	Reconstruct to 4 lanes	$737,000
19	Boekel Road	New 3 lane segment	$244,000
20	Meyer Road	Reconstruct to 3 lanes	$1,830,000
21	Meyer Road	Reconstruct to 4 lanes	$3,700,000
22	Boekel Road	Reconstruct to 3 lanes	$2,330,000
23	Lancaster Road	Reconstruct to 2 lanes	$1,160,000
24	Rockford Bay Road	Rebuild	$600,000
25	Loff's Bay Road	Rebuild	$328,000
26	Kidd Island Road	Reconstruct	$3,415,000
27	French Gulch/Fernan Hill Roads	Overlay and safety Improvements	$1,600,000
28	Prairie Avenue	Reconstruct to 5 Lanes	$4,500,000
29	Beck Road	Overlay and widen shoulders	$2,100,000
30	SH 41	Rebuild as 4-lane divided highway	$39,700,000
31	SH 53	Widen to 3 lanes	$4,500,000
32	SH 53	Widen roadway w/ turn bay	$3,500,000
33	SH 53	Widen roadway to 3 lanes w/ right turn bays	$9,000,000
34	US 95	Corridor access improvements	$7,300,000
35	Wilbur Road	Construct new segment	$2,000,000
36	SH 41	Reconstruct to 4 lane divided hwy	$28,000,000
37	SH 41	Reconstruct to 4 lane divided hwy	$11,900,000
38	SH 41	ADA Improvements	$440,000
39	I90	Install concrete median	$6,300,000
40	SH 54	Mill and Overlay	$600,000
41	Sherman/Lakeside & 1st to 8th Street	Upgrade 11 signals	$1,251,000
42	Ramsey Road & Honeysuckle Avenue	Roundabout	$1,164,000
43	Spokane Street & Prairie Avenue	Align approaches, build north leg	$100,000
44	Clark Fork Pkwy & Seltice Way	Dual-lane roundabout	$717,000
45	Corbin Road & Seltice Way	ADD SB left turn bay, signal	$668,000
46	Spokane Street & 6th Avenue	Modify signal and approach	$509,000
47	Idaho Street & 4th Avenue	Realign 5th and 4th; construct roundabout	$700,000

ID	Location	Project Description	Est. Cost (2020)
48	Spokane Street & 15th Avenue	Add Signal	$568,000
49	Idaho Road & Prairie Avenue	Add NB turn lane	$1,000
50	Idaho Road & 15th Avenue	Add signal & EB turn lane	$581,000
51	Greensferry Road & Prairie Avenue	Add left turn bays	$22,000
52	Greensferry Road & 12th Avenue	Add WB left turn lane	$22,000
53	Grange Avenue & BNSF Spur	Install gated crossing and urban improvements	$214,000
54	Chase Road & UPRR	Install planking, gates, lights; improve typical section	$580,000
55	Spokane Street & 12th Avenue	Turn restrictions	$20,000
56	Meyer Road & Lancaster Road	Multi-lane Roundabout	$1,600,000
57	Meyer Road & SH 53	Add signal and left/right turn lanes	$1,560,000
58	Meyer Road & Boekel Road	Roundabout	$1,250,000
59	Atlas Road & UPRR	Install gates, lights and planking	$310,000
60	Ramsey Road & Diagonal Road	BNSF Xing Grade Separation Bridge	$7,500,000
61	Ramsey Road & Boekel Road	Add turn lanes	$203,000
62	Rimrock Road & Lakeview Dr	Roundabout	$500,000
63	Brunner Road & Diagonal Road	BNSF RR Xing Grade Separation Bridge	$8,500,000
64	Old Hwy 95 & UPRR	RR Xing Grade Separation Bridge	$6,500,000
65	Gunning Road	Bridge	$350,000
66	Sturgeon Road	Bridge	$350,000
67	Pleasant View Road & Prairie Avenue	Roundabout	$1,200,000
68	Greensferry Road & Prairie Avenue	Signal	$600,000
69	Spokane Street	Bridge Overlay	$3,400,000
70	Huetter Road & UPRR	Add gates and signals	$250,000
71	Idaho Road & UPRR	Add signal, constant warning protection, planking, and cabinet	$320,000
72	Idaho Road & Prairie Avenue	Signal	$990,000
73	Rockford Bay Road & Loff's Bay Road	Intersection Reconstruction	$450,000
74	Sun Up Bay Road & Bennion Road	Reconstruct, eliminate Y Configuration	$500,000
75	Bennion Road & Finnebott Road	Correct sight distance, vertical and horizontal geometry	$1,100,000
76	SH 41 & UPRR	Grade Separation Bridge	Incl. in #36
77	Wilbur Road & US 95	Add signal & widen EB approach for thru and right/left turn lanes	$650,000
78	Miles Avenue & US 95	Add signal & turn lanes	$1,720,000
79	US 95 & Canfield Avenue	Remove signal; Restrict to right in/right out	$125,000
80	Boekel Road & US 95	Restrict to right in/right out	$51,000
81	Prairie Avenue & US 95	Add EB turn lane	$605,000
82	US 95 & Prairie Avenue	Add SB left turn lane	$71,000
83	Neider Avenue & US 95	Add WB right turn lane	$338,000
84	Prairie Avenue & US 95	Add WB turn lane	$306,000
85	US 95 & Kathleen Avenue	Add SB left turn lane	$71,000
86	Honeysuckle Avenue & US 95	Change WB turn lane into thru movement	$31,000
87	Hayden Avenue & US 95	Add EB right and thru lanes	$665,000
88	Kathleen Avenue & US 95	Add EB right turn lane	$478,000
89	Kathleen Avenue & US 95	Add WB right turn lane	$353,000
90	Hanley Avenue & US 95	Convert WB right turn to thru lane, widen approach	$284,000
91	Hanley Avenue & US 95	Add EB right and thru lanes	$306,000
92	US 95	Signal retiming	$44,000
93	Hayden Avenue & SH 41	Signal upgrade	Incl. in #34

ID	Location	Project Description	Est. Cost (2020)
94	Wyoming Avenue & SH 41	Wired for future signal	Incl. in #36
95	Boekel Avenue & SH 41	Signal upgrade	Incl. in #37
96	Nagel Avenue & SH 41	Add signal	$500,000
97	Lancaster Road & SH 41	Add signal and right and left turn bays	Incl. in #36
98	California Street & SH 41	Restrict to right in/right out	Incl. in #37
99	Prairie Avenue, Meyer Road & SH 41	Close UPRR Spur Crossings	$232,000
100	I90 & Pennsylvania Avenue	Overpass bridge replacement	$4,900,000
101	SH 41 & 16th Avenue	Signal	Incl. in #30
102	SH 41 & 12th Avenue	Restrict to Right-in/Right-out	Incl. in #30
103	SH 41 & Horsehaven Avenue	Restrict to Right-in/Right-out	Incl. in #30
104	SH 41 & Bogie/Market Loop	Restrict to Right-in/Right-out	Incl. in #30
105	SH 41 & Hope Avenue	Signal	$412,000
106	SH 53 & Ramsey Road	Signal, install turn bays	$2,210,000
107	I90 & SH 41	Construct new interchange	$48,000,000
108	SH 53 & UPRR	Bridge replacement and approach realignment	$16,700,000
109	I90 & CDA River	Cataldo Bridge Replacements	$16,500,000
110	SH 41 & Orchard Avenue	Restrict to Right-in/Right-out	Incl. in #36
111	US 95 & SH 53	Interchange	$17,200,000
112	I90 & Blue Creek Bay	Rehabilitate bridge piers	$5,000,000
113	US 95 & Garwood Road	Highway overcrossing, construct frontage road	$7,400,000
114	I90 & MP 7.64	Repair culvert	$670,000
115	SH 41 & Neufeld Lane	Restrict to Right-in/Right-out	Incl. in #107
		2025 Total Estimated Cost	**$342,816,000**

LONG-TERM ROAD IMPROVEMENT PROJECTS (THROUGH 2040)

ID	Location	Project Description	Est. Cost (2020)
1	Fernan Hill Road	Widen to 3 lanes	$2,210,000
2	Ironwood Dr	Widen to 4 lanes	$5,000,000
3	Hazel Avenue	Widen to 3 lanes	$1,000,000
4	Atlas Road	C2 Typical Section	$2,060,000
5	Atlas Road	Reconstruct to 3 lane	$997,000
6	Government Way	Reconstruct to 5 lanes	$6,600,000
7	Honeysuckle Avenue	Widen to 5 lanes	$964,000
8	Hayden Avenue	Widen to 5 lanes	$3,500,000
9	Hayden Avenue	Reconstruct to 5 lanes	$10,550,000
10	Hess Street	Build C1 Typical Section	$827,000
11	Hess Street	Build C1 Typical Section	$2,650,000
12	Hess Street	Build C1 Typical Section	$1,800,000
13	Lancaster Road	Widen to 5 lanes	$10,900,000
14	Miles Avenue	Reconstruct to 3 lanes	$1,600,000
15	Miles Avenue	3 lane Gateway improvement	$964,000
16	Orchard Avenue	3 lane Gateway improvement	$723,000
17	Prairie Avenue	A1 Typical Section	$2,100,000
18	Ramsey Road	Widen to 5 lanes	$5,100,000
19	Ramsey Road	New 3 lane section	$5,600,000
20	Ramsey Road	Reconstruct to 3 lane	$5,200,000
21	Strahorn Road	Build A1 Typical Section	$390,000
22	Strahorn Road	Build A3 Typical Section	$1,700,000
23	Wyoming Avenue	Reconstruct to 3 lane	$1,800,000
24	Huetter Road	Reconstruct to C1 Typical Section	$1,700,000
25	Poleline Avenue	Construct minor arterial, include grade separation	$7,776,000
26	Prairie Avenue	Reconstruct to 5-lane minor arterial	$9,583,000
27	Poleline Avenue	4-lane section (north half)	$625,000
28	Huetter Road	Extend to Singer Road	$2,800,000
29	Lancaster Road	Reconstruct to 3 lanes	$1,160,000
30	Main Street	Construct 3 lane rural major collector segment over BNSF	Incl. in #134
31	Lancaster Road	Reconstruct to 5 lanes	$4,052,000
32	Nagel Road	Construct new 2 lane section	$974,000
33	Boekel Road	Reconstruct to 3 lanes	$1,840,000
34	Greensferry Road	Reconstruct to 3 lanes	$1,980,000
35	River Road	Reconstruct 4.8 miles	$3,650,000
36	Sunnyside Road	Reconstruct 1.5 miles	$3,100,000
37	Idaho Road	Reconstruct to 3 lanes	$3,800,000
38	Idaho Road	Reconstruct to 3 lanes	$3,700,000
39	Greensferry Road	Reconstruct to 3 lanes	$3,320,000
40	Chase Road	Reconstruct to 3 lanes	$266,000
41	Prairie Avenue	Reconstruct to 3 lanes	$3,700,000
42	Hayden Avenue	Reconstruct to 5 lanes	$7,400,000
43	Hayden Avenue	Reconstruct to 5 lanes	$8,855,000
44	Hayden Avenue	Reconstruct to 5 lanes	$7,400,000
45	Hauser Lake Road	Reconstruct to 5 lanes	$2,200,000
46	Pleasant View Road	Reconstruct to 5 lanes	$5,600,000
47	Spokane Street	Add 2 lanes	$11,950,000
48	Wyoming Avenue	Construct 3 lane Collector	$9,960,000
49	Meyer Road	Reconstruct to 3 lanes	$4,995,000

ID	Location	Project Description	Est. Cost (2020)
50	Huetter Road	Reconstruct to 3 lanes	$7,028,000
51	Prairie Avenue	Reconstruct to 5 lanes	$3,700,000
52	Prairie Avenue	Reconstruct to 5 lanes	$12,500,000
53	Prairie Avenue	Reconstruct to 5 lanes	$4,200,000
54	SH 41	Widen roadway w/bike lanes	$ -
55	US 95 Huetter Bypass	New 6-lane freeway with 3 lane frontage road	$340,000,000
56	4th Street & Honeysuckle Avenue	Roundabout	$970,000
57	Atlas Road & Hayden Avenue	Signal and turn lanes all	$1,840,000
58	Atlas Road & Honeysuckle Avenue	Add turn lanes @ E/W legs	$405,000
59	Government Way & Lacey Avenue	Signalize w/Turn lanes	$1,200,000
60	Government Way & Lacey Avenue	Turn lanes on E/W approaches	$475,000
61	Government Way & Wyoming Avenue	Signal and turn lanes all	$1,660,000
62	Government Way & Lancaster Avenue	Install new signal & turn lanes	$1,700,000
63	Government Way & Dakota Avenue	Add turn bays at E/W legs	$483,000
64	Government Way & Miles Avenue	Signal and E/W turn lanes	$1,300,000
65	Ramsey Road & Hayden Avenue	Signal and turn lanes all	$1,873,000
66	Ramsey Road & Honeysuckle Avenue	Signal and turn lanes all	$1,623,000
67	Ramsey Road & Lancaster Road	Signal and turn lanes all	$2,123,000
68	Ramsey Road & Miles Avenue	Signal and turn lanes all	$17,000,000
69	Ramsey Road & Wyoming Avenue	Signal and turn lanes all	$1,750,000
70	Ramsey Road & Dakota Avenue	Signalize N/S Turn lanes on Dakota	$1,228,000
71	Ramsey Road & Orchard Avenue	Turn lanes on Orchard all	$903,000
72	Strahorn Road & Honeysuckle Avenue	Roundabout	$1,067,000
73	Greensferry Road & 16th Avenue	Signal or roundabout	$608,000
74	Cecil Road & Prairie Avenue	Add left turn lanes, signal	$591,000
75	W ¼ Mile & Prairie Avenue	Dual lane roundabout	$663,000
76	E ¼ Mile & Prairie Avenue	Dual lane roundabout	$663,000
77	E ½ Mile & Prairie Avenue	Add left turn lanes, signal	$591,000
78	Bluegrass Ln & Syringa Street	Install roundabout	$636,000
79	Pleasant View Road & Seltice Way	Add NB and SB right turn lanes, adjust signal timing	$31,000
80	Pleasant View Road & Riverbend Avenue	Add NB turn lane, adjust approach	$47,000
81	Corbin Road & Prairie Avenue	Add NB left turn lane	$13,000
82	McGuire Road & Prairie Avenue	Expand to dual lane roundabout	$313,000
83	McGuire Road & Seltice Way	Add NB thru/turn lane, SB receiving lane	$81,000
84	McGuire Road & Riverbend Avenue	Add EB turn lane	$13,000

ID	Location	Project Description	Est. Cost (2020)
85	Chase Road & Prairie Avenue	Expand to dual lane roundabout	$313,000
86	Spokane Street & Prairie Avenue	Signal or roundabout	$690,000
87	Spokane Street & 3rd Avenue	Signal	$563,000
88	Idaho Road & Polston Avenue	Restrict WB left turns	$9,000
89	Idaho Road & Seltice Way	ADD second NB thru lane	$31,000
90	Syringa Street & Mullan Avenue	Roundabout	$690,000
91	Greensferry Road & Prairie Avenue	Signal	$600,000
92	Greensferry Road & Bluegrass Ln	Roundabout	$690,000
93	Greensferry Road & 12th Avenue	Roundabout	$690,000
94	Greensferry Road & Seltice Way	ADD SB right turn, convert NB right turn to thru/right	$20,000
95	Greensferry Road & 3rd Avenue	Signal	$663,000
96	Cecil Road & Poleline Avenue	Signal or roundabout	$663,000
97	Cecil Road & 12th Avenue	ADD EB/WB left turn lanes	$22,000
98	W ¼ Mile & Poleline Avenue	Roundabout	$690,000
99	E ¼ Mile & Poleline Avenue	Roundabout	$690,000
100	Ross Point Road & 3rd Avenue	Roundabout	$636,000
101	Greensferry Road & Horsehaven Avenue	Roundabout with NB right turn lane	$672,000
102	Clearwater Lp & Riverbend Avenue	ADD NB turn lane	$9,000
103	Poleline Avenue & Huetter Road	Signal	$618,000
104	Idaho Road & UPRR	Install planking, gates, lights	$579,000
105	Henry Street & Mullan Avenue	ADD multi-lane roundabout	$625,000
106	Greensferry Road & Lancaster Road	Add left & right turn lanes	$760,000
107	Lancaster Road & Greensferry Road	Added TWLTL/center median	$1,063,000
108	Chase Road & Hayden Avenue	Signal	$580,000
109	Greensferry Road & Hayden Avenue	Signal	$580,000
110	Huetter Frontage Road & Hayden Avenue	Signal	$580,000
111	Idaho Road & Hayden Avenue	Signal	$580,000
112	McGuire Road & Hayden Avenue	Signal	$580,000
113	SH 3 & Old Lane Road	Intersection reconstruction	$481,000
114	SH 3 & Rosewood Road	Geometric	$481,000
115	SH 3 & Black Lake Road	Intersection reconstruction	$481,000
116	SH 3 & Killarney Lake Road	Intersection reconstruction	$481,000
117	SH 97 & Arrow Road	Intersection reconstruction	$481,000
118	SH 97 & Driftwood Heights	Intersection reconstruction	$481,000
119	SH 97 & Half Round Bay Road	Intersection reconstruction	$481,000
120	SH 97 & Harlow Pt Road	Intersection reconstruction	$481,000
121	Williams Road	Bridge Replacement	$21,200

ID	Location	Project Description	Est. Cost (2020)
122	SH41	Add left turn lanes. Correct skew at Coeur d'Alene Street	$315,000
123	SH41	Add left turn lanes.	$326,000
124	I90 & Spokane Street	Improve Ramps	$5,000,000
125	Pleasant View Road & I90	Add EB/WB right turn lanes	$125,500
126	I90	Huetter Bypass Interchange	$700,000
127	Poleline Avenue	Huetter Bypass Interchange	$700,000
128	Prairie Avenue	Huetter Bypass Interchange	$700,000
129	Hayden Avenue	Huetter Bypass Interchange	$700,000
130	Wyoming Avenue	Huetter Bypass Interchange	$700,000
131	Lancaster Avenue	Huetter Bypass Interchange	$700,000
132	SH 53	Huetter Bypass Interchange	$700,000
133	Ohio Match Road & US 95	Interchange	$15,800,000
134	SH 53 & Mill Street	Interchange	$15,100,000
		2040 Total Estimated Cost	**$656,220,700**



CITY OF POST FALLS

2025 TRANSPORTATION MASTER PLAN

Itemized Vehicular Project Cost Opinions

ENGINEER'S OPINION OF PROBABLE COST

PROJECT:	**BECK RD AND POINTE PKWY INTERSECTION**
Detailed Description:	Reconfigure the existing intersection adding a northbound right turn lane and upgrade traffic signal. ADA-compliant curb ramps and pedestrian crossings are required. Adjacent signal timing coordination is recommended.
Project Code:	P-1
Project Size:	Medium
Project Timeline:	Long Term (2036-2045)
Project Funding:	Local
Roadway Classification:	Minor Arterial
Estimate Date:	November 2025

ITEM NO.	ITEM DESCRIPTION	SCHEDULE OF VALUES			
		UNIT	EST. QUAN	UNIT PRICE	TOTAL
201.4.1.A.1	Clearing and Grubbing	AC	0.1	$6,640	$664
201.4.1.C.1	Removal of Obstructions	LS	1	$5,000	$5,000
202.4.1.A.1	Excavation	CY	1318	$26	$34,265
202.4.6.A.1	Borrow	CY	0	$26	$0
706.4.1.A.3	Standard Straight Curb	LF	170	$60	$10,200
706.4.1.A.5	Standard 6-inch Vertical Curb & Gutter	LF	130	$40	$5,200
706.4.1.E.1	Concrete Sidewalk, Thickness 4"	SF	0	$15	$0
706.4.1.H.1	Pedestrian Ramp w/ Detectable Warning Domes	EA	2	$2,700	$5,400
706.4.1.F.1	Concrete Driveway Approach	EA	1	$4,000	$4,000
808.4.1.A.1	Seal Coat	SY	0	$4.50	$0
1101.4.1.A.1	Traffic Signal	LS	1	$300,000	$300,000
1102.4.1.A.1	Street Light (Foundation, Conduit, and Junction Box Only)	EA	0	$7,500	$0
1104.4.1.A.1	Pavement Line Paint (2 coats)	LF	4555	$1.19	$5,420
2050.4.1.C.1	Subgrade Separation Geotextile	SY	678	$1.50	$1,017
S-1	Asphalt and Base (2"AC/4"AB) - Local Residential	SF	0	$1.81	$0
S-2	Asphalt and Base (3"AC/6"AB) - Local Commercial/Industrial	SF	0	$2.72	$0
S-3	Asphalt and Base (3"AC/4"AB) - Minor Collector	SF	0	$2.40	$0
S-4	Asphalt and Base (3"AC/6"AB) - Local Commercial/Industrial	SF	0	$2.72	$0
S-5	Asphalt and Base (3"AC/6"AB) -Major Collector	SF	0	$2.72	$0
S-6	Asphalt and Base (4"AC/6"AB) - Minor Arterial	SF	61000	$3.29	$200,849
S-7	Asphalt and Base (4"AC/6"AB) - Principle Arterial	SF	0	$3.29	$0
S-8	Asphalt and Base (2"AC/4"AB) - Multi-Use Trail	SF	0	$1.81	$0
S-9	Roundabout - Single Lane	LS	0	$970,000	$0
S-10	Roundabout - Double Lane	LS	0	$2,200,000	$0
S-11	Conduit and Fiber Interconnect	LF	0	$120.00	$0
S-12	Railroad Crossing Improvements	LS	0	$0	$0
S-13	Structures	LS	0	$0	$0
S-14	Utility Relocations	LS	0	$0	$0
S-15	Storm Drainage (5%)	%	1	5%	$28,601
S-16	Miscellaneous Items (10%)	%	1	10%	$57,202
S-17	Survey (3%)	%	1	3%	$17,160
S-18	Temporary/Permanenet Erosion Control (4%)	%	1	4%	$22,881
S-19	Landscapping and Irrigation (4%)	%	1	4%	$22,881
S-20	Temporary Traffic Control (10%)	%	1	10%	$57,202
S-21	Mobilization (10%)	%	1	10%	$57,202
S-22	Right of Way - Full Acquisition	LS	0	$0	$0
S-23	Right of Way - Residential	SF	0	$18	$0
S-24	Right of Way - Commercial	SF	0	$14	$0
S-25	Right of Way - Industrial	SF	0	$8	$0
S-26	Planning, Engineering, and Administrative Costs	%	1	20%	$114,403
S-27	Construction Engineering and Inspection	%	1	15%	$85,802
			ANTICIPATED PROJECT COST		**$1,036,000**

ENGINEER'S OPINION OF PROBABLE COST

PROJECT:	**CECIL RD AND 12TH AVE INTERSECTION**
Detailed Description:	Install ¾ turn movement channelization with center island, restricting east-west through and left turning 12th Ave traffic. Include signage, striping, and pedestrian safety features.
Project Code:	P-2
Project Size:	Small
Project Timeline:	Short Term (2025-2030)
Project Funding:	Local
Roadway Classification:	Minor Collector
Estimate Date:	November 2025

ITEM NO.	ITEM DESCRIPTION	SCHEDULE OF VALUES			
		UNIT	EST. QUAN	UNIT PRICE	TOTAL
201.4.1.A.1	Clearing and Grubbing	AC	0.1	$7,480	$562
201.4.1.C.1	Removal of Obstructions	LS	1	$3,000	$3,000
202.4.1.A.1	Excavation	CY	108	$45	$4,861
202.4.6.A.1	Borrow	CY	0	$50	$0
706.4.1.A.3	Standard Straight Curb	LF	1500	$70	$105,000
706.4.1.A.5	Standard 6-inch Vertical Curb & Gutter	LF	200	$76	$15,200
706.4.1.E.1	Concrete Sidewalk, Thickness 4"	SF	300	$24	$7,200
706.4.1.H.1	Pedestrian Ramp w/ Detectable Warning Domes	EA	4	$2,700	$10,800
706.4.1.F.1	Concrete Driveway Approach	EA	0	$4,600	$0
808.4.1.A.1	Seal Coat	SY	0	$5.00	$0
1101.4.1.A.1	Traffic Signal	LS	0	$150,000	$0
1102.4.1.A.1	Street Light (Foundation, Conduit, and Junction Box Only)	EA	2	$7,500	$15,000
1104.4.1.A.1	Pavement Line Paint (2 coats)	LF	500	$1.75	$875
2050.4.1.C.1	Subgrade Separation Geotextile	SY	56	$2.00	$111
S-1	Asphalt and Base (2"AC/4"AB) - Local Residential	SF	0	$2.38	$0
S-2	Asphalt and Base (3"AC/6"AB) - Local Commercial/Industrial	SF	0	$3.58	$0
S-3	Asphalt and Base (3"AC/4"AB) - Minor Collector	SF	5000	$3.18	$15,884
S-4	Asphalt and Base (3"AC/6"AB) - Local Commercial/Industrial	SF	0	$3.58	$0
S-5	Asphalt and Base (3"AC/6"AB) -Major Collector	SF	0	$3.58	$0
S-6	Asphalt and Base (4"AC/6"AB) - Minor Arterial	SF	0	$4.35	$0
S-7	Asphalt and Base (4"AC/6"AB) - Principle Arterial	SF	0	$4.35	$0
S-8	Asphalt and Base (2"AC/4"AB) - Multi-Use Trail	SF	0	$2.38	$0
S-9	Roundabout - Single Lane	LS	0	$970,000	$0
S-10	Roundabout - Double Lane	LS	0	$2,200,000	$0
S-11	Conduit and Fiber Interconnect	LF	0	$160.00	$0
S-12	Railroad Crossing Improvements	LS	0	$0	$0
S-13	Structures	LS	0	$0	$0
S-14	Utility Relocations	LS	0	$0	$0
S-15	Storm Drainage (5%)	%	1	5%	$8,925
S-16	Miscellaneous Items (10%)	%	1	10%	$17,849
S-17	Survey (3%)	%	1	3%	$5,355
S-18	Temporary/Permanenet Erosion Control (4%)	%	1	4%	$7,140
S-19	Landscapping and Irrigation (4%)	%	1	4%	$7,140
S-20	Temporary Traffic Control (10%)	%	1	10%	$17,849
S-21	Mobilization (10%)	%	1	10%	$17,849
S-22	Right of Way - Full Acquisition	LS	0	$0	$0
S-23	Right of Way - Residential	SF	0	$18	$0
S-24	Right of Way - Commercial	SF	0	$14	$0
S-25	Right of Way - Industrial	SF	0	$8	$0
S-26	Planning, Engineering, and Administrative Costs	%	1	25%	$44,623
S-27	Construction Engineering and Inspection	%	1	15%	$26,774
				ANTICIPATED PROJECT COST	**$332,000**

ENGINEER'S OPINION OF PROBABLE COST

PROJECT:	**CECIL RD AND 16TH AVE INTERSECTION**
Detailed Description:	Install either a signal or a roundabout at Cecil Road and 16th Avenue. ADA upgrades and pedestrian facilities are required. Single lane roundabout assumed for estimating purposes.
Project Code:	P-3
Project Size:	Medium
Project Timeline:	Medium Term (2031-2035)
Project Funding:	Local
Roadway Classification:	Minor Collector
Estimate Date:	November 2025

ITEM NO.	ITEM DESCRIPTION	SCHEDULE OF VALUES			
		UNIT	EST. QUAN	UNIT PRICE	TOTAL
201.4.1.A.1	Clearing and Grubbing	AC	0	$6,640	$0
201.4.1.C.1	Removal of Obstructions	LS	1	$3,000	$3,000
202.4.1.A.1	Excavation	CY	0	$26	$0
202.4.6.A.1	Borrow	CY	0	$26	$0
706.4.1.A.3	Standard Straight Curb	LF	0	$60	$0
706.4.1.A.5	Standard 6-inch Vertical Curb & Gutter	LF	0	$40	$0
706.4.1.E.1	Concrete Sidewalk, Thickness 4"	SF	0	$15	$0
706.4.1.H.1	Pedestrian Ramp w/ Detectable Warning Domes	EA	0	$2,700	$0
706.4.1.F.1	Concrete Driveway Approach	EA	0	$4,000	$0
808.4.1.A.1	Seal Coat	SY	0	$4.50	$0
1101.4.1.A.1	Traffic Signal	LS	0	$300,000	$0
1102.4.1.A.1	Street Light (Foundation, Conduit, and Junction Box Only)	EA	0	$7,500	$0
1104.4.1.A.1	Pavement Line Paint (2 coats)	LF	0	$1.19	$0
2050.4.1.C.1	Subgrade Separation Geotextile	SY	0	$1.50	$0
S-1	Asphalt and Base (2"AC/4"AB) - Local Residential	SF	0	$1.81	$0
S-2	Asphalt and Base (3"AC/6"AB) - Local Commercial/Industrial	SF	0	$2.72	$0
S-3	Asphalt and Base (3"AC/4"AB) - Minor Collector	SF	0	$2.40	$0
S-4	Asphalt and Base (3"AC/6"AB) - Local Commercial/Industrial	SF	0	$2.72	$0
S-5	Asphalt and Base (3"AC/6"AB) -Major Collector	SF	0	$2.72	$0
S-6	Asphalt and Base (4"AC/6"AB) - Minor Arterial	SF	0	$3.29	$0
S-7	Asphalt and Base (4"AC/6"AB) - Principle Arterial	SF	0	$3.29	$0
S-8	Asphalt and Base (2"AC/4"AB) - Multi-Use Trail	SF	0	$1.81	$0
S-9	Roundabout - Single Lane	LS	1	$970,000	$970,000
S-10	Roundabout - Double Lane	LS	0	$2,200,000	$0
S-11	Conduit and Fiber Interconnect	LF	0	$120.00	$0
S-12	Railroad Crossing Improvements	LS	0	$0	$0
S-13	Structures	LS	0	$0	$0
S-14	Utility Relocations	LS	1	$50,000	$50,000
S-15	Storm Drainage (5%)	%	1	5%	$48,650
S-16	Miscellaneous Items (10%)	%	1	10%	$97,300
S-17	Survey (3%)	%	1	3%	$29,190
S-18	Temporary/Permanenet Erosion Control (4%)	%	1	4%	$38,920
S-19	Landscapping and Irrigation (4%)	%	1	4%	$38,920
S-20	Temporary Traffic Control (10%)	%	1	10%	$97,300
S-21	Mobilization (10%)	%	1	10%	$97,300
S-22	Right of Way - Full Acquisition	LS	0	$0	$0
S-23	Right of Way - Residential	SF	3750	$18	$67,500
S-24	Right of Way - Commercial	SF	0	$14	$0
S-25	Right of Way - Industrial	SF	0	$8	$0
S-26	Planning, Engineering, and Administrative Costs	%	1	20%	$194,600
S-27	Construction Engineering and Inspection	%	1	15%	$145,950
				ANTICIPATED PROJECT COST	**$1,879,000**

ENGINEER'S OPINION OF PROBABLE COST

PROJECT:	**CECIL RD AND HOPE AVE INTERSECTION**
Detailed Description:	Install a new traffic signal at Cecil Road and Hope Avenue. Although roundabouts are generally preferred by the city, the intersection is constrained on all four corners, making a roundabout infeasible. The signal installation should include ADA-compliant curb ramps, pedestrian crossings, and signal coordination with adjacent intersections.
Project Code:	P-4
Project Size:	Medium
Project Timeline:	Medium Term (2031-2035)
Project Funding:	Local
Roadway Classification:	Minor Collector
Estimate Date:	November 2025

ITEM NO.	ITEM DESCRIPTION	SCHEDULE OF VALUES			
		UNIT	EST. QUAN	UNIT PRICE	TOTAL
201.4.1.A.1	Clearing and Grubbing	AC	0	$6,640	$0
201.4.1.C.1	Removal of Obstructions	LS	1	$3,000	$3,000
202.4.1.A.1	Excavation	CY	946	$26	$24,605
202.4.6.A.1	Borrow	CY	0	$26	$0
706.4.1.A.3	Standard Straight Curb	LF	0	$60	$0
706.4.1.A.5	Standard 6-inch Vertical Curb & Gutter	LF	160	$40	$6,400
706.4.1.E.1	Concrete Sidewalk, Thickness 4"	SF	800	$15	$12,000
706.4.1.H.1	Pedestrian Ramp w/ Detectable Warning Domes	EA	1	$2,700	$2,700
706.4.1.F.1	Concrete Driveway Approach	EA	0	$4,000	$0
808.4.1.A.1	Seal Coat	SY	4867	$4.50	$21,902
1101.4.1.A.1	Traffic Signal	LS	1	$300,000	$300,000
1102.4.1.A.1	Street Light (Foundation, Conduit, and Junction Box Only)	EA	0	$7,500	$0
1104.4.1.A.1	Pavement Line Paint (2 coats)	LF	2980	$1.19	$3,546
2050.4.1.C.1	Subgrade Separation Geotextile	SY	487	$1.50	$730
S-1	Asphalt and Base (2"AC/4"AB) - Local Residential	SF	0	$1.81	$0
S-2	Asphalt and Base (3"AC/6"AB) - Local Commercial/Industrial	SF	0	$2.72	$0
S-3	Asphalt and Base (3"AC/4"AB) - Minor Collector	SF	43800	$2.40	$105,289
S-4	Asphalt and Base (3"AC/6"AB) - Local Commercial/Industrial	SF	0	$2.72	$0
S-5	Asphalt and Base (3"AC/6"AB) -Major Collector	SF	0	$2.72	$0
S-6	Asphalt and Base (4"AC/6"AB) - Minor Arterial	SF	0	$3.29	$0
S-7	Asphalt and Base (4"AC/6"AB) - Principle Arterial	SF	0	$3.29	$0
S-8	Asphalt and Base (2"AC/4"AB) - Multi-Use Trail	SF	0	$1.81	$0
S-9	Roundabout - Single Lane	LS	0	$970,000	$0
S-10	Roundabout - Double Lane	LS	0	$2,200,000	$0
S-11	Conduit and Fiber Interconnect	LF	0	$120.00	$0
S-12	Railroad Crossing Improvements	LS	0	$0	$0
S-13	Structures	LS	0	$0	$0
S-14	Utility Relocations	LS	1	$0	$0
S-15	Storm Drainage (5%)	%	1	5%	$24,009
S-16	Miscellaneous Items (10%)	%	1	10%	$48,017
S-17	Survey (3%)	%	1	3%	$14,405
S-18	Temporary/Permanenet Erosion Control (4%)	%	1	4%	$19,207
S-19	Landscapping and Irrigation (4%)	%	1	4%	$19,207
S-20	Temporary Traffic Control (10%)	%	1	10%	$48,017
S-21	Mobilization (10%)	%	1	10%	$48,017
S-22	Right of Way - Full Acquisition	LS	0	$0	$0
S-23	Right of Way - Residential	SF	492	$18	$8,856
S-24	Right of Way - Commercial	SF	0	$14	$0
S-25	Right of Way - Industrial	SF	0	$8	$0
S-26	Planning, Engineering, and Administrative Costs	%	1	20%	$96,034
S-27	Construction Engineering and Inspection	%	1	15%	$72,026
				ANTICIPATED PROJECT COST	**$878,000**

ENGINEER'S OPINION OF PROBABLE COST

PROJECT:	**CECIL RD AND MULLAN AVE INTERSECTION**
Detailed Description:	Reconfigure the intersection and upgrade the existing signal at Cecil Road and Mullan Avenue. Improvements include adding turn lanes, modifying signal phasing, and reconstructing ADA ramps. The intersection must accommodate future corridor widening to three lanes. Adjacent school and residential properties limit expansion options, requiring careful design to avoid significant impacts.
Project Code:	P-5
Project Size:	Medium
Project Timeline:	Short Term (2025-2030)
Project Funding:	Local
Roadway Classification:	Minor Arterial
Estimate Date:	November 2025

ITEM NO.	ITEM DESCRIPTION	SCHEDULE OF VALUES			
		UNIT	EST. QUAN	UNIT PRICE	TOTAL
201.4.1.A.1	Clearing and Grubbing	AC	0	$6,640	$0
201.4.1.C.1	Removal of Obstructions	LS	1	$7,000	$7,000
202.4.1.A.1	Excavation	CY	1200	$26	$31,193
202.4.6.A.1	Borrow	CY	0	$26	$0
706.4.1.A.3	Standard Straight Curb	LF	500	$60	$30,000
706.4.1.A.5	Standard 6-inch Vertical Curb & Gutter	LF	200	$40	$8,000
706.4.1.E.1	Concrete Sidewalk, Thickness 4"	SF	9600	$15	$144,000
706.4.1.H.1	Pedestrian Ramp w/ Detectable Warning Domes	EA	8	$2,700	$21,600
706.4.1.F.1	Concrete Driveway Approach	EA	4	$4,000	$16,000
808.4.1.A.1	Seal Coat	SY	0	$4.50	$0
1101.4.1.A.1	Traffic Signal	LS	1	$300,000	$300,000
1102.4.1.A.1	Street Light (Foundation, Conduit, and Junction Box Only)	EA	0	$7,500	$0
1104.4.1.A.1	Pavement Line Paint (2 coats)	LF	9500	$1.19	$11,305
2050.4.1.C.1	Subgrade Separation Geotextile	SY	618	$1.50	$927
S-1	Asphalt and Base (2"AC/4"AB) - Local Residential	SF	0	$1.81	$0
S-2	Asphalt and Base (3"AC/6"AB) - Local Commercial/Industrial	SF	0	$2.72	$0
S-3	Asphalt and Base (3"AC/4"AB) - Minor Collector	SF	0	$2.40	$0
S-4	Asphalt and Base (3"AC/6"AB) - Local Commercial/Industrial	SF	0	$2.72	$0
S-5	Asphalt and Base (3"AC/6"AB) -Major Collector	SF	0	$2.72	$0
S-6	Asphalt and Base (4"AC/6"AB) - Minor Arterial	SF	55600	$3.29	$183,069
S-7	Asphalt and Base (4"AC/6"AB) - Principle Arterial	SF	0	$3.29	$0
S-8	Asphalt and Base (2"AC/4"AB) - Multi-Use Trail	SF	0	$1.81	$0
S-9	Roundabout - Single Lane	LS	0	$970,000	$0
S-10	Roundabout - Double Lane	LS	0	$2,200,000	$0
S-11	Conduit and Fiber Interconnect	LF	0	$120.00	$0
S-12	Railroad Crossing Improvements	LS	0	$0	$0
S-13	Structures	LS	0	$0	$0
S-14	Utility Relocations	LS	0	$0	$0
S-15	Storm Drainage (5%)	%	1	5%	$37,655
S-16	Miscellaneous Items (10%)	%	1	10%	$75,309
S-17	Survey (3%)	%	1	3%	$22,593
S-18	Temporary/Permanenet Erosion Control (4%)	%	1	4%	$30,124
S-19	Landscapping and Irrigation (4%)	%	1	4%	$30,124
S-20	Temporary Traffic Control (10%)	%	1	10%	$75,309
S-21	Mobilization (10%)	%	1	10%	$75,309
S-22	Right of Way - Full Acquisition	LS	0	$0	$0
S-23	Right of Way - Residential	SF	0	$18	$0
S-24	Right of Way - Commercial	SF	6500	$14	$91,000
S-25	Right of Way - Industrial	SF	0	$8	$0
S-26	Planning, Engineering, and Administrative Costs	%	1	20%	$150,619
S-27	Construction Engineering and Inspection	%	1	15%	$112,964
				ANTICIPATED PROJECT COST	**$1,455,000**

ENGINEER'S OPINION OF PROBABLE COST

PROJECT:	**CECIL RD AND PRAIRIE AVE INTERSECTION**
Detailed Description:	Install a new traffic signal at the intersection of Cecil Road and Prairie Avenue. The corridor is already a three-lane facility, so no widening is required at this location. The signal installation should include ADA-compliant curb ramps, pedestrian crossings, and signal interconnect capability with adjacent signals. A future fourth north leg is anticipated; therefore, 50 feet of northbound approach should be constructed to accommodate future development access. URA participation at 80%.
Project Code:	P-6
Project Size:	Large
Project Timeline:	Medium Term (2031-2035)
Project Funding:	Local
Roadway Classification:	Principle Arterial
Estimate Date:	November 2025

ITEM NO.	ITEM DESCRIPTION	SCHEDULE OF VALUES			
		UNIT	EST. QUAN	UNIT PRICE	TOTAL
201.4.1.A.1	Clearing and Grubbing	AC	0.06	$3,500	$210
201.4.1.C.1	Removal of Obstructions	LS	0	$3,000	$0
202.4.1.A.1	Excavation	CY	280	$19	$5,320
202.4.6.A.1	Borrow	CY	0	$21	$0
706.4.1.A.3	Standard Straight Curb	LF	0	$45	$0
706.4.1.A.5	Standard 6-inch Vertical Curb & Gutter	LF	170	$33	$5,610
706.4.1.E.1	Concrete Sidewalk, Thickness 4"	SF	700	$12	$8,400
706.4.1.H.1	Pedestrian Ramp w/ Detectable Warning Domes	EA	8	$2,700	$21,600
706.4.1.F.1	Concrete Driveway Approach	EA	0	$3,500	$0
808.4.1.A.1	Seal Coat	SY	0	$4.00	$0
1101.4.1.A.1	Traffic Signal	LS	1	$600,000	$600,000
1102.4.1.A.1	Street Light (Foundation, Conduit, and Junction Box Only)	EA	0	$7,500	$0
1104.4.1.A.1	Pavement Line Paint (2 coats)	LF	0	$0.40	$0
2050.4.1.C.1	Subgrade Separation Geotextile	SY	28	$1.50	$42
S-1	Asphalt and Base (2"AC/4"AB) - Local Residential	SF	0	$1.60	$0
S-2	Asphalt and Base (3"AC/6"AB) - Local Commercial/Industrial	SF	0	$2.41	$0
S-3	Asphalt and Base (3"AC/4"AB) - Minor Collector	SF	0	$2.15	$0
S-4	Asphalt and Base (3"AC/6"AB) - Local Commercial/Industrial	SF	0	$2.41	$0
S-5	Asphalt and Base (3"AC/6"AB) -Major Collector	SF	2500	$2.41	$6,028
S-6	Asphalt and Base (4"AC/6"AB) - Minor Arterial	SF	0	$2.93	$0
S-7	Asphalt and Base (4"AC/6"AB) - Principle Arterial	SF	0	$2.93	$0
S-8	Asphalt and Base (2"AC/4"AB) - Multi-Use Trail	SF	0	$1.60	$0
S-9	Roundabout - Single Lane	LS	0	$970,000	$0
S-10	Roundabout - Double Lane	LS	0	$2,200,000	$0
S-11	Conduit and Fiber Interconnect	LF	0	$80.00	$0
S-12	Railroad Crossing Improvements	LS	0	$0	$0
S-13	Structures	LS	0	$0	$0
S-14	Utility Relocations	LS	0	$0	$0
S-15	Storm Drainage (5%)	%	1	5%	$32,360
S-16	Miscellaneous Items (10%)	%	1	10%	$64,721
S-17	Survey (3%)	%	1	3%	$19,416
S-18	Temporary/Permanenet Erosion Control (4%)	%	1	4%	$25,888
S-19	Landscapping and Irrigation (4%)	%	1	4%	$25,888
S-20	Temporary Traffic Control (10%)	%	1	10%	$64,721
S-21	Mobilization (10%)	%	1	10%	$64,721
S-22	Right of Way - Full Acquisition	LS	0	$0	$0
S-23	Right of Way - Residential	SF	0	$18	$0
S-24	Right of Way - Commercial	SF	0	$14	$0
S-25	Right of Way - Industrial	SF	0	$8	$0
S-26	Planning, Engineering, and Administrative Costs	%	1	15%	$97,081
S-27	Construction Engineering and Inspection	%	1	15%	$97,081
			ANTICIPATED PROJECT COST		**$1,140,000**

ENGINEER'S OPINION OF PROBABLE COST

PROJECT:	**CECIL RD CORRIDOR - BOGIE DR TO 12TH AVE**
Detailed Description:	Widen Cecil Road from Bogie Drive to 12th Avenue to a three-lane section. Existing pavement width is approximately 38 feet; widening to 46 feet is required. The corridor includes constrained areas with existing curb and gutter and adjacent residential development. The corridor transitions to three lanes near 12th Avenue, so tapering and transition design must be incorporated.
Project Code:	P-8
Project Size:	Medium
Project Timeline:	Medium Term (2031-2035)
Project Funding:	Local
Roadway Classification:	Minor Collector
Estimate Date:	November 2025

ITEM NO.	ITEM DESCRIPTION	SCHEDULE OF VALUES			
		UNIT	EST. QUAN	UNIT PRICE	TOTAL
201.4.1.A.1	Clearing and Grubbing	AC	2.6	$6,640	$17,344
201.4.1.C.1	Removal of Obstructions	LS	1	$390,000	$390,000
202.4.1.A.1	Excavation	CY	951	$26	$24,733
202.4.6.A.1	Borrow	CY	0	$26	$0
706.4.1.A.3	Standard Straight Curb	LF	0	$60	$0
706.4.1.A.5	Standard 6-inch Vertical Curb & Gutter	LF	5865	$40	$234,600
706.4.1.E.1	Concrete Sidewalk, Thickness 4"	SF	14785	$15	$221,775
706.4.1.H.1	Pedestrian Ramp w/ Detectable Warning Domes	EA	13	$2,700	$35,100
706.4.1.F.1	Concrete Driveway Approach	EA	18	$4,000	$72,000
808.4.1.A.1	Seal Coat	SY	0	$4.50	$0
1101.4.1.A.1	Traffic Signal	LS	0	$300,000	$0
1102.4.1.A.1	Street Light (Foundation, Conduit, and Junction Box Only)	EA	30	$7,500	$225,000
1104.4.1.A.1	Pavement Line Paint (2 coats)	LF	20000	$1.19	$23,800
2050.4.1.C.1	Subgrade Separation Geotextile	SY	678	$1.50	$1,017
S-1	Asphalt and Base (2"AC/4"AB) - Local Residential	SF	0	$1.81	$0
S-2	Asphalt and Base (3"AC/6"AB) - Local Commercial/Industrial	SF	0	$2.72	$0
S-3	Asphalt and Base (3"AC/4"AB) - Minor Collector	SF	42550	$2.40	$102,284
S-4	Asphalt and Base (3"AC/6"AB) - Local Commercial/Industrial	SF	0	$2.72	$0
S-5	Asphalt and Base (3"AC/6"AB) -Major Collector	SF	0	$2.72	$0
S-6	Asphalt and Base (4"AC/6"AB) - Minor Arterial	SF	0	$3.29	$0
S-7	Asphalt and Base (4"AC/6"AB) - Principle Arterial	SF	0	$3.29	$0
S-8	Asphalt and Base (2"AC/4"AB) - Multi-Use Trail	SF	18450	$1.81	$33,378
S-9	Roundabout - Single Lane	LS	0	$970,000	$0
S-10	Roundabout - Double Lane	LS	0	$2,200,000	$0
S-11	Conduit and Fiber Interconnect	LF		$120.00	$0
S-12	Railroad Crossing Improvements	LS	0	$0	$0
S-13	Structures	LS	0	$0	$0
S-14	Utility Relocations	LS	1	$150,000	$150,000
S-15	Storm Drainage (5%)	%	1	5%	$69,052
S-16	Miscellaneous Items (10%)	%	1	10%	$138,103
S-17	Survey (3%)	%	1	3%	$41,431
S-18	Temporary/Permanenet Erosion Control (4%)	%	1	4%	$55,241
S-19	Landscapping and Irrigation (4%)	%	1	4%	$55,241
S-20	Temporary Traffic Control (10%)	%	1	10%	$138,103
S-21	Mobilization (10%)	%	1	10%	$138,103
S-22	Right of Way - Full Acquisition	LS	1	$1,426,985	$1,426,985
S-23	Right of Way - Residential	SF	0	$18	$0
S-24	Right of Way - Commercial	SF	0	$14	$0
S-25	Right of Way - Industrial	SF	0	$8	$0
S-26	Planning, Engineering, and Administrative Costs	%	1	20%	$276,206
S-27	Construction Engineering and Inspection	%	1	15%	$207,155
				ANTICIPATED PROJECT COST	**$4,077,000**

ENGINEER'S OPINION OF PROBABLE COST

PROJECT:	**CECIL RD CORRIDOR - KILLDEER AVE TO HOPE AVE**
Detailed Description:	Widen to extend retaining wall, multi-use pathway, curb, gutter and swale on west side from end of existing infrastructure north to Killdeer Avenue. Right-of-way acquisition may be necessary for feasibility.
Project Code:	P-9
Project Size:	Medium
Project Timeline:	Medium Term (2031-2035)
Project Funding:	Local
Roadway Classification:	Minor Collector
Estimate Date:	November 2025

ITEM NO.	ITEM DESCRIPTION	SCHEDULE OF VALUES			
		UNIT	EST. QUAN	UNIT PRICE	TOTAL
201.4.1.A.1	Clearing and Grubbing	AC	0.51	$6,640	$3,394
201.4.1.C.1	Removal of Obstructions	LS	1	$7,000	$7,000
202.4.1.A.1	Excavation	CY	3437	$26	$89,358
202.4.6.A.1	Borrow	CY	0	$26	$0
706.4.1.A.3	Standard Straight Curb	LF	0	$60	$0
706.4.1.A.5	Standard 6-inch Vertical Curb & Gutter	LF	0	$40	$0
706.4.1.E.1	Concrete Sidewalk, Thickness 4"	SF	0	$15	$0
706.4.1.H.1	Pedestrian Ramp w/ Detectable Warning Domes	EA	0	$2,700	$0
706.4.1.F.1	Concrete Driveway Approach	EA	0	$4,000	$0
808.4.1.A.1	Seal Coat	SY	0	$4.50	$0
1101.4.1.A.1	Traffic Signal	LS	0	$300,000	$0
1102.4.1.A.1	Street Light (Foundation, Conduit, and Junction Box Only)	EA	1	$7,500	$7,500
1104.4.1.A.1	Pavement Line Paint (2 coats)	LF	3620	$1.19	$4,308
2050.4.1.C.1	Subgrade Separation Geotextile	SY	144	$1.50	$217
S-1	Asphalt and Base (2"AC/4"AB) - Local Residential	SF	0	$1.81	$0
S-2	Asphalt and Base (3"AC/6"AB) - Local Commercial/Industrial	SF	0	$2.72	$0
S-3	Asphalt and Base (3"AC/4"AB) - Minor Collector	SF	6500	$2.40	$15,625
S-4	Asphalt and Base (3"AC/6"AB) - Local Commercial/Industrial	SF	0	$2.72	$0
S-5	Asphalt and Base (3"AC/6"AB) -Major Collector	SF	0	$2.72	$0
S-6	Asphalt and Base (4"AC/6"AB) - Minor Arterial	SF	0	$3.29	$0
S-7	Asphalt and Base (4"AC/6"AB) - Principle Arterial	SF	0	$3.29	$0
S-8	Asphalt and Base (2"AC/4"AB) - Multi-Use Trail	SF	6500	$1.81	$11,759
S-9	Roundabout - Single Lane	LS	0	$970,000	$0
S-10	Roundabout - Double Lane	LS	0	$2,200,000	$0
S-11	Conduit and Fiber Interconnect	LF	0	$120.00	$0
S-12	Railroad Crossing Improvements	LS	0	$0	$0
S-13	Structures	LS	1	$124,500	$124,500
S-14	Utility Relocations	LS	0	$0	$0
S-15	Storm Drainage (5%)	%	1	5%	$13,183
S-16	Miscellaneous Items (10%)	%	1	10%	$26,366
S-17	Survey (3%)	%	1	3%	$7,910
S-18	Temporary/Permanenet Erosion Control (4%)	%	1	4%	$10,546
S-19	Landscapping and Irrigation (4%)	%	1	4%	$10,546
S-20	Temporary Traffic Control (10%)	%	1	10%	$26,366
S-21	Mobilization (10%)	%	1	10%	$26,366
S-22	Right of Way - Full Acquisition	LS	0	$0	$0
S-23	Right of Way - Residential	SF	14410	$18	$259,380
S-24	Right of Way - Commercial	SF	0	$14	$0
S-25	Right of Way - Industrial	SF	0	$8	$0
S-26	Planning, Engineering, and Administrative Costs	%	1	20%	$52,732
S-27	Construction Engineering and Inspection	%	1	15%	$39,549
				ANTICIPATED PROJECT COST	**$737,000**

ENGINEER'S OPINION OF PROBABLE COST

PROJECT: **CHASE RD AND POLELINE AVE INTERSECTION**

Detailed Description: Construct a single-lane roundabout at the intersection of Chase Road and Poleline Avenue. The geometry supports feasibility. The roundabout should include full intersection reconstruction, ADA-compliant ramps, pedestrian crossings, and appropriate signage.

Project Code: P-10

Project Size: Medium

Project Timeline: Medium Term (2031-2035)

Project Funding: Local

Roadway Classification: Minor Arterial

Estimate Date: November 2025

ITEM NO.	ITEM DESCRIPTION	SCHEDULE OF VALUES			
		UNIT	EST. QUAN	UNIT PRICE	TOTAL
201.4.1.A.1	Clearing and Grubbing	AC	0	$6,640	$0
201.4.1.C.1	Removal of Obstructions	LS	1	$3,000	$3,000
202.4.1.A.1	Excavation	CY	0	$26	$0
202.4.6.A.1	Borrow	CY	0	$26	$0
706.4.1.A.3	Standard Straight Curb	LF	0	$60	$0
706.4.1.A.5	Standard 6-inch Vertical Curb & Gutter	LF	0	$40	$0
706.4.1.E.1	Concrete Sidewalk, Thickness 4"	SF	0	$15	$0
706.4.1.H.1	Pedestrian Ramp w/ Detectable Warning Domes	EA	0	$2,700	$0
706.4.1.F.1	Concrete Driveway Approach	EA	0	$4,000	$0
808.4.1.A.1	Seal Coat	SY	0	$4.50	$0
1101.4.1.A.1	Traffic Signal	LS	0	$300,000	$0
1102.4.1.A.1	Street Light (Foundation, Conduit, and Junction Box Only)	EA	0	$7,500	$0
1104.4.1.A.1	Pavement Line Paint (2 coats)	LF	0	$1.19	$0
2050.4.1.C.1	Subgrade Separation Geotextile	SY	0	$1.50	$0
S-1	Asphalt and Base (2"AC/4"AB) - Local Residential	SF	0	$1.81	$0
S-2	Asphalt and Base (3"AC/6"AB) - Local Commercial/Industrial	SF	0	$2.72	$0
S-3	Asphalt and Base (3"AC/4"AB) - Minor Collector	SF	0	$2.40	$0
S-4	Asphalt and Base (3"AC/6"AB) - Local Commercial/Industrial	SF	0	$2.72	$0
S-5	Asphalt and Base (3"AC/6"AB) -Major Collector	SF	0	$2.72	$0
S-6	Asphalt and Base (4"AC/6"AB) - Minor Arterial	SF	0	$3.29	$0
S-7	Asphalt and Base (4"AC/6"AB) - Principle Arterial	SF	0	$3.29	$0
S-8	Asphalt and Base (2"AC/4"AB) - Multi-Use Trail	SF	0	$1.81	$0
S-9	Roundabout - Single Lane	LS	1	$970,000	$970,000
S-10	Roundabout - Double Lane	LS	0	$2,200,000	$0
S-11	Conduit and Fiber Interconnect	LF	0	$120.00	$0
S-12	Railroad Crossing Improvements	LS	0	$0	$0
S-13	Structures	LS	0	$0	$0
S-14	Utility Relocations	LS	1	$100,000	$100,000
S-15	Storm Drainage (5%)	%	1	5%	$48,650
S-16	Miscellaneous Items (10%)	%	1	10%	$97,300
S-17	Survey (3%)	%	1	3%	$29,190
S-18	Temporary/Permanenet Erosion Control (4%)	%	1	4%	$38,920
S-19	Landscapping and Irrigation (4%)	%	1	4%	$38,920
S-20	Temporary Traffic Control (10%)	%	1	10%	$97,300
S-21	Mobilization (10%)	%	1	10%	$97,300
S-22	Right of Way - Full Acquisition	LS	1	$0	$0
S-23	Right of Way - Residential	SF	1500	$18	$27,000
S-24	Right of Way - Commercial	SF	0	$14	$0
S-25	Right of Way - Industrial	SF	0	$8	$0
S-26	Planning, Engineering, and Administrative Costs	%	1	20%	$194,600
S-27	Construction Engineering and Inspection	%	1	15%	$145,950
				ANTICIPATED PROJECT COST	**$1,889,000**

ENGINEER'S OPINION OF PROBABLE COST

PROJECT:	**GREENSFERRY RD AND 12TH AVE INTERSECTION**
Detailed Description:	Install ¾ turn movement channelization with center island, restricting east-west through and left turning 12th Ave traffic. Include signage, striping, and pedestrian safety features.
Project Code:	P-11
Project Size:	Small
Project Timeline:	Short Term (2025-2030)
Project Funding:	Local
Roadway Classification:	Minor Arterial
Estimate Date:	November 2025

ITEM NO.	ITEM DESCRIPTION	SCHEDULE OF VALUES			
		UNIT	EST. QUAN	UNIT PRICE	TOTAL
201.4.1.A.1	Clearing and Grubbing	AC		$7,480	$0
201.4.1.C.1	Removal of Obstructions	LS	1	$2,000	$2,000
202.4.1.A.1	Excavation	CY	205	$45	$9,243
202.4.6.A.1	Borrow	CY		$50	$0
706.4.1.A.3	Standard Straight Curb	LF	210	$70	$14,700
706.4.1.A.5	Standard 6-inch Vertical Curb & Gutter	LF		$76	$0
706.4.1.E.1	Concrete Sidewalk, Thickness 4"	SF	431	$24	$10,344
706.4.1.H.1	Pedestrian Ramp w/ Detectable Warning Domes	EA		$2,700	$0
706.4.1.F.1	Concrete Driveway Approach	EA		$4,600	$0
808.4.1.A.1	Seal Coat	SY		$5.00	$0
1101.4.1.A.1	Traffic Signal	LS	0	$150,000	$0
1102.4.1.A.1	Street Light (Foundation, Conduit, and Junction Box Only)	EA		$7,500	$0
1104.4.1.A.1	Pavement Line Paint (2 coats)	LF		$1.75	$0
2050.4.1.C.1	Subgrade Separation Geotextile	SY	84	$2.00	$168
S-1	Asphalt and Base (2"AC/4"AB) - Local Residential	SF		$2.38	$0
S-2	Asphalt and Base (3"AC/6"AB) - Local Commercial/Industrial	SF		$3.58	$0
S-3	Asphalt and Base (3"AC/4"AB) - Minor Collector	SF		$3.18	$0
S-4	Asphalt and Base (3"AC/6"AB) - Local Commercial/Industrial	SF		$3.58	$0
S-5	Asphalt and Base (3"AC/6"AB) -Major Collector	SF		$3.58	$0
S-6	Asphalt and Base (4"AC/6"AB) - Minor Arterial	SF	7580	$4.35	$32,948
S-7	Asphalt and Base (4"AC/6"AB) - Principle Arterial	SF		$4.35	$0
S-8	Asphalt and Base (2"AC/4"AB) - Multi-Use Trail	SF		$2.38	$0
S-9	Roundabout - Single Lane	LS		$970,000	$0
S-10	Roundabout - Double Lane	LS		$2,200,000	$0
S-11	Conduit and Fiber Interconnect	LF		$160.00	$0
S-12	Railroad Crossing Improvements	LS		$0	$0
S-13	Structures	LS	1	$0	$0
S-14	Utility Relocations	LS	1	$100,000	$100,000
S-15	Storm Drainage (5%)	%	1	5%	$3,470
S-16	Miscellaneous Items (10%)	%	1	10%	$6,940
S-17	Survey (3%)	%	1	3%	$2,082
S-18	Temporary/Permanenet Erosion Control (4%)	%	1	4%	$2,776
S-19	Landscapping and Irrigation (4%)	%	1	4%	$2,776
S-20	Temporary Traffic Control (10%)	%	1	10%	$6,940
S-21	Mobilization (10%)	%	1	10%	$6,940
S-22	Right of Way - Full Acquisition	LS	1	$0	$0
S-23	Right of Way - Residential	SF		$18	$0
S-24	Right of Way - Commercial	SF		$14	$0
S-25	Right of Way - Industrial	SF		$8	$0
S-26	Planning, Engineering, and Administrative Costs	%	1	25%	$17,351
S-27	Construction Engineering and Inspection	%	1	15%	$10,411
				ANTICIPATED PROJECT COST	**$230,000**

ENGINEER'S OPINION OF PROBABLE COST

PROJECT:	**GREENSFERRY RD AND 16TH AVE INERSECTION**
Detailed Description:	Install traffic signal. Include ADA upgrades and pedestrian facilities.
Project Code:	P-12
Project Size:	Large
Project Timeline:	Medium Term (2031-2035)
Project Funding:	Local
Roadway Classification:	Minor Arterial
Estimate Date:	November 2025

ITEM NO.	ITEM DESCRIPTION	SCHEDULE OF VALUES			
		UNIT	EST. QUAN	UNIT PRICE	TOTAL
201.4.1.A.1	Clearing and Grubbing	AC	0	$3,500	$0
201.4.1.C.1	Removal of Obstructions	LS	1	$2,000	$2,000
202.4.1.A.1	Excavation	CY	0	$19	$0
202.4.6.A.1	Borrow	CY	0	$21	$0
706.4.1.A.3	Standard Straight Curb	LF	0	$45	$0
706.4.1.A.5	Standard 6-inch Vertical Curb & Gutter	LF	60	$33	$1,980
706.4.1.E.1	Concrete Sidewalk, Thickness 4"	SF	350	$12	$4,200
706.4.1.H.1	Pedestrian Ramp w/ Detectable Warning Domes	EA	4	$2,700	$10,800
706.4.1.F.1	Concrete Driveway Approach	EA	0	$3,500	$0
808.4.1.A.1	Seal Coat	SY	0	$4.00	$0
1101.4.1.A.1	Traffic Signal	LS	1	$600,000	$600,000
1102.4.1.A.1	Street Light (Foundation, Conduit, and Junction Box Only)	EA	0	$7,500	$0
1104.4.1.A.1	Pavement Line Paint (2 coats)	LF	0	$0.40	$0
2050.4.1.C.1	Subgrade Separation Geotextile	SY	0	$1.50	$0
S-1	Asphalt and Base (2"AC/4"AB) - Local Residential	SF	0	$1.60	$0
S-2	Asphalt and Base (3"AC/6"AB) - Local Commercial/Industrial	SF	0	$2.41	$0
S-3	Asphalt and Base (3"AC/4"AB) - Minor Collector	SF	0	$2.15	$0
S-4	Asphalt and Base (3"AC/6"AB) - Local Commercial/Industrial	SF	0	$2.41	$0
S-5	Asphalt and Base (3"AC/6"AB) -Major Collector	SF	0	$2.41	$0
S-6	Asphalt and Base (4"AC/6"AB) - Minor Arterial	SF	0	$2.93	$0
S-7	Asphalt and Base (4"AC/6"AB) - Principle Arterial	SF	0	$2.93	$0
S-8	Asphalt and Base (2"AC/4"AB) - Multi-Use Trail	SF	0	$1.60	$0
S-9	Roundabout - Single Lane	LS	0	$970,000	$0
S-10	Roundabout - Double Lane	LS	0	$2,200,000	$0
S-11	Conduit and Fiber Interconnect	LF	0	$80.00	$0
S-12	Railroad Crossing Improvements	LS	0	$0	$0
S-13	Structures	LS	0	$0	$0
S-14	Utility Relocations	LS	1	$0	$0
S-15	Storm Drainage (5%)	%	1	5%	$30,949
S-16	Miscellaneous Items (10%)	%	1	10%	$61,898
S-17	Survey (3%)	%	1	3%	$18,569
S-18	Temporary/Permanenet Erosion Control (4%)	%	1	4%	$24,759
S-19	Landscapping and Irrigation (4%)	%	1	4%	$24,759
S-20	Temporary Traffic Control (10%)	%	1	10%	$61,898
S-21	Mobilization (10%)	%	1	10%	$61,898
S-22	Right of Way - Full Acquisition	LS	0	$1,308,000	$0
S-23	Right of Way - Residential	SF	0	$18	$0
S-24	Right of Way - Commercial	SF	0	$14	$0
S-25	Right of Way - Industrial	SF	0	$8	$0
S-26	Planning, Engineering, and Administrative Costs	%	1	15%	$92,847
S-27	Construction Engineering and Inspection	%	1	15%	$92,847
				ANTICIPATED PROJECT COST	**$1,090,000**

ENGINEER'S OPINION OF PROBABLE COST

PROJECT:	**GREENSFERRY RD AND HAYDEN AVE INTERSECTION**
Detailed Description:	Install a signal or multi-lane roundabout. Include ADA-compliant ramps, pedestrian crossings, and coordination with corridor improvements.
Project Code:	P-13
Project Size:	Medium
Project Timeline:	Short Term (2025-2030)
Project Funding:	Local
Roadway Classification:	Minor Arterial
Estimate Date:	November 2025

ITEM NO.	ITEM DESCRIPTION	SCHEDULE OF VALUES			
		UNIT	EST. QUAN	UNIT PRICE	TOTAL
201.4.1.A.1	Clearing and Grubbing	AC	0	$6,640	$0
201.4.1.C.1	Removal of Obstructions	LS	0	$0	$0
202.4.1.A.1	Excavation	CY	0	$26	$0
202.4.6.A.1	Borrow	CY	0	$26	$0
706.4.1.A.3	Standard Straight Curb	LF	0	$60	$0
706.4.1.A.5	Standard 6-inch Vertical Curb & Gutter	LF	0	$40	$0
706.4.1.E.1	Concrete Sidewalk, Thickness 4"	SF	0	$15	$0
706.4.1.H.1	Pedestrian Ramp w/ Detectable Warning Domes	EA	0	$2,700	$0
706.4.1.F.1	Concrete Driveway Approach	EA	0	$4,000	$0
808.4.1.A.1	Seal Coat	SY	0	$4.50	$0
1101.4.1.A.1	Traffic Signal	LS	0	$300,000	$0
1102.4.1.A.1	Street Light (Foundation, Conduit, and Junction Box Only)	EA	0	$7,500	$0
1104.4.1.A.1	Pavement Line Paint (2 coats)	LF	0	$1.19	$0
2050.4.1.C.1	Subgrade Separation Geotextile	SY	0	$1.50	$0
S-1	Asphalt and Base (2"AC/4"AB) - Local Residential	SF	0	$1.81	$0
S-2	Asphalt and Base (3"AC/6"AB) - Local Commercial/Industrial	SF	0	$2.72	$0
S-3	Asphalt and Base (3"AC/4"AB) - Minor Collector	SF	0	$2.40	$0
S-4	Asphalt and Base (3"AC/6"AB) - Local Commercial/Industrial	SF	0	$2.72	$0
S-5	Asphalt and Base (3"AC/6"AB) -Major Collector	SF	0	$2.72	$0
S-6	Asphalt and Base (4"AC/6"AB) - Minor Arterial	SF	0	$3.29	$0
S-7	Asphalt and Base (4"AC/6"AB) - Principle Arterial	SF	0	$3.29	$0
S-8	Asphalt and Base (2"AC/4"AB) - Multi-Use Trail	SF	0	$1.81	$0
S-9	Roundabout - Single Lane	LS	0	$970,000	$0
S-10	Roundabout - Double Lane	LS	1	$2,200,000	$2,200,000
S-11	Conduit and Fiber Interconnect	LF	0	$120.00	$0
S-12	Railroad Crossing Improvements	LS	0	$0	$0
S-13	Structures	LS	0	$0	$0
S-14	Utility Relocations	LS	1	$25,000	$25,000
S-15	Storm Drainage (5%)	%	1	5%	$110,000
S-16	Miscellaneous Items (10%)	%	1	10%	$220,000
S-17	Survey (3%)	%	1	3%	$66,000
S-18	Temporary/Permanenet Erosion Control (4%)	%	1	4%	$88,000
S-19	Landscapping and Irrigation (4%)	%	1	4%	$88,000
S-20	Temporary Traffic Control (10%)	%	1	10%	$220,000
S-21	Mobilization (10%)	%	1	10%	$220,000
S-22	Right of Way - Full Acquisition	LS	0	$0	$0
S-23	Right of Way - Residential	SF	13719	$18	$246,942
S-24	Right of Way - Commercial	SF	0	$14	$0
S-25	Right of Way - Industrial	SF	0	$8	$0
S-26	Planning, Engineering, and Administrative Costs	%	1	20%	$440,000
S-27	Construction Engineering and Inspection	%	1	15%	$330,000
			ANTICIPATED PROJECT COST		**$4,254,000**

ENGINEER'S OPINION OF PROBABLE COST

PROJECT:	**GREENSFERRY RD AND HOPE AVE INTERESCTION**
Detailed Description:	Install a signal or roundabout and extend Hope Ave west to the western boundary of Greensferry Elementary. Consider constraints on all corners. Include ADA upgrades and pedestrian facilities. Assumed 2 lane roundabout for estimating purposes.
Project Code:	P-14
Project Size:	Medium
Project Timeline:	Medium Term (2031-2035)
Project Funding:	Local
Roadway Classification:	Minor Arterial
Estimate Date:	November 2025

ITEM NO.	ITEM DESCRIPTION	SCHEDULE OF VALUES			
		UNIT	EST. QUAN	UNIT PRICE	TOTAL
201.4.1.A.1	Clearing and Grubbing	AC	0	$6,640	$0
201.4.1.C.1	Removal of Obstructions	LS	1	$2,000	$2,000
202.4.1.A.1	Excavation	CY	0	$26	$0
202.4.6.A.1	Borrow	CY	0	$26	$0
706.4.1.A.3	Standard Straight Curb	LF	0	$60	$0
706.4.1.A.5	Standard 6-inch Vertical Curb & Gutter	LF	0	$40	$0
706.4.1.E.1	Concrete Sidewalk, Thickness 4"	SF	3250	$15	$48,750
706.4.1.H.1	Pedestrian Ramp w/ Detectable Warning Domes	EA	0	$2,700	$0
706.4.1.F.1	Concrete Driveway Approach	EA	0	$4,000	$0
808.4.1.A.1	Seal Coat	SY	0	$4.50	$0
1101.4.1.A.1	Traffic Signal	LS	0	$300,000	$0
1102.4.1.A.1	Street Light (Foundation, Conduit, and Junction Box Only)	EA	0	$7,500	$0
1104.4.1.A.1	Pavement Line Paint (2 coats)	LF	0	$1.19	$0
2050.4.1.C.1	Subgrade Separation Geotextile	SY	173	$1.50	$260
S-1	Asphalt and Base (2"AC/4"AB) - Local Residential	SF	0	$1.81	$0
S-2	Asphalt and Base (3"AC/6"AB) - Local Commercial/Industrial	SF	0	$2.72	$0
S-3	Asphalt and Base (3"AC/4"AB) - Minor Collector	SF	0	$2.40	$0
S-4	Asphalt and Base (3"AC/6"AB) - Local Commercial/Industrial	SF	0	$2.72	$0
S-5	Asphalt and Base (3"AC/6"AB) -Major Collector	SF	15600	$2.72	$42,422
S-6	Asphalt and Base (4"AC/6"AB) - Minor Arterial	SF	0	$3.29	$0
S-7	Asphalt and Base (4"AC/6"AB) - Principle Arterial	SF	0	$3.29	$0
S-8	Asphalt and Base (2"AC/4"AB) - Multi-Use Trail	SF	0	$1.81	$0
S-9	Roundabout - Single Lane	LS	0	$970,000	$0
S-10	Roundabout - Double Lane	LS	1	$2,200,000	$2,200,000
S-11	Conduit and Fiber Interconnect	LF	0	$120.00	$0
S-12	Railroad Crossing Improvements	LS	0	$0	$0
S-13	Structures	LS	1	$0	$0
S-14	Utility Relocations	LS	1	$0	$0
S-15	Storm Drainage (5%)	%	1	5%	$114,672
S-16	Miscellaneous Items (10%)	%	1	10%	$229,343
S-17	Survey (3%)	%	1	3%	$68,803
S-18	Temporary/Permanenet Erosion Control (4%)	%	1	4%	$91,737
S-19	Landscapping and Irrigation (4%)	%	1	4%	$91,737
S-20	Temporary Traffic Control (10%)	%	1	10%	$229,343
S-21	Mobilization (10%)	%	1	10%	$229,343
S-22	Right of Way - Full Acquisition	LS	0	$0	$0
S-23	Right of Way - Residential	SF	13320	$18	$239,760
S-24	Right of Way - Commercial	SF	0	$14	$0
S-25	Right of Way - Industrial	SF	0	$8	$0
S-26	Planning, Engineering, and Administrative Costs	%	1	20%	$458,686
S-27	Construction Engineering and Inspection	%	1	15%	$344,015
				ANTICIPATED PROJECT COST	**$4,391,000**

ENGINEER'S OPINION OF PROBABLE COST

PROJECT:	**GREENSFERRY RD AND HORSEHAVEN RD INTERSECTION**
Detailed Description:	Install new traffic signal. Include ADA ramps and pedestrian crossings.
Project Code:	P-15
Project Size:	Large
Project Timeline:	Medium Term (2031-2035)
Project Funding:	Local
Roadway Classification:	Minor Arterial
Estimate Date:	November 2025

ITEM NO.	ITEM DESCRIPTION	SCHEDULE OF VALUES			
		UNIT	EST. QUAN	UNIT PRICE	TOTAL
201.4.1.A.1	Clearing and Grubbing	AC	0	$3,500	$0
201.4.1.C.1	Removal of Obstructions	LS	1	$2,000	$2,000
202.4.1.A.1	Excavation	CY	0	$19	$0
202.4.6.A.1	Borrow	CY	0	$21	$0
706.4.1.A.3	Standard Straight Curb	LF	0	$45	$0
706.4.1.A.5	Standard 6-inch Vertical Curb & Gutter	LF	120	$33	$3,960
706.4.1.E.1	Concrete Sidewalk, Thickness 4"	SF	700	$12	$8,400
706.4.1.H.1	Pedestrian Ramp w/ Detectable Warning Domes	EA	8	$2,700	$21,600
706.4.1.F.1	Concrete Driveway Approach	EA	0	$3,500	$0
808.4.1.A.1	Seal Coat	SY	0	$4.00	$0
1101.4.1.A.1	Traffic Signal	LS	1	$600,000	$600,000
1102.4.1.A.1	Street Light (Foundation, Conduit, and Junction Box Only)	EA	0	$7,500	$0
1104.4.1.A.1	Pavement Line Paint (2 coats)	LF	0	$0.40	$0
2050.4.1.C.1	Subgrade Separation Geotextile	SY	0	$1.50	$0
S-1	Asphalt and Base (2"AC/4"AB) - Local Residential	SF	0	$1.60	$0
S-2	Asphalt and Base (3"AC/6"AB) - Local Commercial/Industrial	SF	0	$2.41	$0
S-3	Asphalt and Base (3"AC/4"AB) - Minor Collector	SF	0	$2.15	$0
S-4	Asphalt and Base (3"AC/6"AB) - Local Commercial/Industrial	SF	0	$2.41	$0
S-5	Asphalt and Base (3"AC/6"AB) -Major Collector	SF	0	$2.41	$0
S-6	Asphalt and Base (4"AC/6"AB) - Minor Arterial	SF	0	$2.93	$0
S-7	Asphalt and Base (4"AC/6"AB) - Principle Arterial	SF	0	$2.93	$0
S-8	Asphalt and Base (2"AC/4"AB) - Multi-Use Trail	SF	0	$1.60	$0
S-9	Roundabout - Single Lane	LS	0	$970,000	$0
S-10	Roundabout - Double Lane	LS	0	$2,200,000	$0
S-11	Conduit and Fiber Interconnect	LF	0	$80.00	$0
S-12	Railroad Crossing Improvements	LS	0	$0	$0
S-13	Structures	LS	0	$0	$0
S-14	Utility Relocations	LS	0	$0	$0
S-15	Storm Drainage (5%)	%	1	5%	$31,798
S-16	Miscellaneous Items (10%)	%	1	10%	$63,596
S-17	Survey (3%)	%	1	3%	$19,079
S-18	Temporary/Permanenet Erosion Control (4%)	%	1	4%	$25,438
S-19	Landscapping and Irrigation (4%)	%	1	4%	$25,438
S-20	Temporary Traffic Control (10%)	%	1	10%	$63,596
S-21	Mobilization (10%)	%	1	10%	$63,596
S-22	Right of Way - Full Acquisition	LS	0	$0	$0
S-23	Right of Way - Residential	SF	0	$18	$0
S-24	Right of Way - Commercial	SF	0	$14	$0
S-25	Right of Way - Industrial	SF	0	$8	$0
S-26	Planning, Engineering, and Administrative Costs	%	1	15%	$95,394
S-27	Construction Engineering and Inspection	%	1	15%	$95,394
				ANTICIPATED PROJECT COST	**$1,120,000**

ENGINEER'S OPINION OF PROBABLE COST

PROJECT:	**GREENSFERRY RD AND POLELINE AVE INTERSECTION**
Detailed Description:	Relocate existing signal in northeast corner to accommodate 5-lane greensferry Road Section, provide northbound right turn pocket, upgrade traffic signal electronics, provide ADA modifications
Project Code:	P-16
Project Size:	Medium
Project Timeline:	Medium Term (2031-2035)
Project Funding:	Local
Roadway Classification:	Minor Arterial
Estimate Date:	November 2025

ITEM NO.	ITEM DESCRIPTION	SCHEDULE OF VALUES			
		UNIT	EST. QUAN	UNIT PRICE	TOTAL
201.4.1.A.1	Clearing and Grubbing	AC	1	$6,640	$3,320
201.4.1.C.1	Removal of Obstructions	LS	0	$0	$0
202.4.1.A.1	Excavation	CY	458	$26	$11,917
202.4.6.A.1	Borrow	CY	0	$26	$0
706.4.1.A.3	Standard Straight Curb	LF	0	$60	$0
706.4.1.A.5	Standard 6-inch Vertical Curb & Gutter	LF	0	$40	$0
706.4.1.E.1	Concrete Sidewalk, Thickness 4"	SF	0	$15	$0
706.4.1.H.1	Pedestrian Ramp w/ Detectable Warning Domes	EA	0	$2,700	$0
706.4.1.F.1	Concrete Driveway Approach	EA	0	$4,000	$0
808.4.1.A.1	Seal Coat	SY	0	$4.50	$0
1101.4.1.A.1	Traffic Signal	LS	1	$300,000	$300,000
1102.4.1.A.1	Street Light (Foundation, Conduit, and Junction Box Only)	EA	0	$7,500	$0
1104.4.1.A.1	Pavement Line Paint (2 coats)	LF	0	$1.19	$0
2050.4.1.C.1	Subgrade Separation Geotextile	SY	165	$1.50	$248
S-1	Asphalt and Base (2"AC/4"AB) - Local Residential	SF	0	$1.81	$0
S-2	Asphalt and Base (3"AC/6"AB) - Local Commercial/Industrial	SF	0	$2.72	$0
S-3	Asphalt and Base (3"AC/4"AB) - Minor Collector	SF	0	$2.40	$0
S-4	Asphalt and Base (3"AC/6"AB) - Local Commercial/Industrial	SF	0	$2.72	$0
S-5	Asphalt and Base (3"AC/6"AB) -Major Collector	SF	0	$2.72	$0
S-6	Asphalt and Base (4"AC/6"AB) - Minor Arterial	SF	14850	$3.29	$48,895
S-7	Asphalt and Base (4"AC/6"AB) - Principle Arterial	SF	0	$3.29	$0
S-8	Asphalt and Base (2"AC/4"AB) - Multi-Use Trail	SF	0	$1.81	$0
S-9	Roundabout - Single Lane	LS	0	$970,000	$0
S-10	Roundabout - Double Lane	LS	0	$2,200,000	$0
S-11	Conduit and Fiber Interconnect	LF	0	$120.00	$0
S-12	Railroad Crossing Improvements	LS	0	$0	$0
S-13	Structures	LS	0	$0	$0
S-14	Utility Relocations	LS	0	$0	$0
S-15	Storm Drainage (5%)	%	1	5%	$18,219
S-16	Miscellaneous Items (10%)	%	1	10%	$36,438
S-17	Survey (3%)	%	1	3%	$10,931
S-18	Temporary/Permanenet Erosion Control (4%)	%	1	4%	$14,575
S-19	Landscapping and Irrigation (4%)	%	1	4%	$14,575
S-20	Temporary Traffic Control (10%)	%	1	10%	$36,438
S-21	Mobilization (10%)	%	1	10%	$36,438
S-22	Right of Way - Full Acquisition	LS	1	$0	$0
S-23	Right of Way - Residential	SF	0	$18	$0
S-24	Right of Way - Commercial	SF	0	$14	$0
S-25	Right of Way - Industrial	SF	0	$8	$0
S-26	Planning, Engineering, and Administrative Costs	%	1	20%	$72,876
S-27	Construction Engineering and Inspection	%	1	15%	$54,657
				ANTICIPATED PROJECT COST	**$660,000**

ENGINEER'S OPINION OF PROBABLE COST

PROJECT:	**GREENSFERRY RD CORRIDOR - MULLAN AVE TO POLELINE AVE**
Detailed Description:	Widen to five lanes. Include full arterial section with sidewalks, bike lanes, and stormwater facilities. Account for right-of-way acquisition and utility impacts.
Project Code:	P-17
Project Size:	Large
Project Timeline:	Medium Term (2031-2035)
Project Funding:	Local
Roadway Classification:	Minor Arterial
Estimate Date:	November 2025

ITEM NO.	ITEM DESCRIPTION	SCHEDULE OF VALUES			
		UNIT	EST. QUAN	UNIT PRICE	TOTAL
201.4.1.A.1	Clearing and Grubbing	AC	4.13	$3,500	$14,438
201.4.1.C.1	Removal of Obstructions	LS	1	$265,000	$265,000
202.4.1.A.1	Excavation	CY	9735	$19	$184,957
202.4.6.A.1	Borrow	CY	0	$21	$0
706.4.1.A.3	Standard Straight Curb	LF	0	$45	$0
706.4.1.A.5	Standard 6-inch Vertical Curb & Gutter	LF	7865	$33	$259,545
706.4.1.E.1	Concrete Sidewalk, Thickness 4"	SF	0	$12	$0
706.4.1.H.1	Pedestrian Ramp w/ Detectable Warning Domes	EA	18	$2,700	$48,600
706.4.1.F.1	Concrete Driveway Approach	EA	2	$3,500	$7,000
808.4.1.A.1	Seal Coat	SY	0	$4.00	$0
1101.4.1.A.1	Traffic Signal	LS	0	$600,000	$0
1102.4.1.A.1	Street Light (Foundation, Conduit, and Junction Box Only)	EA	33	$7,500	$245,000
1104.4.1.A.1	Pavement Line Paint (2 coats)	LF	24900	$0.40	$9,960
2050.4.1.C.1	Subgrade Separation Geotextile	SY	4427	$1.50	$6,640
S-1	Asphalt and Base (2"AC/4"AB) - Local Residential	SF	0	$1.60	$0
S-2	Asphalt and Base (3"AC/6"AB) - Local Commercial/Industrial	SF	0	$2.41	$0
S-3	Asphalt and Base (3"AC/4"AB) - Minor Collector	SF	0	$2.15	$0
S-4	Asphalt and Base (3"AC/6"AB) - Local Commercial/Industrial	SF	0	$2.41	$0
S-5	Asphalt and Base (3"AC/6"AB) -Major Collector	SF	0	$2.41	$0
S-6	Asphalt and Base (4"AC/6"AB) - Minor Arterial	SF	0	$2.93	$0
S-7	Asphalt and Base (4"AC/6"AB) - Principle Arterial	SF	315400	$2.93	$925,338
S-8	Asphalt and Base (2"AC/4"AB) - Multi-Use Trail	SF	83000	$1.60	$133,177
S-9	Roundabout - Single Lane	LS	0	$970,000	$0
S-10	Roundabout - Double Lane	LS	0	$2,200,000	$0
S-11	Conduit and Fiber Interconnect	LF	0	$80.00	$0
S-12	Railroad Crossing Improvements	LS	0	$0	$0
S-13	Structures	LS	0	$0	$0
S-14	Utility Relocations	LS	1	$50,000	$50,000
S-15	Storm Drainage (5%)	%	1	5%	$104,983
S-16	Miscellaneous Items (10%)	%	1	10%	$209,965
S-17	Survey (3%)	%	1	3%	$62,990
S-18	Temporary/Permanenet Erosion Control (4%)	%	1	4%	$83,986
S-19	Landscapping and Irrigation (4%)	%	1	4%	$83,986
S-20	Temporary Traffic Control (10%)	%	1	10%	$209,965
S-21	Mobilization (10%)	%	1	10%	$209,965
S-22	Right of Way - Full Acquisition	LS	1	$975,900	$975,900
S-23	Right of Way - Residential	SF	66375	$18	$1,194,750
S-24	Right of Way - Commercial	SF	0	$14	$0
S-25	Right of Way - Industrial	SF	0	$8	$0
S-26	Planning, Engineering, and Administrative Costs	%	1	15%	$314,948
S-27	Construction Engineering and Inspection	%	1	15%	$314,948
			ANTICIPATED PROJECT COST		**$5,917,000**

ENGINEER'S OPINION OF PROBABLE COST

PROJECT:	**GREENSFERRY RD CORRIDOR - POLELINE AVE TO PRAIRIE AVE**
Detailed Description:	Widen to three lanes. Include ADA-compliant features, stormwater swales, and pedestrian improvements. Coordinate with adjacent intersection upgrades.
Project Code:	P-18
Project Size:	Medium
Project Timeline:	Medium Term (2031-2035)
Project Funding:	Local
Roadway Classification:	Minor Arterial
Estimate Date:	November 2025

ITEM NO.	ITEM DESCRIPTION	SCHEDULE OF VALUES			
		UNIT	EST. QUAN	UNIT PRICE	TOTAL
201.4.1.A.1	Clearing and Grubbing	AC	3	$6,640	$20,415
201.4.1.C.1	Removal of Obstructions	LS	1	$15,000	$15,000
202.4.1.A.1	Excavation	CY	4687	$26	$121,867
202.4.6.A.1	Borrow	CY	0	$26	$0
706.4.1.A.3	Standard Straight Curb	LF	0	$60	$0
706.4.1.A.5	Standard 6-inch Vertical Curb & Gutter	LF	3720	$40	$148,800
706.4.1.E.1	Concrete Sidewalk, Thickness 4"	SF	12625	$15	$189,375
706.4.1.H.1	Pedestrian Ramp w/ Detectable Warning Domes	EA	2	$2,700	$5,400
706.4.1.F.1	Concrete Driveway Approach	EA	10	$4,000	$40,000
808.4.1.A.1	Seal Coat	SY	0	$4.50	$0
1101.4.1.A.1	Traffic Signal	LS	0	$300,000	$0
1102.4.1.A.1	Street Light (Foundation, Conduit, and Junction Box Only)	EA	15	$7,500	$112,500
1104.4.1.A.1	Pavement Line Paint (2 coats)	LF	21120	$1.19	$25,133
2050.4.1.C.1	Subgrade Separation Geotextile	SY	1833	$1.50	$2,750
S-1	Asphalt and Base (2"AC/4"AB) - Local Residential	SF	0	$1.81	$0
S-2	Asphalt and Base (3"AC/6"AB) - Local Commercial/Industrial	SF	0	$2.72	$0
S-3	Asphalt and Base (3"AC/4"AB) - Minor Collector	SF	0	$2.40	$0
S-4	Asphalt and Base (3"AC/6"AB) - Local Commercial/Industrial	SF	0	$2.72	$0
S-5	Asphalt and Base (3"AC/6"AB) -Major Collector	SF	0	$2.72	$0
S-6	Asphalt and Base (4"AC/6"AB) - Minor Arterial	SF	147075	$3.29	$484,259
S-7	Asphalt and Base (4"AC/6"AB) - Principle Arterial	SF	0	$3.29	$0
S-8	Asphalt and Base (2"AC/4"AB) - Multi-Use Trail	SF	17900	$1.81	$32,383
S-9	Roundabout - Single Lane	LS	0	$970,000	$0
S-10	Roundabout - Double Lane	LS	0	$2,200,000	$0
S-11	Conduit and Fiber Interconnect	LF	0	$120.00	$0
S-12	Railroad Crossing Improvements	LS	0	$0	$0
S-13	Structures	LS	0	$0	$0
S-14	Utility Relocations	LS	1	$50,000	$50,000
S-15	Storm Drainage (5%)	%	1	5%	$59,894
S-16	Miscellaneous Items (10%)	%	1	10%	$119,788
S-17	Survey (3%)	%	1	3%	$35,936
S-18	Temporary/Permanenet Erosion Control (4%)	%	1	4%	$47,915
S-19	Landscapping and Irrigation (4%)	%	1	4%	$47,915
S-20	Temporary Traffic Control (10%)	%	1	10%	$119,788
S-21	Mobilization (10%)	%	1	10%	$119,788
S-22	Right of Way - Full Acquisition	LS	1	$0	$0
S-23	Right of Way - Residential	SF	68875	$18	$1,239,750
S-24	Right of Way - Commercial	SF	0	$14	$0
S-25	Right of Way - Industrial	SF	0	$8	$0
S-26	Planning, Engineering, and Administrative Costs	%	1	20%	$239,576
S-27	Construction Engineering and Inspection	%	1	15%	$179,682
			ANTICIPATED PROJECT COST		**$3,458,000**

ENGINEER'S OPINION OF PROBABLE COST

PROJECT:	**GREENSFERRY RD CORRIDOR - PRAIRIE AVE TO HAYDEN AVE**
Detailed Description:	Widen to three lanes. Include ADA ramps, sidewalks, and stormwater improvements. Consider future development and right-of-way needs.
Project Code:	P-19
Project Size:	Large
Project Timeline:	Long Term (2036-2045)
Project Funding:	Local
Roadway Classification:	Minor Arterial
Estimate Date:	November 2025

ITEM NO.	ITEM DESCRIPTION	SCHEDULE OF VALUES			
		UNIT	EST. QUAN	UNIT PRICE	TOTAL
201.4.1.A.1	Clearing and Grubbing	AC	9	$3,500	$32,790
201.4.1.C.1	Removal of Obstructions	LS	1	$15,000	$15,000
202.4.1.A.1	Excavation	CY	7312	$19	$138,923
202.4.6.A.1	Borrow	CY	0	$21	$0
706.4.1.A.3	Standard Straight Curb	LF	0	$45	$0
706.4.1.A.5	Standard 6-inch Vertical Curb & Gutter	LF	10300	$33	$339,900
706.4.1.E.1	Concrete Sidewalk, Thickness 4"	SF	25750	$12	$309,000
706.4.1.H.1	Pedestrian Ramp w/ Detectable Warning Domes	EA	2	$2,700	$5,400
706.4.1.F.1	Concrete Driveway Approach	EA	6	$3,500	$21,000
808.4.1.A.1	Seal Coat	SY	0	$4.00	$0
1101.4.1.A.1	Traffic Signal	LS	0	$600,000	$0
1102.4.1.A.1	Street Light (Foundation, Conduit, and Junction Box Only)	EA	34	$7,500	$257,500
1104.4.1.A.1	Pavement Line Paint (2 coats)	LF	26600	$0.40	$10,640
2050.4.1.C.1	Subgrade Separation Geotextile	SY	3204	$1.50	$4,807
S-1	Asphalt and Base (2"AC/4"AB) - Local Residential	SF	0	$1.60	$0
S-2	Asphalt and Base (3"AC/6"AB) - Local Commercial/Industrial	SF	0	$2.41	$0
S-3	Asphalt and Base (3"AC/4"AB) - Minor Collector	SF	0	$2.15	$0
S-4	Asphalt and Base (3"AC/6"AB) - Local Commercial/Industrial	SF	0	$2.41	$0
S-5	Asphalt and Base (3"AC/6"AB) -Major Collector	SF	0	$2.41	$0
S-6	Asphalt and Base (4"AC/6"AB) - Minor Arterial	SF	236900	$2.93	$695,030
S-7	Asphalt and Base (4"AC/6"AB) - Principle Arterial	SF	0	$2.93	$0
S-8	Asphalt and Base (2"AC/4"AB) - Multi-Use Trail	SF	51500	$1.60	$82,634
S-9	Roundabout - Single Lane	LS	0	$970,000	$0
S-10	Roundabout - Double Lane	LS	0	$2,200,000	$0
S-11	Conduit and Fiber Interconnect	LF	0	$80.00	$0
S-12	Railroad Crossing Improvements	LS	0	$0	$0
S-13	Structures	LS	0	$0	$0
S-14	Utility Relocations	LS	1	$284,800	$284,800
S-15	Storm Drainage (5%)	%	1	5%	$95,631
S-16	Miscellaneous Items (10%)	%	1	10%	$191,262
S-17	Survey (3%)	%	1	3%	$57,379
S-18	Temporary/Permanenet Erosion Control (4%)	%	1	4%	$76,505
S-19	Landscapping and Irrigation (4%)	%	1	4%	$76,505
S-20	Temporary Traffic Control (10%)	%	1	10%	$191,262
S-21	Mobilization (10%)	%	1	10%	$191,262
S-22	Right of Way - Full Acquisition	LS	0	$0	$0
S-23	Right of Way - Residential	SF	244360	$18	$4,398,480
S-24	Right of Way - Commercial	SF	0	$14	$0
S-25	Right of Way - Industrial	SF	0	$8	$0
S-26	Planning, Engineering, and Administrative Costs	%	1	15%	$286,894
S-27	Construction Engineering and Inspection	%	1	15%	$286,894
				ANTICIPATED PROJECT COST	**$8,050,000**

ENGINEER'S OPINION OF PROBABLE COST

PROJECT:	**HAYDEN AVE AND CHASE RD INTERSECTION**
Detailed Description:	Install a signal or roundabout. Evaluate feasibility based on adjacent development and right-of-way. Include ADA ramps and pedestrian crossings. Single lane roundabout used for estimating purposes.
Project Code:	P-20
Project Size:	Medium
Project Timeline:	Short Term (2025-2030)
Project Funding:	Local
Roadway Classification:	Minor Arterial
Estimate Date:	November 2025

ITEM NO.	ITEM DESCRIPTION	SCHEDULE OF VALUES			
		UNIT	EST. QUAN	UNIT PRICE	TOTAL
201.4.1.A.1	Clearing and Grubbing	AC	0	$6,640	$0
201.4.1.C.1	Removal of Obstructions	LS	1	$3,000	$3,000
202.4.1.A.1	Excavation	CY	0	$26	$0
202.4.6.A.1	Borrow	CY	0	$26	$0
706.4.1.A.3	Standard Straight Curb	LF	0	$60	$0
706.4.1.A.5	Standard 6-inch Vertical Curb & Gutter	LF	0	$40	$0
706.4.1.E.1	Concrete Sidewalk, Thickness 4"	SF	0	$15	$0
706.4.1.H.1	Pedestrian Ramp w/ Detectable Warning Domes	EA	0	$2,700	$0
706.4.1.F.1	Concrete Driveway Approach	EA	0	$4,000	$0
808.4.1.A.1	Seal Coat	SY	0	$4.50	$0
1101.4.1.A.1	Traffic Signal	LS	0	$300,000	$0
1102.4.1.A.1	Street Light (Foundation, Conduit, and Junction Box Only)	EA	0	$7,500	$0
1104.4.1.A.1	Pavement Line Paint (2 coats)	LF	0	$1.19	$0
2050.4.1.C.1	Subgrade Separation Geotextile	SY	0	$1.50	$0
S-1	Asphalt and Base (2"AC/4"AB) - Local Residential	SF	0	$1.81	$0
S-2	Asphalt and Base (3"AC/6"AB) - Local Commercial/Industrial	SF	0	$2.72	$0
S-3	Asphalt and Base (3"AC/4"AB) - Minor Collector	SF	0	$2.40	$0
S-4	Asphalt and Base (3"AC/6"AB) - Local Commercial/Industrial	SF	0	$2.72	$0
S-5	Asphalt and Base (3"AC/6"AB) -Major Collector	SF	0	$2.72	$0
S-6	Asphalt and Base (4"AC/6"AB) - Minor Arterial	SF	0	$3.29	$0
S-7	Asphalt and Base (4"AC/6"AB) - Principle Arterial	SF	0	$3.29	$0
S-8	Asphalt and Base (2"AC/4"AB) - Multi-Use Trail	SF	0	$1.81	$0
S-9	Roundabout - Single Lane	LS	1	$970,000	$970,000
S-10	Roundabout - Double Lane	LS	0	$2,200,000	$0
S-11	Conduit and Fiber Interconnect	LF	0	$120.00	$0
S-12	Railroad Crossing Improvements	LS	0	$0	$0
S-13	Structures	LS	1	$15,000	$15,000
S-14	Utility Relocations	LS	0	$50,000	$0
S-15	Storm Drainage (5%)	%	1	5%	$49,400
S-16	Miscellaneous Items (10%)	%	1	10%	$98,800
S-17	Survey (3%)	%	1	3%	$29,640
S-18	Temporary/Permanenet Erosion Control (4%)	%	1	4%	$39,520
S-19	Landscapping and Irrigation (4%)	%	1	4%	$39,520
S-20	Temporary Traffic Control (10%)	%	1	10%	$98,800
S-21	Mobilization (10%)	%	1	10%	$98,800
S-22	Right of Way - Full Acquisition	LS	0	$0	$0
S-23	Right of Way - Residential	SF	1350	$18	$24,300
S-24	Right of Way - Commercial	SF	0	$14	$0
S-25	Right of Way - Industrial	SF	0	$8	$0
S-26	Planning, Engineering, and Administrative Costs	%	1	20%	$197,600
S-27	Construction Engineering and Inspection	%	1	15%	$148,200
			ANTICIPATED PROJECT COST		**$1,813,000**

ENGINEER'S OPINION OF PROBABLE COST

PROJECT:	**MCGUIRE RD AND SELTICE WAY INTERSECTION**
Detailed Description:	Reconfigure intersection and upgrade signal. Include ADA-compliant ramps and pedestrian crossings. Coordinate with corridor improvements.
Project Code:	P-21
Project Size:	Small
Project Timeline:	Long Term (2036-2045)
Project Funding:	Local
Roadway Classification:	Principle Arterial
Estimate Date:	November 2025

ITEM NO.	ITEM DESCRIPTION	SCHEDULE OF VALUES			
		UNIT	EST. QUAN	UNIT PRICE	TOTAL
201.4.1.A.1	Clearing and Grubbing	AC	0	$7,480	$0
201.4.1.C.1	Removal of Obstructions	LS	0	$0	$0
202.4.1.A.1	Excavation	CY	0	$45	$0
202.4.6.A.1	Borrow	CY	0	$50	$0
706.4.1.A.3	Standard Straight Curb	LF	0	$70	$0
706.4.1.A.5	Standard 6-inch Vertical Curb & Gutter	LF	0	$76	$0
706.4.1.E.1	Concrete Sidewalk, Thickness 4"	SF	0	$24	$0
706.4.1.H.1	Pedestrian Ramp w/ Detectable Warning Domes	EA	0	$2,700	$0
706.4.1.F.1	Concrete Driveway Approach	EA	0	$4,600	$0
808.4.1.A.1	Seal Coat	SY	0	$5.00	$0
1101.4.1.A.1	Traffic Signal	LS	1	$150,000	$150,000
1102.4.1.A.1	Street Light (Foundation, Conduit, and Junction Box Only)	EA	0	$7,500	$0
1104.4.1.A.1	Pavement Line Paint (2 coats)	LF	0	$1.75	$0
2050.4.1.C.1	Subgrade Separation Geotextile	SY	0	$2.00	$0
S-1	Asphalt and Base (2"AC/4"AB) - Local Residential	SF	0	$2.38	$0
S-2	Asphalt and Base (3"AC/6"AB) - Local Commercial/Industrial	SF	0	$3.58	$0
S-3	Asphalt and Base (3"AC/4"AB) - Minor Collector	SF	0	$3.18	$0
S-4	Asphalt and Base (3"AC/6"AB) - Local Commercial/Industrial	SF	0	$3.58	$0
S-5	Asphalt and Base (3"AC/6"AB) -Major Collector	SF	0	$3.58	$0
S-6	Asphalt and Base (4"AC/6"AB) - Minor Arterial	SF	0	$4.35	$0
S-7	Asphalt and Base (4"AC/6"AB) - Principle Arterial	SF	0	$4.35	$0
S-8	Asphalt and Base (2"AC/4"AB) - Multi-Use Trail	SF	0	$2.38	$0
S-9	Roundabout - Single Lane	LS	0	$970,000	$0
S-10	Roundabout - Double Lane	LS	0	$2,200,000	$0
S-11	Conduit and Fiber Interconnect	LF	0	$160.00	$0
S-12	Railroad Crossing Improvements	LS	0	$0	$0
S-13	Structures	LS	0	$0	$0
S-14	Utility Relocations	LS	0	$0	$0
S-15	Storm Drainage (5%)	%	1	5%	$7,500
S-16	Miscellaneous Items (10%)	%	1	10%	$15,000
S-17	Survey (3%)	%	1	3%	$4,500
S-18	Temporary/Permanenet Erosion Control (4%)	%	1	4%	$6,000
S-19	Landscapping and Irrigation (4%)	%	1	4%	$6,000
S-20	Temporary Traffic Control (10%)	%	1	10%	$15,000
S-21	Mobilization (10%)	%	1	10%	$15,000
S-22	Right of Way - Full Acquisition	LS	0	$0	$0
S-23	Right of Way - Residential	SF	0	$18	$0
S-24	Right of Way - Commercial	SF	0	$14	$0
S-25	Right of Way - Industrial	SF	0	$8	$0
S-26	Planning, Engineering, and Administrative Costs	%	1	25%	$37,500
S-27	Construction Engineering and Inspection	%	1	15%	$22,500
				ANTICIPATED PROJECT COST	**$279,000**

ENGINEER'S OPINION OF PROBABLE COST

PROJECT:	**HAYDEN AVE AND IDAHO ST INTERSECTION**
Detailed Description:	Install a signal or roundabout. Evaluate feasibility based on adjacent development and right-of-way. Include ADA ramps and pedestrian crossings. Single lane roundabout assumed for estimating purposes.
Project Code:	P-22
Project Size:	Medium
Project Timeline:	Short Term (2025-2030)
Project Funding:	Local
Roadway Classification:	Minor Arterial
Estimate Date:	November 2025

ITEM NO.	ITEM DESCRIPTION	SCHEDULE OF VALUES			
		UNIT	EST. QUAN	UNIT PRICE	TOTAL
201.4.1.A.1	Clearing and Grubbing	AC	0	$6,640	$0
201.4.1.C.1	Removal of Obstructions	LS	1	$2,000	$2,000
202.4.1.A.1	Excavation	CY	0	$26	$0
202.4.6.A.1	Borrow	CY	0	$26	$0
706.4.1.A.3	Standard Straight Curb	LF	0	$60	$0
706.4.1.A.5	Standard 6-inch Vertical Curb & Gutter	LF	0	$40	$0
706.4.1.E.1	Concrete Sidewalk, Thickness 4"	SF	0	$15	$0
706.4.1.H.1	Pedestrian Ramp w/ Detectable Warning Domes	EA	0	$2,700	$0
706.4.1.F.1	Concrete Driveway Approach	EA	0	$4,000	$0
808.4.1.A.1	Seal Coat	SY	0	$4.50	$0
1101.4.1.A.1	Traffic Signal	LS	0	$300,000	$0
1102.4.1.A.1	Street Light (Foundation, Conduit, and Junction Box Only)	EA	0	$7,500	$0
1104.4.1.A.1	Pavement Line Paint (2 coats)	LF	0	$1.19	$0
2050.4.1.C.1	Subgrade Separation Geotextile	SY	0	$1.50	$0
S-1	Asphalt and Base (2"AC/4"AB) - Local Residential	SF	0	$1.81	$0
S-2	Asphalt and Base (3"AC/6"AB) - Local Commercial/Industrial	SF	0	$2.72	$0
S-3	Asphalt and Base (3"AC/4"AB) - Minor Collector	SF	0	$2.40	$0
S-4	Asphalt and Base (3"AC/6"AB) - Local Commercial/Industrial	SF	0	$2.72	$0
S-5	Asphalt and Base (3"AC/6"AB) -Major Collector	SF	0	$2.72	$0
S-6	Asphalt and Base (4"AC/6"AB) - Minor Arterial	SF	0	$3.29	$0
S-7	Asphalt and Base (4"AC/6"AB) - Principle Arterial	SF	0	$3.29	$0
S-8	Asphalt and Base (2"AC/4"AB) - Multi-Use Trail	SF	0	$1.81	$0
S-9	Roundabout - Single Lane	LS	1	$970,000	$970,000
S-10	Roundabout - Double Lane	LS	0	$2,200,000	$0
S-11	Conduit and Fiber Interconnect	LF	0	$120.00	$0
S-12	Railroad Crossing Improvements	LS	0	$0	$0
S-13	Structures	LS	0	$0	$0
S-14	Utility Relocations	LS	1	$175,000	$175,000
S-15	Storm Drainage (5%)	%	1	5%	$48,600
S-16	Miscellaneous Items (10%)	%	1	10%	$97,200
S-17	Survey (3%)	%	1	3%	$29,160
S-18	Temporary/Permanenet Erosion Control (4%)	%	1	4%	$38,880
S-19	Landscapping and Irrigation (4%)	%	1	4%	$38,880
S-20	Temporary Traffic Control (10%)	%	1	10%	$97,200
S-21	Mobilization (10%)	%	1	10%	$97,200
S-22	Right of Way - Full Acquisition	LS	0	$0	$0
S-23	Right of Way - Residential	SF	1760	$18	$31,680
S-24	Right of Way - Commercial	SF		$14	$0
S-25	Right of Way - Industrial	SF		$8	$0
S-26	Planning, Engineering, and Administrative Costs	%	1	20%	$194,400
S-27	Construction Engineering and Inspection	%	1	15%	$145,800
				ANTICIPATED PROJECT COST	**$1,966,000**

ENGINEER'S OPINION OF PROBABLE COST

PROJECT:	**HAYDEN AVE AND SPOKANE ST INTERSECTION**
Detailed Description:	Install a signal or roundabout. Include ADA ramps and pedestrian facilities. Evaluate feasibility based on intersection geometry.
Project Code:	P-23
Project Size:	Medium
Project Timeline:	Short Term (2025-2030)
Project Funding:	Local
Roadway Classification:	Minor Arterial
Estimate Date:	November 2025

ITEM NO.	ITEM DESCRIPTION	SCHEDULE OF VALUES			
		UNIT	EST. QUAN	UNIT PRICE	TOTAL
201.4.1.A.1	Clearing and Grubbing	AC	0	$6,640	$0
201.4.1.C.1	Removal of Obstructions	LS	1	$2,000	$2,000
202.4.1.A.1	Excavation	CY	0	$26	$0
202.4.6.A.1	Borrow	CY	0	$26	$0
706.4.1.A.3	Standard Straight Curb	LF	0	$60	$0
706.4.1.A.5	Standard 6-inch Vertical Curb & Gutter	LF	0	$40	$0
706.4.1.E.1	Concrete Sidewalk, Thickness 4"	SF	0	$15	$0
706.4.1.H.1	Pedestrian Ramp w/ Detectable Warning Domes	EA	0	$2,700	$0
706.4.1.F.1	Concrete Driveway Approach	EA	0	$4,000	$0
808.4.1.A.1	Seal Coat	SY	0	$4.50	$0
1101.4.1.A.1	Traffic Signal	LS	0	$300,000	$0
1102.4.1.A.1	Street Light (Foundation, Conduit, and Junction Box Only)	EA	0	$7,500	$0
1104.4.1.A.1	Pavement Line Paint (2 coats)	LF	0	$1.19	$0
2050.4.1.C.1	Subgrade Separation Geotextile	SY	0	$1.50	$0
S-1	Asphalt and Base (2"AC/4"AB) - Local Residential	SF	0	$1.81	$0
S-2	Asphalt and Base (3"AC/6"AB) - Local Commercial/Industrial	SF	0	$2.72	$0
S-3	Asphalt and Base (3"AC/4"AB) - Minor Collector	SF	0	$2.40	$0
S-4	Asphalt and Base (3"AC/6"AB) - Local Commercial/Industrial	SF	0	$2.72	$0
S-5	Asphalt and Base (3"AC/6"AB) -Major Collector	SF	0	$2.72	$0
S-6	Asphalt and Base (4"AC/6"AB) - Minor Arterial	SF	0	$3.29	$0
S-7	Asphalt and Base (4"AC/6"AB) - Principle Arterial	SF	0	$3.29	$0
S-8	Asphalt and Base (2"AC/4"AB) - Multi-Use Trail	SF	0	$1.81	$0
S-9	Roundabout - Single Lane	LS	1	$970,000	$970,000
S-10	Roundabout - Double Lane	LS	0	$2,200,000	$0
S-11	Conduit and Fiber Interconnect	LF	0	$120.00	$0
S-12	Railroad Crossing Improvements	LS	0	$0	$0
S-13	Structures	LS	0	$0	$0
S-14	Utility Relocations	LS	1	$30,600	$30,600
S-15	Storm Drainage (5%)	%	1	5%	$48,600
S-16	Miscellaneous Items (10%)	%	1	10%	$97,200
S-17	Survey (3%)	%	1	3%	$29,160
S-18	Temporary/Permanenet Erosion Control (4%)	%	1	4%	$38,880
S-19	Landscapping and Irrigation (4%)	%	1	4%	$38,880
S-20	Temporary Traffic Control (10%)	%	1	10%	$97,200
S-21	Mobilization (10%)	%	1	10%	$97,200
S-22	Right of Way - Full Acquisition	LS	1	$0	$0
S-23	Right of Way - Residential	SF	14125	$18	$254,250
S-24	Right of Way - Commercial	SF	0	$14	$0
S-25	Right of Way - Industrial	SF	0	$8	$0
S-26	Planning, Engineering, and Administrative Costs	%	1	20%	$194,400
S-27	Construction Engineering and Inspection	%	1	15%	$145,800
				ANTICIPATED PROJECT COST	**$2,045,000**

ENGINEER'S OPINION OF PROBABLE COST

PROJECT:	**HAYDEN AVE CORRIDOR - MCGUIRE RD TO SH-41**
Detailed Description:	Widen to three lanes. Include sidewalks, bike lanes, and stormwater facilities. Consider future development and right-of-way constraints. This is a multi jurisdictional project that impacts regional mobility. City Impact fees for southern frontage improvements (Spokane-Greensferry).
Project Code:	P-24
Project Size:	Large
Project Timeline:	Short Term (2025-2030)
Project Funding:	Local
Roadway Classification:	Minor Arterial
Estimate Date:	November 2025

ITEM NO.	ITEM DESCRIPTION	SCHEDULE OF VALUES			
		UNIT	EST. QUAN	UNIT PRICE	TOTAL
201.4.1.A.1	Clearing and Grubbing	AC	27	$3,500	$94,420
201.4.1.C.1	Removal of Obstructions	LS	1	$185,000	$185,000
202.4.1.A.1	Excavation	CY	31623	$19	$600,840
202.4.6.A.1	Borrow	CY	0	$21	$0
706.4.1.A.3	Standard Straight Curb	LF	0	$45	$0
706.4.1.A.5	Standard 6-inch Vertical Curb & Gutter	LF	40180	$33	$1,325,940
706.4.1.E.1	Concrete Sidewalk, Thickness 4"	SF	100450	$12	$1,205,400
706.4.1.H.1	Pedestrian Ramp w/ Detectable Warning Domes	EA	3	$2,700	$8,100
706.4.1.F.1	Concrete Driveway Approach	EA	38	$3,500	$133,000
808.4.1.A.1	Seal Coat	SY	0	$4.00	$0
1101.4.1.A.1	Traffic Signal	LS	0	$600,000	$0
1102.4.1.A.1	Street Light (Foundation, Conduit, and Junction Box Only)	EA	141	$7,500	$1,057,500
1104.4.1.A.1	Pavement Line Paint (2 coats)	LF	80360	$0.40	$32,144
2050.4.1.C.1	Subgrade Separation Geotextile	SY	12724	$1.50	$19,086
S-1	Asphalt and Base (2"AC/4"AB) - Local Residential	SF	0	$1.60	$0
S-2	Asphalt and Base (3"AC/6"AB) - Local Commercial/Industrial	SF	0	$2.41	$0
S-3	Asphalt and Base (3"AC/4"AB) - Minor Collector	SF	0	$2.15	$0
S-4	Asphalt and Base (3"AC/6"AB) - Local Commercial/Industrial	SF	0	$2.41	$0
S-5	Asphalt and Base (3"AC/6"AB) -Major Collector	SF	0	$2.41	$0
S-6	Asphalt and Base (4"AC/6"AB) - Minor Arterial	SF	944230	$2.93	$2,770,233
S-7	Asphalt and Base (4"AC/6"AB) - Principle Arterial	SF	0	$2.93	$0
S-8	Asphalt and Base (2"AC/4"AB) - Multi-Use Trail	SF	200900	$1.60	$322,353
S-9	Roundabout - Single Lane	LS	0	$970,000	$0
S-10	Roundabout - Double Lane	LS	0	$2,200,000	$0
S-11	Conduit and Fiber Interconnect	LF	0	$80.00	$0
S-12	Railroad Crossing Improvements	LS	0	$0	$0
S-13	Structures	LS	1	$0	$0
S-14	Utility Relocations	LS	1	$2,239,200	$2,239,200
S-15	Storm Drainage (5%)	%	1	5%	$387,701
S-16	Miscellaneous Items (10%)	%	1	10%	$775,401
S-17	Survey (3%)	%	1	3%	$232,620
S-18	Temporary/Permanenet Erosion Control (4%)	%	1	4%	$310,161
S-19	Landscapping and Irrigation (4%)	%	1	4%	$310,161
S-20	Temporary Traffic Control (10%)	%	1	10%	$775,401
S-21	Mobilization (10%)	%	1	10%	$775,401
S-22	Right of Way - Full Acquisition	LS	1	$631,900	$631,900
S-23	Right of Way - Residential	SF	558300	$18	$10,049,400
S-24	Right of Way - Commercial	SF	0	$14	$0
S-25	Right of Way - Industrial	SF	35280	$8	$282,240
S-26	Planning, Engineering, and Administrative Costs	%	1	15%	$1,163,102
S-27	Construction Engineering and Inspection	%	1	15%	$1,163,102
				ANTICIPATED PROJECT COST	**$26,850,000**

ENGINEER'S OPINION OF PROBABLE COST

PROJECT:	**HUETTER RD CORRIDOR - MULLAN AVE TO POLELINE AVE**
Detailed Description:	Widen to five lanes. Include full arterial section with sidewalks, bike lanes, and stormwater swales. Account for significant cut/fill and borrow.
Project Code:	P-25
Project Size:	Large
Project Timeline:	Short Term (2025-2030)
Project Funding:	Local
Roadway Classification:	Minor Arterial
Estimate Date:	November 2025

ITEM NO.	ITEM DESCRIPTION	SCHEDULE OF VALUES			
		UNIT	EST. QUAN	UNIT PRICE	TOTAL
201.4.1.A.1	Clearing and Grubbing	AC	9.45	$3,500	$33,072
201.4.1.C.1	Removal of Obstructions	LS	1	$15,000	$15,000
202.4.1.A.1	Excavation	CY	16636	$19	$316,080
202.4.6.A.1	Borrow	CY	0	$21	$0
706.4.1.A.3	Standard Straight Curb	LF	0	$45	$0
706.4.1.A.5	Standard 6-inch Vertical Curb & Gutter	LF	9800	$33	$323,400
706.4.1.E.1	Concrete Sidewalk, Thickness 4"	SF	0	$12	$0
706.4.1.H.1	Pedestrian Ramp w/ Detectable Warning Domes	EA	2	$2,700	$5,400
706.4.1.F.1	Concrete Driveway Approach	EA	3	$3,500	$10,500
808.4.1.A.1	Seal Coat	SY	0	$4.00	$0
1101.4.1.A.1	Traffic Signal	LS	0	$600,000	$0
1102.4.1.A.1	Street Light (Foundation, Conduit, and Junction Box Only)	EA	33	$7,500	$245,000
1104.4.1.A.1	Pavement Line Paint (2 coats)	LF	29400	$0.40	$11,760
2050.4.1.C.1	Subgrade Separation Geotextile	SY	5771	$1.50	$8,657
S-1	Asphalt and Base (2"AC/4"AB) - Local Residential	SF	0	$1.60	$0
S-2	Asphalt and Base (3"AC/6"AB) - Local Commercial/Industrial	SF	0	$2.41	$0
S-3	Asphalt and Base (3"AC/4"AB) - Minor Collector	SF	0	$2.15	$0
S-4	Asphalt and Base (3"AC/6"AB) - Local Commercial/Industrial	SF	0	$2.41	$0
S-5	Asphalt and Base (3"AC/6"AB) -Major Collector	SF	0	$2.41	$0
S-6	Asphalt and Base (4"AC/6"AB) - Minor Arterial	SF	0	$2.93	$0
S-7	Asphalt and Base (4"AC/6"AB) - Principle Arterial	SF	372400	$2.93	$1,092,567
S-8	Asphalt and Base (2"AC/4"AB) - Multi-Use Trail	SF	147000	$1.60	$235,868
S-9	Roundabout - Single Lane	LS	0	$970,000	$0
S-10	Roundabout - Double Lane	LS	0	$2,200,000	$0
S-11	Conduit and Fiber Interconnect	LF	0	$80.00	$0
S-12	Railroad Crossing Improvements	LS	0	$0	$0
S-13	Structures	LS	0	$0	$0
S-14	Utility Relocations	LS	0	$869,600	$0
S-15	Storm Drainage (5%)	%	1	5%	$114,865
S-16	Miscellaneous Items (10%)	%	1	10%	$229,730
S-17	Survey (3%)	%	1	3%	$68,919
S-18	Temporary/Permanenet Erosion Control (4%)	%	1	4%	$91,892
S-19	Landscapping and Irrigation (4%)	%	1	4%	$91,892
S-20	Temporary Traffic Control (10%)	%	1	10%	$229,730
S-21	Mobilization (10%)	%	1	10%	$229,730
S-22	Right of Way - Full Acquisition	LS	0	$0	$0
S-23	Right of Way - Residential	SF	360570	$18	$6,490,260
S-24	Right of Way - Commercial	SF	0	$14	$0
S-25	Right of Way - Industrial	SF	0	$8	$0
S-26	Planning, Engineering, and Administrative Costs	%	1	15%	$344,596
S-27	Construction Engineering and Inspection	%	1	15%	$344,596
				ANTICIPATED PROJECT COST	**$10,534,000**

ENGINEER'S OPINION OF PROBABLE COST

PROJECT:	**HUETTER RD CORRIDOR - POLELINE AVE TO PRAIRIE AVE**
Detailed Description:	Widen to five lanes. Include full arterial section. Coordinate with adjacent corridor and intersection projects.
Project Code:	P-26
Project Size:	Large
Project Timeline:	Short Term (2025-2030)
Project Funding:	Local
Roadway Classification:	Minor Arterial
Estimate Date:	November 2025

ITEM NO.	ITEM DESCRIPTION	SCHEDULE OF VALUES			
		UNIT	EST. QUAN	UNIT PRICE	TOTAL
201.4.1.A.1	Clearing and Grubbing	AC	7.87	$3,500	$27,560
201.4.1.C.1	Removal of Obstructions	LS	1	$15,000	$15,000
202.4.1.A.1	Excavation	CY	11494	$19	$218,383
202.4.6.A.1	Borrow	CY	0	$21	$0
706.4.1.A.3	Standard Straight Curb	LF	0	$45	$0
706.4.1.A.5	Standard 6-inch Vertical Curb & Gutter	LF	9800	$33	$323,400
706.4.1.E.1	Concrete Sidewalk, Thickness 4"	SF	0	$12	$0
706.4.1.H.1	Pedestrian Ramp w/ Detectable Warning Domes	EA	4	$2,700	$10,800
706.4.1.F.1	Concrete Driveway Approach	EA	14	$3,500	$49,000
808.4.1.A.1	Seal Coat	SY	0	$4.00	$0
1101.4.1.A.1	Traffic Signal	LS	0	$600,000	$0
1102.4.1.A.1	Street Light (Foundation, Conduit, and Junction Box Only)	EA	33	$7,500	$245,000
1104.4.1.A.1	Pavement Line Paint (2 coats)	LF	29400	$0.40	$11,760
2050.4.1.C.1	Subgrade Separation Geotextile	SY	5227	$1.50	$7,840
S-1	Asphalt and Base (2"AC/4"AB) - Local Residential	SF	0	$1.60	$0
S-2	Asphalt and Base (3"AC/6"AB) - Local Commercial/Industrial	SF	0	$2.41	$0
S-3	Asphalt and Base (3"AC/4"AB) - Minor Collector	SF	0	$2.15	$0
S-4	Asphalt and Base (3"AC/6"AB) - Local Commercial/Industrial	SF	0	$2.41	$0
S-5	Asphalt and Base (3"AC/6"AB) -Major Collector	SF	0	$2.41	$0
S-6	Asphalt and Base (4"AC/6"AB) - Minor Arterial	SF	0	$2.93	$0
S-7	Asphalt and Base (4"AC/6"AB) - Principle Arterial	SF	372400	$2.93	$1,092,567
S-8	Asphalt and Base (2"AC/4"AB) - Multi-Use Trail	SF	98000	$1.60	$157,245
S-9	Roundabout - Single Lane	LS	0	$970,000	$0
S-10	Roundabout - Double Lane	LS	0	$2,200,000	$0
S-11	Conduit and Fiber Interconnect	LF	0	$80.00	$0
S-12	Railroad Crossing Improvements	LS	0	$0	$0
S-13	Structures	LS	1	$0	$0
S-14	Utility Relocations	LS	0	$869,600	$0
S-15	Storm Drainage (5%)	%	1	5%	$107,928
S-16	Miscellaneous Items (10%)	%	1	10%	$215,855
S-17	Survey (3%)	%	1	3%	$64,757
S-18	Temporary/Permanenet Erosion Control (4%)	%	1	4%	$86,342
S-19	Landscapping and Irrigation (4%)	%	1	4%	$86,342
S-20	Temporary Traffic Control (10%)	%	1	10%	$215,855
S-21	Mobilization (10%)	%	1	10%	$215,855
S-22	Right of Way - Full Acquisition	LS	0	$0	$0
S-23	Right of Way - Residential	SF	162140	$18	$2,918,520
S-24	Right of Way - Commercial	SF	0	$14	$0
S-25	Right of Way - Industrial	SF	0	$8	$0
S-26	Planning, Engineering, and Administrative Costs	%	1	15%	$323,783
S-27	Construction Engineering and Inspection	%	1	15%	$323,783
				ANTICIPATED PROJECT COST	**$6,718,000**

ENGINEER'S OPINION OF PROBABLE COST

PROJECT:	**HUETTER RD CORRIDOR - SELTICE AVE TO MULLAN AVE**
Detailed Description:	Widen to five lanes. Coordinate with I-90 bridge improvements. Include full arterial section with pedestrian and stormwater features.
Project Code:	P-27
Project Size:	Large
Project Timeline:	Short Term (2025-2030)
Project Funding:	Local
Roadway Classification:	Minor Arterial
Estimate Date:	November 2025

ITEM NO.	ITEM DESCRIPTION	SCHEDULE OF VALUES			
		UNIT	EST. QUAN	UNIT PRICE	TOTAL
201.4.1.A.1	Clearing and Grubbing	AC	6	$3,500	$22,208
201.4.1.C.1	Removal of Obstructions	LS	1	$15,000	$15,000
202.4.1.A.1	Excavation	CY	12388	$19	$235,363
202.4.6.A.1	Borrow	CY	0	$21	$0
706.4.1.A.3	Standard Straight Curb	LF	0	$45	$0
706.4.1.A.5	Standard 6-inch Vertical Curb & Gutter	LF	6670	$33	$220,110
706.4.1.E.1	Concrete Sidewalk, Thickness 4"	SF	16675	$12	$200,100
706.4.1.H.1	Pedestrian Ramp w/ Detectable Warning Domes	EA	0	$2,700	$0
706.4.1.F.1	Concrete Driveway Approach	EA	9	$3,500	$31,500
808.4.1.A.1	Seal Coat	SY	0	$4.00	$0
1101.4.1.A.1	Traffic Signal	LS	0	$600,000	$0
1102.4.1.A.1	Street Light (Foundation, Conduit, and Junction Box Only)	EA	22	$7,500	$166,750
1104.4.1.A.1	Pavement Line Paint (2 coats)	LF	20010	$0.40	$8,004
2050.4.1.C.1	Subgrade Separation Geotextile	SY	2112	$1.50	$3,169
S-1	Asphalt and Base (2"AC/4"AB) - Local Residential	SF	0	$1.60	$0
S-2	Asphalt and Base (3"AC/6"AB) - Local Commercial/Industrial	SF	0	$2.41	$0
S-3	Asphalt and Base (3"AC/4"AB) - Minor Collector	SF	0	$2.15	$0
S-4	Asphalt and Base (3"AC/6"AB) - Local Commercial/Industrial	SF	0	$2.41	$0
S-5	Asphalt and Base (3"AC/6"AB) -Major Collector	SF	0	$2.41	$0
S-6	Asphalt and Base (4"AC/6"AB) - Minor Arterial	SF	156765	$2.93	$459,926
S-7	Asphalt and Base (4"AC/6"AB) - Principle Arterial	SF	0	$2.93	$0
S-8	Asphalt and Base (2"AC/4"AB) - Multi-Use Trail	SF	33350	$1.60	$53,511
S-9	Roundabout - Single Lane	LS	0	$970,000	$0
S-10	Roundabout - Double Lane	LS	0	$2,200,000	$0
S-11	Conduit and Fiber Interconnect	LF	3335	$80.00	$266,800
S-12	Railroad Crossing Improvements	LS	0	$0	$0
S-13	Structures	LS	1	$145,250	$145,250
S-14	Utility Relocations	LS	1	$636,500	$636,500
S-15	Storm Drainage (5%)	%	1	5%	$91,385
S-16	Miscellaneous Items (10%)	%	1	10%	$182,769
S-17	Survey (3%)	%	1	3%	$54,831
S-18	Temporary/Permanenet Erosion Control (4%)	%	1	4%	$73,108
S-19	Landscapping and Irrigation (4%)	%	1	4%	$73,108
S-20	Temporary Traffic Control (10%)	%	1	10%	$182,769
S-21	Mobilization (10%)	%	1	10%	$182,769
S-22	Right of Way - Full Acquisition	LS	1	$0	$0
S-23	Right of Way - Residential	SF	239946	$18	$4,319,028
S-24	Right of Way - Commercial	SF	0	$14	$0
S-25	Right of Way - Industrial	SF	0	$8	$0
S-26	Planning, Engineering, and Administrative Costs	%	1	15%	$274,154
S-27	Construction Engineering and Inspection	%	1	15%	$274,154
			ANTICIPATED PROJECT COST		**$8,173,000**

ENGINEER'S OPINION OF PROBABLE COST

PROJECT:	**HUETTER RD AND MULLAN AVE INTERSECTION**
Detailed Description:	Reconfigure intersection adding left turn lanes in all directions and upgrade signal. Include ADA ramps and pedestrian crossings.
Project Code:	P-28
Project Size:	Medium
Project Timeline:	Short Term (2025-2030)
Project Funding:	Local
Roadway Classification:	Minor Arterial
Estimate Date:	November 2025

ITEM NO.	ITEM DESCRIPTION	SCHEDULE OF VALUES			
		UNIT	EST. QUAN	UNIT PRICE	TOTAL
201.4.1.A.1	Clearing and Grubbing	AC	0	$6,640	$0
201.4.1.C.1	Removal of Obstructions	LS	1	$2,000	$2,000
202.4.1.A.1	Excavation	CY	692	$26	$17,983
202.4.6.A.1	Borrow	CY	0	$26	$0
706.4.1.A.3	Standard Straight Curb	LF	0	$60	$0
706.4.1.A.5	Standard 6-inch Vertical Curb & Gutter	LF	0	$40	$0
706.4.1.E.1	Concrete Sidewalk, Thickness 4"	SF	0	$15	$0
706.4.1.H.1	Pedestrian Ramp w/ Detectable Warning Domes	EA	0	$2,700	$0
706.4.1.F.1	Concrete Driveway Approach	EA	0	$4,000	$0
808.4.1.A.1	Seal Coat	SY	0	$4.50	$0
1101.4.1.A.1	Traffic Signal	LS	1	$300,000	$300,000
1102.4.1.A.1	Street Light (Foundation, Conduit, and Junction Box Only)	EA	0	$7,500	$0
1104.4.1.A.1	Pavement Line Paint (2 coats)	LF	3800	$1.19	$4,522
2050.4.1.C.1	Subgrade Separation Geotextile	SY	509	$1.50	$763
S-1	Asphalt and Base (2"AC/4"AB) - Local Residential	SF	0	$1.81	$0
S-2	Asphalt and Base (3"AC/6"AB) - Local Commercial/Industrial	SF	0	$2.72	$0
S-3	Asphalt and Base (3"AC/4"AB) - Minor Collector	SF	15400	$2.40	$37,019
S-4	Asphalt and Base (3"AC/6"AB) - Local Commercial/Industrial	SF	0	$2.72	$0
S-5	Asphalt and Base (3"AC/6"AB) -Major Collector	SF	0	$2.72	$0
S-6	Asphalt and Base (4"AC/6"AB) - Minor Arterial	SF	0	$3.29	$0
S-7	Asphalt and Base (4"AC/6"AB) - Principle Arterial	SF	30400	$3.29	$100,095
S-8	Asphalt and Base (2"AC/4"AB) - Multi-Use Trail	SF	0	$1.81	$0
S-9	Roundabout - Single Lane	LS	0	$970,000	$0
S-10	Roundabout - Double Lane	LS	0	$2,200,000	$0
S-11	Conduit and Fiber Interconnect	LF	0	$120.00	$0
S-12	Railroad Crossing Improvements	LS	0	$0	$0
S-13	Structures	LS	0	$0	$0
S-14	Utility Relocations	LS	1	$0	$0
S-15	Storm Drainage (5%)	%	1	5%	$23,119
S-16	Miscellaneous Items (10%)	%	1	10%	$46,238
S-17	Survey (3%)	%	1	3%	$13,871
S-18	Temporary/Permanenet Erosion Control (4%)	%	1	4%	$18,495
S-19	Landscapping and Irrigation (4%)	%	1	4%	$18,495
S-20	Temporary Traffic Control (10%)	%	1	10%	$46,238
S-21	Mobilization (10%)	%	1	10%	$46,238
S-22	Right of Way - Full Acquisition	LS	0	$0	$0
S-23	Right of Way - Residential	SF	42408	$18	$763,344
S-24	Right of Way - Commercial	SF		$14	$0
S-25	Right of Way - Industrial	SF		$8	$0
S-26	Planning, Engineering, and Administrative Costs	%	1	20%	$92,477
S-27	Construction Engineering and Inspection	%	1	15%	$69,357
				ANTICIPATED PROJECT COST	**$1,601,000**

ENGINEER'S OPINION OF PROBABLE COST

PROJECT:	**HUETTER RD AND POLELINE AVE INTERSECTION**
Detailed Description:	Reconfigure intersection adding a second through lane in each direction and upgrade signal. Include ADA ramps and pedestrian crossings. Coordinate with corridor widening.
Project Code:	P-29
Project Size:	Medium
Project Timeline:	Short Term (2025-2030)
Project Funding:	Local
Roadway Classification:	Minor Arterial
Estimate Date:	November 2025

ITEM NO.	ITEM DESCRIPTION	SCHEDULE OF VALUES			
		UNIT	EST. QUAN	UNIT PRICE	TOTAL
201.4.1.A.1	Clearing and Grubbing	AC	1	$6,640	$3,320
201.4.1.C.1	Removal of Obstructions	LS	1	$2,000	$2,000
202.4.1.A.1	Excavation	CY	270	$26	$7,020
202.4.6.A.1	Borrow	CY	0	$26	$0
706.4.1.A.3	Standard Straight Curb	LF	0	$60	$0
706.4.1.A.5	Standard 6-inch Vertical Curb & Gutter	LF	0	$40	$0
706.4.1.E.1	Concrete Sidewalk, Thickness 4"	SF	0	$15	$0
706.4.1.H.1	Pedestrian Ramp w/ Detectable Warning Domes	EA	0	$2,700	$0
706.4.1.F.1	Concrete Driveway Approach	EA	0	$4,000	$0
808.4.1.A.1	Seal Coat	SY	0	$4.50	$0
1101.4.1.A.1	Traffic Signal	LS	1	$300,000	$300,000
1102.4.1.A.1	Street Light (Foundation, Conduit, and Junction Box Only)	EA	0	$7,500	$0
1104.4.1.A.1	Pavement Line Paint (2 coats)	LF	0	$1.19	$0
2050.4.1.C.1	Subgrade Separation Geotextile	SY	97	$1.50	$146
S-1	Asphalt and Base (2"AC/4"AB) - Local Residential	SF	0	$1.81	$0
S-2	Asphalt and Base (3"AC/6"AB) - Local Commercial/Industrial	SF	0	$2.72	$0
S-3	Asphalt and Base (3"AC/4"AB) - Minor Collector	SF	0	$2.40	$0
S-4	Asphalt and Base (3"AC/6"AB) - Local Commercial/Industrial	SF	0	$2.72	$0
S-5	Asphalt and Base (3"AC/6"AB) -Major Collector	SF	0	$2.72	$0
S-6	Asphalt and Base (4"AC/6"AB) - Minor Arterial	SF	8748	$3.29	$28,804
S-7	Asphalt and Base (4"AC/6"AB) - Principle Arterial	SF	0	$3.29	$0
S-8	Asphalt and Base (2"AC/4"AB) - Multi-Use Trail	SF	0	$1.81	$0
S-9	Roundabout - Single Lane	LS	0	$970,000	$0
S-10	Roundabout - Double Lane	LS	0	$2,200,000	$0
S-11	Conduit and Fiber Interconnect	LF	0	$120.00	$0
S-12	Railroad Crossing Improvements	LS	0	$0	$0
S-13	Structures	LS	0	$0	$0
S-14	Utility Relocations	LS	1	$650,000	$650,000
S-15	Storm Drainage (5%)	%	1	5%	$17,064
S-16	Miscellaneous Items (10%)	%	1	10%	$34,129
S-17	Survey (3%)	%	1	3%	$10,239
S-18	Temporary/Permanenet Erosion Control (4%)	%	1	4%	$13,652
S-19	Landscapping and Irrigation (4%)	%	1	4%	$13,652
S-20	Temporary Traffic Control (10%)	%	1	10%	$34,129
S-21	Mobilization (10%)	%	1	10%	$34,129
S-22	Right of Way - Full Acquisition	LS	1	$0	$0
S-23	Right of Way - Residential	SF	14260	$18	$256,680
S-24	Right of Way - Commercial	SF	0	$14	$0
S-25	Right of Way - Industrial	SF	0	$8	$0
S-26	Planning, Engineering, and Administrative Costs	%	1	20%	$68,258
S-27	Construction Engineering and Inspection	%	1	15%	$51,193
			ANTICIPATED PROJECT COST		**$1,525,000**

ENGINEER'S OPINION OF PROBABLE COST

PROJECT:	**IDAHO ST CORRIDOR - 3RD AVE TO 4TH AVE**
Detailed Description:	Widen to three lanes. Include sidewalks, bike lanes, and stormwater facilities. Assume railroad crossing to be abanonded
Project Code:	P-30
Project Size:	Medium
Project Timeline:	Short Term (2025-2030)
Project Funding:	Local
Roadway Classification:	Minor Arterial
Estimate Date:	November 2025

ITEM NO.	ITEM DESCRIPTION	SCHEDULE OF VALUES			
		UNIT	EST. QUAN	UNIT PRICE	TOTAL
201.4.1.A.1	Clearing and Grubbing	AC	0.60	$6,640	$4,001
201.4.1.C.1	Removal of Obstructions	LS	1	$12,000	$12,000
202.4.1.A.1	Excavation	CY	571	$26	$14,846
202.4.6.A.1	Borrow	CY	0	$26	$0
706.4.1.A.3	Standard Straight Curb	LF	0	$60	$0
706.4.1.A.5	Standard 6-inch Vertical Curb & Gutter	LF	850	$40	$34,000
706.4.1.E.1	Concrete Sidewalk, Thickness 4"	SF	7750	$15	$116,250
706.4.1.H.1	Pedestrian Ramp w/ Detectable Warning Domes	EA	6	$2,700	$16,200
706.4.1.F.1	Concrete Driveway Approach	EA	2	$4,000	$8,000
808.4.1.A.1	Seal Coat	SY	0	$4.50	$0
1101.4.1.A.1	Traffic Signal	LS	0	$300,000	$0
1102.4.1.A.1	Street Light (Foundation, Conduit, and Junction Box Only)	EA	3	$7,500	$22,500
1104.4.1.A.1	Pavement Line Paint (2 coats)	LF	1350	$1.19	$1,607
2050.4.1.C.1	Subgrade Separation Geotextile	SY	206	$1.50	$308
S-1	Asphalt and Base (2"AC/4"AB) - Local Residential	SF	0	$1.81	$0
S-2	Asphalt and Base (3"AC/6"AB) - Local Commercial/Industrial	SF	0	$2.72	$0
S-3	Asphalt and Base (3"AC/4"AB) - Minor Collector	SF	0	$2.40	$0
S-4	Asphalt and Base (3"AC/6"AB) - Local Commercial/Industrial	SF	0	$2.72	$0
S-5	Asphalt and Base (3"AC/6"AB) -Major Collector	SF	0	$2.72	$0
S-6	Asphalt and Base (4"AC/6"AB) - Minor Arterial	SF	18500	$3.29	$60,913
S-7	Asphalt and Base (4"AC/6"AB) - Principle Arterial	SF	0	$3.29	$0
S-8	Asphalt and Base (2"AC/4"AB) - Multi-Use Trail	SF	0	$1.81	$0
S-9	Roundabout - Single Lane	LS	0	$970,000	$0
S-10	Roundabout - Double Lane	LS	0	$2,200,000	$0
S-11	Conduit and Fiber Interconnect	LF	0	$120.00	$0
S-12	Railroad Crossing Improvements	LS	1	$700,000	$700,000
S-13	Structures	LS	0	$0	$0
S-14	Utility Relocations	LS	0	$0	$0
S-15	Storm Drainage (5%)	%	1	5%	$49,531
S-16	Miscellaneous Items (10%)	%	1	10%	$99,063
S-17	Survey (3%)	%	1	3%	$29,719
S-18	Temporary/Permanenet Erosion Control (4%)	%	1	4%	$39,625
S-19	Landscapping and Irrigation (4%)	%	1	4%	$39,625
S-20	Temporary Traffic Control (10%)	%	1	10%	$99,063
S-21	Mobilization (10%)	%	1	10%	$99,063
S-22	Right of Way - Full Acquisition	LS	0	$0	$0
S-23	Right of Way - Residential	SF	0	$18	$0
S-24	Right of Way - Commercial	SF	0	$14	$0
S-25	Right of Way - Industrial	SF	0	$8	$0
S-26	Planning, Engineering, and Administrative Costs	%	1	20%	$198,125
S-27	Construction Engineering and Inspection	%	1	15%	$148,594
				ANTICIPATED PROJECT COST	**$1,794,000**

ENGINEER'S OPINION OF PROBABLE COST

PROJECT:	**HUETTER RD AND PRAIRIE AVE INTERSECTION**
Detailed Description:	Reconfigure intersection to include separate right turn lanes in each direction and dual northbound right turns and upgrade signal. Include ADA ramps and pedestrian crossings. Coordinate with corridor widening.
Project Code:	P-31
Project Size:	Medium
Project Timeline:	Short Term (2025-2030)
Project Funding:	Local
Roadway Classification:	Minor Arterial
Estimate Date:	November 2025

ITEM NO.	ITEM DESCRIPTION	SCHEDULE OF VALUES			
		UNIT	EST. QUAN	UNIT PRICE	TOTAL
201.4.1.A.1	Clearing and Grubbing	AC	0	$6,640	$0
201.4.1.C.1	Removal of Obstructions	LS	1	$2,000	$2,000
202.4.1.A.1	Excavation	CY	0	$26	$0
202.4.6.A.1	Borrow	CY	0	$26	$0
706.4.1.A.3	Standard Straight Curb	LF	0	$60	$0
706.4.1.A.5	Standard 6-inch Vertical Curb & Gutter	LF	0	$40	$0
706.4.1.E.1	Concrete Sidewalk, Thickness 4"	SF	0	$15	$0
706.4.1.H.1	Pedestrian Ramp w/ Detectable Warning Domes	EA	0	$2,700	$0
706.4.1.F.1	Concrete Driveway Approach	EA	0	$4,000	$0
808.4.1.A.1	Seal Coat	SY	0	$4.50	$0
1101.4.1.A.1	Traffic Signal	LS	1	$300,000	$300,000
1102.4.1.A.1	Street Light (Foundation, Conduit, and Junction Box Only)	EA	0	$7,500	$0
1104.4.1.A.1	Pavement Line Paint (2 coats)	LF	0	$1.19	$0
2050.4.1.C.1	Subgrade Separation Geotextile	SY	0	$1.50	$0
S-1	Asphalt and Base (2"AC/4"AB) - Local Residential	SF	0	$1.81	$0
S-2	Asphalt and Base (3"AC/6"AB) - Local Commercial/Industrial	SF	0	$2.72	$0
S-3	Asphalt and Base (3"AC/4"AB) - Minor Collector	SF	0	$2.40	$0
S-4	Asphalt and Base (3"AC/6"AB) - Local Commercial/Industrial	SF	0	$2.72	$0
S-5	Asphalt and Base (3"AC/6"AB) -Major Collector	SF	0	$2.72	$0
S-6	Asphalt and Base (4"AC/6"AB) - Minor Arterial	SF	0	$3.29	$0
S-7	Asphalt and Base (4"AC/6"AB) - Principle Arterial	SF	0	$3.29	$0
S-8	Asphalt and Base (2"AC/4"AB) - Multi-Use Trail	SF	0	$1.81	$0
S-9	Roundabout - Single Lane	LS	0	$970,000	$0
S-10	Roundabout - Double Lane	LS	0	$2,200,000	$0
S-11	Conduit and Fiber Interconnect	LF	0	$120.00	$0
S-12	Railroad Crossing Improvements	LS	0	$0	$0
S-13	Structures	LS	0	$0	$0
S-14	Utility Relocations	LS	1	$0	$0
S-15	Storm Drainage (5%)	%	1	5%	$15,100
S-16	Miscellaneous Items (10%)	%	1	10%	$30,200
S-17	Survey (3%)	%	1	3%	$9,060
S-18	Temporary/Permanenet Erosion Control (4%)	%	1	4%	$12,080
S-19	Landscapping and Irrigation (4%)	%	1	4%	$12,080
S-20	Temporary Traffic Control (10%)	%	1	10%	$30,200
S-21	Mobilization (10%)	%	1	10%	$30,200
S-22	Right of Way - Full Acquisition	LS	1	$0	$0
S-23	Right of Way - Residential	SF	0	$18	$0
S-24	Right of Way - Commercial	SF	0	$14	$0
S-25	Right of Way - Industrial	SF	0	$8	$0
S-26	Planning, Engineering, and Administrative Costs	%	1	20%	$60,400
S-27	Construction Engineering and Inspection	%	1	15%	$45,300
				ANTICIPATED PROJECT COST	**$547,000**

ENGINEER'S OPINION OF PROBABLE COST

PROJECT:	**HUETTER RD AND SELTICE WAY INTERSECTION**
Detailed Description:	Reconfigure intersection adding dual eastbound lefts, dual southbound lefts, separate westbound right turn lanes and upgrade signal. Include ADA-compliant ramps and pedestrian facilities.
Project Code:	P-32
Project Size:	Medium
Project Timeline:	Medium Term (2031-2035)
Project Funding:	Local
Roadway Classification:	Principle Arterial
Estimate Date:	November 2025

ITEM NO.	ITEM DESCRIPTION	SCHEDULE OF VALUES			
		UNIT	EST. QUAN	UNIT PRICE	TOTAL
201.4.1.A.1	Clearing and Grubbing	AC	2	$6,640	$10,492
201.4.1.C.1	Removal of Obstructions	LS	1	$133,000	$133,000
202.4.1.A.1	Excavation	CY	2248	$26	$58,448
202.4.6.A.1	Borrow	CY	0	$26	$0
706.4.1.A.3	Standard Straight Curb	LF	0	$60	$0
706.4.1.A.5	Standard 6-inch Vertical Curb & Gutter	LF	1500	$40	$60,000
706.4.1.E.1	Concrete Sidewalk, Thickness 4"	SF	40	$15	$600
706.4.1.H.1	Pedestrian Ramp w/ Detectable Warning Domes	EA	4	$2,700	$10,800
706.4.1.F.1	Concrete Driveway Approach	EA	4	$4,000	$16,000
808.4.1.A.1	Seal Coat	SY	0	$4.50	$0
1101.4.1.A.1	Traffic Signal	LS	1	$300,000	$300,000
1102.4.1.A.1	Street Light (Foundation, Conduit, and Junction Box Only)	EA	4	$7,500	$30,000
1104.4.1.A.1	Pavement Line Paint (2 coats)	LF	4500	$1.19	$5,355
2050.4.1.C.1	Subgrade Separation Geotextile	SY	775	$1.50	$1,163
S-1	Asphalt and Base (2"AC/4"AB) - Local Residential	SF	0	$1.81	$0
S-2	Asphalt and Base (3"AC/6"AB) - Local Commercial/Industrial	SF	0	$2.72	$0
S-3	Asphalt and Base (3"AC/4"AB) - Minor Collector	SF	0	$2.40	$0
S-4	Asphalt and Base (3"AC/6"AB) - Local Commercial/Industrial	SF	0	$2.72	$0
S-5	Asphalt and Base (3"AC/6"AB) -Major Collector	SF	0	$2.72	$0
S-6	Asphalt and Base (4"AC/6"AB) - Minor Arterial	SF	0	$3.29	$0
S-7	Asphalt and Base (4"AC/6"AB) - Principle Arterial	SF	69750	$3.29	$229,659
S-8	Asphalt and Base (2"AC/4"AB) - Multi-Use Trail	SF	0	$1.81	$0
S-9	Roundabout - Single Lane	LS	0	$970,000	$0
S-10	Roundabout - Double Lane	LS	0	$2,200,000	$0
S-11	Conduit and Fiber Interconnect	LF	400	$120.00	$48,000
S-12	Railroad Crossing Improvements	LS	1	$50,000	$50,000
S-13	Structures	LS	1	$0	$0
S-14	Utility Relocations	LS	1	$250,000	$250,000
S-15	Storm Drainage (5%)	%	1	5%	$47,676
S-16	Miscellaneous Items (10%)	%	1	10%	$95,352
S-17	Survey (3%)	%	1	3%	$28,605
S-18	Temporary/Permanenet Erosion Control (4%)	%	1	4%	$38,141
S-19	Landscapping and Irrigation (4%)	%	1	4%	$38,141
S-20	Temporary Traffic Control (10%)	%	1	10%	$95,352
S-21	Mobilization (10%)	%	1	10%	$95,352
S-22	Right of Way - Full Acquisition	LS	1	$742,241	$742,241
S-23	Right of Way - Residential	SF	8500	$18	$153,000
S-24	Right of Way - Commercial	SF	0	$14	$0
S-25	Right of Way - Industrial	SF	0	$8	$0
S-26	Planning, Engineering, and Administrative Costs	%	1	20%	$190,703
S-27	Construction Engineering and Inspection	%	1	15%	$143,027
			ANTICIPATED PROJECT COST		**$2,872,000**

ENGINEER'S OPINION OF PROBABLE COST

PROJECT: **IDAHO ST AND 12TH AVE INTERSECTION**

Detailed Description: Install ¾ turn movement channelization with center island, restricting east-west through and left turning 12th Ave traffic. Include signage, striping, and pedestrian safety features.

Project Code: P-33

Project Size: Small

Project Timeline: Short Term (2025-2030)

Project Funding: Local

Roadway Classification: Minor Arterial

Estimate Date: November 2025

ITEM NO.	ITEM DESCRIPTION	SCHEDULE OF VALUES			
		UNIT	EST. QUAN	UNIT PRICE	TOTAL
201.4.1.A.1	Clearing and Grubbing	AC	0	$7,480	$0
201.4.1.C.1	Removal of Obstructions	LS	0	$253,000	$0
202.4.1.A.1	Excavation	CY	0	$45	$0
202.4.6.A.1	Borrow	CY	0	$50	$0
706.4.1.A.3	Standard Straight Curb	LF	500	$70	$35,000
706.4.1.A.5	Standard 6-inch Vertical Curb & Gutter	LF	0	$76	$0
706.4.1.E.1	Concrete Sidewalk, Thickness 4"	SF	785	$24	$18,840
706.4.1.H.1	Pedestrian Ramp w/ Detectable Warning Domes	EA	4	$2,700	$10,800
706.4.1.F.1	Concrete Driveway Approach	EA	0	$4,600	$0
808.4.1.A.1	Seal Coat	SY	0	$5.00	$0
1101.4.1.A.1	Traffic Signal	LS	0	$150,000	$0
1102.4.1.A.1	Street Light (Foundation, Conduit, and Junction Box Only)	EA	0	$7,500	$0
1104.4.1.A.1	Pavement Line Paint (2 coats)	LF	1200	$1.75	$2,100
2050.4.1.C.1	Subgrade Separation Geotextile	SY	0	$2.00	$0
S-1	Asphalt and Base (2"AC/4"AB) - Local Residential	SF	0	$2.38	$0
S-2	Asphalt and Base (3"AC/6"AB) - Local Commercial/Industrial	SF	0	$3.58	$0
S-3	Asphalt and Base (3"AC/4"AB) - Minor Collector	SF	0	$3.18	$0
S-4	Asphalt and Base (3"AC/6"AB) - Local Commercial/Industrial	SF	0	$3.58	$0
S-5	Asphalt and Base (3"AC/6"AB) -Major Collector	SF	0	$3.58	$0
S-6	Asphalt and Base (4"AC/6"AB) - Minor Arterial	SF	0	$4.35	$0
S-7	Asphalt and Base (4"AC/6"AB) - Principle Arterial	SF	0	$4.35	$0
S-8	Asphalt and Base (2"AC/4"AB) - Multi-Use Trail	SF	0	$2.38	$0
S-9	Roundabout - Single Lane	LS	0	$970,000	$0
S-10	Roundabout - Double Lane	LS	0	$2,200,000	$0
S-11	Conduit and Fiber Interconnect	LF	0	$160.00	$0
S-12	Railroad Crossing Improvements	LS	0	$0	$0
S-13	Structures	LS	0	$0	$0
S-14	Utility Relocations	LS	0	$25,000	$0
S-15	Storm Drainage (5%)	%	1	5%	$3,337
S-16	Miscellaneous Items (10%)	%	1	10%	$6,674
S-17	Survey (3%)	%	1	3%	$2,002
S-18	Temporary/Permanenet Erosion Control (4%)	%	1	4%	$2,670
S-19	Landscapping and Irrigation (4%)	%	1	4%	$2,670
S-20	Temporary Traffic Control (10%)	%	1	10%	$6,674
S-21	Mobilization (10%)	%	1	10%	$6,674
S-22	Right of Way - Full Acquisition	LS	1	$0	$0
S-23	Right of Way - Residential	SF	0	$18	$0
S-24	Right of Way - Commercial	SF	0	$14	$0
S-25	Right of Way - Industrial	SF	0	$8	$0
S-26	Planning, Engineering, and Administrative Costs	%	1	25%	$16,685
S-27	Construction Engineering and Inspection	%	1	15%	$10,011
				ANTICIPATED PROJECT COST	**$125,000**

ENGINEER'S OPINION OF PROBABLE COST

PROJECT:	**IDAHO ST AND 15TH AVE INTERSECTION**
Detailed Description:	Install traffic signal. Include ADA ramps and pedestrian facilities. Coordinate with corridor improvements.
Project Code:	P-34
Project Size:	Large
Project Timeline:	Short Term (2025-2030)
Project Funding:	Local
Roadway Classification:	Minor Arterial
Estimate Date:	November 2025

ITEM NO.	ITEM DESCRIPTION	SCHEDULE OF VALUES			
		UNIT	EST. QUAN	UNIT PRICE	TOTAL
201.4.1.A.1	Clearing and Grubbing	AC	0	$3,500	$0
201.4.1.C.1	Removal of Obstructions	LS	0	$378,000	$0
202.4.1.A.1	Excavation	CY	0	$19	$0
202.4.6.A.1	Borrow	CY	0	$21	$0
706.4.1.A.3	Standard Straight Curb	LF	0	$45	$0
706.4.1.A.5	Standard 6-inch Vertical Curb & Gutter	LF	120	$33	$3,960
706.4.1.E.1	Concrete Sidewalk, Thickness 4"	SF	700	$12	$8,400
706.4.1.H.1	Pedestrian Ramp w/ Detectable Warning Domes	EA	4	$2,700	$10,800
706.4.1.F.1	Concrete Driveway Approach	EA	0	$3,500	$0
808.4.1.A.1	Seal Coat	SY	0	$4.00	$0
1101.4.1.A.1	Traffic Signal	LS	1	$600,000	$600,000
1102.4.1.A.1	Street Light (Foundation, Conduit, and Junction Box Only)	EA	0	$7,500	$0
1104.4.1.A.1	Pavement Line Paint (2 coats)	LF	0	$0.40	$0
2050.4.1.C.1	Subgrade Separation Geotextile	SY	0	$1.50	$0
S-1	Asphalt and Base (2"AC/4"AB) - Local Residential	SF	0	$1.60	$0
S-2	Asphalt and Base (3"AC/6"AB) - Local Commercial/Industrial	SF	0	$2.41	$0
S-3	Asphalt and Base (3"AC/4"AB) - Minor Collector	SF	0	$2.15	$0
S-4	Asphalt and Base (3"AC/6"AB) - Local Commercial/Industrial	SF	0	$2.41	$0
S-5	Asphalt and Base (3"AC/6"AB) -Major Collector	SF	0	$2.41	$0
S-6	Asphalt and Base (4"AC/6"AB) - Minor Arterial	SF	0	$2.93	$0
S-7	Asphalt and Base (4"AC/6"AB) - Principle Arterial	SF	0	$2.93	$0
S-8	Asphalt and Base (2"AC/4"AB) - Multi-Use Trail	SF	0	$1.60	$0
S-9	Roundabout - Single Lane	LS	0	$970,000	$0
S-10	Roundabout - Double Lane	LS	0	$2,200,000	$0
S-11	Conduit and Fiber Interconnect	LF	0	$80.00	$0
S-12	Railroad Crossing Improvements	LS	0	$0	$0
S-13	Structures	LS	0	$0	$0
S-14	Utility Relocations	LS	0	$0	$0
S-15	Storm Drainage (5%)	%	1	5%	$31,158
S-16	Miscellaneous Items (10%)	%	1	10%	$62,316
S-17	Survey (3%)	%	1	3%	$18,695
S-18	Temporary/Permanenet Erosion Control (4%)	%	1	4%	$24,926
S-19	Landscapping and Irrigation (4%)	%	1	4%	$24,926
S-20	Temporary Traffic Control (10%)	%	1	10%	$62,316
S-21	Mobilization (10%)	%	1	10%	$62,316
S-22	Right of Way - Full Acquisition	LS	0	$1,322,000	$0
S-23	Right of Way - Residential	SF	0	$18	$0
S-24	Right of Way - Commercial	SF	0	$14	$0
S-25	Right of Way - Industrial	SF	0	$8	$0
S-26	Planning, Engineering, and Administrative Costs	%	1	15%	$93,474
S-27	Construction Engineering and Inspection	%	1	15%	$93,474
				ANTICIPATED PROJECT COST	**$1,097,000**

ENGINEER'S OPINION OF PROBABLE COST

PROJECT:	**IDAHO ST AND POLELINE AVE INTERSECTION**
Detailed Description:	Construct a new multi-lane roundabout. Include full reconstruction, ADA ramps, and pedestrian facilities.
Project Code:	P-35
Project Size:	Small
Project Timeline:	Medium Term (2031-2035)
Project Funding:	Local
Roadway Classification:	Minor Arterial
Estimate Date:	November 2025

ITEM NO.	ITEM DESCRIPTION	SCHEDULE OF VALUES			
		UNIT	EST. QUAN	UNIT PRICE	TOTAL
201.4.1.A.1	Clearing and Grubbing	AC	0.16	$7,480	$1,224
201.4.1.C.1	Removal of Obstructions	LS	1	$120,000	$120,000
202.4.1.A.1	Excavation	CY	0	$45	$0
202.4.6.A.1	Borrow	CY	0	$50	$0
706.4.1.A.3	Standard Straight Curb	LF	0	$70	$0
706.4.1.A.5	Standard 6-inch Vertical Curb & Gutter	LF	630	$76	$47,880
706.4.1.E.1	Concrete Sidewalk, Thickness 4"	SF	1050	$24	$25,200
706.4.1.H.1	Pedestrian Ramp w/ Detectable Warning Domes	EA	4	$2,700	$10,800
706.4.1.F.1	Concrete Driveway Approach	EA	0	$4,600	$0
808.4.1.A.1	Seal Coat	SY	0	$5.00	$0
1101.4.1.A.1	Traffic Signal	LS	0	$150,000	$0
1102.4.1.A.1	Street Light (Foundation, Conduit, and Junction Box Only)	EA	0	$7,500	$0
1104.4.1.A.1	Pavement Line Paint (2 coats)	LF	800	$1.75	$1,400
2050.4.1.C.1	Subgrade Separation Geotextile	SY	79	$2.00	$158
S-1	Asphalt and Base (2"AC/4"AB) - Local Residential	SF	0	$2.38	$0
S-2	Asphalt and Base (3"AC/6"AB) - Local Commercial/Industrial	SF	0	$3.58	$0
S-3	Asphalt and Base (3"AC/4"AB) - Minor Collector	SF	0	$3.18	$0
S-4	Asphalt and Base (3"AC/6"AB) - Local Commercial/Industrial	SF	0	$3.58	$0
S-5	Asphalt and Base (3"AC/6"AB) -Major Collector	SF	0	$3.58	$0
S-6	Asphalt and Base (4"AC/6"AB) - Minor Arterial	SF	2830	$4.35	$12,301
S-7	Asphalt and Base (4"AC/6"AB) - Principle Arterial	SF	0	$4.35	$0
S-8	Asphalt and Base (2"AC/4"AB) - Multi-Use Trail	SF	4300	$2.38	$10,247
S-9	Roundabout - Single Lane	LS	0	$970,000	$0
S-10	Roundabout - Double Lane	LS	0	$2,200,000	$0
S-11	Conduit and Fiber Interconnect	LF	0	$160.00	$0
S-12	Railroad Crossing Improvements	LS	0	$0	$0
S-13	Structures	LS	0	$0	$0
S-14	Utility Relocations	LS	1	$0	$0
S-15	Storm Drainage (5%)	%	1	5%	$11,461
S-16	Miscellaneous Items (10%)	%	1	10%	$22,921
S-17	Survey (3%)	%	1	3%	$6,876
S-18	Temporary/Permanenet Erosion Control (4%)	%	1	4%	$9,168
S-19	Landscapping and Irrigation (4%)	%	1	4%	$9,168
S-20	Temporary Traffic Control (10%)	%	1	10%	$22,921
S-21	Mobilization (10%)	%	1	10%	$22,921
S-22	Right of Way - Full Acquisition	LS	0	$0	$0
S-23	Right of Way - Residential	SF	8010	$18	$144,180
S-24	Right of Way - Commercial	SF	0	$14	$0
S-25	Right of Way - Industrial	SF	0	$8	$0
S-26	Planning, Engineering, and Administrative Costs	%	1	25%	$57,303
S-27	Construction Engineering and Inspection	%	1	15%	$34,382
			ANTICIPATED PROJECT COST		**$571,000**

ENGINEER'S OPINION OF PROBABLE COST

PROJECT:	**IDAHO ST AND POLSTON AVE INTERSECTION**
Detailed Description:	Install splitter island on Polston Ave restricting westbound left and through trips. Allow southbound left onto Polston Ave from Idaho Street.
Project Code:	P-36
Project Size:	Small
Project Timeline:	Short Term (2025-2030)
Project Funding:	Local
Roadway Classification:	Minor Arterial
Estimate Date:	November 2025

ITEM NO.	Minor Arterial	SCHEDULE OF VALUES			
		UNIT	EST. QUAN	UNIT PRICE	TOTAL
201.4.1.A.1	Clearing and Grubbing	AC	0	$7,480	$0
201.4.1.C.1	Removal of Obstructions	LS	1	$5,000	$5,000
202.4.1.A.1	Excavation	CY	78	$45	$3,525
202.4.6.A.1	Borrow	CY	0	$50	$0
706.4.1.A.3	Standard Straight Curb	LF	0	$70	$0
706.4.1.A.5	Standard 6-inch Vertical Curb & Gutter	LF	0	$76	$0
706.4.1.E.1	Concrete Sidewalk, Thickness 4"	SF	0	$24	$0
706.4.1.H.1	Pedestrian Ramp w/ Detectable Warning Domes	EA	0	$2,700	$0
706.4.1.F.1	Concrete Driveway Approach	EA	0	$4,600	$0
808.4.1.A.1	Seal Coat	SY	500	$5.00	$2,500
1101.4.1.A.1	Traffic Signal	LS	0	$150,000	$0
1102.4.1.A.1	Street Light (Foundation, Conduit, and Junction Box Only)	EA	0	$7,500	$0
1104.4.1.A.1	Pavement Line Paint (2 coats)	LF	330	$1.75	$578
2050.4.1.C.1	Subgrade Separation Geotextile	SY	4	$2.00	$7
S-1	Asphalt and Base (2"AC/4"AB) - Local Residential	SF	0	$2.38	$0
S-2	Asphalt and Base (3"AC/6"AB) - Local Commercial/Industrial	SF	0	$3.58	$0
S-3	Asphalt and Base (3"AC/4"AB) - Minor Collector	SF	104	$3.18	$330
S-4	Asphalt and Base (3"AC/6"AB) - Local Commercial/Industrial	SF	0	$3.58	$0
S-5	Asphalt and Base (3"AC/6"AB) -Major Collector	SF	220	$3.58	$788
S-6	Asphalt and Base (4"AC/6"AB) - Minor Arterial	SF	0	$4.35	$0
S-7	Asphalt and Base (4"AC/6"AB) - Principle Arterial	SF	0	$4.35	$0
S-8	Asphalt and Base (2"AC/4"AB) - Multi-Use Trail	SF	0	$2.38	$0
S-9	Roundabout - Single Lane	LS	0	$970,000	$0
S-10	Roundabout - Double Lane	LS	0	$2,200,000	$0
S-11	Conduit and Fiber Interconnect	LF	0	$160.00	$0
S-12	Railroad Crossing Improvements	LS	0	$0	$0
S-13	Structures	LS	0	$0	$0
S-14	Utility Relocations	LS	0	$0	$0
S-15	Storm Drainage (5%)	%	1	5%	$636
S-16	Miscellaneous Items (10%)	%	1	10%	$1,273
S-17	Survey (3%)	%	1	3%	$382
S-18	Temporary/Permanenet Erosion Control (4%)	%	1	4%	$509
S-19	Landscapping and Irrigation (4%)	%	1	4%	$509
S-20	Temporary Traffic Control (10%)	%	1	10%	$1,273
S-21	Mobilization (10%)	%	1	10%	$1,273
S-22	Right of Way - Full Acquisition	LS	0	$0	$0
S-23	Right of Way - Residential	SF	0	$18	$0
S-24	Right of Way - Commercial	SF	0	$14	$0
S-25	Right of Way - Industrial	SF	0	$8	$0
S-26	Planning, Engineering, and Administrative Costs	%	1	25%	$3,182
S-27	Construction Engineering and Inspection	%	1	15%	$1,909
				ANTICIPATED PROJECT COST	**$24,000**

ENGINEER'S OPINION OF PROBABLE COST

PROJECT:	**IDAHO ST AND PRAIRIE AVE INTERSECTION**
Detailed Description:	Install signal or multi-lane roundabout. Evaluate feasibility based on traffic volumes and corridor consistency. Include ADA upgrades.
Project Code:	P-37
Project Size:	Large
Project Timeline:	Medium Term (2031-2035)
Project Funding:	Local
Roadway Classification:	Principle Arterial
Estimate Date:	November 2025

ITEM NO.	ITEM DESCRIPTION	SCHEDULE OF VALUES			
		UNIT	EST. QUAN	UNIT PRICE	TOTAL
201.4.1.A.1	Clearing and Grubbing	AC	0.69	$3,500	$2,421
201.4.1.C.1	Removal of Obstructions	LS	1	$20,000	$20,000
202.4.1.A.1	Excavation	CY	5859	$19	$111,315
202.4.6.A.1	Borrow	CY	0	$21	$0
706.4.1.A.3	Standard Straight Curb	LF	0	$45	$0
706.4.1.A.5	Standard 6-inch Vertical Curb & Gutter	LF	0	$33	$0
706.4.1.E.1	Concrete Sidewalk, Thickness 4"	SF	0	$12	$0
706.4.1.H.1	Pedestrian Ramp w/ Detectable Warning Domes	EA	0	$2,700	$0
706.4.1.F.1	Concrete Driveway Approach	EA	0	$3,500	$0
808.4.1.A.1	Seal Coat	SY	0	$4.00	$0
1101.4.1.A.1	Traffic Signal	LS	0	$600,000	$0
1102.4.1.A.1	Street Light (Foundation, Conduit, and Junction Box Only)	EA	0	$7,500	$0
1104.4.1.A.1	Pavement Line Paint (2 coats)	LF	0	$0.40	$0
2050.4.1.C.1	Subgrade Separation Geotextile	SY	0	$1.50	$0
S-1	Asphalt and Base (2"AC/4"AB) - Local Residential	SF	0	$1.60	$0
S-2	Asphalt and Base (3"AC/6"AB) - Local Commercial/Industrial	SF	0	$2.41	$0
S-3	Asphalt and Base (3"AC/4"AB) - Minor Collector	SF	0	$2.15	$0
S-4	Asphalt and Base (3"AC/6"AB) - Local Commercial/Industrial	SF	0	$2.41	$0
S-5	Asphalt and Base (3"AC/6"AB) -Major Collector	SF	0	$2.41	$0
S-6	Asphalt and Base (4"AC/6"AB) - Minor Arterial	SF	0	$2.93	$0
S-7	Asphalt and Base (4"AC/6"AB) - Principle Arterial	SF	0	$2.93	$0
S-8	Asphalt and Base (2"AC/4"AB) - Multi-Use Trail	SF	0	$1.60	$0
S-9	Roundabout - Single Lane	LS	0	$970,000	$0
S-10	Roundabout - Double Lane	LS	1	$2,200,000	$2,200,000
S-11	Conduit and Fiber Interconnect	LF	0	$80.00	$0
S-12	Railroad Crossing Improvements	LS	1	$650,000	$650,000
S-13	Structures	LS	0	$0	$0
S-14	Utility Relocations	LS	0	$500,000	$0
S-15	Storm Drainage (5%)	%	1	5%	$149,187
S-16	Miscellaneous Items (10%)	%	1	10%	$298,374
S-17	Survey (3%)	%	1	3%	$89,512
S-18	Temporary/Permanenet Erosion Control (4%)	%	1	4%	$119,349
S-19	Landscapping and Irrigation (4%)	%	1	4%	$119,349
S-20	Temporary Traffic Control (10%)	%	1	10%	$298,374
S-21	Mobilization (10%)	%	1	10%	$298,374
S-22	Right of Way - Full Acquisition	LS	0	$0	$0
S-23	Right of Way - Residential	SF	19773	$18	$355,914
S-24	Right of Way - Commercial	SF	0	$14	$0
S-25	Right of Way - Industrial	SF	0	$8	$0
S-26	Planning, Engineering, and Administrative Costs	%	1	15%	$447,560
S-27	Construction Engineering and Inspection	%	1	15%	$447,560
				ANTICIPATED PROJECT COST	**$5,608,000**

ENGINEER'S OPINION OF PROBABLE COST

PROJECT:	**IDAHO ST AND SELTICE WAY INTERSECTION**
Detailed Description:	Reconfigure intersection to include eastbound right turn lane, dual southbound left turn lanes, single southbound through lane, single southbound right turn lane, and upgrade signal. Include ADA-compliant ramps and pedestrian facilities. ITD participation assumed at 80%.
Project Code:	P-38
Project Size:	Medium
Project Timeline:	Short Term (2025-2030)
Project Funding:	Local
Roadway Classification:	Principle Arterial
Estimate Date:	November 2025

ITEM NO.	ITEM DESCRIPTION	SCHEDULE OF VALUES			
		UNIT	EST. QUAN	UNIT PRICE	TOTAL
201.4.1.A.1	Clearing and Grubbing	AC	0.2	$6,640	$1,219
201.4.1.C.1	Removal of Obstructions	LS	1	$7,000	$7,000
202.4.1.A.1	Excavation	CY	343	$26	$8,907
202.4.6.A.1	Borrow	CY	0	$26	$0
706.4.1.A.3	Standard Straight Curb	LF	70	$60	$4,200
706.4.1.A.5	Standard 6-inch Vertical Curb & Gutter	LF	670	$40	$26,800
706.4.1.E.1	Concrete Sidewalk, Thickness 4"	SF	1200	$15	$18,000
706.4.1.H.1	Pedestrian Ramp w/ Detectable Warning Domes	EA	4	$2,700	$10,800
706.4.1.F.1	Concrete Driveway Approach	EA	3	$4,000	$12,000
808.4.1.A.1	Seal Coat	SY	0	$4.50	$0
1101.4.1.A.1	Traffic Signal	LS	1	$300,000	$300,000
1102.4.1.A.1	Street Light (Foundation, Conduit, and Junction Box Only)	EA	4	$7,500	$30,000
1104.4.1.A.1	Pavement Line Paint (2 coats)	LF	4500	$1.19	$5,355
2050.4.1.C.1	Subgrade Separation Geotextile	SY	118	$1.50	$178
S-1	Asphalt and Base (2"AC/4"AB) - Local Residential	SF	0	$1.81	$0
S-2	Asphalt and Base (3"AC/6"AB) - Local Commercial/Industrial	SF	0	$2.72	$0
S-3	Asphalt and Base (3"AC/4"AB) - Minor Collector	SF	0	$2.40	$0
S-4	Asphalt and Base (3"AC/6"AB) - Local Commercial/Industrial	SF	0	$2.72	$0
S-5	Asphalt and Base (3"AC/6"AB) -Major Collector	SF	0	$2.72	$0
S-6	Asphalt and Base (4"AC/6"AB) - Minor Arterial	SF	0	$3.29	$0
S-7	Asphalt and Base (4"AC/6"AB) - Principle Arterial	SF	8160	$3.29	$26,868
S-8	Asphalt and Base (2"AC/4"AB) - Multi-Use Trail	SF	2500	$1.81	$4,523
S-9	Roundabout - Single Lane	LS	0	$970,000	$0
S-10	Roundabout - Double Lane	LS	0	$2,200,000	$0
S-11	Conduit and Fiber Interconnect	LF	500	$120.00	$60,000
S-12	Railroad Crossing Improvements	LS	0	$0	$0
S-13	Structures	LS	1	$0	$0
S-14	Utility Relocations	LS	1	$0	$0
S-15	Storm Drainage (5%)	%	1	5%	$25,792
S-16	Miscellaneous Items (10%)	%	1	10%	$51,585
S-17	Survey (3%)	%	1	3%	$15,475
S-18	Temporary/Permanenet Erosion Control (4%)	%	1	4%	$20,634
S-19	Landscapping and Irrigation (4%)	%	1	4%	$20,634
S-20	Temporary Traffic Control (10%)	%	1	10%	$51,585
S-21	Mobilization (10%)	%	1	10%	$51,585
S-22	Right of Way - Full Acquisition	LS	1	$0	$0
S-23	Right of Way - Residential	SF	9250	$18	$166,500
S-24	Right of Way - Commercial	SF	0	$14	$0
S-25	Right of Way - Industrial	SF	0	$8	$0
S-26	Planning, Engineering, and Administrative Costs	%	1	20%	$103,170
S-27	Construction Engineering and Inspection	%	1	15%	$77,377
				ANTICIPATED PROJECT COST	**$1,101,000**

ENGINEER'S OPINION OF PROBABLE COST

PROJECT:	**MCGUIRE RD AND HAYDEN AVE INTERSECTION**
Detailed Description:	Add single lane roundabout.
Project Code:	P-39
Project Size:	Medium
Project Timeline:	Short Term (2025-2030)
Project Funding:	Local
Roadway Classification:	Minor Arterial
Estimate Date:	November 2025

ITEM NO.	ITEM DESCRIPTION	SCHEDULE OF VALUES			
		UNIT	EST. QUAN	UNIT PRICE	TOTAL
201.4.1.A.1	Clearing and Grubbing	AC	0	$6,640	$0
201.4.1.C.1	Removal of Obstructions	LS	1	$3,000	$3,000
202.4.1.A.1	Excavation	CY	0	$26	$0
202.4.6.A.1	Borrow	CY	0	$26	$0
706.4.1.A.3	Standard Straight Curb	LF	0	$60	$0
706.4.1.A.5	Standard 6-inch Vertical Curb & Gutter	LF	0	$40	$0
706.4.1.E.1	Concrete Sidewalk, Thickness 4"	SF	0	$15	$0
706.4.1.H.1	Pedestrian Ramp w/ Detectable Warning Domes	EA	0	$2,700	$0
706.4.1.F.1	Concrete Driveway Approach	EA	0	$4,000	$0
808.4.1.A.1	Seal Coat	SY	0	$4.50	$0
1101.4.1.A.1	Traffic Signal	LS	0	$300,000	$0
1102.4.1.A.1	Street Light (Foundation, Conduit, and Junction Box Only)	EA	0	$7,500	$0
1104.4.1.A.1	Pavement Line Paint (2 coats)	LF	0	$1.19	$0
2050.4.1.C.1	Subgrade Separation Geotextile	SY	0	$1.50	$0
S-1	Asphalt and Base (2"AC/4"AB) - Local Residential	SF	0	$1.81	$0
S-2	Asphalt and Base (3"AC/6"AB) - Local Commercial/Industrial	SF	0	$2.72	$0
S-3	Asphalt and Base (3"AC/4"AB) - Minor Collector	SF	0	$2.40	$0
S-4	Asphalt and Base (3"AC/6"AB) - Local Commercial/Industrial	SF	0	$2.72	$0
S-5	Asphalt and Base (3"AC/6"AB) -Major Collector	SF	0	$2.72	$0
S-6	Asphalt and Base (4"AC/6"AB) - Minor Arterial	SF	0	$3.29	$0
S-7	Asphalt and Base (4"AC/6"AB) - Principle Arterial	SF	0	$3.29	$0
S-8	Asphalt and Base (2"AC/4"AB) - Multi-Use Trail	SF	0	$1.81	$0
S-9	Roundabout - Single Lane	LS	1	$970,000	$970,000
S-10	Roundabout - Double Lane	LS	0	$2,200,000	$0
S-11	Conduit and Fiber Interconnect	LF	0	$120.00	$0
S-12	Railroad Crossing Improvements	LS	0	$0	$0
S-13	Structures	LS	0	$0	$0
S-14	Utility Relocations	LS	0	$0	$0
S-15	Storm Drainage (5%)	%	1	5%	$48,650
S-16	Miscellaneous Items (10%)	%	1	10%	$97,300
S-17	Survey (3%)	%	1	3%	$29,190
S-18	Temporary/Permanenet Erosion Control (4%)	%	1	4%	$38,920
S-19	Landscapping and Irrigation (4%)	%	1	4%	$38,920
S-20	Temporary Traffic Control (10%)	%	1	10%	$97,300
S-21	Mobilization (10%)	%	1	10%	$97,300
S-22	Right of Way - Full Acquisition	LS	0	$0	$0
S-23	Right of Way - Residential	SF	800	$18	$14,400
S-24	Right of Way - Commercial	SF	0	$14	$0
S-25	Right of Way - Industrial	SF	0	$8	$0
S-26	Planning, Engineering, and Administrative Costs	%	1	20%	$194,600
S-27	Construction Engineering and Inspection	%	1	15%	$145,950
			ANTICIPATED PROJECT COST		**$1,776,000**

ENGINEER'S OPINION OF PROBABLE COST

PROJECT:	**MCGUIRE RD AND MIDWAY AVE INTERSECTION**
Detailed Description:	Install a signal or roundabout. Include ADA-compliant ramps and pedestrian facilities. Evaluate feasibility based on adjacent development.
Project Code:	P-40
Project Size:	Medium
Project Timeline:	Long Term (2036-2045)
Project Funding:	Local
Roadway Classification:	Minor Arterial
Estimate Date:	November 2025

ITEM NO.	ITEM DESCRIPTION	SCHEDULE OF VALUES			
		UNIT	EST. QUAN	UNIT PRICE	TOTAL
201.4.1.A.1	Clearing and Grubbing	AC	0	$6,640	$0
201.4.1.C.1	Removal of Obstructions	LS	1	$135,000	$135,000
202.4.1.A.1	Excavation	CY	0	$26	$0
202.4.6.A.1	Borrow	CY	0	$26	$0
706.4.1.A.3	Standard Straight Curb	LF	0	$60	$0
706.4.1.A.5	Standard 6-inch Vertical Curb & Gutter	LF	0	$40	$0
706.4.1.E.1	Concrete Sidewalk, Thickness 4"	SF	0	$15	$0
706.4.1.H.1	Pedestrian Ramp w/ Detectable Warning Domes	EA	0	$2,700	$0
706.4.1.F.1	Concrete Driveway Approach	EA	0	$4,000	$0
808.4.1.A.1	Seal Coat	SY	0	$4.50	$0
1101.4.1.A.1	Traffic Signal	LS	0	$300,000	$0
1102.4.1.A.1	Street Light (Foundation, Conduit, and Junction Box Only)	EA	0	$7,500	$0
1104.4.1.A.1	Pavement Line Paint (2 coats)	LF	0	$1.19	$0
2050.4.1.C.1	Subgrade Separation Geotextile	SY	0	$1.50	$0
S-1	Asphalt and Base (2"AC/4"AB) - Local Residential	SF	0	$1.81	$0
S-2	Asphalt and Base (3"AC/6"AB) - Local Commercial/Industrial	SF	0	$2.72	$0
S-3	Asphalt and Base (3"AC/4"AB) - Minor Collector	SF	0	$2.40	$0
S-4	Asphalt and Base (3"AC/6"AB) - Local Commercial/Industrial	SF	0	$2.72	$0
S-5	Asphalt and Base (3"AC/6"AB) -Major Collector	SF	0	$2.72	$0
S-6	Asphalt and Base (4"AC/6"AB) - Minor Arterial	SF	0	$3.29	$0
S-7	Asphalt and Base (4"AC/6"AB) - Principle Arterial	SF	0	$3.29	$0
S-8	Asphalt and Base (2"AC/4"AB) - Multi-Use Trail	SF	0	$1.81	$0
S-9	Roundabout - Single Lane	LS	0	$970,000	$0
S-10	Roundabout - Double Lane	LS	1	$2,200,000	$2,200,000
S-11	Conduit and Fiber Interconnect	LF	0	$120.00	$0
S-12	Railroad Crossing Improvements	LS	0	$0	$0
S-13	Structures	LS	0	$0	$0
S-14	Utility Relocations	LS	1	$20,000	$20,000
S-15	Storm Drainage (5%)	%	1	5%	$116,750
S-16	Miscellaneous Items (10%)	%	1	10%	$233,500
S-17	Survey (3%)	%	1	3%	$70,050
S-18	Temporary/Permanenet Erosion Control (4%)	%	1	4%	$93,400
S-19	Landscapping and Irrigation (4%)	%	1	4%	$93,400
S-20	Temporary Traffic Control (10%)	%	1	10%	$233,500
S-21	Mobilization (10%)	%	1	10%	$233,500
S-22	Right of Way - Full Acquisition	LS	1	$507,720	$507,720
S-23	Right of Way - Residential	SF	12480	$18	$224,640
S-24	Right of Way - Commercial	SF	0	$14	$0
S-25	Right of Way - Industrial	SF	2750	$8	$22,000
S-26	Planning, Engineering, and Administrative Costs	%	1	20%	$467,000
S-27	Construction Engineering and Inspection	%	1	15%	$350,250
				ANTICIPATED PROJECT COST	**$5,001,000**

ENGINEER'S OPINION OF PROBABLE COST

PROJECT:	**MCGUIRE RD AND POLELINE AVE INTERSECTION**
Detailed Description:	Install a signal or roundabout. Include ADA ramps and pedestrian crossings. Coordinate with corridor improvements.
Project Code:	P-41
Project Size:	Medium
Project Timeline:	Long Term (2036-2045)
Project Funding:	Local
Roadway Classification:	Minor Arterial
Estimate Date:	November 2025

ITEM NO.	ITEM DESCRIPTION	SCHEDULE OF VALUES			
		UNIT	EST. QUAN	UNIT PRICE	TOTAL
201.4.1.A.1	Clearing and Grubbing	AC	0	$6,640	$0
201.4.1.C.1	Removal of Obstructions	LS	1	$3,000	$3,000
202.4.1.A.1	Excavation	CY	0	$26	$0
202.4.6.A.1	Borrow	CY	0	$26	$0
706.4.1.A.3	Standard Straight Curb	LF	0	$60	$0
706.4.1.A.5	Standard 6-inch Vertical Curb & Gutter	LF	0	$40	$0
706.4.1.E.1	Concrete Sidewalk, Thickness 4"	SF	0	$15	$0
706.4.1.H.1	Pedestrian Ramp w/ Detectable Warning Domes	EA	0	$2,700	$0
706.4.1.F.1	Concrete Driveway Approach	EA	0	$4,000	$0
808.4.1.A.1	Seal Coat	SY	0	$4.50	$0
1101.4.1.A.1	Traffic Signal	LS	0	$300,000	$0
1102.4.1.A.1	Street Light (Foundation, Conduit, and Junction Box Only)	EA	0	$7,500	$0
1104.4.1.A.1	Pavement Line Paint (2 coats)	LF	0	$1.19	$0
2050.4.1.C.1	Subgrade Separation Geotextile	SY	0	$1.50	$0
S-1	Asphalt and Base (2"AC/4"AB) - Local Residential	SF	0	$1.81	$0
S-2	Asphalt and Base (3"AC/6"AB) - Local Commercial/Industrial	SF	0	$2.72	$0
S-3	Asphalt and Base (3"AC/4"AB) - Minor Collector	SF	0	$2.40	$0
S-4	Asphalt and Base (3"AC/6"AB) - Local Commercial/Industrial	SF	0	$2.72	$0
S-5	Asphalt and Base (3"AC/6"AB) -Major Collector	SF	0	$2.72	$0
S-6	Asphalt and Base (4"AC/6"AB) - Minor Arterial	SF	0	$3.29	$0
S-7	Asphalt and Base (4"AC/6"AB) - Principle Arterial	SF	0	$3.29	$0
S-8	Asphalt and Base (2"AC/4"AB) - Multi-Use Trail	SF	0	$1.81	$0
S-9	Roundabout - Single Lane	LS	0	$970,000	$0
S-10	Roundabout - Double Lane	LS	1	$2,200,000	$2,200,000
S-11	Conduit and Fiber Interconnect	LF	0	$120.00	$0
S-12	Railroad Crossing Improvements	LS	0	$0	$0
S-13	Structures	LS	0	$0	$0
S-14	Utility Relocations	LS	1	$38,750	$38,750
S-15	Storm Drainage (5%)	%	1	5%	$110,150
S-16	Miscellaneous Items (10%)	%	1	10%	$220,300
S-17	Survey (3%)	%	1	3%	$66,090
S-18	Temporary/Permanenet Erosion Control (4%)	%	1	4%	$88,120
S-19	Landscapping and Irrigation (4%)	%	1	4%	$88,120
S-20	Temporary Traffic Control (10%)	%	1	10%	$220,300
S-21	Mobilization (10%)	%	1	10%	$220,300
S-22	Right of Way - Full Acquisition	LS	0	$0	$0
S-23	Right of Way - Residential	SF	34500	$18	$621,000
S-24	Right of Way - Commercial	SF	0	$14	$0
S-25	Right of Way - Industrial	SF	0	$8	$0
S-26	Planning, Engineering, and Administrative Costs	%	1	20%	$440,600
S-27	Construction Engineering and Inspection	%	1	15%	$330,450
			ANTICIPATED PROJECT COST		**$4,648,000**

ENGINEER'S OPINION OF PROBABLE COST

PROJECT:	**MCGUIRE RD AND PRAIRIE AVE INTERSECTION**
Detailed Description:	Reconstruct to a multi-lane roundabout. Include full reconstruction, ADA upgrades, and pedestrian facilities.
Project Code:	P-42
Project Size:	Medium
Project Timeline:	Long Term (2036-2045)
Project Funding:	Local
Roadway Classification:	Principle Arterial
Estimate Date:	November 2025

ITEM NO.	ITEM DESCRIPTION	SCHEDULE OF VALUES			
		UNIT	EST. QUAN	UNIT PRICE	TOTAL
201.4.1.A.1	Clearing and Grubbing	AC	0	$6,640	$0
201.4.1.C.1	Removal of Obstructions	LS	1	$3,000	$3,000
202.4.1.A.1	Excavation	CY	0	$26	$0
202.4.6.A.1	Borrow	CY	0	$26	$0
706.4.1.A.3	Standard Straight Curb	LF	0	$60	$0
706.4.1.A.5	Standard 6-inch Vertical Curb & Gutter	LF	0	$40	$0
706.4.1.E.1	Concrete Sidewalk, Thickness 4"	SF	0	$15	$0
706.4.1.H.1	Pedestrian Ramp w/ Detectable Warning Domes	EA	0	$2,700	$0
706.4.1.F.1	Concrete Driveway Approach	EA	1	$4,000	$4,000
808.4.1.A.1	Seal Coat	SY	0	$4.50	$0
1101.4.1.A.1	Traffic Signal	LS	0	$300,000	$0
1102.4.1.A.1	Street Light (Foundation, Conduit, and Junction Box Only)	EA	0	$7,500	$0
1104.4.1.A.1	Pavement Line Paint (2 coats)	LF	0	$1.19	$0
2050.4.1.C.1	Subgrade Separation Geotextile	SY	0	$1.50	$0
S-1	Asphalt and Base (2"AC/4"AB) - Local Residential	SF	0	$1.81	$0
S-2	Asphalt and Base (3"AC/6"AB) - Local Commercial/Industrial	SF	0	$2.72	$0
S-3	Asphalt and Base (3"AC/4"AB) - Minor Collector	SF	0	$2.40	$0
S-4	Asphalt and Base (3"AC/6"AB) - Local Commercial/Industrial	SF	0	$2.72	$0
S-5	Asphalt and Base (3"AC/6"AB) -Major Collector	SF	0	$2.72	$0
S-6	Asphalt and Base (4"AC/6"AB) - Minor Arterial	SF	0	$3.29	$0
S-7	Asphalt and Base (4"AC/6"AB) - Principle Arterial	SF	0	$3.29	$0
S-8	Asphalt and Base (2"AC/4"AB) - Multi-Use Trail	SF	0	$1.81	$0
S-9	Roundabout - Single Lane	LS	0	$970,000	$0
S-10	Roundabout - Double Lane	LS	1	$2,200,000	$2,200,000
S-11	Conduit and Fiber Interconnect	LF	0	$120.00	$0
S-12	Railroad Crossing Improvements	LS	0	$0	$0
S-13	Structures	LS	0	$0	$0
S-14	Utility Relocations	LS	0	$0	$0
S-15	Storm Drainage (5%)	%	1	5%	$110,350
S-16	Miscellaneous Items (10%)	%	1	10%	$220,700
S-17	Survey (3%)	%	1	3%	$66,210
S-18	Temporary/Permanenet Erosion Control (4%)	%	1	4%	$88,280
S-19	Landscapping and Irrigation (4%)	%	1	4%	$88,280
S-20	Temporary Traffic Control (10%)	%	1	10%	$220,700
S-21	Mobilization (10%)	%	1	10%	$220,700
S-22	Right of Way - Full Acquisition	LS	1	$0	$0
S-23	Right of Way - Residential	SF	12687	$18	$228,366
S-24	Right of Way - Commercial	SF	0	$14	$0
S-25	Right of Way - Industrial	SF	0	$8	$0
S-26	Planning, Engineering, and Administrative Costs	%	1	20%	$441,400
S-27	Construction Engineering and Inspection	%	1	15%	$331,050
				ANTICIPATED PROJECT COST	**$4,224,000**

ENGINEER'S OPINION OF PROBABLE COST

PROJECT: MCGUIRE RD CORRIDOR - PRAIRIE AVE TO HAYDEN AVE

Detailed Description: Widen to three lanes. Include full reconstruction due to pavement distress. Include curb, gutter, sidewalk, bike lanes, and stormwater facilities.

Project Code: P-43

Project Size: Large

Project Timeline: Long Term (2036-2045)

Project Funding: Local

Roadway Classification: Minor Arterial

Estimate Date: November 2025

ITEM NO.	ITEM DESCRIPTION	SCHEDULE OF VALUES			
		UNIT	EST. QUAN	UNIT PRICE	TOTAL
201.4.1.A.1	Clearing and Grubbing	AC	10	$3,500	$33,301
201.4.1.C.1	Removal of Obstructions	LS	1	$15,000	$15,000
202.4.1.A.1	Excavation	CY	7996	$19	$151,930
202.4.6.A.1	Borrow	CY	0	$21	$0
706.4.1.A.3	Standard Straight Curb	LF	0	$45	$0
706.4.1.A.5	Standard 6-inch Vertical Curb & Gutter	LF	10160	$33	$335,280
706.4.1.E.1	Concrete Sidewalk, Thickness 4"	SF	25400	$12	$304,800
706.4.1.H.1	Pedestrian Ramp w/ Detectable Warning Domes	EA	6	$2,700	$16,200
706.4.1.F.1	Concrete Driveway Approach	EA	15	$3,500	$52,500
808.4.1.A.1	Seal Coat	SY	0	$4.00	$0
1101.4.1.A.1	Traffic Signal	LS	1	$600,000	$600,000
1102.4.1.A.1	Street Light (Foundation, Conduit, and Junction Box Only)	EA	34	$7,500	$254,000
1104.4.1.A.1	Pavement Line Paint (2 coats)	LF	20320	$0.40	$8,128
2050.4.1.C.1	Subgrade Separation Geotextile	SY	3217	$1.50	$4,826
S-1	Asphalt and Base (2"AC/4"AB) - Local Residential	SF	0	$1.60	$0
S-2	Asphalt and Base (3"AC/6"AB) - Local Commercial/Industrial	SF	0	$2.41	$0
S-3	Asphalt and Base (3"AC/4"AB) - Minor Collector	SF	0	$2.15	$0
S-4	Asphalt and Base (3"AC/6"AB) - Local Commercial/Industrial	SF	0	$2.41	$0
S-5	Asphalt and Base (3"AC/6"AB) -Major Collector	SF	0	$2.41	$0
S-6	Asphalt and Base (4"AC/6"AB) - Minor Arterial	SF	238760	$2.93	$700,487
S-7	Asphalt and Base (4"AC/6"AB) - Principle Arterial	SF	0	$2.93	$0
S-8	Asphalt and Base (2"AC/4"AB) - Multi-Use Trail	SF	50800	$1.60	$81,511
S-9	Roundabout - Single Lane	LS	0	$970,000	$0
S-10	Roundabout - Double Lane	LS	0	$2,200,000	$0
S-11	Conduit and Fiber Interconnect	LF	5080	$80.00	$406,400
S-12	Railroad Crossing Improvements	LS	0	$0	$0
S-13	Structures	LS	1	$0	$0
S-14	Utility Relocations	LS	1	$0	$0
S-15	Storm Drainage (5%)	%	1	5%	$148,218
S-16	Miscellaneous Items (10%)	%	1	10%	$296,436
S-17	Survey (3%)	%	1	3%	$88,931
S-18	Temporary/Permanenet Erosion Control (4%)	%	1	4%	$118,575
S-19	Landscapping and Irrigation (4%)	%	1	4%	$118,575
S-20	Temporary Traffic Control (10%)	%	1	10%	$296,436
S-21	Mobilization (10%)	%	1	10%	$296,436
S-22	Right of Way - Full Acquisition	LS	1	$0	$0
S-23	Right of Way - Residential	SF	178885	$18	$3,219,930
S-24	Right of Way - Commercial	SF	21840	$14	$305,760
S-25	Right of Way - Industrial	SF	0	$8	$0
S-26	Planning, Engineering, and Administrative Costs	%	1	15%	$444,654
S-27	Construction Engineering and Inspection	%	1	15%	$444,654
				ANTICIPATED PROJECT COST	**$8,743,000**

ENGINEER'S OPINION OF PROBABLE COST

PROJECT:	**MCGUIRE RD CORRIDOR - PRAIRIE AVE TO SELTICE WAY**
Detailed Description:	Widen to five lanes. Include full arterial section. Account for railroad crossing costs and right-of-way acquisition. 50% Impact fee for costs of replacing existing curb locations and widening along sections of roadway with urban improvments.
Project Code:	P-44
Project Size:	Large
Project Timeline:	Long Term (2036-2045)
Project Funding:	Local
Roadway Classification:	Minor Arterial
Estimate Date:	November 2025

ITEM NO.	ITEM DESCRIPTION	SCHEDULE OF VALUES			
		UNIT	EST. QUAN	UNIT PRICE	TOTAL
201.4.1.A.1	Clearing and Grubbing	AC	16.28	$3,500	$56,983
201.4.1.C.1	Removal of Obstructions	LS	1	$905,000	$905,000
202.4.1.A.1	Excavation	CY	23105	$19	$438,994
202.4.6.A.1	Borrow	CY	0	$21	$0
706.4.1.A.3	Standard Straight Curb	LF	0	$45	$0
706.4.1.A.5	Standard 6-inch Vertical Curb & Gutter	LF	13050	$33	$430,650
706.4.1.E.1	Concrete Sidewalk, Thickness 4"	SF	0	$12	$0
706.4.1.H.1	Pedestrian Ramp w/ Detectable Warning Domes	EA	16	$2,700	$43,200
706.4.1.F.1	Concrete Driveway Approach	EA	16	$3,500	$56,000
808.4.1.A.1	Seal Coat	SY	0	$4.00	$0
1101.4.1.A.1	Traffic Signal	LS	0	$600,000	$0
1102.4.1.A.1	Street Light (Foundation, Conduit, and Junction Box Only)	EA	66	$7,500	$492,500
1104.4.1.A.1	Pavement Line Paint (2 coats)	LF	59100	$0.40	$23,640
2050.4.1.C.1	Subgrade Separation Geotextile	SY	12668	$1.50	$19,002
S-1	Asphalt and Base (2"AC/4"AB) - Local Residential	SF	0	$1.60	$0
S-2	Asphalt and Base (3"AC/6"AB) - Local Commercial/Industrial	SF	0	$2.41	$0
S-3	Asphalt and Base (3"AC/4"AB) - Minor Collector	SF	0	$2.15	$0
S-4	Asphalt and Base (3"AC/6"AB) - Local Commercial/Industrial	SF	0	$2.41	$0
S-5	Asphalt and Base (3"AC/6"AB) -Major Collector	SF	0	$2.41	$0
S-6	Asphalt and Base (4"AC/6"AB) - Minor Arterial	SF	0	$2.93	$0
S-7	Asphalt and Base (4"AC/6"AB) - Principle Arterial	SF	748600	$2.93	$2,196,283
S-8	Asphalt and Base (2"AC/4"AB) - Multi-Use Trail	SF	391500	$1.60	$628,178
S-9	Roundabout - Single Lane	LS	0	$970,000	$0
S-10	Roundabout - Double Lane	LS	0	$2,200,000	$0
S-11	Conduit and Fiber Interconnect	LF	0	$80.00	$0
S-12	Railroad Crossing Improvements	LS	1	$1,400,000	$1,400,000
S-13	Structures	LS	1	$20,000	$20,000
S-14	Utility Relocations	LS	0	$0	$0
S-15	Storm Drainage (5%)	%	1	5%	$335,522
S-16	Miscellaneous Items (10%)	%	1	10%	$671,043
S-17	Survey (3%)	%	1	3%	$201,313
S-18	Temporary/Permanenet Erosion Control (4%)	%	1	4%	$268,417
S-19	Landscapping and Irrigation (4%)	%	1	4%	$268,417
S-20	Temporary Traffic Control (10%)	%	1	10%	$671,043
S-21	Mobilization (10%)	%	1	10%	$671,043
S-22	Right of Way - Full Acquisition	LS	1	$4,126,552	$4,126,552
S-23	Right of Way - Residential	SF	225868	$18	$4,065,624
S-24	Right of Way - Commercial	SF	0	$14	$0
S-25	Right of Way - Industrial	SF	0	$8	$0
S-26	Planning, Engineering, and Administrative Costs	%	1	15%	$1,006,565
S-27	Construction Engineering and Inspection	%	1	15%	$1,006,565
				ANTICIPATED PROJECT COST	**$20,003,000**

ENGINEER'S OPINION OF PROBABLE COST

PROJECT:	**MULLAN AVE AND HENRY ST INTERSECTION**
Detailed Description:	Reconfigure intersection and upgrade signal. Include ADA-compliant ramps and pedestrian crossings.
Project Code:	P-45
Project Size:	Medium
Project Timeline:	Medium Term (2031-2035)
Project Funding:	Local
Roadway Classification:	Minor Arterial
Estimate Date:	November 2025

ITEM NO.	ITEM DESCRIPTION	SCHEDULE OF VALUES			
		UNIT	EST. QUAN	UNIT PRICE	TOTAL
201.4.1.A.1	Clearing and Grubbing	AC	0	$6,640	$0
201.4.1.C.1	Removal of Obstructions	LS	1	$30,000	$30,000
202.4.1.A.1	Excavation	CY	309	$26	$8,025
202.4.6.A.1	Borrow	CY	0	$26	$0
706.4.1.A.3	Standard Straight Curb	LF	0	$60	$0
706.4.1.A.5	Standard 6-inch Vertical Curb & Gutter	LF	240	$40	$9,600
706.4.1.E.1	Concrete Sidewalk, Thickness 4"	SF	1200	$15	$18,000
706.4.1.H.1	Pedestrian Ramp w/ Detectable Warning Domes	EA	4	$2,700	$10,800
706.4.1.F.1	Concrete Driveway Approach	EA	0	$4,000	$0
808.4.1.A.1	Seal Coat	SY	0	$4.50	$0
1101.4.1.A.1	Traffic Signal	LS	1	$300,000	$300,000
1102.4.1.A.1	Street Light (Foundation, Conduit, and Junction Box Only)	EA	4	$7,500	$30,000
1104.4.1.A.1	Pavement Line Paint (2 coats)	LF	1000	$1.19	$1,190
2050.4.1.C.1	Subgrade Separation Geotextile	SY	71	$1.50	$107
S-1	Asphalt and Base (2"AC/4"AB) - Local Residential	SF	0	$1.81	$0
S-2	Asphalt and Base (3"AC/6"AB) - Local Commercial/Industrial	SF	0	$2.72	$0
S-3	Asphalt and Base (3"AC/4"AB) - Minor Collector	SF	0	$2.40	$0
S-4	Asphalt and Base (3"AC/6"AB) - Local Commercial/Industrial	SF	0	$2.72	$0
S-5	Asphalt and Base (3"AC/6"AB) -Major Collector	SF	0	$2.72	$0
S-6	Asphalt and Base (4"AC/6"AB) - Minor Arterial	SF	6400	$3.29	$21,073
S-7	Asphalt and Base (4"AC/6"AB) - Principle Arterial	SF	0	$3.29	$0
S-8	Asphalt and Base (2"AC/4"AB) - Multi-Use Trail	SF	0	$1.81	$0
S-9	Roundabout - Single Lane	LS	0	$970,000	$0
S-10	Roundabout - Double Lane	LS	0	$2,200,000	$0
S-11	Conduit and Fiber Interconnect	LF	440	$120.00	$52,800
S-12	Railroad Crossing Improvements	LS	0	$0	$0
S-13	Structures	LS	0	$0	$0
S-14	Utility Relocations	LS	1	$30,000	$30,000
S-15	Storm Drainage (5%)	%	1	5%	$24,080
S-16	Miscellaneous Items (10%)	%	1	10%	$48,159
S-17	Survey (3%)	%	1	3%	$14,448
S-18	Temporary/Permanenet Erosion Control (4%)	%	1	4%	$19,264
S-19	Landscapping and Irrigation (4%)	%	1	4%	$19,264
S-20	Temporary Traffic Control (10%)	%	1	10%	$48,159
S-21	Mobilization (10%)	%	1	10%	$48,159
S-22	Right of Way - Full Acquisition	LS	1	$0	$0
S-23	Right of Way - Residential	SF	0	$18	$0
S-24	Right of Way - Commercial	SF	0	$14	$0
S-25	Right of Way - Industrial	SF	0	$8	$0
S-26	Planning, Engineering, and Administrative Costs	%	1	20%	$96,319
S-27	Construction Engineering and Inspection	%	1	15%	$72,239
				ANTICIPATED PROJECT COST	**$902,000**

ENGINEER'S OPINION OF PROBABLE COST

PROJECT:	**MULLAN AVE AND IDAHO ST INTERSECTION**
Detailed Description:	Reconfigure intersection adding dual westbound lefts, a separate northbound right, and upgrade signal. Include ADA ramps and pedestrian facilities. Coordinate with corridor improvements.
Project Code:	P-46
Project Size:	Medium
Project Timeline:	Long Term (2036-2045)
Project Funding:	Local
Roadway Classification:	Minor Arterial
Estimate Date:	November 2025

ITEM NO.	ITEM DESCRIPTION	SCHEDULE OF VALUES			
		UNIT	EST. QUAN	UNIT PRICE	TOTAL
201.4.1.A.1	Clearing and Grubbing	AC	0.4	$6,640	$2,356
201.4.1.C.1	Removal of Obstructions	LS	1	$10,000	$10,000
202.4.1.A.1	Excavation	CY	477	$26	$12,402
202.4.6.A.1	Borrow	CY	0	$26	$0
706.4.1.A.3	Standard Straight Curb	LF	175	$60	$10,500
706.4.1.A.5	Standard 6-inch Vertical Curb & Gutter	LF	525	$40	$21,000
706.4.1.E.1	Concrete Sidewalk, Thickness 4"	SF	5250	$15	$78,750
706.4.1.H.1	Pedestrian Ramp w/ Detectable Warning Domes	EA	1	$2,700	$2,700
706.4.1.F.1	Concrete Driveway Approach	EA	0	$4,000	$0
808.4.1.A.1	Seal Coat	SY	0	$4.50	$0
1101.4.1.A.1	Traffic Signal	LS	1	$300,000	$300,000
1102.4.1.A.1	Street Light (Foundation, Conduit, and Junction Box Only)	EA	2	$7,500	$15,000
1104.4.1.A.1	Pavement Line Paint (2 coats)	LF	2100	$1.19	$2,499
2050.4.1.C.1	Subgrade Separation Geotextile	SY	70	$1.50	$105
S-1	Asphalt and Base (2"AC/4"AB) - Local Residential	SF	0	$1.81	$0
S-2	Asphalt and Base (3"AC/6"AB) - Local Commercial/Industrial	SF	0	$2.72	$0
S-3	Asphalt and Base (3"AC/4"AB) - Minor Collector	SF	0	$2.40	$0
S-4	Asphalt and Base (3"AC/6"AB) - Local Commercial/Industrial	SF	0	$2.72	$0
S-5	Asphalt and Base (3"AC/6"AB) -Major Collector	SF	0	$2.72	$0
S-6	Asphalt and Base (4"AC/6"AB) - Minor Arterial	SF	6300	$3.29	$20,743
S-7	Asphalt and Base (4"AC/6"AB) - Principle Arterial	SF	0	$3.29	$0
S-8	Asphalt and Base (2"AC/4"AB) - Multi-Use Trail	SF	0	$1.81	$0
S-9	Roundabout - Single Lane	LS	0	$970,000	$0
S-10	Roundabout - Double Lane	LS	0	$2,200,000	$0
S-11	Conduit and Fiber Interconnect	LF	400	$120.00	$48,000
S-12	Railroad Crossing Improvements	LS	0	$0	$0
S-13	Structures	LS	1	$90,000	$90,000
S-14	Utility Relocations	LS	1	$95,125	$95,125
S-15	Storm Drainage (5%)	%	1	5%	$30,703
S-16	Miscellaneous Items (10%)	%	1	10%	$61,406
S-17	Survey (3%)	%	1	3%	$18,422
S-18	Temporary/Permanenet Erosion Control (4%)	%	1	4%	$24,562
S-19	Landscapping and Irrigation (4%)	%	1	4%	$24,562
S-20	Temporary Traffic Control (10%)	%	1	10%	$61,406
S-21	Mobilization (10%)	%	1	10%	$61,406
S-22	Right of Way - Full Acquisition	LS	0	$0	$0
S-23	Right of Way - Residential	SF	0	$18	$0
S-24	Right of Way - Commercial	SF	15455	$14	$216,370
S-25	Right of Way - Industrial	SF	0	$8	$0
S-26	Planning, Engineering, and Administrative Costs	%	1	20%	$122,811
S-27	Construction Engineering and Inspection	%	1	15%	$92,108
			ANTICIPATED PROJECT COST		**$1,423,000**

ENGINEER'S OPINION OF PROBABLE COST

PROJECT:	**MULLAN AVE AND SYRINGA ST INTERSECTION**
Detailed Description:	Install traffic signal. Include ADA ramps and pedestrian facilities. Coordinate with corridor improvements.
Project Code:	P-47
Project Size:	Large
Project Timeline:	Short Term (2025-2030)
Project Funding:	Local
Roadway Classification:	Minor Arterial
Estimate Date:	November 2025

ITEM NO.	ITEM DESCRIPTION	SCHEDULE OF VALUES			
		UNIT	EST. QUAN	UNIT PRICE	TOTAL
201.4.1.A.1	Clearing and Grubbing	AC	0	$3,500	$0
201.4.1.C.1	Removal of Obstructions	LS	1	$10,000	$10,000
202.4.1.A.1	Excavation	CY	0	$19	$0
202.4.6.A.1	Borrow	CY	0	$21	$0
706.4.1.A.3	Standard Straight Curb	LF	0	$45	$0
706.4.1.A.5	Standard 6-inch Vertical Curb & Gutter	LF	0	$33	$0
706.4.1.E.1	Concrete Sidewalk, Thickness 4"	SF	100	$12	$1,200
706.4.1.H.1	Pedestrian Ramp w/ Detectable Warning Domes	EA	8	$2,700	$21,600
706.4.1.F.1	Concrete Driveway Approach	EA	0	$3,500	$0
808.4.1.A.1	Seal Coat	SY	3844	$4.00	$15,378
1101.4.1.A.1	Traffic Signal	LS	1	$600,000	$600,000
1102.4.1.A.1	Street Light (Foundation, Conduit, and Junction Box Only)	EA	0	$7,500	$0
1104.4.1.A.1	Pavement Line Paint (2 coats)	LF	2803	$0.40	$1,121
2050.4.1.C.1	Subgrade Separation Geotextile	SY	0	$1.50	$0
S-1	Asphalt and Base (2"AC/4"AB) - Local Residential	SF	0	$1.60	$0
S-2	Asphalt and Base (3"AC/6"AB) - Local Commercial/Industrial	SF	0	$2.41	$0
S-3	Asphalt and Base (3"AC/4"AB) - Minor Collector	SF	0	$2.15	$0
S-4	Asphalt and Base (3"AC/6"AB) - Local Commercial/Industrial	SF	0	$2.41	$0
S-5	Asphalt and Base (3"AC/6"AB) -Major Collector	SF	0	$2.41	$0
S-6	Asphalt and Base (4"AC/6"AB) - Minor Arterial	SF	0	$2.93	$0
S-7	Asphalt and Base (4"AC/6"AB) - Principle Arterial	SF	0	$2.93	$0
S-8	Asphalt and Base (2"AC/4"AB) - Multi-Use Trail	SF	0	$1.60	$0
S-9	Roundabout - Single Lane	LS	0	$970,000	$0
S-10	Roundabout - Double Lane	LS	0	$2,200,000	$0
S-11	Conduit and Fiber Interconnect	LF	0	$80.00	$0
S-12	Railroad Crossing Improvements	LS	0	$0	$0
S-13	Structures	LS	0	$0	$0
S-14	Utility Relocations	LS	0	$0	$0
S-15	Storm Drainage (5%)	%	1	5%	$32,465
S-16	Miscellaneous Items (10%)	%	1	10%	$64,930
S-17	Survey (3%)	%	1	3%	$19,479
S-18	Temporary/Permanenet Erosion Control (4%)	%	1	4%	$25,972
S-19	Landscapping and Irrigation (4%)	%	1	4%	$25,972
S-20	Temporary Traffic Control (10%)	%	1	10%	$64,930
S-21	Mobilization (10%)	%	1	10%	$64,930
S-22	Right of Way - Full Acquisition	LS	0	$0	$0
S-23	Right of Way - Residential	SF	0	$18	$0
S-24	Right of Way - Commercial	SF	0	$14	$0
S-25	Right of Way - Industrial	SF	0	$8	$0
S-26	Planning, Engineering, and Administrative Costs	%	1	15%	$97,395
S-27	Construction Engineering and Inspection	%	1	15%	$97,395
				ANTICIPATED PROJECT COST	**$1,143,000**

ENGINEER'S OPINION OF PROBABLE COST

PROJECT:	**MULLAN AVE CORRIDOR - IDAHO ST TO CHASE RD**
Detailed Description:	Widen to three lanes. Include full reconstruction, ADA upgrades, and stormwater improvements. Remove and replace sections of urban improvements that do not comply with 3-lane section by impact fees. Developers are responsible for frontage improvements along sections that have no existing improvements.
Project Code:	P-48
Project Size:	Large
Project Timeline:	Long Term (2036-2045)
Project Funding:	Local
Roadway Classification:	Minor Arterial
Estimate Date:	November 2025

ITEM NO.	ITEM DESCRIPTION	SCHEDULE OF VALUES			
		UNIT	EST. QUAN	UNIT PRICE	TOTAL
201.4.1.A.1	Clearing and Grubbing	AC	6.06	$3,500	$21,212
201.4.1.C.1	Removal of Obstructions	LS	1	$1,250,000	$1,250,000
202.4.1.A.1	Excavation	CY	7496	$19	$142,430
202.4.6.A.1	Borrow	CY	0	$21	$0
706.4.1.A.3	Standard Straight Curb	LF	0	$45	$0
706.4.1.A.5	Standard 6-inch Vertical Curb & Gutter	LF	0	$33	$0
706.4.1.E.1	Concrete Sidewalk, Thickness 4"	SF	31680	$12	$380,160
706.4.1.H.1	Pedestrian Ramp w/ Detectable Warning Domes	EA	38	$2,700	$102,600
706.4.1.F.1	Concrete Driveway Approach	EA	26	$3,500	$91,000
808.4.1.A.1	Seal Coat	SY	0	$4.00	$0
1101.4.1.A.1	Traffic Signal	LS	0	$600,000	$0
1102.4.1.A.1	Street Light (Foundation, Conduit, and Junction Box Only)	EA	35	$7,500	$264,000
1104.4.1.A.1	Pavement Line Paint (2 coats)	LF	21120	$0.40	$8,448
2050.4.1.C.1	Subgrade Separation Geotextile	SY	3285	$1.50	$4,928
S-1	Asphalt and Base (2"AC/4"AB) - Local Residential	SF	0	$1.60	$0
S-2	Asphalt and Base (3"AC/6"AB) - Local Commercial/Industrial	SF	0	$2.41	$0
S-3	Asphalt and Base (3"AC/4"AB) - Minor Collector	SF	0	$2.15	$0
S-4	Asphalt and Base (3"AC/6"AB) - Local Commercial/Industrial	SF	0	$2.41	$0
S-5	Asphalt and Base (3"AC/6"AB) -Major Collector	SF	0	$2.41	$0
S-6	Asphalt and Base (4"AC/6"AB) - Minor Arterial	SF	242880	$2.93	$712,575
S-7	Asphalt and Base (4"AC/6"AB) - Principle Arterial	SF	0	$2.93	$0
S-8	Asphalt and Base (2"AC/4"AB) - Multi-Use Trail	SF	52800	$1.60	$84,720
S-9	Roundabout - Single Lane	LS	0	$970,000	$0
S-10	Roundabout - Double Lane	LS	0	$2,200,000	$0
S-11	Conduit and Fiber Interconnect	LF	0	$80.00	$0
S-12	Railroad Crossing Improvements	LS	1	$0	$0
S-13	Structures	LS	1	$0	$0
S-14	Utility Relocations	LS	0	$484,800	$0
S-15	Storm Drainage (5%)	%	1	5%	$153,104
S-16	Miscellaneous Items (10%)	%	1	10%	$306,207
S-17	Survey (3%)	%	1	3%	$91,862
S-18	Temporary/Permanenet Erosion Control (4%)	%	1	4%	$122,483
S-19	Landscapping and Irrigation (4%)	%	1	4%	$122,483
S-20	Temporary Traffic Control (10%)	%	1	10%	$306,207
S-21	Mobilization (10%)	%	1	10%	$306,207
S-22	Right of Way - Full Acquisition	LS	1	$5,503,343	$5,503,343
S-23	Right of Way - Residential	SF	31785	$18	$572,130
S-24	Right of Way - Commercial	SF	48269	$14	$675,766
S-25	Right of Way - Industrial	SF	0	$8	$0
S-26	Planning, Engineering, and Administrative Costs	%	1	15%	$459,311
S-27	Construction Engineering and Inspection	%	1	15%	$459,311
			ANTICIPATED PROJECT COST		**$12,141,000**

ENGINEER'S OPINION OF PROBABLE COST

PROJECT:	**MULLAN AVE CORRIDOR - IDAHO ST TO SYRINGA ST**
Detailed Description:	Widen to five lanes. Include full arterial section. Account for constrained parcels and right-of-way acquisition.
Project Code:	P-49
Project Size:	Medium
Project Timeline:	Long Term (2036-2045)
Project Funding:	Local
Roadway Classification:	Minor Arterial
Estimate Date:	November 2025

ITEM NO.	ITEM DESCRIPTION	SCHEDULE OF VALUES			
		UNIT	EST. QUAN	UNIT PRICE	TOTAL
201.4.1.A.1	Clearing and Grubbing	AC	0.3	$6,640	$1,907
201.4.1.C.1	Removal of Obstructions	LS	1	$2,000	$2,000
202.4.1.A.1	Excavation	CY	1111	$26	$28,889
202.4.6.A.1	Borrow	CY	0	$26	$0
706.4.1.A.3	Standard Straight Curb	LF	0	$60	$0
706.4.1.A.5	Standard 6-inch Vertical Curb & Gutter	LF	365	$40	$14,600
706.4.1.E.1	Concrete Sidewalk, Thickness 4"	SF	2875	$15	$43,125
706.4.1.H.1	Pedestrian Ramp w/ Detectable Warning Domes	EA	1	$2,700	$2,700
706.4.1.F.1	Concrete Driveway Approach	EA	4	$4,000	$16,000
808.4.1.A.1	Seal Coat	SY	0	$4.50	$0
1101.4.1.A.1	Traffic Signal	LS	0	$300,000	$0
1102.4.1.A.1	Street Light (Foundation, Conduit, and Junction Box Only)	EA	1	$7,500	$7,500
1104.4.1.A.1	Pavement Line Paint (2 coats)	LF	15210	$1.19	$18,100
2050.4.1.C.1	Subgrade Separation Geotextile	SY	65	$1.50	$97
S-1	Asphalt and Base (2"AC/4"AB) - Local Residential	SF	0	$1.81	$0
S-2	Asphalt and Base (3"AC/6"AB) - Local Commercial/Industrial	SF	0	$2.72	$0
S-3	Asphalt and Base (3"AC/4"AB) - Minor Collector	SF	0	$2.40	$0
S-4	Asphalt and Base (3"AC/6"AB) - Local Commercial/Industrial	SF	0	$2.72	$0
S-5	Asphalt and Base (3"AC/6"AB) -Major Collector	SF	0	$2.72	$0
S-6	Asphalt and Base (4"AC/6"AB) - Minor Arterial	SF	5840	$3.29	$19,229
S-7	Asphalt and Base (4"AC/6"AB) - Principle Arterial	SF	0	$3.29	$0
S-8	Asphalt and Base (2"AC/4"AB) - Multi-Use Trail	SF	0	$1.81	$0
S-9	Roundabout - Single Lane	LS	0	$970,000	$0
S-10	Roundabout - Double Lane	LS	0	$2,200,000	$0
S-11	Conduit and Fiber Interconnect	LF	0	$120.00	$0
S-12	Railroad Crossing Improvements	LS	0	$0	$0
S-13	Structures	LS	0	$0	$0
S-14	Utility Relocations	LS	1	$30,000	$30,000
S-15	Storm Drainage (5%)	%	1	5%	$7,707
S-16	Miscellaneous Items (10%)	%	1	10%	$15,415
S-17	Survey (3%)	%	1	3%	$4,624
S-18	Temporary/Permanenet Erosion Control (4%)	%	1	4%	$6,166
S-19	Landscapping and Irrigation (4%)	%	1	4%	$6,166
S-20	Temporary Traffic Control (10%)	%	1	10%	$15,415
S-21	Mobilization (10%)	%	1	10%	$15,415
S-22	Right of Way - Full Acquisition	LS	0	$0	$0
S-23	Right of Way - Residential	SF	2400	$18	$43,200
S-24	Right of Way - Commercial	SF	2725	$14	$38,150
S-25	Right of Way - Industrial	SF	0	$8	$0
S-26	Planning, Engineering, and Administrative Costs	%	1	20%	$30,829
S-27	Construction Engineering and Inspection	%	1	15%	$23,122
			ANTICIPATED PROJECT COST		**$391,000**

ENGINEER'S OPINION OF PROBABLE COST

PROJECT:	**MULLAN AVE CORRIDOR - SYRINGA ST TO GREENSFERRY RD**
Detailed Description:	Widen to five lanes. Include full arterial section. Address pinch points and constrained parcels.
Project Code:	P-50
Project Size:	Large
Project Timeline:	Long Term (2036-2045)
Project Funding:	Local
Roadway Classification:	Minor Arterial
Estimate Date:	November 2025

ITEM NO.	ITEM DESCRIPTION	SCHEDULE OF VALUES			
		UNIT	EST. QUAN	UNIT PRICE	TOTAL
201.4.1.A.1	Clearing and Grubbing	AC	2	$3,500	$6,687
201.4.1.C.1	Removal of Obstructions	LS	1	$507,000	$507,000
202.4.1.A.1	Excavation	CY	4624	$19	$87,857
202.4.6.A.1	Borrow	CY	0	$21	$0
706.4.1.A.3	Standard Straight Curb	LF	0	$45	$0
706.4.1.A.5	Standard 6-inch Vertical Curb & Gutter	LF	2270	$33	$74,910
706.4.1.E.1	Concrete Sidewalk, Thickness 4"	SF	2785	$12	$33,420
706.4.1.H.1	Pedestrian Ramp w/ Detectable Warning Domes	EA	8	$2,700	$21,600
706.4.1.F.1	Concrete Driveway Approach	EA	13	$3,500	$45,500
808.4.1.A.1	Seal Coat	SY	0	$4.00	$0
1101.4.1.A.1	Traffic Signal	LS	0	$600,000	$0
1102.4.1.A.1	Street Light (Foundation, Conduit, and Junction Box Only)	EA	15	$7,500	$113,500
1104.4.1.A.1	Pavement Line Paint (2 coats)	LF	15360	$0.40	$6,144
2050.4.1.C.1	Subgrade Separation Geotextile	SY	1873	$1.50	$2,810
S-1	Asphalt and Base (2"AC/4"AB) - Local Residential	SF	0	$1.60	$0
S-2	Asphalt and Base (3"AC/6"AB) - Local Commercial/Industrial	SF	0	$2.41	$0
S-3	Asphalt and Base (3"AC/4"AB) - Minor Collector	SF	0	$2.15	$0
S-4	Asphalt and Base (3"AC/6"AB) - Local Commercial/Industrial	SF	0	$2.41	$0
S-5	Asphalt and Base (3"AC/6"AB) -Major Collector	SF	0	$2.41	$0
S-6	Asphalt and Base (4"AC/6"AB) - Minor Arterial	SF	143010	$2.93	$419,571
S-7	Asphalt and Base (4"AC/6"AB) - Principle Arterial	SF	0	$2.93	$0
S-8	Asphalt and Base (2"AC/4"AB) - Multi-Use Trail	SF	25600	$1.60	$41,076
S-9	Roundabout - Single Lane	LS	0	$970,000	$0
S-10	Roundabout - Double Lane	LS	0	$2,200,000	$0
S-11	Conduit and Fiber Interconnect	LF	2270	$80.00	$181,600
S-12	Railroad Crossing Improvements	LS	0	$0	$0
S-13	Structures	LS	1	$0	$0
S-14	Utility Relocations	LS	1	$237,500	$237,500
S-15	Storm Drainage (5%)	%	1	5%	$77,084
S-16	Miscellaneous Items (10%)	%	1	10%	$154,168
S-17	Survey (3%)	%	1	3%	$46,250
S-18	Temporary/Permanenet Erosion Control (4%)	%	1	4%	$61,667
S-19	Landscapping and Irrigation (4%)	%	1	4%	$61,667
S-20	Temporary Traffic Control (10%)	%	1	10%	$154,168
S-21	Mobilization (10%)	%	1	10%	$154,168
S-22	Right of Way - Full Acquisition	LS	1	$1,736,100	$1,736,100
S-23	Right of Way - Residential	SF	10941	$18	$196,938
S-24	Right of Way - Commercial	SF	39545	$14	$553,630
S-25	Right of Way - Industrial	SF	0	$8	$0
S-26	Planning, Engineering, and Administrative Costs	%	1	15%	$231,251
S-27	Construction Engineering and Inspection	%	1	15%	$231,251
				ANTICIPATED PROJECT COST	**$5,438,000**

ENGINEER'S OPINION OF PROBABLE COST

PROJECT:	**PLEASANT VIEW RD AND I-90 EB RAMP INTERSECTION**
Detailed Description:	Reconfigure intersection to include a separate northbound right turn lane and upgrade signal. Include ADA-compliant ramps and pedestrian facilities. Coordinate with I-90 interchange improvements.
Project Code:	P-51
Project Size:	Medium
Project Timeline:	Short Term (2025-2030)
Project Funding:	Local
Roadway Classification:	Principle Arterial
Estimate Date:	November 2025

ITEM NO.	ITEM DESCRIPTION	SCHEDULE OF VALUES			
		UNIT	EST. QUAN	UNIT PRICE	TOTAL
201.4.1.A.1	Clearing and Grubbing	AC		$6,640	$0
201.4.1.C.1	Removal of Obstructions	LS	1	$2,000	$2,000
202.4.1.A.1	Excavation	CY		$26	$0
202.4.6.A.1	Borrow	CY		$26	$0
706.4.1.A.3	Standard Straight Curb	LF		$60	$0
706.4.1.A.5	Standard 6-inch Vertical Curb & Gutter	LF		$40	$0
706.4.1.E.1	Concrete Sidewalk, Thickness 4"	SF		$15	$0
706.4.1.H.1	Pedestrian Ramp w/ Detectable Warning Domes	EA		$2,700	$0
706.4.1.F.1	Concrete Driveway Approach	EA		$4,000	$0
808.4.1.A.1	Seal Coat	SY		$4.50	$0
1101.4.1.A.1	Traffic Signal	LS	1	$300,000	$300,000
1102.4.1.A.1	Street Light (Foundation, Conduit, and Junction Box Only)	EA		$7,500	$0
1104.4.1.A.1	Pavement Line Paint (2 coats)	LF	1200	$1.19	$1,428
2050.4.1.C.1	Subgrade Separation Geotextile	SY	254	$1.50	$382
S-1	Asphalt and Base (2"AC/4"AB) - Local Residential	SF		$1.81	$0
S-2	Asphalt and Base (3"AC/6"AB) - Local Commercial/Industrial	SF		$2.72	$0
S-3	Asphalt and Base (3"AC/4"AB) - Minor Collector	SF		$2.40	$0
S-4	Asphalt and Base (3"AC/6"AB) - Local Commercial/Industrial	SF		$2.72	$0
S-5	Asphalt and Base (3"AC/6"AB) -Major Collector	SF		$2.72	$0
S-6	Asphalt and Base (4"AC/6"AB) - Minor Arterial	SF		$3.29	$0
S-7	Asphalt and Base (4"AC/6"AB) - Principle Arterial	SF	22900	$3.29	$75,401
S-8	Asphalt and Base (2"AC/4"AB) - Multi-Use Trail	SF		$1.81	$0
S-9	Roundabout - Single Lane	LS		$970,000	$0
S-10	Roundabout - Double Lane	LS		$2,200,000	$0
S-11	Conduit and Fiber Interconnect	LF		$120.00	$0
S-12	Railroad Crossing Improvements	LS	0	$0	$0
S-13	Structures	LS	0	$0	$0
S-14	Utility Relocations	LS	0	$0	$0
S-15	Storm Drainage (5%)	%	1	5%	$18,961
S-16	Miscellaneous Items (10%)	%	1	10%	$37,921
S-17	Survey (3%)	%	1	3%	$11,376
S-18	Temporary/Permanenet Erosion Control (4%)	%	1	4%	$15,168
S-19	Landscapping and Irrigation (4%)	%	1	4%	$15,168
S-20	Temporary Traffic Control (10%)	%	1	10%	$37,921
S-21	Mobilization (10%)	%	1	10%	$37,921
S-22	Right of Way - Full Acquisition	LS	0	$0	$0
S-23	Right of Way - Residential	SF		$18	$0
S-24	Right of Way - Commercial	SF		$14	$0
S-25	Right of Way - Industrial	SF		$8	$0
S-26	Planning, Engineering, and Administrative Costs	%	1	20%	$75,842
S-27	Construction Engineering and Inspection	%	1	15%	$56,882
				ANTICIPATED PROJECT COST	**$687,000**

ENGINEER'S OPINION OF PROBABLE COST

PROJECT:	**PLEASANT VIEW RD AND POLELINE AVE INTERSECTION**
Detailed Description:	Construct a new multi-lane roundabout. Include full reconstruction, ADA upgrades, and pedestrian crossings.
Project Code:	P-52
Project Size:	Medium
Project Timeline:	Long Term (2036-2045)
Project Funding:	Local
Roadway Classification:	Principle Arterial
Estimate Date:	November 2025

ITEM NO.	ITEM DESCRIPTION	SCHEDULE OF VALUES			
		UNIT	EST. QUAN	UNIT PRICE	TOTAL
201.4.1.A.1	Clearing and Grubbing	AC	0	$6,640	$0
201.4.1.C.1	Removal of Obstructions	LS	0	$3,000	$0
202.4.1.A.1	Excavation	CY	0	$26	$0
202.4.6.A.1	Borrow	CY	0	$26	$0
706.4.1.A.3	Standard Straight Curb	LF	0	$60	$0
706.4.1.A.5	Standard 6-inch Vertical Curb & Gutter	LF	0	$40	$0
706.4.1.E.1	Concrete Sidewalk, Thickness 4"	SF	0	$15	$0
706.4.1.H.1	Pedestrian Ramp w/ Detectable Warning Domes	EA	0	$2,700	$0
706.4.1.F.1	Concrete Driveway Approach	EA	1	$4,000	$4,000
808.4.1.A.1	Seal Coat	SY	0	$4.50	$0
1101.4.1.A.1	Traffic Signal	LS	0	$300,000	$0
1102.4.1.A.1	Street Light (Foundation, Conduit, and Junction Box Only)	EA	0	$7,500	$0
1104.4.1.A.1	Pavement Line Paint (2 coats)	LF	0	$1.19	$0
2050.4.1.C.1	Subgrade Separation Geotextile	SY	0	$1.50	$0
S-1	Asphalt and Base (2"AC/4"AB) - Local Residential	SF	0	$1.81	$0
S-2	Asphalt and Base (3"AC/6"AB) - Local Commercial/Industrial	SF	0	$2.72	$0
S-3	Asphalt and Base (3"AC/4"AB) - Minor Collector	SF	0	$2.40	$0
S-4	Asphalt and Base (3"AC/6"AB) - Local Commercial/Industrial	SF	0	$2.72	$0
S-5	Asphalt and Base (3"AC/6"AB) -Major Collector	SF	0	$2.72	$0
S-6	Asphalt and Base (4"AC/6"AB) - Minor Arterial	SF	0	$3.29	$0
S-7	Asphalt and Base (4"AC/6"AB) - Principle Arterial	SF	0	$3.29	$0
S-8	Asphalt and Base (2"AC/4"AB) - Multi-Use Trail	SF	0	$1.81	$0
S-9	Roundabout - Single Lane	LS	0	$970,000	$0
S-10	Roundabout - Double Lane	LS	1	$2,200,000	$2,200,000
S-11	Conduit and Fiber Interconnect	LF	0	$120.00	$0
S-12	Railroad Crossing Improvements	LS	0	$0	$0
S-13	Structures	LS	0	$0	$0
S-14	Utility Relocations	LS	0	$25,000	$0
S-15	Storm Drainage (5%)	%	1	5%	$110,200
S-16	Miscellaneous Items (10%)	%	1	10%	$220,400
S-17	Survey (3%)	%	1	3%	$66,120
S-18	Temporary/Permanenet Erosion Control (4%)	%	1	4%	$88,160
S-19	Landscapping and Irrigation (4%)	%	1	4%	$88,160
S-20	Temporary Traffic Control (10%)	%	1	10%	$220,400
S-21	Mobilization (10%)	%	1	10%	$220,400
S-22	Right of Way - Full Acquisition	LS	0	$0	$0
S-23	Right of Way - Residential	SF	0	$18	$0
S-24	Right of Way - Commercial	SF	0	$14	$0
S-25	Right of Way - Industrial	SF	25980	$8	$207,840
S-26	Planning, Engineering, and Administrative Costs	%	1	20%	$440,800
S-27	Construction Engineering and Inspection	%	1	15%	$330,600
				ANTICIPATED PROJECT COST	**$4,198,000**

ENGINEER'S OPINION OF PROBABLE COST

PROJECT:	**PLEASANT VIEW RD AND PRAIRIE AVE INTERSECTION**
Detailed Description:	Construct a new multi-lane roundabout. Include full reconstruction and ADA-compliant pedestrian facilities.
Project Code:	P-53
Project Size:	Large
Project Timeline:	Medium Term (2031-2035)
Project Funding:	Local
Roadway Classification:	Principle Arterial
Estimate Date:	November 2025

ITEM NO.	ITEM DESCRIPTION	SCHEDULE OF VALUES			
		UNIT	EST. QUAN	UNIT PRICE	TOTAL
201.4.1.A.1	Clearing and Grubbing	AC	0	$3,500	$0
201.4.1.C.1	Removal of Obstructions	LS	0	$20,000	$0
202.4.1.A.1	Excavation	CY	0	$19	$0
202.4.6.A.1	Borrow	CY	0	$21	$0
706.4.1.A.3	Standard Straight Curb	LF	0	$45	$0
706.4.1.A.5	Standard 6-inch Vertical Curb & Gutter	LF	0	$33	$0
706.4.1.E.1	Concrete Sidewalk, Thickness 4"	SF	0	$12	$0
706.4.1.H.1	Pedestrian Ramp w/ Detectable Warning Domes	EA	0	$2,700	$0
706.4.1.F.1	Concrete Driveway Approach	EA	0	$3,500	$0
808.4.1.A.1	Seal Coat	SY	0	$4.00	$0
1101.4.1.A.1	Traffic Signal	LS	0	$600,000	$0
1102.4.1.A.1	Street Light (Foundation, Conduit, and Junction Box Only)	EA	0	$7,500	$0
1104.4.1.A.1	Pavement Line Paint (2 coats)	LF	0	$0.40	$0
2050.4.1.C.1	Subgrade Separation Geotextile	SY	0	$1.50	$0
S-1	Asphalt and Base (2"AC/4"AB) - Local Residential	SF	0	$1.60	$0
S-2	Asphalt and Base (3"AC/6"AB) - Local Commercial/Industrial	SF	0	$2.41	$0
S-3	Asphalt and Base (3"AC/4"AB) - Minor Collector	SF	0	$2.15	$0
S-4	Asphalt and Base (3"AC/6"AB) - Local Commercial/Industrial	SF	0	$2.41	$0
S-5	Asphalt and Base (3"AC/6"AB) -Major Collector	SF	0	$2.41	$0
S-6	Asphalt and Base (4"AC/6"AB) - Minor Arterial	SF	0	$2.93	$0
S-7	Asphalt and Base (4"AC/6"AB) - Principle Arterial	SF	0	$2.93	$0
S-8	Asphalt and Base (2"AC/4"AB) - Multi-Use Trail	SF	0	$1.60	$0
S-9	Roundabout - Single Lane	LS	0	$970,000	$0
S-10	Roundabout - Double Lane	LS	1	$2,200,000	$2,200,000
S-11	Conduit and Fiber Interconnect	LF	0	$80.00	$0
S-12	Railroad Crossing Improvements	LS	1	$1,400,000	$1,400,000
S-13	Structures	LS	1	$0	$0
S-14	Utility Relocations	LS	1	$50,000	$50,000
S-15	Storm Drainage (5%)	%	1	5%	$180,000
S-16	Miscellaneous Items (10%)	%	1	10%	$360,000
S-17	Survey (3%)	%	1	3%	$108,000
S-18	Temporary/Permanenet Erosion Control (4%)	%	1	4%	$144,000
S-19	Landscapping and Irrigation (4%)	%	1	4%	$144,000
S-20	Temporary Traffic Control (10%)	%	1	10%	$360,000
S-21	Mobilization (10%)	%	1	10%	$360,000
S-22	Right of Way - Full Acquisition	LS	1	$0	$0
S-23	Right of Way - Residential	SF	0	$18	$0
S-24	Right of Way - Commercial	SF	51815	$14	$725,410
S-25	Right of Way - Industrial	SF	0	$8	$0
S-26	Planning, Engineering, and Administrative Costs	%	1	15%	$540,000
S-27	Construction Engineering and Inspection	%	1	15%	$540,000
				ANTICIPATED PROJECT COST	**$7,112,000**

ENGINEER'S OPINION OF PROBABLE COST

PROJECT:	**PLEASANT VIEW RD AND RIVERBEND AVE INTERSECTION**
Detailed Description:	Reconfigure intersection with restriping to accommodate protected east bound and west bound left turn lanes and upgrade signal. Remove east bound and west bound split phasing. Update signal timing and geometry. Consider ped scramble timing.
Project Code:	P-54
Project Size:	Medium
Project Timeline:	Long Term (2036-2045)
Project Funding:	Local
Roadway Classification:	Minor Collector
Estimate Date:	November 2025

ITEM NO.	ITEM DESCRIPTION	SCHEDULE OF VALUES			
		UNIT	EST. QUAN	UNIT PRICE	TOTAL
201.4.1.A.1	Clearing and Grubbing	AC	0.1	$6,640	$960
201.4.1.C.1	Removal of Obstructions	LS	1	$7,000	$7,000
202.4.1.A.1	Excavation	CY	86	$26	$2,236
202.4.6.A.1	Borrow	CY	296	$26	$7,696
706.4.1.A.3	Standard Straight Curb	LF	0	$60	$0
706.4.1.A.5	Standard 6-inch Vertical Curb & Gutter	LF	460	$40	$18,400
706.4.1.E.1	Concrete Sidewalk, Thickness 4"	SF	2300	$15	$34,500
706.4.1.H.1	Pedestrian Ramp w/ Detectable Warning Domes	EA	3	$2,700	$8,100
706.4.1.F.1	Concrete Driveway Approach	EA	1	$4,000	$4,000
808.4.1.A.1	Seal Coat	SY	0	$4.50	$0
1101.4.1.A.1	Traffic Signal	LS	1	$300,000	$300,000
1102.4.1.A.1	Street Light (Foundation, Conduit, and Junction Box Only)	EA	0	$7,500	$0
1104.4.1.A.1	Pavement Line Paint (2 coats)	LF	900	$1.19	$1,071
2050.4.1.C.1	Subgrade Separation Geotextile	SY	50	$1.50	$75
S-1	Asphalt and Base (2"AC/4"AB) - Local Residential	SF	0	$1.81	$0
S-2	Asphalt and Base (3"AC/6"AB) - Local Commercial/Industrial	SF	0	$2.72	$0
S-3	Asphalt and Base (3"AC/4"AB) - Minor Collector	SF	0	$2.40	$0
S-4	Asphalt and Base (3"AC/6"AB) - Local Commercial/Industrial	SF	0	$2.72	$0
S-5	Asphalt and Base (3"AC/6"AB) -Major Collector	SF	0	$2.72	$0
S-6	Asphalt and Base (4"AC/6"AB) - Minor Arterial	SF	0	$3.29	$0
S-7	Asphalt and Base (4"AC/6"AB) - Principle Arterial	SF	4320	$3.29	$14,224
S-8	Asphalt and Base (2"AC/4"AB) - Multi-Use Trail	SF	200	$1.81	$362
S-9	Roundabout - Single Lane	LS	0	$970,000	$0
S-10	Roundabout - Double Lane	LS	0	$2,200,000	$0
S-11	Conduit and Fiber Interconnect	LF	500	$120.00	$60,000
S-12	Railroad Crossing Improvements	LS	0	$0	$0
S-13	Structures	LS	1	$40,000	$40,000
S-14	Utility Relocations	LS	1	$30,000	$30,000
S-15	Storm Drainage (5%)	%	1	5%	$24,931
S-16	Miscellaneous Items (10%)	%	1	10%	$49,862
S-17	Survey (3%)	%	1	3%	$14,959
S-18	Temporary/Permanenet Erosion Control (4%)	%	1	4%	$19,945
S-19	Landscapping and Irrigation (4%)	%	1	4%	$19,945
S-20	Temporary Traffic Control (10%)	%	1	10%	$49,862
S-21	Mobilization (10%)	%	1	10%	$49,862
S-22	Right of Way - Full Acquisition	LS	1	$0	$0
S-23	Right of Way - Residential	SF	0	$18	$0
S-24	Right of Way - Commercial	SF	1600	$14	$22,400
S-25	Right of Way - Industrial	SF	0	$8	$0
S-26	Planning, Engineering, and Administrative Costs	%	1	20%	$99,725
S-27	Construction Engineering and Inspection	%	1	15%	$74,794
			ANTICIPATED PROJECT COST		**$955,000**

ENGINEER'S OPINION OF PROBABLE COST

PROJECT:	**PLEASANT VIEW RD CORRIDOR - RIVERBEND AVE TO OWYHEE ST**
Detailed Description:	Configure roadway as 3-lane from Riverbend to Lochsa St. Construct 2-lanes with onstreet parking (east side) and bike lanes south of Lochsa St. Include ADA-compliant ramps, sidewalks, and stormwater improvements. Coordinate with adjacent development.
Project Code:	P-55
Project Size:	Medium
Project Timeline:	Long Term (2036-2045)
Project Funding:	Local
Roadway Classification:	Minor Collector
Estimate Date:	November 2025

ITEM NO.	ITEM DESCRIPTION	SCHEDULE OF VALUES			
		UNIT	EST. QUAN	UNIT PRICE	TOTAL
201.4.1.A.1	Clearing and Grubbing	AC	3.97	$6,640	$26,340
201.4.1.C.1	Removal of Obstructions	LS	1	$7,000	$7,000
202.4.1.A.1	Excavation	CY	3422	$26	$88,978
202.4.6.A.1	Borrow	CY	0	$26	$0
706.4.1.A.3	Standard Straight Curb	LF	0	$60	$0
706.4.1.A.5	Standard 6-inch Vertical Curb & Gutter	LF	5200	$40	$208,000
706.4.1.E.1	Concrete Sidewalk, Thickness 4"	SF	8000	$15	$120,000
706.4.1.H.1	Pedestrian Ramp w/ Detectable Warning Domes	EA	29	$2,700	$78,300
706.4.1.F.1	Concrete Driveway Approach	EA	23	$4,000	$92,000
808.4.1.A.1	Seal Coat	SY	0	$4.50	$0
1101.4.1.A.1	Traffic Signal	LS	0	$300,000	$0
1102.4.1.A.1	Street Light (Foundation, Conduit, and Junction Box Only)	EA	24	$7,500	$180,000
1104.4.1.A.1	Pavement Line Paint (2 coats)	LF	14400	$1.19	$17,136
2050.4.1.C.1	Subgrade Separation Geotextile	SY	1949	$1.50	$2,923
S-1	Asphalt and Base (2"AC/4"AB) - Local Residential	SF	0	$1.81	$0
S-2	Asphalt and Base (3"AC/6"AB) - Local Commercial/Industrial	SF	0	$2.72	$0
S-3	Asphalt and Base (3"AC/4"AB) - Minor Collector	SF	158400	$2.40	$380,771
S-4	Asphalt and Base (3"AC/6"AB) - Local Commercial/Industrial	SF	0	$2.72	$0
S-5	Asphalt and Base (3"AC/6"AB) -Major Collector	SF	0	$2.72	$0
S-6	Asphalt and Base (4"AC/6"AB) - Minor Arterial	SF	0	$3.29	$0
S-7	Asphalt and Base (4"AC/6"AB) - Principle Arterial	SF	0	$3.29	$0
S-8	Asphalt and Base (2"AC/4"AB) - Multi-Use Trail	SF	17000	$1.81	$30,755
S-9	Roundabout - Single Lane	LS	0	$970,000	$0
S-10	Roundabout - Double Lane	LS	0	$2,200,000	$0
S-11	Conduit and Fiber Interconnect	LF	0	$120.00	$0
S-12	Railroad Crossing Improvements	LS	0	$0	$0
S-13	Structures	LS	0	$0	$0
S-14	Utility Relocations	LS	0	$125,000	$0
S-15	Storm Drainage (5%)	%	1	5%	$61,610
S-16	Miscellaneous Items (10%)	%	1	10%	$123,220
S-17	Survey (3%)	%	1	3%	$36,966
S-18	Temporary/Permanenet Erosion Control (4%)	%	1	4%	$49,288
S-19	Landscapping and Irrigation (4%)	%	1	4%	$49,288
S-20	Temporary Traffic Control (10%)	%	1	10%	$123,220
S-21	Mobilization (10%)	%	1	10%	$123,220
S-22	Right of Way - Full Acquisition	LS	1	$0	$0
S-23	Right of Way - Residential	SF	16513	$18	$297,234
S-24	Right of Way - Commercial	SF	0	$14	$0
S-25	Right of Way - Industrial	SF	36623	$8	$292,984
S-26	Planning, Engineering, and Administrative Costs	%	1	20%	$246,441
S-27	Construction Engineering and Inspection	%	1	15%	$184,830
				ANTICIPATED PROJECT COST	**$2,821,000**

ENGINEER'S OPINION OF PROBABLE COST

PROJECT:	**POLELINE AVE AND CHARLEVILLE RD INTERSECTION**
Detailed Description:	Install new signal. Include ADA-compliant ramps and pedestrian crossings.
Project Code:	P-56
Project Size:	Large
Project Timeline:	Medium Term (2031-2035)
Project Funding:	Local
Roadway Classification:	Minor Arterial
Estimate Date:	November 2025

ITEM NO.	ITEM DESCRIPTION	SCHEDULE OF VALUES			
		UNIT	EST. QUAN	UNIT PRICE	TOTAL
201.4.1.A.1	Clearing and Grubbing	AC	0	$3,500	$0
201.4.1.C.1	Removal of Obstructions	LS	0	$140,000	$0
202.4.1.A.1	Excavation	CY	0	$19	$0
202.4.6.A.1	Borrow	CY	0	$21	$0
706.4.1.A.3	Standard Straight Curb	LF	0	$45	$0
706.4.1.A.5	Standard 6-inch Vertical Curb & Gutter	LF	120	$33	$3,960
706.4.1.E.1	Concrete Sidewalk, Thickness 4"	SF	700	$12	$8,400
706.4.1.H.1	Pedestrian Ramp w/ Detectable Warning Domes	EA	8	$2,700	$21,600
706.4.1.F.1	Concrete Driveway Approach	EA	0	$3,500	$0
808.4.1.A.1	Seal Coat	SY	0	$4.00	$0
1101.4.1.A.1	Traffic Signal	LS	1	$600,000	$600,000
1102.4.1.A.1	Street Light (Foundation, Conduit, and Junction Box Only)	EA	0	$7,500	$0
1104.4.1.A.1	Pavement Line Paint (2 coats)	LF	0	$0.40	$0
2050.4.1.C.1	Subgrade Separation Geotextile	SY	20	$1.50	$30
S-1	Asphalt and Base (2"AC/4"AB) - Local Residential	SF	0	$1.60	$0
S-2	Asphalt and Base (3"AC/6"AB) - Local Commercial/Industrial	SF	0	$2.41	$0
S-3	Asphalt and Base (3"AC/4"AB) - Minor Collector	SF	0	$2.15	$0
S-4	Asphalt and Base (3"AC/6"AB) - Local Commercial/Industrial	SF	1800	$2.41	$4,340
S-5	Asphalt and Base (3"AC/6"AB) -Major Collector	SF	0	$2.41	$0
S-6	Asphalt and Base (4"AC/6"AB) - Minor Arterial	SF	0	$2.93	$0
S-7	Asphalt and Base (4"AC/6"AB) - Principle Arterial	SF	0	$2.93	$0
S-8	Asphalt and Base (2"AC/4"AB) - Multi-Use Trail	SF	0	$1.60	$0
S-9	Roundabout - Single Lane	LS	0	$970,000	$0
S-10	Roundabout - Double Lane	LS	0	$2,200,000	$0
S-11	Conduit and Fiber Interconnect	LF	0	$80.00	$0
S-12	Railroad Crossing Improvements	LS	0	$0	$0
S-13	Structures	LS	0	$0	$0
S-14	Utility Relocations	LS	0	$40,000	$0
S-15	Storm Drainage (5%)	%	1	5%	$31,917
S-16	Miscellaneous Items (10%)	%	1	10%	$63,833
S-17	Survey (3%)	%	1	3%	$19,150
S-18	Temporary/Permanenet Erosion Control (4%)	%	1	4%	$25,533
S-19	Landscapping and Irrigation (4%)	%	1	4%	$25,533
S-20	Temporary Traffic Control (10%)	%	1	10%	$63,833
S-21	Mobilization (10%)	%	1	10%	$63,833
S-22	Right of Way - Full Acquisition	LS	0	$376,400	$0
S-23	Right of Way - Residential	SF	0	$18	$0
S-24	Right of Way - Commercial	SF	0	$14	$0
S-25	Right of Way - Industrial	SF	0	$8	$0
S-26	Planning, Engineering, and Administrative Costs	%	1	15%	$95,750
S-27	Construction Engineering and Inspection	%	1	15%	$95,750
				ANTICIPATED PROJECT COST	**$1,124,000**

ENGINEER'S OPINION OF PROBABLE COST

PROJECT:	**POLELINE AVE AND FENNECUS RD INTERSECTION**
Detailed Description:	Install a signal or roundabout. Include ADA ramps and pedestrian facilities. Coordinate with corridor improvements.
Project Code:	P-57
Project Size:	Medium
Project Timeline:	Long Term (2036-2045)
Project Funding:	Local
Roadway Classification:	Minor Arterial
Estimate Date:	November 2025

ITEM NO.	ITEM DESCRIPTION	SCHEDULE OF VALUES			
		UNIT	EST. QUAN	UNIT PRICE	TOTAL
201.4.1.A.1	Clearing and Grubbing	AC	0	$6,640	$0
201.4.1.C.1	Removal of Obstructions	LS	0	$3,000	$0
202.4.1.A.1	Excavation	CY	0	$26	$0
202.4.6.A.1	Borrow	CY	0	$26	$0
706.4.1.A.3	Standard Straight Curb	LF	0	$60	$0
706.4.1.A.5	Standard 6-inch Vertical Curb & Gutter	LF	0	$40	$0
706.4.1.E.1	Concrete Sidewalk, Thickness 4"	SF	0	$15	$0
706.4.1.H.1	Pedestrian Ramp w/ Detectable Warning Domes	EA	0	$2,700	$0
706.4.1.F.1	Concrete Driveway Approach	EA	0	$4,000	$0
808.4.1.A.1	Seal Coat	SY	0	$4.50	$0
1101.4.1.A.1	Traffic Signal	LS	0	$300,000	$0
1102.4.1.A.1	Street Light (Foundation, Conduit, and Junction Box Only)	EA	0	$7,500	$0
1104.4.1.A.1	Pavement Line Paint (2 coats)	LF	0	$1.19	$0
2050.4.1.C.1	Subgrade Separation Geotextile	SY	0	$1.50	$0
S-1	Asphalt and Base (2"AC/4"AB) - Local Residential	SF	0	$1.81	$0
S-2	Asphalt and Base (3"AC/6"AB) - Local Commercial/Industrial	SF	0	$2.72	$0
S-3	Asphalt and Base (3"AC/4"AB) - Minor Collector	SF	0	$2.40	$0
S-4	Asphalt and Base (3"AC/6"AB) - Local Commercial/Industrial	SF	0	$2.72	$0
S-5	Asphalt and Base (3"AC/6"AB) -Major Collector	SF	0	$2.72	$0
S-6	Asphalt and Base (4"AC/6"AB) - Minor Arterial	SF	0	$3.29	$0
S-7	Asphalt and Base (4"AC/6"AB) - Principle Arterial	SF	0	$3.29	$0
S-8	Asphalt and Base (2"AC/4"AB) - Multi-Use Trail	SF	0	$1.81	$0
S-9	Roundabout - Single Lane	LS	0	$970,000	$0
S-10	Roundabout - Double Lane	LS	1	$2,200,000	$2,200,000
S-11	Conduit and Fiber Interconnect	LF	0	$120.00	$0
S-12	Railroad Crossing Improvements	LS	0	$0	$0
S-13	Structures	LS	0	$0	$0
S-14	Utility Relocations	LS	1	$64,000	$64,000
S-15	Storm Drainage (5%)	%	1	5%	$110,000
S-16	Miscellaneous Items (10%)	%	1	10%	$220,000
S-17	Survey (3%)	%	1	3%	$66,000
S-18	Temporary/Permanenet Erosion Control (4%)	%	1	4%	$88,000
S-19	Landscapping and Irrigation (4%)	%	1	4%	$88,000
S-20	Temporary Traffic Control (10%)	%	1	10%	$220,000
S-21	Mobilization (10%)	%	1	10%	$220,000
S-22	Right of Way - Full Acquisition	LS	1	$0	$0
S-23	Right of Way - Residential	SF	25775	$18	$463,950
S-24	Right of Way - Commercial	SF	0	$14	$0
S-25	Right of Way - Industrial	SF	0	$8	$0
S-26	Planning, Engineering, and Administrative Costs	%	1	20%	$440,000
S-27	Construction Engineering and Inspection	%	1	15%	$330,000
			ANTICIPATED PROJECT COST		**$4,510,000**

ENGINEER'S OPINION OF PROBABLE COST

PROJECT:	**POLELINE AVE AND MEYER RD INTERSECTION**
Detailed Description:	Install a new signal. Include ADA-compliant ramps and pedestrian crossings. Coordinate with corridor widening.
Project Code:	P-58
Project Size:	Medium
Project Timeline:	Long Term (2036-2045)
Project Funding:	Local
Roadway Classification:	Minor Arterial
Estimate Date:	November 2025

ITEM NO.	ITEM DESCRIPTION	SCHEDULE OF VALUES			
		UNIT	EST. QUAN	UNIT PRICE	TOTAL
201.4.1.A.1	Clearing and Grubbing	AC	0	$6,640	$0
201.4.1.C.1	Removal of Obstructions	LS	3000	$0	$0
202.4.1.A.1	Excavation	CY	0	$26	$0
202.4.6.A.1	Borrow	CY	0	$26	$0
706.4.1.A.3	Standard Straight Curb	LF	0	$60	$0
706.4.1.A.5	Standard 6-inch Vertical Curb & Gutter	LF	0	$40	$0
706.4.1.E.1	Concrete Sidewalk, Thickness 4"	SF	0	$15	$0
706.4.1.H.1	Pedestrian Ramp w/ Detectable Warning Domes	EA	0	$2,700	$0
706.4.1.F.1	Concrete Driveway Approach	EA	0	$4,000	$0
808.4.1.A.1	Seal Coat	SY	0	$4.50	$0
1101.4.1.A.1	Traffic Signal	LS	1	$300,000	$300,000
1102.4.1.A.1	Street Light (Foundation, Conduit, and Junction Box Only)	EA	4	$7,500	$30,000
1104.4.1.A.1	Pavement Line Paint (2 coats)	LF	0	$1.19	$0
2050.4.1.C.1	Subgrade Separation Geotextile	SY	0	$1.50	$0
S-1	Asphalt and Base (2"AC/4"AB) - Local Residential	SF	0	$1.81	$0
S-2	Asphalt and Base (3"AC/6"AB) - Local Commercial/Industrial	SF	0	$2.72	$0
S-3	Asphalt and Base (3"AC/4"AB) - Minor Collector	SF	0	$2.40	$0
S-4	Asphalt and Base (3"AC/6"AB) - Local Commercial/Industrial	SF	0	$2.72	$0
S-5	Asphalt and Base (3"AC/6"AB) -Major Collector	SF	0	$2.72	$0
S-6	Asphalt and Base (4"AC/6"AB) - Minor Arterial	SF	0	$3.29	$0
S-7	Asphalt and Base (4"AC/6"AB) - Principle Arterial	SF	0	$3.29	$0
S-8	Asphalt and Base (2"AC/4"AB) - Multi-Use Trail	SF	0	$1.81	$0
S-9	Roundabout - Single Lane	LS	0	$970,000	$0
S-10	Roundabout - Double Lane	LS	0	$2,200,000	$0
S-11	Conduit and Fiber Interconnect	LF	140	$120.00	$16,800
S-12	Railroad Crossing Improvements	LS	0	$0	$0
S-13	Structures	LS	1	$0	$0
S-14	Utility Relocations	LS	1	$0	$0
S-15	Storm Drainage (5%)	%	1	5%	$17,340
S-16	Miscellaneous Items (10%)	%	1	10%	$34,680
S-17	Survey (3%)	%	1	3%	$10,404
S-18	Temporary/Permanenet Erosion Control (4%)	%	1	4%	$13,872
S-19	Landscapping and Irrigation (4%)	%	1	4%	$13,872
S-20	Temporary Traffic Control (10%)	%	1	10%	$34,680
S-21	Mobilization (10%)	%	1	10%	$34,680
S-22	Right of Way - Full Acquisition	LS	0	$0	$0
S-23	Right of Way - Residential	SF	0	$18	$0
S-24	Right of Way - Commercial	SF	0	$14	$0
S-25	Right of Way - Industrial	SF	0	$8	$0
S-26	Planning, Engineering, and Administrative Costs	%	1	20%	$69,360
S-27	Construction Engineering and Inspection	%	1	15%	$52,020
				ANTICIPATED PROJECT COST	**$628,000**

ENGINEER'S OPINION OF PROBABLE COST

PROJECT:	**POLELINE AVE AND ZORROS ST INTERSECTION**
Detailed Description:	Install a signal or roundabout. Include ADA ramps and pedestrian facilities. Evaluate feasibility based on adjacent development.
Project Code:	P-59
Project Size:	Large
Project Timeline:	Long Term (2036-2045)
Project Funding:	Local
Roadway Classification:	Minor Arterial
Estimate Date:	November 2025

ITEM NO.	ITEM DESCRIPTION	SCHEDULE OF VALUES			
		UNIT	EST. QUAN	UNIT PRICE	TOTAL
201.4.1.A.1	Clearing and Grubbing	AC	0	$3,500	$0
201.4.1.C.1	Removal of Obstructions	LS	1	$250,000	$250,000
202.4.1.A.1	Excavation	CY	0	$19	$0
202.4.6.A.1	Borrow	CY	0	$21	$0
706.4.1.A.3	Standard Straight Curb	LF	0	$45	$0
706.4.1.A.5	Standard 6-inch Vertical Curb & Gutter	LF	0	$33	$0
706.4.1.E.1	Concrete Sidewalk, Thickness 4"	SF	0	$12	$0
706.4.1.H.1	Pedestrian Ramp w/ Detectable Warning Domes	EA	0	$2,700	$0
706.4.1.F.1	Concrete Driveway Approach	EA	0	$3,500	$0
808.4.1.A.1	Seal Coat	SY	0	$4.00	$0
1101.4.1.A.1	Traffic Signal	LS	0	$600,000	$0
1102.4.1.A.1	Street Light (Foundation, Conduit, and Junction Box Only)	EA	0	$7,500	$0
1104.4.1.A.1	Pavement Line Paint (2 coats)	LF	0	$0.40	$0
2050.4.1.C.1	Subgrade Separation Geotextile	SY	0	$1.50	$0
S-1	Asphalt and Base (2"AC/4"AB) - Local Residential	SF	0	$1.60	$0
S-2	Asphalt and Base (3"AC/6"AB) - Local Commercial/Industrial	SF	0	$2.41	$0
S-3	Asphalt and Base (3"AC/4"AB) - Minor Collector	SF	0	$2.15	$0
S-4	Asphalt and Base (3"AC/6"AB) - Local Commercial/Industrial	SF	0	$2.41	$0
S-5	Asphalt and Base (3"AC/6"AB) -Major Collector	SF	0	$2.41	$0
S-6	Asphalt and Base (4"AC/6"AB) - Minor Arterial	SF	0	$2.93	$0
S-7	Asphalt and Base (4"AC/6"AB) - Principle Arterial	SF	0	$2.93	$0
S-8	Asphalt and Base (2"AC/4"AB) - Multi-Use Trail	SF	0	$1.60	$0
S-9	Roundabout - Single Lane	LS	0	$970,000	$0
S-10	Roundabout - Double Lane	LS	1	$2,200,000	$2,200,000
S-11	Conduit and Fiber Interconnect	LF	0	$80.00	$0
S-12	Railroad Crossing Improvements	LS	0	$0	$0
S-13	Structures	LS	1	$0	$0
S-14	Utility Relocations	LS	1	$0	$0
S-15	Storm Drainage (5%)	%	1	5%	$122,500
S-16	Miscellaneous Items (10%)	%	1	10%	$245,000
S-17	Survey (3%)	%	1	3%	$73,500
S-18	Temporary/Permanenet Erosion Control (4%)	%	1	4%	$98,000
S-19	Landscapping and Irrigation (4%)	%	1	4%	$98,000
S-20	Temporary Traffic Control (10%)	%	1	10%	$245,000
S-21	Mobilization (10%)	%	1	10%	$245,000
S-22	Right of Way - Full Acquisition	LS	1	$1,605,900	$1,605,900
S-23	Right of Way - Residential	SF	0	$18	$0
S-24	Right of Way - Commercial	SF	0	$14	$0
S-25	Right of Way - Industrial	SF	0	$8	$0
S-26	Planning, Engineering, and Administrative Costs	%	1	15%	$367,500
S-27	Construction Engineering and Inspection	%	1	15%	$367,500
				ANTICIPATED PROJECT COST	**$5,918,000**

ENGINEER'S OPINION OF PROBABLE COST

PROJECT:	**POLELINE AVE CORRIDOR - CLARK FORK PKWY TO GREENSFERRY RD**
Detailed Description:	Widen to three lanes. Include ADA-compliant ramps, sidewalks, and stormwater improvements. Coordinate with adjacent intersection upgrades and multimodal project.
Project Code:	P-60
Project Size:	Large
Project Timeline:	Medium Term (2031-2035)
Project Funding:	Local
Roadway Classification:	Minor Arterial
Estimate Date:	November 2025

ITEM NO.	ITEM DESCRIPTION	SCHEDULE OF VALUES			
		UNIT	EST. QUAN	UNIT PRICE	TOTAL
201.4.1.A.1	Clearing and Grubbing	AC	7	$3,500	$25,531
201.4.1.C.1	Removal of Obstructions	LS	1	$37,500	$37,500
202.4.1.A.1	Excavation	CY	11579	$19	$219,995
202.4.6.A.1	Borrow	CY	0	$21	$0
706.4.1.A.3	Standard Straight Curb	LF	0	$45	$0
706.4.1.A.5	Standard 6-inch Vertical Curb & Gutter	LF	10215	$33	$337,095
706.4.1.E.1	Concrete Sidewalk, Thickness 4"	SF	35025	$12	$420,300
706.4.1.H.1	Pedestrian Ramp w/ Detectable Warning Domes	EA	28	$2,700	$75,600
706.4.1.F.1	Concrete Driveway Approach	EA	16	$3,500	$56,000
808.4.1.A.1	Seal Coat	SY	0	$4.00	$0
1101.4.1.A.1	Traffic Signal	LS	0	$600,000	$0
1102.4.1.A.1	Street Light (Foundation, Conduit, and Junction Box Only)	EA	89	$7,500	$663,750
1104.4.1.A.1	Pavement Line Paint (2 coats)	LF	33870	$0.40	$13,548
2050.4.1.C.1	Subgrade Separation Geotextile	SY	4679	$1.50	$7,019
S-1	Asphalt and Base (2"AC/4"AB) - Local Residential	SF	0	$1.60	$0
S-2	Asphalt and Base (3"AC/6"AB) - Local Commercial/Industrial	SF	0	$2.41	$0
S-3	Asphalt and Base (3"AC/4"AB) - Minor Collector	SF	0	$2.15	$0
S-4	Asphalt and Base (3"AC/6"AB) - Local Commercial/Industrial	SF	0	$2.41	$0
S-5	Asphalt and Base (3"AC/6"AB) -Major Collector	SF	0	$2.41	$0
S-6	Asphalt and Base (4"AC/6"AB) - Minor Arterial	SF	360880	$2.93	$1,058,769
S-7	Asphalt and Base (4"AC/6"AB) - Principle Arterial	SF	0	$2.93	$0
S-8	Asphalt and Base (2"AC/4"AB) - Multi-Use Trail	SF	60250	$1.60	$96,674
S-9	Roundabout - Single Lane	LS	0	$970,000	$0
S-10	Roundabout - Double Lane	LS	0	$2,200,000	$0
S-11	Conduit and Fiber Interconnect	LF	0	$80.00	$0
S-12	Railroad Crossing Improvements	LS	0	$0	$0
S-13	Structures	LS	1	$0	$0
S-14	Utility Relocations	LS	1	$250,000	$250,000
S-15	Storm Drainage (5%)	%	1	5%	$150,589
S-16	Miscellaneous Items (10%)	%	1	10%	$301,178
S-17	Survey (3%)	%	1	3%	$90,353
S-18	Temporary/Permanenet Erosion Control (4%)	%	1	4%	$120,471
S-19	Landscapping and Irrigation (4%)	%	1	4%	$120,471
S-20	Temporary Traffic Control (10%)	%	1	10%	$301,178
S-21	Mobilization (10%)	%	1	10%	$301,178
S-22	Right of Way - Full Acquisition	LS	1	$0	$0
S-23	Right of Way - Residential	SF	164185	$18	$2,955,330
S-24	Right of Way - Commercial	SF	0	$14	$0
S-25	Right of Way - Industrial	SF	0	$8	$0
S-26	Planning, Engineering, and Administrative Costs	%	1	15%	$451,767
S-27	Construction Engineering and Inspection	%	1	15%	$451,767
				ANTICIPATED PROJECT COST	**$8,507,000**

ENGINEER'S OPINION OF PROBABLE COST

PROJECT:	**POLELINE AVE CORRIDOR - PLEASANT VIEW RD TO ROSLYN DR**
Detailed Description:	Widen to three lanes. Include ADA ramps, pedestrian facilities, and stormwater swales. Account for right-of-way acquisition.
Project Code:	P-61
Project Size:	Large
Project Timeline:	Medium Term (2031-2035)
Project Funding:	Local
Roadway Classification:	Minor Arterial
Estimate Date:	November 2025

ITEM NO.	ITEM DESCRIPTION	SCHEDULE OF VALUES			
		UNIT	EST. QUAN	UNIT PRICE	TOTAL
201.4.1.A.1	Clearing and Grubbing	AC	8	$3,500	$29,020
201.4.1.C.1	Removal of Obstructions	LS	1	$15,000	$15,000
202.4.1.A.1	Excavation	CY	0	$19	$0
202.4.6.A.1	Borrow	CY	0	$21	$0
706.4.1.A.3	Standard Straight Curb	LF	0	$45	$0
706.4.1.A.5	Standard 6-inch Vertical Curb & Gutter	LF	11120	$33	$366,960
706.4.1.E.1	Concrete Sidewalk, Thickness 4"	SF	26000	$12	$312,000
706.4.1.H.1	Pedestrian Ramp w/ Detectable Warning Domes	EA	7	$2,700	$18,900
706.4.1.F.1	Concrete Driveway Approach	EA	27	$3,500	$94,500
808.4.1.A.1	Seal Coat	SY	0	$4.00	$0
1101.4.1.A.1	Traffic Signal	LS	0	$600,000	$0
1102.4.1.A.1	Street Light (Foundation, Conduit, and Junction Box Only)	EA	40	$7,500	$301,500
1104.4.1.A.1	Pavement Line Paint (2 coats)	LF	23680	$0.40	$9,472
2050.4.1.C.1	Subgrade Separation Geotextile	SY	3684	$1.50	$5,525
S-1	Asphalt and Base (2"AC/4"AB) - Local Residential	SF	0	$1.60	$0
S-2	Asphalt and Base (3"AC/6"AB) - Local Commercial/Industrial	SF	0	$2.41	$0
S-3	Asphalt and Base (3"AC/4"AB) - Minor Collector	SF	0	$2.15	$0
S-4	Asphalt and Base (3"AC/6"AB) - Local Commercial/Industrial	SF	0	$2.41	$0
S-5	Asphalt and Base (3"AC/6"AB) -Major Collector	SF	0	$2.41	$0
S-6	Asphalt and Base (4"AC/6"AB) - Minor Arterial	SF	272320	$2.93	$798,947
S-7	Asphalt and Base (4"AC/6"AB) - Principle Arterial	SF	0	$2.93	$0
S-8	Asphalt and Base (2"AC/4"AB) - Multi-Use Trail	SF	59200	$1.60	$94,989
S-9	Roundabout - Single Lane	LS	0	$970,000	$0
S-10	Roundabout - Double Lane	LS	0	$2,200,000	$0
S-11	Conduit and Fiber Interconnect	LF	0	$80.00	$0
S-12	Railroad Crossing Improvements	LS	0	$0	$0
S-13	Structures	LS	1	$75,000	$75,000
S-14	Utility Relocations	LS	1	$0	$0
S-15	Storm Drainage (5%)	%	1	5%	$106,091
S-16	Miscellaneous Items (10%)	%	1	10%	$212,181
S-17	Survey (3%)	%	1	3%	$63,654
S-18	Temporary/Permanenet Erosion Control (4%)	%	1	4%	$84,873
S-19	Landscapping and Irrigation (4%)	%	1	4%	$84,873
S-20	Temporary Traffic Control (10%)	%	1	10%	$212,181
S-21	Mobilization (10%)	%	1	10%	$212,181
S-22	Right of Way - Full Acquisition	LS	0	$0	$0
S-23	Right of Way - Residential	SF	187685	$18	$3,378,330
S-24	Right of Way - Commercial	SF	5610	$14	$78,540
S-25	Right of Way - Industrial	SF	24555	$8	$196,440
S-26	Planning, Engineering, and Administrative Costs	%	1	15%	$318,272
S-27	Construction Engineering and Inspection	%	1	15%	$318,272
				ANTICIPATED PROJECT COST	**$7,388,000**

ENGINEER'S OPINION OF PROBABLE COST

PROJECT:	**POLELINE AVE CORRIDOR - SH-41 TO HUETTER RD**
Detailed Description:	Widen to five lanes. Include full arterial section. Account for cut/fill, borrow, and utility relocation. Coordinate with adjacent corridor projects.
Project Code:	P-62
Project Size:	Large
Project Timeline:	Long Term (2036-2045)
Project Funding:	Local
Roadway Classification:	Minor Arterial
Estimate Date:	November 2025

ITEM NO.	ITEM DESCRIPTION	SCHEDULE OF VALUES			
		UNIT	EST. QUAN	UNIT PRICE	TOTAL
201.4.1.A.1	Clearing and Grubbing	AC	5.63	$3,500	$19,712
201.4.1.C.1	Removal of Obstructions	LS	1	$30,000	$30,000
202.4.1.A.1	Excavation	CY	274402	$19	$5,213,638
202.4.6.A.1	Borrow	CY	0	$21	$0
706.4.1.A.3	Standard Straight Curb	LF	0	$45	$0
706.4.1.A.5	Standard 6-inch Vertical Curb & Gutter	LF	12900	$33	$425,700
706.4.1.E.1	Concrete Sidewalk, Thickness 4"	SF	45600	$12	$547,200
706.4.1.H.1	Pedestrian Ramp w/ Detectable Warning Domes	EA	6	$2,700	$16,200
706.4.1.F.1	Concrete Driveway Approach	EA	29	$3,500	$101,500
808.4.1.A.1	Seal Coat	SY	0	$4.00	$0
1101.4.1.A.1	Traffic Signal	LS	0	$600,000	$0
1102.4.1.A.1	Street Light (Foundation, Conduit, and Junction Box Only)	EA	61	$7,500	$455,000
1104.4.1.A.1	Pavement Line Paint (2 coats)	LF	43800	$0.40	$17,520
2050.4.1.C.1	Subgrade Separation Geotextile	SY	3752	$1.50	$5,628
S-1	Asphalt and Base (2"AC/4"AB) - Local Residential	SF	0	$1.60	$0
S-2	Asphalt and Base (3"AC/6"AB) - Local Commercial/Industrial	SF	0	$2.41	$0
S-3	Asphalt and Base (3"AC/4"AB) - Minor Collector	SF	0	$2.15	$0
S-4	Asphalt and Base (3"AC/6"AB) - Local Commercial/Industrial	SF	0	$2.41	$0
S-5	Asphalt and Base (3"AC/6"AB) -Major Collector	SF	0	$2.41	$0
S-6	Asphalt and Base (4"AC/6"AB) - Minor Arterial	SF	320700	$2.93	$940,887
S-7	Asphalt and Base (4"AC/6"AB) - Principle Arterial	SF	0	$2.93	$0
S-8	Asphalt and Base (2"AC/4"AB) - Multi-Use Trail	SF	59500	$1.60	$95,470
S-9	Roundabout - Single Lane	LS	0	$970,000	$0
S-10	Roundabout - Double Lane	LS	0	$2,200,000	$0
S-11	Conduit and Fiber Interconnect	LF	0	$80.00	$0
S-12	Railroad Crossing Improvements	LS	0	$0	$0
S-13	Structures	LS	1	$100,000	$100,000
S-14	Utility Relocations	LS	1	$2,367,500	$2,367,500
S-15	Storm Drainage (5%)	%	1	5%	$398,423
S-16	Miscellaneous Items (10%)	%	1	10%	$796,846
S-17	Survey (3%)	%	1	3%	$239,054
S-18	Temporary/Permanenet Erosion Control (4%)	%	1	4%	$318,738
S-19	Landscapping and Irrigation (4%)	%	1	4%	$318,738
S-20	Temporary Traffic Control (10%)	%	1	10%	$796,846
S-21	Mobilization (10%)	%	1	10%	$796,846
S-22	Right of Way - Full Acquisition	LS	0	$0	$0
S-23	Right of Way - Residential	SF	426724	$18	$7,681,032
S-24	Right of Way - Commercial	SF	0	$14	$0
S-25	Right of Way - Industrial	SF	0	$8	$0
S-26	Planning, Engineering, and Administrative Costs	%	1	15%	$1,195,268
S-27	Construction Engineering and Inspection	%	1	15%	$1,195,268
				ANTICIPATED PROJECT COST	**$24,074,000**

ENGINEER'S OPINION OF PROBABLE COST

PROJECT:	**POLELINE AVE CORRIDOR- SH-41 TO FENNECUS**
Detailed Description:	Widen to five lanes. Include full arterial section. Account for cut/fill, borrow, and utility relocation. Coordinate with adjacent corridor projects.
Project Code:	P-62A
Project Size:	Medium
Project Timeline:	Medium Term (2031-2035)
Project Funding:	Local
Roadway Classification:	Principle Arterial
Estimate Date:	November 2025

ITEM NO.	ITEM DESCRIPTION	SCHEDULE OF VALUES			
		UNIT	EST. QUAN	UNIT PRICE	TOTAL
201.4.1.A.1	Clearing and Grubbing	AC	2	$6,640	$13,280
201.4.1.C.1	Removal of Obstructions	LS	0	$0	$0
202.4.1.A.1	Excavation	CY	0	$26	$0
202.4.6.A.1	Borrow	CY	0	$26	$0
706.4.1.A.3	Standard Straight Curb	LF	0	$60	$0
706.4.1.A.5	Standard 6-inch Vertical Curb & Gutter	LF	3600	$40	$144,000
706.4.1.E.1	Concrete Sidewalk, Thickness 4"	SF	9000	$15	$135,000
706.4.1.H.1	Pedestrian Ramp w/ Detectable Warning Domes	EA	0	$2,700	$0
706.4.1.F.1	Concrete Driveway Approach	EA	5	$4,000	$20,000
808.4.1.A.1	Seal Coat	SY	0	$4.50	$0
1101.4.1.A.1	Traffic Signal	LS	0	$300,000	$0
1102.4.1.A.1	Street Light (Foundation, Conduit, and Junction Box Only)	EA	0	$7,500	$0
1104.4.1.A.1	Pavement Line Paint (2 coats)	LF	10800	$1.19	$12,852
2050.4.1.C.1	Subgrade Separation Geotextile	SY	472	$2	$708
S-1	Asphalt and Base (2"AC/4"AB) - Local Residential	SF	0	$2	$0
S-2	Asphalt and Base (3"AC/6"AB) - Local Commercial/Industrial	SF	0	$3	$0
S-3	Asphalt and Base (3"AC/4"AB) - Minor Collector	SF	0	$2	$0
S-4	Asphalt and Base (3"AC/6"AB) - Local Commercial/Industrial	SF	0	$3	$0
S-5	Asphalt and Base (3"AC/6"AB) -Major Collector	SF	0	$3	$0
S-6	Asphalt and Base (4"AC/6"AB) - Minor Arterial	SF	24500	$3	$80,669
S-7	Asphalt and Base (4"AC/6"AB) - Principle Arterial	SF	0	$3	$80,669
S-8	Asphalt and Base (2"AC/4"AB) - Multi-Use Trail	SF	18000	$2	$32,564
S-9	Roundabout - Single Lane	LS	0	$970,000	$0
S-10	Roundabout - Double Lane	LS	0	$2,200,000	$0
S-11	Conduit and Fiber Interconnect	LF	0	$120.00	$0
S-12	Railroad Crossing Improvements	LS	0	$0	$0
S-13	Structures	LS	0	$0	$0
S-14	Utility Relocations	LS	0	$0	$0
S-15	Storm Drainage (5%)	%	1	5%	$25,987
S-16	Miscellaneous Items (10%)	%	1	10%	$51,974
S-17	Survey (3%)	%	1	3%	$15,592
S-18	Temporary/Permanenet Erosion Control (4%)	%	1	4%	$20,790
S-19	Landscapping and Irrigation (4%)	%	1	4%	$20,790
S-20	Temporary Traffic Control (10%)	%	1	10%	$51,974
S-21	Mobilization (10%)	%	1	10%	$51,974
S-22	Right of Way - Full Acquisition	LS	1	$0	$0
S-23	Right of Way - Residential	SF	45000	$18	$810,000
S-24	Right of Way - Commercial	SF	0	$14	$0
S-25	Right of Way - Industrial	SF	0	$8	$0
S-26	Planning, Engineering, and Administrative Costs	%	1	20%	$103,948
S-27	Construction Engineering and Inspection	%	1	15%	$77,961
			ANTICIPATED PROJECT COST		**$1,751,000**

ENGINEER'S OPINION OF PROBABLE COST

PROJECT:	**PRAIRIE AVE AND CHARLEVILLE RD INTERSECTION**
Detailed Description:	Install a signal or roundabout. Include ADA-compliant ramps and pedestrian crossings. Evaluate feasibility based on corridor consistency. This is an Urban Rewewal project.
Project Code:	P-63
Project Size:	Medium
Project Timeline:	Long Term (2036-2045)
Project Funding:	Local
Roadway Classification:	Principle Arterial
Estimate Date:	November 2025

ITEM NO.	ITEM DESCRIPTION	SCHEDULE OF VALUES			
		UNIT	EST. QUAN	UNIT PRICE	TOTAL
201.4.1.A.1	Clearing and Grubbing	AC	0	$6,640	$0
201.4.1.C.1	Removal of Obstructions	LS	1	$2,000	$2,000
202.4.1.A.1	Excavation	CY	0	$26	$0
202.4.6.A.1	Borrow	CY	0	$26	$0
706.4.1.A.3	Standard Straight Curb	LF	0	$60	$0
706.4.1.A.5	Standard 6-inch Vertical Curb & Gutter	LF	0	$40	$0
706.4.1.E.1	Concrete Sidewalk, Thickness 4"	SF	0	$15	$0
706.4.1.H.1	Pedestrian Ramp w/ Detectable Warning Domes	EA	0	$2,700	$0
706.4.1.F.1	Concrete Driveway Approach	EA	0	$4,000	$0
808.4.1.A.1	Seal Coat	SY	0	$4.50	$0
1101.4.1.A.1	Traffic Signal	LS	0	$300,000	$0
1102.4.1.A.1	Street Light (Foundation, Conduit, and Junction Box Only)	EA	0	$7,500	$0
1104.4.1.A.1	Pavement Line Paint (2 coats)	LF	0	$1.19	$0
2050.4.1.C.1	Subgrade Separation Geotextile	SY	0	$1.50	$0
S-1	Asphalt and Base (2"AC/4"AB) - Local Residential	SF	0	$1.81	$0
S-2	Asphalt and Base (3"AC/6"AB) - Local Commercial/Industrial	SF	0	$2.72	$0
S-3	Asphalt and Base (3"AC/4"AB) - Minor Collector	SF	0	$2.40	$0
S-4	Asphalt and Base (3"AC/6"AB) - Local Commercial/Industrial	SF	0	$2.72	$0
S-5	Asphalt and Base (3"AC/6"AB) -Major Collector	SF	0	$2.72	$0
S-6	Asphalt and Base (4"AC/6"AB) - Minor Arterial	SF	0	$3.29	$0
S-7	Asphalt and Base (4"AC/6"AB) - Principle Arterial	SF	0	$3.29	$0
S-8	Asphalt and Base (2"AC/4"AB) - Multi-Use Trail	SF	0	$1.81	$0
S-9	Roundabout - Single Lane	LS	0	$970,000	$0
S-10	Roundabout - Double Lane	LS	1	$2,200,000	$2,200,000
S-11	Conduit and Fiber Interconnect	LF	0	$120.00	$0
S-12	Railroad Crossing Improvements	LS	0	$0	$0
S-13	Structures	LS	0	$0	$0
S-14	Utility Relocations	LS	1	$75,000	$75,000
S-15	Storm Drainage (5%)	%	1	5%	$110,100
S-16	Miscellaneous Items (10%)	%	1	10%	$220,200
S-17	Survey (3%)	%	1	3%	$66,060
S-18	Temporary/Permanenet Erosion Control (4%)	%	1	4%	$88,080
S-19	Landscapping and Irrigation (4%)	%	1	4%	$88,080
S-20	Temporary Traffic Control (10%)	%	1	10%	$220,200
S-21	Mobilization (10%)	%	1	10%	$220,200
S-22	Right of Way - Full Acquisition	LS	1	$0	$0
S-23	Right of Way - Residential	SF	0	$18	$0
S-24	Right of Way - Commercial	SF	0	$14	$0
S-25	Right of Way - Industrial	SF	0	$8	$0
S-26	Planning, Engineering, and Administrative Costs	%	1	20%	$440,400
S-27	Construction Engineering and Inspection	%	1	15%	$330,300
				ANTICIPATED PROJECT COST	**$4,061,000**

ENGINEER'S OPINION OF PROBABLE COST

PROJECT:	**PRAIRIE AVE AND CHASE RD INTERSECTION**
Detailed Description:	Reconstruct to a multi-lane roundabout. Include full reconstruction, ADA upgrades, and pedestrian facilities.
Project Code:	P-64
Project Size:	Medium
Project Timeline:	Medium Term (2031-2035)
Project Funding:	Local
Roadway Classification:	Principle Arterial
Estimate Date:	November 2025

ITEM NO.	ITEM DESCRIPTION	SCHEDULE OF VALUES			
		UNIT	EST. QUAN	UNIT PRICE	TOTAL
201.4.1.A.1	Clearing and Grubbing	AC	0	$6,640	$0
201.4.1.C.1	Removal of Obstructions	LS	0	$5,000	$0
202.4.1.A.1	Excavation	CY	0	$26	$0
202.4.6.A.1	Borrow	CY	0	$26	$0
706.4.1.A.3	Standard Straight Curb	LF	0	$60	$0
706.4.1.A.5	Standard 6-inch Vertical Curb & Gutter	LF	0	$40	$0
706.4.1.E.1	Concrete Sidewalk, Thickness 4"	SF	0	$15	$0
706.4.1.H.1	Pedestrian Ramp w/ Detectable Warning Domes	EA	0	$2,700	$0
706.4.1.F.1	Concrete Driveway Approach	EA	0	$4,000	$0
808.4.1.A.1	Seal Coat	SY	0	$4.50	$0
1101.4.1.A.1	Traffic Signal	LS	0	$300,000	$0
1102.4.1.A.1	Street Light (Foundation, Conduit, and Junction Box Only)	EA	0	$7,500	$0
1104.4.1.A.1	Pavement Line Paint (2 coats)	LF	0	$1.19	$0
2050.4.1.C.1	Subgrade Separation Geotextile	SY	0	$1.50	$0
S-1	Asphalt and Base (2"AC/4"AB) - Local Residential	SF	0	$1.81	$0
S-2	Asphalt and Base (3"AC/6"AB) - Local Commercial/Industrial	SF	0	$2.72	$0
S-3	Asphalt and Base (3"AC/4"AB) - Minor Collector	SF	0	$2.40	$0
S-4	Asphalt and Base (3"AC/6"AB) - Local Commercial/Industrial	SF	0	$2.72	$0
S-5	Asphalt and Base (3"AC/6"AB) -Major Collector	SF	0	$2.72	$0
S-6	Asphalt and Base (4"AC/6"AB) - Minor Arterial	SF	0	$3.29	$0
S-7	Asphalt and Base (4"AC/6"AB) - Principle Arterial	SF	0	$3.29	$0
S-8	Asphalt and Base (2"AC/4"AB) - Multi-Use Trail	SF	0	$1.81	$0
S-9	Roundabout - Single Lane	LS	0	$970,000	$0
S-10	Roundabout - Double Lane	LS	1	$2,200,000	$2,200,000
S-11	Conduit and Fiber Interconnect	LF	0	$120.00	$0
S-12	Railroad Crossing Improvements	LS	0	$0	$0
S-13	Structures	LS	0	$0	$0
S-14	Utility Relocations	LS	1	$0	$0
S-15	Storm Drainage (5%)	%	1	5%	$110,000
S-16	Miscellaneous Items (10%)	%	1	10%	$220,000
S-17	Survey (3%)	%	1	3%	$66,000
S-18	Temporary/Permanenet Erosion Control (4%)	%	1	4%	$88,000
S-19	Landscapping and Irrigation (4%)	%	1	4%	$88,000
S-20	Temporary Traffic Control (10%)	%	1	10%	$220,000
S-21	Mobilization (10%)	%	1	10%	$220,000
S-22	Right of Way - Full Acquisition	LS	0	$0	$0
S-23	Right of Way - Residential	SF	8630	$18	$155,340
S-24	Right of Way - Commercial	SF	0	$14	$0
S-25	Right of Way - Industrial	SF	0	$8	$0
S-26	Planning, Engineering, and Administrative Costs	%	1	20%	$440,000
S-27	Construction Engineering and Inspection	%	1	15%	$330,000
				ANTICIPATED PROJECT COST	**$4,138,000**

ENGINEER'S OPINION OF PROBABLE COST

PROJECT:	**PRAIRIE AVE AND CORBIN RD INTERSECTION**
Detailed Description:	Construct a new multi-lane roundabout. Include full reconstruction, ADA-compliant ramps, and pedestrian crossings.
Project Code:	P-65
Project Size:	Medium
Project Timeline:	Long Term (2036-2045)
Project Funding:	Local
Roadway Classification:	Principle Arterial
Estimate Date:	November 2025

ITEM NO.	ITEM DESCRIPTION	SCHEDULE OF VALUES			
		UNIT	EST. QUAN	UNIT PRICE	TOTAL
201.4.1.A.1	Clearing and Grubbing	AC	0	$6,640	$0
201.4.1.C.1	Removal of Obstructions	LS	1	$125,000	$125,000
202.4.1.A.1	Excavation	CY	0	$26	$0
202.4.6.A.1	Borrow	CY	0	$26	$0
706.4.1.A.3	Standard Straight Curb	LF	0	$60	$0
706.4.1.A.5	Standard 6-inch Vertical Curb & Gutter	LF	0	$40	$0
706.4.1.E.1	Concrete Sidewalk, Thickness 4"	SF	0	$15	$0
706.4.1.H.1	Pedestrian Ramp w/ Detectable Warning Domes	EA	0	$2,700	$0
706.4.1.F.1	Concrete Driveway Approach	EA	0	$4,000	$0
808.4.1.A.1	Seal Coat	SY	0	$4.50	$0
1101.4.1.A.1	Traffic Signal	LS	0	$300,000	$0
1102.4.1.A.1	Street Light (Foundation, Conduit, and Junction Box Only)	EA	0	$7,500	$0
1104.4.1.A.1	Pavement Line Paint (2 coats)	LF	0	$1.19	$0
2050.4.1.C.1	Subgrade Separation Geotextile	SY	0	$1.50	$0
S-1	Asphalt and Base (2"AC/4"AB) - Local Residential	SF	0	$1.81	$0
S-2	Asphalt and Base (3"AC/6"AB) - Local Commercial/Industrial	SF	0	$2.72	$0
S-3	Asphalt and Base (3"AC/4"AB) - Minor Collector	SF	0	$2.40	$0
S-4	Asphalt and Base (3"AC/6"AB) - Local Commercial/Industrial	SF	0	$2.72	$0
S-5	Asphalt and Base (3"AC/6"AB) -Major Collector	SF	0	$2.72	$0
S-6	Asphalt and Base (4"AC/6"AB) - Minor Arterial	SF	0	$3.29	$0
S-7	Asphalt and Base (4"AC/6"AB) - Principle Arterial	SF	0	$3.29	$0
S-8	Asphalt and Base (2"AC/4"AB) - Multi-Use Trail	SF	0	$1.81	$0
S-9	Roundabout - Single Lane	LS	0	$970,000	$0
S-10	Roundabout - Double Lane	LS	1	$2,200,000	$2,200,000
S-11	Conduit and Fiber Interconnect	LF	0	$120.00	$0
S-12	Railroad Crossing Improvements	LS	0	$0	$0
S-13	Structures	LS	1	$0	$0
S-14	Utility Relocations	LS	1	$30,000	$30,000
S-15	Storm Drainage (5%)	%	1	5%	$116,250
S-16	Miscellaneous Items (10%)	%	1	10%	$232,500
S-17	Survey (3%)	%	1	3%	$69,750
S-18	Temporary/Permanenet Erosion Control (4%)	%	1	4%	$93,000
S-19	Landscapping and Irrigation (4%)	%	1	4%	$93,000
S-20	Temporary Traffic Control (10%)	%	1	10%	$232,500
S-21	Mobilization (10%)	%	1	10%	$232,500
S-22	Right of Way - Full Acquisition	LS	1	$421,200	$421,200
S-23	Right of Way - Residential	SF	5032	$18	$90,576
S-24	Right of Way - Commercial	SF	11086	$14	$155,204
S-25	Right of Way - Industrial	SF	0	$8	$0
S-26	Planning, Engineering, and Administrative Costs	%	1	20%	$465,000
S-27	Construction Engineering and Inspection	%	1	15%	$348,750
				ANTICIPATED PROJECT COST	**$4,906,000**

ENGINEER'S OPINION OF PROBABLE COST

PROJECT:	**PRAIRIE AVE AND GREENSFERRY RD INTERSECTION**
Detailed Description:	Reconfigure intersection and signal adding a single through lane in the east and west bound directions. Include ADA-compliant ramps and pedestrian facilities.
Project Code:	P-66
Project Size:	Medium
Project Timeline:	Medium Term (2031-2035)
Project Funding:	Local
Roadway Classification:	Principle Arterial
Estimate Date:	November 2025

ITEM NO.	ITEM DESCRIPTION	SCHEDULE OF VALUES			
		UNIT	EST. QUAN	UNIT PRICE	TOTAL
201.4.1.A.1	Clearing and Grubbing	AC	1	$6,640	$3,320
201.4.1.C.1	Removal of Obstructions	LS	1	$3,000	$3,000
202.4.1.A.1	Excavation	CY	302	$26	$7,858
202.4.6.A.1	Borrow	CY	0	$26	$0
706.4.1.A.3	Standard Straight Curb	LF	0	$60	$0
706.4.1.A.5	Standard 6-inch Vertical Curb & Gutter	LF	400	$40	$16,000
706.4.1.E.1	Concrete Sidewalk, Thickness 4"	SF	2000	$15	$30,000
706.4.1.H.1	Pedestrian Ramp w/ Detectable Warning Domes	EA	4	$2,700	$10,800
706.4.1.F.1	Concrete Driveway Approach	EA	1	$4,000	$4,000
808.4.1.A.1	Seal Coat	SY	1067	$4.50	$4,800
1101.4.1.A.1	Traffic Signal	LS	1	$300,000	$300,000
1102.4.1.A.1	Street Light (Foundation, Conduit, and Junction Box Only)	EA	4	$7,500	$30,000
1104.4.1.A.1	Pavement Line Paint (2 coats)	LF	2610	$1.19	$3,106
2050.4.1.C.1	Subgrade Separation Geotextile	SY	107	$1.50	$160
S-1	Asphalt and Base (2"AC/4"AB) - Local Residential	SF	0	$1.81	$0
S-2	Asphalt and Base (3"AC/6"AB) - Local Commercial/Industrial	SF	0	$2.72	$0
S-3	Asphalt and Base (3"AC/4"AB) - Minor Collector	SF	0	$2.40	$0
S-4	Asphalt and Base (3"AC/6"AB) - Local Commercial/Industrial	SF	0	$2.72	$0
S-5	Asphalt and Base (3"AC/6"AB) -Major Collector	SF	0	$2.72	$0
S-6	Asphalt and Base (4"AC/6"AB) - Minor Arterial	SF	0	$3.29	$0
S-7	Asphalt and Base (4"AC/6"AB) - Principle Arterial	SF	9600	$3.29	$31,609
S-8	Asphalt and Base (2"AC/4"AB) - Multi-Use Trail	SF	0	$1.81	$0
S-9	Roundabout - Single Lane	LS	0	$970,000	$0
S-10	Roundabout - Double Lane	LS	0	$2,200,000	$0
S-11	Conduit and Fiber Interconnect	LF	0	$120.00	$0
S-12	Railroad Crossing Improvements	LS	0	$0	$0
S-13	Structures	LS	1	$0	$0
S-14	Utility Relocations	LS	1	$0	$0
S-15	Storm Drainage (5%)	%	1	5%	$22,233
S-16	Miscellaneous Items (10%)	%	1	10%	$44,465
S-17	Survey (3%)	%	1	3%	$13,340
S-18	Temporary/Permanenet Erosion Control (4%)	%	1	4%	$17,786
S-19	Landscapping and Irrigation (4%)	%	1	4%	$17,786
S-20	Temporary Traffic Control (10%)	%	1	10%	$44,465
S-21	Mobilization (10%)	%	1	10%	$44,465
S-22	Right of Way - Full Acquisition	LS	0	$0	$0
S-23	Right of Way - Residential	SF	0	$18	$0
S-24	Right of Way - Commercial	SF	906	$14	$12,684
S-25	Right of Way - Industrial	SF	0	$8	$0
S-26	Planning, Engineering, and Administrative Costs	%	1	20%	$88,931
S-27	Construction Engineering and Inspection	%	1	15%	$66,698
			ANTICIPATED PROJECT COST		**$818,000**

ENGINEER'S OPINION OF PROBABLE COST

PROJECT:	**IDAHO ST AND 3RD AVE INTERSECTION**
Detailed Description:	Install a signal or roundabout. Include ADA ramps and pedestrian facilities. Coordinate with corridor improvements.
Project Code:	P-67
Project Size:	Medium
Project Timeline:	Short Term (2025-2030)
Project Funding:	Local
Roadway Classification:	Principle Arterial
Estimate Date:	November 2025

ITEM NO.	ITEM DESCRIPTION	SCHEDULE OF VALUES			
		UNIT	EST. QUAN	UNIT PRICE	TOTAL
201.4.1.A.1	Clearing and Grubbing	AC	0	$6,640	$0
201.4.1.C.1	Removal of Obstructions	LS	1	$15,000	$15,000
202.4.1.A.1	Excavation	CY	0	$26	$0
202.4.6.A.1	Borrow	CY	0	$26	$0
706.4.1.A.3	Standard Straight Curb	LF	0	$60	$0
706.4.1.A.5	Standard 6-inch Vertical Curb & Gutter	LF	0	$40	$0
706.4.1.E.1	Concrete Sidewalk, Thickness 4"	SF	0	$15	$0
706.4.1.H.1	Pedestrian Ramp w/ Detectable Warning Domes	EA	0	$2,700	$0
706.4.1.F.1	Concrete Driveway Approach	EA	0	$4,000	$0
808.4.1.A.1	Seal Coat	SY	0	$4.50	$0
1101.4.1.A.1	Traffic Signal	LS	0	$300,000	$0
1102.4.1.A.1	Street Light (Foundation, Conduit, and Junction Box Only)	EA	0	$7,500	$0
1104.4.1.A.1	Pavement Line Paint (2 coats)	LF	0	$1.19	$0
2050.4.1.C.1	Subgrade Separation Geotextile	SY	0	$1.50	$0
S-1	Asphalt and Base (2"AC/4"AB) - Local Residential	SF	0	$1.81	$0
S-2	Asphalt and Base (3"AC/6"AB) - Local Commercial/Industrial	SF	0	$2.72	$0
S-3	Asphalt and Base (3"AC/4"AB) - Minor Collector	SF	0	$2.40	$0
S-4	Asphalt and Base (3"AC/6"AB) - Local Commercial/Industrial	SF	0	$2.72	$0
S-5	Asphalt and Base (3"AC/6"AB) -Major Collector	SF	0	$2.72	$0
S-6	Asphalt and Base (4"AC/6"AB) - Minor Arterial	SF	0	$3.29	$0
S-7	Asphalt and Base (4"AC/6"AB) - Principle Arterial	SF	0	$3.29	$0
S-8	Asphalt and Base (2"AC/4"AB) - Multi-Use Trail	SF	0	$1.81	$0
S-9	Roundabout - Single Lane	LS	1	$970,000	$970,000
S-10	Roundabout - Double Lane	LS	0	$2,200,000	$0
S-11	Conduit and Fiber Interconnect	LF	0	$120.00	$0
S-12	Railroad Crossing Improvements	LS	0	$0	$0
S-13	Structures	LS	0	$0	$0
S-14	Utility Relocations	LS	0	$0	$0
S-15	Storm Drainage (5%)	%	1	5%	$49,250
S-16	Miscellaneous Items (10%)	%	1	10%	$98,500
S-17	Survey (3%)	%	1	3%	$29,550
S-18	Temporary/Permanenet Erosion Control (4%)	%	1	4%	$39,400
S-19	Landscapping and Irrigation (4%)	%	1	4%	$39,400
S-20	Temporary Traffic Control (10%)	%	1	10%	$98,500
S-21	Mobilization (10%)	%	1	10%	$98,500
S-22	Right of Way - Full Acquisition	LS	0	$0	$0
S-23	Right of Way - Residential	SF	1250	$18	$22,500
S-24	Right of Way - Commercial	SF	0	$14	$0
S-25	Right of Way - Industrial	SF	0	$8	$0
S-26	Planning, Engineering, and Administrative Costs	%	1	20%	$197,000
S-27	Construction Engineering and Inspection	%	1	15%	$147,750
			ANTICIPATED PROJECT COST		**$1,806,000**

ENGINEER'S OPINION OF PROBABLE COST

PROJECT:	**PRAIRIE AVE CORRIDOR - GREENSFERRY RD TO SH-41**
Detailed Description:	Widen to five lanes. Include full arterial section with sidewalks, bike lanes, and stormwater facilities. Account for constrained parcels and acquisitions.
Project Code:	P-70
Project Size:	Medium
Project Timeline:	Medium Term (2031-2035)
Project Funding:	Local
Roadway Classification:	Principle Arterial
Estimate Date:	November 2025

ITEM NO.	ITEM DESCRIPTION	SCHEDULE OF VALUES			
		UNIT	EST. QUAN	UNIT PRICE	TOTAL
201.4.1.A.1	Clearing and Grubbing	AC	4.67	$6,640	$31,041
201.4.1.C.1	Removal of Obstructions	LS	1	$15,000	$15,000
202.4.1.A.1	Excavation	CY	4128	$26	$107,326
202.4.6.A.1	Borrow	CY	0	$26	$0
706.4.1.A.3	Standard Straight Curb	LF	0	$60	$0
706.4.1.A.5	Standard 6-inch Vertical Curb & Gutter	LF	6989	$40	$279,560
706.4.1.E.1	Concrete Sidewalk, Thickness 4"	SF	0	$15	$0
706.4.1.H.1	Pedestrian Ramp w/ Detectable Warning Domes	EA	1	$2,700	$2,700
706.4.1.F.1	Concrete Driveway Approach	EA	12	$4,000	$48,000
808.4.1.A.1	Seal Coat	SY	0	$4.50	$0
1101.4.1.A.1	Traffic Signal	LS	0	$300,000	$0
1102.4.1.A.1	Street Light (Foundation, Conduit, and Junction Box Only)	EA	31	$7,500	$235,000
1104.4.1.A.1	Pavement Line Paint (2 coats)	LF	28200	$1.19	$33,558
2050.4.1.C.1	Subgrade Separation Geotextile	SY	2263	$1.50	$3,394
S-1	Asphalt and Base (2"AC/4"AB) - Local Residential	SF	0	$1.81	$0
S-2	Asphalt and Base (3"AC/6"AB) - Local Commercial/Industrial	SF	0	$2.72	$0
S-3	Asphalt and Base (3"AC/4"AB) - Minor Collector	SF	0	$2.40	$0
S-4	Asphalt and Base (3"AC/6"AB) - Local Commercial/Industrial	SF	0	$2.72	$0
S-5	Asphalt and Base (3"AC/6"AB) -Major Collector	SF	0	$2.72	$0
S-6	Asphalt and Base (4"AC/6"AB) - Minor Arterial	SF	0	$3.29	$0
S-7	Asphalt and Base (4"AC/6"AB) - Principle Arterial	SF	133745	$3.29	$440,369
S-8	Asphalt and Base (2"AC/4"AB) - Multi-Use Trail	SF	69890	$1.81	$126,438
S-9	Roundabout - Single Lane	LS	0	$970,000	$0
S-10	Roundabout - Double Lane	LS	0	$2,200,000	$0
S-11	Conduit and Fiber Interconnect	LF	0	$120.00	$0
S-12	Railroad Crossing Improvements	LS	0	$0	$0
S-13	Structures	LS	0	$0	$0
S-14	Utility Relocations	LS	0	$182,350	$0
S-15	Storm Drainage (5%)	%	1	5%	$66,119
S-16	Miscellaneous Items (10%)	%	1	10%	$132,239
S-17	Survey (3%)	%	1	3%	$39,672
S-18	Temporary/Permanenet Erosion Control (4%)	%	1	4%	$52,895
S-19	Landscapping and Irrigation (4%)	%	1	4%	$52,895
S-20	Temporary Traffic Control (10%)	%	1	10%	$132,239
S-21	Mobilization (10%)	%	1	10%	$132,239
S-22	Right of Way - Full Acquisition	LS	0	$0	$0
S-23	Right of Way - Residential	SF	0	$18	$0
S-24	Right of Way - Commercial	SF	73198	$14	$1,024,772
S-25	Right of Way - Industrial	SF	0	$8	$0
S-26	Planning, Engineering, and Administrative Costs	%	1	20%	$264,477
S-27	Construction Engineering and Inspection	%	1	15%	$198,358
				ANTICIPATED PROJECT COST	**$3,419,000**

ENGINEER'S OPINION OF PROBABLE COST

PROJECT:	**PRAIRIE AVE CORRIDOR - IDAHO ST TO GREENSFERRY RD**
Detailed Description:	Widen to five lanes. Include full arterial section. Coordinate with adjacent corridor and intersection projects. Impact fees utilized for center 36 feet of roadway, remaining widening and urban frontage improvemets by developer.
Project Code:	P-71
Project Size:	Medium
Project Timeline:	Medium Term (2031-2035)
Project Funding:	Local
Roadway Classification:	Principle Arterial
Estimate Date:	November 2025

ITEM NO.	ITEM DESCRIPTION	SCHEDULE OF VALUES			
		UNIT	EST. QUAN	UNIT PRICE	TOTAL
201.4.1.A.1	Clearing and Grubbing	AC	0.5	$6,640	$3,201
201.4.1.C.1	Removal of Obstructions	LS	1	$15,000	$15,000
202.4.1.A.1	Excavation	CY	6886	$26	$179,036
202.4.6.A.1	Borrow	CY	0	$26	$0
706.4.1.A.3	Standard Straight Curb	LF	0	$60	$0
706.4.1.A.5	Standard 6-inch Vertical Curb & Gutter	LF	10300	$40	$412,000
706.4.1.E.1	Concrete Sidewalk, Thickness 4"	SF	25750	$15	$386,250
706.4.1.H.1	Pedestrian Ramp w/ Detectable Warning Domes	EA	4	$2,700	$10,800
706.4.1.F.1	Concrete Driveway Approach	EA	19	$4,000	$76,000
808.4.1.A.1	Seal Coat	SY	0	$4.50	$0
1101.4.1.A.1	Traffic Signal	LS	0	$300,000	$0
1102.4.1.A.1	Street Light (Foundation, Conduit, and Junction Box Only)	EA	34	$7,500	$257,500
1104.4.1.A.1	Pavement Line Paint (2 coats)	LF	30960	$1.19	$36,842
2050.4.1.C.1	Subgrade Separation Geotextile	SY	4749	$1.50	$7,124
S-1	Asphalt and Base (2"AC/4"AB) - Local Residential	SF	0	$1.81	$0
S-2	Asphalt and Base (3"AC/6"AB) - Local Commercial/Industrial	SF	0	$2.72	$0
S-3	Asphalt and Base (3"AC/4"AB) - Minor Collector	SF	0	$2.40	$0
S-4	Asphalt and Base (3"AC/6"AB) - Local Commercial/Industrial	SF	0	$2.72	$0
S-5	Asphalt and Base (3"AC/6"AB) -Major Collector	SF	0	$2.72	$0
S-6	Asphalt and Base (4"AC/6"AB) - Minor Arterial	SF	0	$3.29	$0
S-7	Asphalt and Base (4"AC/6"AB) - Principle Arterial	SF	375950	$3.29	$1,237,854
S-8	Asphalt and Base (2"AC/4"AB) - Multi-Use Trail	SF	51500	$1.81	$93,168
S-9	Roundabout - Single Lane	LS	0	$970,000	$0
S-10	Roundabout - Double Lane	LS	0	$2,200,000	$0
S-11	Conduit and Fiber Interconnect	LF	0	$120.00	$0
S-12	Railroad Crossing Improvements	LS	0	$0	$0
S-13	Structures	LS	1	$0	$0
S-14	Utility Relocations	LS	1	$0	$0
S-15	Storm Drainage (5%)	%	1	5%	$135,739
S-16	Miscellaneous Items (10%)	%	1	10%	$271,478
S-17	Survey (3%)	%	1	3%	$81,443
S-18	Temporary/Permanenet Erosion Control (4%)	%	1	4%	$108,591
S-19	Landscapping and Irrigation (4%)	%	1	4%	$108,591
S-20	Temporary Traffic Control (10%)	%	1	10%	$271,478
S-21	Mobilization (10%)	%	1	10%	$271,478
S-22	Right of Way - Full Acquisition	LS	0	$0	$0
S-23	Right of Way - Residential	SF	42300	$18	$761,400
S-24	Right of Way - Commercial	SF	3050	$14	$42,700
S-25	Right of Way - Industrial	SF	0	$8	$0
S-26	Planning, Engineering, and Administrative Costs	%	1	20%	$542,955
S-27	Construction Engineering and Inspection	%	1	15%	$407,216
				ANTICIPATED PROJECT COST	**$5,718,000**

ENGINEER'S OPINION OF PROBABLE COST

PROJECT:	**PRAIRIE AVE CORRIDOR - MCGUIRE RD TO CHASE RD**
Detailed Description:	Widen to five lanes. Include full arterial section. Address pinch points and constrained parcels. Impact fees utilized for center 36 feet of roadway, remaining widening and urban frontage improvemets by developer.
Project Code:	P-72
Project Size:	Large
Project Timeline:	Medium Term (2031-2035)
Project Funding:	Local
Roadway Classification:	Principle Arterial
Estimate Date:	November 2025

ITEM NO.	ITEM DESCRIPTION	SCHEDULE OF VALUES			
		UNIT	EST. QUAN	UNIT PRICE	TOTAL
201.4.1.A.1	Clearing and Grubbing	AC	9	$3,500	$31,648
201.4.1.C.1	Removal of Obstructions	LS	1	$875,000	$875,000
202.4.1.A.1	Excavation	CY	17662	$19	$335,582
202.4.6.A.1	Borrow	CY	0	$21	$0
706.4.1.A.3	Standard Straight Curb	LF	0	$45	$0
706.4.1.A.5	Standard 6-inch Vertical Curb & Gutter	LF	9160	$33	$302,280
706.4.1.E.1	Concrete Sidewalk, Thickness 4"	SF	0	$12	$0
706.4.1.H.1	Pedestrian Ramp w/ Detectable Warning Domes	EA	9	$2,700	$24,300
706.4.1.F.1	Concrete Driveway Approach	EA	21	$3,500	$73,500
808.4.1.A.1	Seal Coat	SY	58333	$4.00	$233,333
1101.4.1.A.1	Traffic Signal	LS	0	$600,000	$0
1102.4.1.A.1	Street Light (Foundation, Conduit, and Junction Box Only)	EA	2	$7,500	$15,000
1104.4.1.A.1	Pavement Line Paint (2 coats)	LF	54960	$0.40	$21,984
2050.4.1.C.1	Subgrade Separation Geotextile	SY	6708	$2	$10,063
S-1	Asphalt and Base (2"AC/4"AB) - Local Residential	SF	0	$2	$0
S-2	Asphalt and Base (3"AC/6"AB) - Local Commercial/Industrial	SF	0	$2	$0
S-3	Asphalt and Base (3"AC/4"AB) - Minor Collector	SF	0	$2	$0
S-4	Asphalt and Base (3"AC/6"AB) - Local Commercial/Industrial	SF	0	$2	$0
S-5	Asphalt and Base (3"AC/6"AB) -Major Collector	SF	0	$2	$0
S-6	Asphalt and Base (4"AC/6"AB) - Minor Arterial	SF	0	$3	$0
S-7	Asphalt and Base (4"AC/6"AB) - Principle Arterial	SF	525000	$3	$1,540,274
S-8	Asphalt and Base (2"AC/4"AB) - Multi-Use Trail	SF	78760	$2	$126,374
S-9	Roundabout - Single Lane	LS	0	$970,000	$0
S-10	Roundabout - Double Lane	LS	0	$2,200,000	$0
S-11	Conduit and Fiber Interconnect	LF	0	$80.00	$0
S-12	Railroad Crossing Improvements	LS	0	$0	$0
S-13	Structures	LS	0	$0	$0
S-14	Utility Relocations	LS	1	$182,000	$182,000
S-15	Storm Drainage (5%)	%	1	5%	$179,467
S-16	Miscellaneous Items (10%)	%	1	10%	$358,934
S-17	Survey (3%)	%	1	3%	$107,680
S-18	Temporary/Permanenet Erosion Control (4%)	%	1	4%	$143,573
S-19	Landscapping and Irrigation (4%)	%	1	4%	$143,573
S-20	Temporary Traffic Control (10%)	%	1	10%	$358,934
S-21	Mobilization (10%)	%	1	10%	$358,934
S-22	Right of Way - Full Acquisition	LS	1	$5,045,394	$5,045,394
S-23	Right of Way - Residential	SF	156817	$18	$2,822,706
S-26	Planning, Engineering, and Administrative Costs	%	1	15%	$538,401
S-27	Construction Engineering and Inspection	%	1	15%	$538,401
				ANTICIPATED PROJECT COST	**$14,368,000**

ENGINEER'S OPINION OF PROBABLE COST

PROJECT:	**PRAIRIE AVE CORRIDOR - PLEASANT VIEW RD TO MCGUIRE RD**
Detailed Description:	Widen to five lanes. Include full arterial section. Coordinate with adjacent development and intersection upgrades. Impact Fee costs for 1 east bound and 1 westbound lane, developer shares remainder of costs.
Project Code:	P-73
Project Size:	Large
Project Timeline:	Medium Term (2031-2035)
Project Funding:	Local
Roadway Classification:	Principle Arterial
Estimate Date:	November 2025

ITEM NO.	ITEM DESCRIPTION	SCHEDULE OF VALUES			
		UNIT	EST. QUAN	UNIT PRICE	TOTAL
201.4.1.A.1	Clearing and Grubbing	AC	7.4	$3,500	$25,807
201.4.1.C.1	Removal of Obstructions	LS	1	$15,000	$15,000
202.4.1.A.1	Excavation	CY	9778	$19	$185,778
202.4.6.A.1	Borrow	CY	0	$21	$0
706.4.1.A.3	Standard Straight Curb	LF	0	$45	$0
706.4.1.A.5	Standard 6-inch Vertical Curb & Gutter	LF	9600	$33	$316,800
706.4.1.E.1	Concrete Sidewalk, Thickness 4"	SF	24000	$12	$288,000
706.4.1.H.1	Pedestrian Ramp w/ Detectable Warning Domes	EA	2	$2,700	$5,400
706.4.1.F.1	Concrete Driveway Approach	EA	19	$3,500	$66,500
808.4.1.A.1	Seal Coat	SY	0	$4.00	$0
1101.4.1.A.1	Traffic Signal	LS	0	$600,000	$0
1102.4.1.A.1	Street Light (Foundation, Conduit, and Junction Box Only)	EA	32	$7,500	$240,000
1104.4.1.A.1	Pavement Line Paint (2 coats)	LF	28800	$0.40	$11,520
2050.4.1.C.1	Subgrade Separation Geotextile	SY	3893	$2	$5,840
S-1	Asphalt and Base (2"AC/4"AB) - Local Residential	SF	0	$2	$0
S-2	Asphalt and Base (3"AC/6"AB) - Local Commercial/Industrial	SF	0	$2	$0
S-3	Asphalt and Base (3"AC/4"AB) - Minor Collector	SF	0	$2	$0
S-4	Asphalt and Base (3"AC/6"AB) - Local Commercial/Industrial	SF	0	$2	$0
S-5	Asphalt and Base (3"AC/6"AB) -Major Collector	SF	0	$2	$0
S-6	Asphalt and Base (4"AC/6"AB) - Minor Arterial	SF	0	$3	$0
S-7	Asphalt and Base (4"AC/6"AB) - Principle Arterial	SF	302400	$3	$887,198
S-8	Asphalt and Base (2"AC/4"AB) - Multi-Use Trail	SF	48000	$2	$77,018
S-9	Roundabout - Single Lane	LS	0	$970,000	$0
S-10	Roundabout - Double Lane	LS	0	$2,200,000	$0
S-11	Conduit and Fiber Interconnect	LF	0	$80.00	$0
S-12	Railroad Crossing Improvements	LS	0	$0	$0
S-13	Structures	LS	0	$0	$0
S-14	Utility Relocations	LS	1	$214,950	$214,950
S-15	Storm Drainage (5%)	%	1	5%	$106,243
S-16	Miscellaneous Items (10%)	%	1	10%	$212,486
S-17	Survey (3%)	%	1	3%	$63,746
S-18	Temporary/Permanenet Erosion Control (4%)	%	1	4%	$84,994
S-19	Landscapping and Irrigation (4%)	%	1	4%	$84,994
S-20	Temporary Traffic Control (10%)	%	1	10%	$212,486
S-21	Mobilization (10%)	%	1	10%	$212,486
S-22	Right of Way - Full Acquisition	LS	0	$0	$0
S-23	Right of Way - Residential	SF	114750	$18	$2,065,500
S-24	Right of Way - Commercial	SF	0	$14	$0
S-25	Right of Way - Industrial	SF	0	$8	$0
S-26	Planning, Engineering, and Administrative Costs	%	1	15%	$318,729
S-27	Construction Engineering and Inspection	%	1	15%	$318,729
				ANTICIPATED PROJECT COST	**$6,021,000**

ENGINEER'S OPINION OF PROBABLE COST

PROJECT:	**PRAIRIE AVE CORRIDOR - SPOKANE ST TO IDAHO ST**
Detailed Description:	Widen to five lanes. Include full arterial section. Account for constrained parcels and right-of-way acquisition. Impact fees utilized for center 36 feet of roadway, remaining widening and urban frontage improvemets by developer.
Project Code:	P-74
Project Size:	Medium
Project Timeline:	Medium Term (2031-2035)
Project Funding:	Local
Roadway Classification:	Principle Arterial
Estimate Date:	November 2025

ITEM NO.	ITEM DESCRIPTION	SCHEDULE OF VALUES			
		UNIT	EST. QUAN	UNIT PRICE	TOTAL
201.4.1.A.1	Clearing and Grubbing	AC	5	$6,640	$30,731
201.4.1.C.1	Removal of Obstructions	LS	1	$7,000	$7,000
202.4.1.A.1	Excavation	CY	3481	$26	$90,519
202.4.6.A.1	Borrow	CY	0	$26	$0
706.4.1.A.3	Standard Straight Curb	LF	0	$60	$0
706.4.1.A.5	Standard 6-inch Vertical Curb & Gutter	LF	4800	$40	$192,000
706.4.1.E.1	Concrete Sidewalk, Thickness 4"	SF	0	$15	$0
706.4.1.H.1	Pedestrian Ramp w/ Detectable Warning Domes	EA	4	$2,700	$10,800
706.4.1.F.1	Concrete Driveway Approach	EA	9	$4,000	$36,000
808.4.1.A.1	Seal Coat	SY	0	$4.50	$0
1101.4.1.A.1	Traffic Signal	LS	0	$300,000	$0
1102.4.1.A.1	Street Light (Foundation, Conduit, and Junction Box Only)	EA	16	$7,500	$120,000
1104.4.1.A.1	Pavement Line Paint (2 coats)	LF	14400	$1.19	$17,136
2050.4.1.C.1	Subgrade Separation Geotextile	SY	1787	$2	$2,680
S-1	Asphalt and Base (2"AC/4"AB) - Local Residential	SF	0	$2	$0
S-2	Asphalt and Base (3"AC/6"AB) - Local Commercial/Industrial	SF	0	$3	$0
S-3	Asphalt and Base (3"AC/4"AB) - Minor Collector	SF	0	$2	$0
S-4	Asphalt and Base (3"AC/6"AB) - Local Commercial/Industrial	SF	0	$3	$0
S-5	Asphalt and Base (3"AC/6"AB) -Major Collector	SF	0	$3	$0
S-6	Asphalt and Base (4"AC/6"AB) - Minor Arterial	SF	0	$3	$0
S-7	Asphalt and Base (4"AC/6"AB) - Principle Arterial	SF	112800	$3	$371,405
S-8	Asphalt and Base (2"AC/4"AB) - Multi-Use Trail	SF	48000	$2	$86,837
S-9	Roundabout - Single Lane	LS	0	$970,000	$0
S-10	Roundabout - Double Lane	LS	0	$2,200,000	$0
S-11	Conduit and Fiber Interconnect	LF	0	$120.00	$0
S-12	Railroad Crossing Improvements	LS	1	$800,000	$800,000
S-13	Structures	LS	0	$0	$0
S-14	Utility Relocations	LS	0	$184,000	$0
S-15	Storm Drainage (5%)	%	1	5%	$88,255
S-16	Miscellaneous Items (10%)	%	1	10%	$176,511
S-17	Survey (3%)	%	1	3%	$52,953
S-18	Temporary/Permanenet Erosion Control (4%)	%	1	4%	$70,604
S-19	Landscapping and Irrigation (4%)	%	1	4%	$70,604
S-20	Temporary Traffic Control (10%)	%	1	10%	$176,511
S-21	Mobilization (10%)	%	1	10%	$176,511
S-22	Right of Way - Full Acquisition	LS	0	$0	$0
S-23	Right of Way - Residential	SF	111663	$18	$2,009,934
S-24	Right of Way - Commercial	SF	0	$14	$0
S-25	Right of Way - Industrial	SF	0	$8	$0
S-26	Planning, Engineering, and Administrative Costs	%	1	20%	$353,021
S-27	Construction Engineering and Inspection	%	1	15%	$264,766
				ANTICIPATED PROJECT COST	**$5,205,000**

ENGINEER'S OPINION OF PROBABLE COST

PROJECT:	**SELTICE WAY AND CEDAR ST INTERSECTION**
Detailed Description:	Reconfigure intersection and add north leg. Developer to add necessary signal pole, construct road improvements, and relocate signal control cabinet. City will update signal electronics and include pedestrian signal heads, ADA ramps, and push buttons.
Project Code:	P-75
Project Size:	Medium
Project Timeline:	Long Term (2036-2045)
Project Funding:	Local
Roadway Classification:	Principle Arterial
Estimate Date:	November 2025

ITEM NO.	ITEM DESCRIPTION	SCHEDULE OF VALUES			
		UNIT	EST. QUAN	UNIT PRICE	TOTAL
201.4.1.A.1	Clearing and Grubbing	AC	0.1	$6,640	$664
201.4.1.C.1	Removal of Obstructions	LS	1	$3,000	$3,000
202.4.1.A.1	Excavation	CY	50	$26	$1,291
202.4.6.A.1	Borrow	CY	0	$26	$0
706.4.1.A.3	Standard Straight Curb	LF	0	$60	$0
706.4.1.A.5	Standard 6-inch Vertical Curb & Gutter	LF	180	$40	$7,200
706.4.1.E.1	Concrete Sidewalk, Thickness 4"	SF	0	$15	$0
706.4.1.H.1	Pedestrian Ramp w/ Detectable Warning Domes	EA	4	$2,700	$10,800
706.4.1.F.1	Concrete Driveway Approach	EA	0	$4,000	$0
808.4.1.A.1	Seal Coat	SY	111	$4.50	$500
1101.4.1.A.1	Traffic Signal	LS	1	$300,000	$300,000
1102.4.1.A.1	Street Light (Foundation, Conduit, and Junction Box Only)	EA	4	$7,500	$30,000
1104.4.1.A.1	Pavement Line Paint (2 coats)	LF	100	$1.19	$119
2050.4.1.C.1	Subgrade Separation Geotextile	SY	28	$2	$42
S-1	Asphalt and Base (2"AC/4"AB) - Local Residential	SF	0	$2	$0
S-2	Asphalt and Base (3"AC/6"AB) - Local Commercial/Industrial	SF	0	$3	$0
S-3	Asphalt and Base (3"AC/4"AB) - Minor Collector	SF	1000	$2	$2,404
S-4	Asphalt and Base (3"AC/6"AB) - Local Commercial/Industrial	SF	0	$3	$0
S-5	Asphalt and Base (3"AC/6"AB) -Major Collector	SF	0	$3	$0
S-6	Asphalt and Base (4"AC/6"AB) - Minor Arterial	SF	0	$3	$0
S-7	Asphalt and Base (4"AC/6"AB) - Principle Arterial	SF	0	$3	$0
S-8	Asphalt and Base (2"AC/4"AB) - Multi-Use Trail	SF	1515	$2	$2,741
S-9	Roundabout - Single Lane	LS	0	$970,000	$0
S-10	Roundabout - Double Lane	LS	0	$2,200,000	$0
S-11	Conduit and Fiber Interconnect	LF	0	$120.00	$0
S-12	Railroad Crossing Improvements	LS	0	$0	$0
S-13	Structures	LS	0	$0	$0
S-14	Utility Relocations	LS	1	$0	$0
S-15	Storm Drainage (5%)	%	1	5%	$17,938
S-16	Miscellaneous Items (10%)	%	1	10%	$35,876
S-17	Survey (3%)	%	1	3%	$10,763
S-18	Temporary/Permanenet Erosion Control (4%)	%	1	4%	$14,350
S-19	Landscapping and Irrigation (4%)	%	1	4%	$14,350
S-20	Temporary Traffic Control (10%)	%	1	10%	$35,876
S-21	Mobilization (10%)	%	1	10%	$35,876
S-22	Right of Way - Full Acquisition	LS	0	$0	$0
S-23	Right of Way - Residential	SF	0	$18	$0
S-24	Right of Way - Commercial	SF	0	$14	$0
S-25	Right of Way - Industrial	SF	0	$8	$0
S-26	Planning, Engineering, and Administrative Costs	%	1	20%	$71,752
S-27	Construction Engineering and Inspection	%	1	15%	$53,814
				ANTICIPATED PROJECT COST	**$650,000**

ENGINEER'S OPINION OF PROBABLE COST

PROJECT:	**SELTICE WAY AND CLARK FORK PKWY INTERSECTION**
Detailed Description:	Construct a new multi-lane roundabout. Include full reconstruction, ADA upgrades, and pedestrian facilities.
Project Code:	P-76
Project Size:	Medium
Project Timeline:	Long Term (2036-2045)
Project Funding:	Local
Roadway Classification:	Principle Arterial
Estimate Date:	November 2025

ITEM NO.	ITEM DESCRIPTION	SCHEDULE OF VALUES			
		UNIT	EST. QUAN	UNIT PRICE	TOTAL
201.4.1.A.1	Clearing and Grubbing	AC	0	$6,640	$0
201.4.1.C.1	Removal of Obstructions	LS	1	$3,000	$3,000
202.4.1.A.1	Excavation	CY	0	$26	$0
202.4.6.A.1	Borrow	CY	0	$26	$0
706.4.1.A.3	Standard Straight Curb	LF	0	$60	$0
706.4.1.A.5	Standard 6-inch Vertical Curb & Gutter	LF	0	$40	$0
706.4.1.E.1	Concrete Sidewalk, Thickness 4"	SF	0	$15	$0
706.4.1.H.1	Pedestrian Ramp w/ Detectable Warning Domes	EA	0	$2,700	$0
706.4.1.F.1	Concrete Driveway Approach	EA	0	$4,000	$0
808.4.1.A.1	Seal Coat	SY	0	$4.50	$0
1101.4.1.A.1	Traffic Signal	LS	0	$300,000	$0
1102.4.1.A.1	Street Light (Foundation, Conduit, and Junction Box Only)	EA	0	$7,500	$0
1104.4.1.A.1	Pavement Line Paint (2 coats)	LF	0	$1.19	$0
2050.4.1.C.1	Subgrade Separation Geotextile	SY	0	$2	$0
S-1	Asphalt and Base (2"AC/4"AB) - Local Residential	SF	0	$2	$0
S-2	Asphalt and Base (3"AC/6"AB) - Local Commercial/Industrial	SF	0	$3	$0
S-3	Asphalt and Base (3"AC/4"AB) - Minor Collector	SF	0	$2	$0
S-4	Asphalt and Base (3"AC/6"AB) - Local Commercial/Industrial	SF	0	$3	$0
S-5	Asphalt and Base (3"AC/6"AB) -Major Collector	SF	0	$3	$0
S-6	Asphalt and Base (4"AC/6"AB) - Minor Arterial	SF	0	$3	$0
S-7	Asphalt and Base (4"AC/6"AB) - Principle Arterial	SF	0	$3	$0
S-8	Asphalt and Base (2"AC/4"AB) - Multi-Use Trail	SF	0	$2	$0
S-9	Roundabout - Single Lane	LS	0	$970,000	$0
S-10	Roundabout - Double Lane	LS	1	$2,200,000	$2,200,000
S-11	Conduit and Fiber Interconnect	LF	0	$120.00	$0
S-12	Railroad Crossing Improvements	LS	0	$0	$0
S-13	Structures	LS	0	$0	$0
S-14	Utility Relocations	LS	0	$0	$0
S-15	Storm Drainage (5%)	%	1	5%	$110,150
S-16	Miscellaneous Items (10%)	%	1	10%	$220,300
S-17	Survey (3%)	%	1	3%	$66,090
S-18	Temporary/Permanenet Erosion Control (4%)	%	1	4%	$88,120
S-19	Landscapping and Irrigation (4%)	%	1	4%	$88,120
S-20	Temporary Traffic Control (10%)	%	1	10%	$220,300
S-21	Mobilization (10%)	%	1	10%	$220,300
S-22	Right of Way - Full Acquisition	LS	0	$0	$0
S-23	Right of Way - Residential	SF	0	$18	$0
S-24	Right of Way - Commercial	SF	0	$14	$0
S-25	Right of Way - Industrial	SF	9060	$8	$72,480
S-26	Planning, Engineering, and Administrative Costs	%	1	20%	$440,600
S-27	Construction Engineering and Inspection	%	1	15%	$330,450
				ANTICIPATED PROJECT COST	**$4,060,000**

ENGINEER'S OPINION OF PROBABLE COST

PROJECT:	**SELTICE WAY AND CORBIN RD INTERSECTION**
Detailed Description:	Install a new signal. Include ADA-compliant ramps and pedestrian crossings. Coordinate with corridor improvements.
Project Code:	P-77
Project Size:	Medium
Project Timeline:	Short Term (2025-2030)
Project Funding:	Local
Roadway Classification:	Principle Arterial
Estimate Date:	November 2025

ITEM NO.	ITEM DESCRIPTION	SCHEDULE OF VALUES			
		UNIT	EST. QUAN	UNIT PRICE	TOTAL
202.4.1.A.1	Excavation	CY	56	$26	$1,466
202.4.6.A.1	Borrow	CY	0	$26	$0
706.4.1.A.3	Standard Straight Curb	LF	0	$60	$0
706.4.1.A.5	Standard 6-inch Vertical Curb & Gutter	LF	50	$40	$2,000
706.4.1.E.1	Concrete Sidewalk, Thickness 4"	SF	17	$15	$250
706.4.1.H.1	Pedestrian Ramp w/ Detectable Warning Domes	EA	4	$2,700	$10,800
706.4.1.F.1	Concrete Driveway Approach	EA	0	$4,000	$0
808.4.1.A.1	Seal Coat	SY	0	$4.50	$0
1101.4.1.A.1	Traffic Signal	LS	1	$300,000	$300,000
1102.4.1.A.1	Street Light (Foundation, Conduit, and Junction Box Only)	EA	4	$7,500	$30,000
1104.4.1.A.1	Pavement Line Paint (2 Coats)	LF	510	$1.19	$607
2050.4.1.C.1	Subgrade Separation Geotextile	SY	29	$2	$44
S-1	Asphalt and Base (2"AC/4"AB) - Local Residential	SF	0	$2	$0
S-2	Asphalt and Base (3"AC/6"AB) - Local Commercial/Industrial	SF	0	$3	$0
S-3	Asphalt and Base (3"AC/4"AB) - Minor Collector	SF	2610	$2	$6,274
S-4	Asphalt and Base (3"AC/6"AB) - Local Commercial/Industrial	SF	0	$3	$0
S-5	Asphalt and Base (3"AC/6"AB) -Major Collector	SF	0	$3	$0
S-6	Asphalt and Base (4"AC/6"AB) - Minor Arterial	SF	0	$3	$0
S-7	Asphalt and Base (4"AC/6"AB) - Principle Arterial	SF	0	$3	$0
S-8	Asphalt and Base (2"AC/4"AB) - Multi-Use Trail	SF	0	$2	$0
S-9	Roundabout - Single Lane	LS	0	$970,000	$0
S-10	Roundabout - Double Lane	LS	0	$2,200,000	$0
S-11	Conduit and Fiber Interconnect	LF	160	$120.00	$19,200
S-12	Railroad Crossing Improvements	LS	0	$0	$0
S-13	Structures	LS	0	$0	$0
S-14	Utility Relocations	LS	1	$25,000	$25,000
S-15	Storm Drainage (5%)	%	1	5%	$18,532
S-16	Miscellaneous Items (10%)	%	1	10%	$37,064
S-17	Survey (3%)	%	1	3%	$11,119
S-18	Temporary/Permanenet Erosion Control (4%)	%	1	4%	$14,826
S-19	Landscapping and Irrigation (4%)	%	1	4%	$14,826
S-20	Temporary Traffic Control (10%)	%	1	10%	$37,064
S-21	Mobilization (10%)	%	1	10%	$37,064
S-22	Right of Way - Full Acquisition	LS	0	$0	$0
S-23	Right of Way - Residential	SF	0	$18	$0
S-24	Right of Way - Commercial	SF	2940	$14	$41,160
S-25	Right of Way - Industrial	SF	0	$8	$0
S-26	Planning, Engineering, and Administrative Costs	%	1	20%	$74,128
S-27	Construction Engineering and Inspection	%	1	15%	$55,596
				ANTICIPATED PROJECT COST	**$738,000**

ENGINEER'S OPINION OF PROBABLE COST

PROJECT:	**SELTICE WAY AND I-90 EB RAMP INTERSECTION**
Detailed Description:	Install a new signal. Include ADA ramps and pedestrian facilities. Coordinate with I-90 interchange improvements.
Project Code:	P-78
Project Size:	Medium
Project Timeline:	Short Term (2025-2030)
Project Funding:	Local
Roadway Classification:	Principle Arterial
Estimate Date:	November 2025

ITEM NO.	ITEM DESCRIPTION	SCHEDULE OF VALUES			
		UNIT	EST. QUAN	UNIT PRICE	TOTAL
201.4.1.A.1	Clearing and Grubbing	AC	0	$6,640	$0
201.4.1.C.1	Removal of Obstructions	LS	0	$0	$0
202.4.1.A.1	Excavation	CY	0	$26	$0
202.4.6.A.1	Borrow	CY	0	$26	$0
706.4.1.A.3	Standard Straight Curb	LF	0	$60	$0
706.4.1.A.5	Standard 6-inch Vertical Curb & Gutter	LF	0	$40	$0
706.4.1.E.1	Concrete Sidewalk, Thickness 4"	SF	0	$15	$0
706.4.1.H.1	Pedestrian Ramp w/ Detectable Warning Domes	EA	0	$2,700	$0
706.4.1.F.1	Concrete Driveway Approach	EA	0	$4,000	$0
808.4.1.A.1	Seal Coat	SY	0	$4.50	$0
1101.4.1.A.1	Traffic Signal	LS	1	$300,000	$300,000
1102.4.1.A.1	Street Light (Foundation, Conduit, and Junction Box Only)	EA	3	$7,500	$22,500
1104.4.1.A.1	Pavement Line Paint (2 coats)	LF	420	$1.19	$500
2050.4.1.C.1	Subgrade Separation Geotextile	SY	0	$2	$0
S-1	Asphalt and Base (2"AC/4"AB) - Local Residential	SF	0	$2	$0
S-2	Asphalt and Base (3"AC/6"AB) - Local Commercial/Industrial	SF	0	$3	$0
S-3	Asphalt and Base (3"AC/4"AB) - Minor Collector	SF	0	$2	$0
S-4	Asphalt and Base (3"AC/6"AB) - Local Commercial/Industrial	SF	0	$3	$0
S-5	Asphalt and Base (3"AC/6"AB) -Major Collector	SF	0	$3	$0
S-6	Asphalt and Base (4"AC/6"AB) - Minor Arterial	SF	0	$3	$0
S-7	Asphalt and Base (4"AC/6"AB) - Principle Arterial	SF	0	$3	$0
S-8	Asphalt and Base (2"AC/4"AB) - Multi-Use Trail	SF	0	$2	$0
S-9	Roundabout - Single Lane	LS	0	$970,000	$0
S-10	Roundabout - Double Lane	LS	0	$2,200,000	$0
S-11	Conduit and Fiber Interconnect	LF	200	$120.00	$24,000
S-15	Storm Drainage (5%)	%	1	5%	$17,350
S-16	Miscellaneous Items (10%)	%	1	10%	$34,700
S-17	Survey (3%)	%	1	3%	$10,410
S-18	Temporary/Permanenet Erosion Control (4%)	%	1	4%	$13,880
S-19	Landscapping and Irrigation (4%)	%	1	4%	$13,880
S-20	Temporary Traffic Control (10%)	%	1	10%	$34,700
S-21	Mobilization (10%)	%	1	10%	$34,700
S-22	Right of Way - Full Acquisition	LS	0	$0	$0
S-23	Right of Way - Residential	SF	0	$18	$0
S-24	Right of Way - Commercial	SF	0	$14	$0
S-25	Right of Way - Industrial	SF	0	$8	$0
S-26	Planning, Engineering, and Administrative Costs	%	1	20%	$69,400
S-27	Construction Engineering and Inspection	%	1	15%	$52,050
				ANTICIPATED PROJECT COST	**$629,000**

ENGINEER'S OPINION OF PROBABLE COST

PROJECT:	**SELTICE WAY AND I-90 WB RAMP INTERSECTION**
Detailed Description:	Install a new signal. Include ADA ramps and pedestrian facilities. ITD lead project and participate at 67%.
Project Code:	P-79
Project Size:	Medium
Project Timeline:	Short Term (2025-2030)
Project Funding:	Local
Roadway Classification:	Principle Arterial
Estimate Date:	November 2025

ITEM NO.	ITEM DESCRIPTION	SCHEDULE OF VALUES			
		UNIT	EST. QUAN	UNIT PRICE	TOTAL
201.4.1.A.1	Clearing and Grubbing	AC	0	$6,640	$0
201.4.1.C.1	Removal of Obstructions	LS	1	$3,000	$3,000
202.4.1.A.1	Excavation	CY	0	$26	$0
202.4.6.A.1	Borrow	CY	0	$26	$0
706.4.1.A.3	Standard Straight Curb	LF	0	$60	$0
706.4.1.A.5	Standard 6-inch Vertical Curb & Gutter	LF	0	$40	$0
706.4.1.E.1	Concrete Sidewalk, Thickness 4"	SF	0	$15	$0
706.4.1.H.1	Pedestrian Ramp w/ Detectable Warning Domes	EA	0	$2,700	$0
706.4.1.F.1	Concrete Driveway Approach	EA	0	$4,000	$0
808.4.1.A.1	Seal Coat	SY	0	$4.50	$0
1101.4.1.A.1	Traffic Signal	LS	1	$300,000	$300,000
1102.4.1.A.1	Street Light (Foundation, Conduit, and Junction Box Only)	EA	3	$7,500	$22,500
1104.4.1.A.1	Pavement Line Paint (2 coats)	LF	45	$1.19	$54
2050.4.1.C.1	Subgrade Separation Geotextile	SY	0	$2	$0
S-1	Asphalt and Base (2"AC/4"AB) - Local Residential	SF	0	$2	$0
S-2	Asphalt and Base (3"AC/6"AB) - Local Commercial/Industrial	SF	0	$3	$0
S-3	Asphalt and Base (3"AC/4"AB) - Minor Collector	SF	0	$2	$0
S-4	Asphalt and Base (3"AC/6"AB) - Local Commercial/Industrial	SF	0	$3	$0
S-5	Asphalt and Base (3"AC/6"AB) -Major Collector	SF	0	$3	$0
S-6	Asphalt and Base (4"AC/6"AB) - Minor Arterial	SF	0	$3	$0
S-7	Asphalt and Base (4"AC/6"AB) - Principle Arterial	SF	0	$3	$0
S-8	Asphalt and Base (2"AC/4"AB) - Multi-Use Trail	SF	0	$2	$0
S-9	Roundabout - Single Lane	LS	0	$970,000	$0
S-10	Roundabout - Double Lane	LS	0	$2,200,000	$0
S-11	Conduit and Fiber Interconnect	LF	155	$120.00	$18,600
S-12	Railroad Crossing Improvements	LS	0	$0	$0
S-13	Structures	LS	0	$0	$0
S-14	Utility Relocations	LS	0	$0	$0
S-15	Storm Drainage (5%)	%	1	5%	$17,208
S-16	Miscellaneous Items (10%)	%	1	10%	$34,415
S-17	Survey (3%)	%	1	3%	$10,325
S-18	Temporary/Permanenet Erosion Control (4%)	%	1	4%	$13,766
S-19	Landscapping and Irrigation (4%)	%	1	4%	$13,766
S-20	Temporary Traffic Control (10%)	%	1	10%	$34,415
S-21	Mobilization (10%)	%	1	10%	$34,415
S-22	Right of Way - Full Acquisition	LS	0	$0	$0
S-23	Right of Way - Residential	SF	0	$18	$0
S-24	Right of Way - Commercial	SF	0	$14	$0
S-25	Right of Way - Industrial	SF	0	$8	$0
S-26	Planning, Engineering, and Administrative Costs	%	1	20%	$68,831
S-27	Construction Engineering and Inspection	%	1	15%	$51,623
				ANTICIPATED PROJECT COST	**$623,000**

ENGINEER'S OPINION OF PROBABLE COST

PROJECT:	**SELTICE WAY AND SPOKANE ST INTERSECTION**
Detailed Description:	Reconfigure intersection to include dual northbound left turn lanes, a single northbound right turn lane, a single eastbound right turn lane, and dual westbound left turn lanes. Upgrade signal accordingly. Include ADA ramps and pedestrian facilities.
Project Code:	P-81
Project Size:	Medium
Project Timeline:	Medium Term (2031-2035)
Project Funding:	Local
Roadway Classification:	Principle Arterial
Estimate Date:	November 2025

ITEM NO.	ITEM DESCRIPTION	SCHEDULE OF VALUES			
		UNIT	EST. QUAN	UNIT PRICE	TOTAL
201.4.1.A.1	Clearing and Grubbing	AC	0	$6,640	$0
201.4.1.C.1	Removal of Obstructions	LS	1	$15,000	$15,000
202.4.1.A.1	Excavation	CY	0	$26	$0
202.4.6.A.1	Borrow	CY	0	$26	$0
706.4.1.A.3	Standard Straight Curb	LF	0	$60	$0
706.4.1.A.5	Standard 6-inch Vertical Curb & Gutter	LF	0	$40	$0
706.4.1.E.1	Concrete Sidewalk, Thickness 4"	SF	0	$15	$0
706.4.1.H.1	Pedestrian Ramp w/ Detectable Warning Domes	EA	4	$2,700	$10,800
706.4.1.F.1	Concrete Driveway Approach	EA	0	$4,000	$0
808.4.1.A.1	Seal Coat	SY	0	$4.50	$0
1101.4.1.A.1	Traffic Signal	LS	1	$300,000	$300,000
1102.4.1.A.1	Street Light (Foundation, Conduit, and Junction Box Only)	EA	4	$7,500	$30,000
1104.4.1.A.1	Pavement Line Paint (2 coats)	LF	0	$1.19	$0
2050.4.1.C.1	Subgrade Separation Geotextile	SY	0	$2	$0
S-1	Asphalt and Base (2"AC/4"AB) - Local Residential	SF	0	$2	$0
S-2	Asphalt and Base (3"AC/6"AB) - Local Commercial/Industrial	SF	0	$3	$0
S-3	Asphalt and Base (3"AC/4"AB) - Minor Collector	SF	0	$2	$0
S-4	Asphalt and Base (3"AC/6"AB) - Local Commercial/Industrial	SF	0	$3	$0
S-5	Asphalt and Base (3"AC/6"AB) -Major Collector	SF	0	$3	$0
S-6	Asphalt and Base (4"AC/6"AB) - Minor Arterial	SF	0	$3	$0
S-7	Asphalt and Base (4"AC/6"AB) - Principle Arterial	SF	0	$3	$0
S-8	Asphalt and Base (2"AC/4"AB) - Multi-Use Trail	SF	0	$2	$0
S-9	Roundabout - Single Lane	LS	0	$970,000	$0
S-10	Roundabout - Double Lane	LS	0	$2,200,000	$0
S-11	Conduit and Fiber Interconnect	LF	0	$120.00	$0
S-12	Railroad Crossing Improvements	LS	0	$0	$0
S-13	Structures	LS	0	$0	$0
S-14	Utility Relocations	LS	1	$50,000	$50,000
S-15	Storm Drainage (5%)	%	1	5%	$17,790
S-16	Miscellaneous Items (10%)	%	1	10%	$35,580
S-17	Survey (3%)	%	1	3%	$10,674
S-18	Temporary/Permanenet Erosion Control (4%)	%	1	4%	$14,232
S-19	Landscapping and Irrigation (4%)	%	1	4%	$14,232
S-20	Temporary Traffic Control (10%)	%	1	10%	$35,580
S-21	Mobilization (10%)	%	1	10%	$35,580
S-22	Right of Way - Full Acquisition	LS	0	$0	$0
S-23	Right of Way - Residential	SF	0	$18	$0
S-24	Right of Way - Commercial	SF	9418	$14	$131,852
S-25	Right of Way - Industrial	SF	0	$8	$0
S-26	Planning, Engineering, and Administrative Costs	%	1	20%	$71,160
S-27	Construction Engineering and Inspection	%	1	15%	$53,370
				ANTICIPATED PROJECT COST	**$826,000**

ENGINEER'S OPINION OF PROBABLE COST

PROJECT:	**SPOKANE ST AND 12TH AVE INTERSECTION**
Detailed Description:	Install ¾ turn movement channelization with center island, restricting east-west through and left turning 12th Ave traffic. Include signage, striping, and pedestrian safety features.
Project Code:	P-82
Project Size:	Small
Project Timeline:	Short Term (2025-2030)
Project Funding:	Local
Roadway Classification:	Minor Arterial
Estimate Date:	November 2025

ITEM NO.	ITEM DESCRIPTION	SCHEDULE OF VALUES			
		UNIT	EST. QUAN	UNIT PRICE	TOTAL
201.4.1.A.1	Clearing and Grubbing	AC	0	$7,480	$0
201.4.1.C.1	Removal of Obstructions	LS	1	$3,000	$3,000
202.4.1.A.1	Excavation	CY	0	$45	$0
202.4.6.A.1	Borrow	CY	0	$50	$0
706.4.1.A.3	Standard Straight Curb	LF	1050	$70	$73,500
706.4.1.A.5	Standard 6-inch Vertical Curb & Gutter	LF	0	$76	$0
706.4.1.E.1	Concrete Sidewalk, Thickness 4"	SF	785	$24	$18,840
706.4.1.H.1	Pedestrian Ramp w/ Detectable Warning Domes	EA	4	$2,700	$10,800
706.4.1.F.1	Concrete Driveway Approach	EA	0	$4,600	$0
808.4.1.A.1	Seal Coat	SY	0	$5.00	$0
1101.4.1.A.1	Traffic Signal	LS	0	$150,000	$0
1102.4.1.A.1	Street Light (Foundation, Conduit, and Junction Box Only)	EA	0	$7,500	$0
1104.4.1.A.1	Pavement Line Paint (2 coats)	LF	1335	$1.75	$2,336
2050.4.1.C.1	Subgrade Separation Geotextile	SY	0	$2	$0
S-1	Asphalt and Base (2"AC/4"AB) - Local Residential	SF	0	$2	$0
S-2	Asphalt and Base (3"AC/6"AB) - Local Commercial/Industrial	SF	0	$4	$0
S-3	Asphalt and Base (3"AC/4"AB) - Minor Collector	SF	0	$3	$0
S-4	Asphalt and Base (3"AC/6"AB) - Local Commercial/Industrial	SF	0	$4	$0
S-5	Asphalt and Base (3"AC/6"AB) -Major Collector	SF	0	$4	$0
S-6	Asphalt and Base (4"AC/6"AB) - Minor Arterial	SF	0	$4	$0
S-7	Asphalt and Base (4"AC/6"AB) - Principle Arterial	SF	0	$4	$0
S-8	Asphalt and Base (2"AC/4"AB) - Multi-Use Trail	SF	0	$2	$0
S-9	Roundabout - Single Lane	LS	0	$970,000	$0
S-10	Roundabout - Double Lane	LS	0	$2,200,000	$0
S-11	Conduit and Fiber Interconnect	LF	0	$160.00	$0
S-12	Railroad Crossing Improvements	LS	0	$0	$0
S-13	Structures	LS	0	$0	$0
S-14	Utility Relocations	LS	0	$0	$0
S-15	Storm Drainage (5%)	%	1	5%	$5,424
S-16	Miscellaneous Items (10%)	%	1	10%	$10,848
S-17	Survey (3%)	%	1	3%	$3,254
S-18	Temporary/Permanenet Erosion Control (4%)	%	1	4%	$4,339
S-19	Landscapping and Irrigation (4%)	%	1	4%	$4,339
S-20	Temporary Traffic Control (10%)	%	1	10%	$10,848
S-21	Mobilization (10%)	%	1	10%	$10,848
S-22	Right of Way - Full Acquisition	LS	0	$0	$0
S-23	Right of Way - Residential	SF	0	$18	$0
S-24	Right of Way - Commercial	SF	0	$14	$0
S-25	Right of Way - Industrial	SF	0	$8	$0
S-26	Planning, Engineering, and Administrative Costs	%	1	25%	$27,119
S-27	Construction Engineering and Inspection	%	1	15%	$16,271
				ANTICIPATED PROJECT COST	**$202,000**

ENGINEER'S OPINION OF PROBABLE COST

PROJECT:	**SPOKANE ST AND 15TH AVE INTERSECTION**
Detailed Description:	Reconfigure intersection and install signal. Include ADA ramps and pedestrian facilities. Include roadway improvements from Seltice Way to 660 feet north.
Project Code:	P-83
Project Size:	Medium
Project Timeline:	Short Term (2025-2030)
Project Funding:	Local
Roadway Classification:	Minor Arterial
Estimate Date:	November 2025

ITEM NO.	ITEM DESCRIPTION	SCHEDULE OF VALUES			
		UNIT	EST. QUAN	UNIT PRICE	TOTAL
201.4.1.A.1	Clearing and Grubbing	AC	0	$6,640	$0
201.4.1.C.1	Removal of Obstructions	LS	1	$3,000	$3,000
202.4.1.A.1	Excavation	CY	0	$26	$0
202.4.6.A.1	Borrow	CY	0	$26	$0
706.4.1.A.3	Standard Straight Curb	LF	250	$60	$15,000
706.4.1.A.5	Standard 6-inch Vertical Curb & Gutter	LF	0	$40	$0
706.4.1.E.1	Concrete Sidewalk, Thickness 4"	SF	630	$15	$9,450
706.4.1.H.1	Pedestrian Ramp w/ Detectable Warning Domes	EA	0	$2,700	$0
706.4.1.F.1	Concrete Driveway Approach	EA	0	$4,000	$0
808.4.1.A.1	Seal Coat	SY	0	$4.50	$0
1101.4.1.A.1	Traffic Signal	LS	1	$300,000	$300,000
1102.4.1.A.1	Street Light (Foundation, Conduit, and Junction Box Only)	EA	0	$7,500	$0
1104.4.1.A.1	Pavement Line Paint (2 coats)	LF	0	$1.19	$0
2050.4.1.C.1	Subgrade Separation Geotextile	SY	0	$2	$0
S-1	Asphalt and Base (2"AC/4"AB) - Local Residential	SF	0	$2	$0
S-2	Asphalt and Base (3"AC/6"AB) - Local Commercial/Industrial	SF	0	$3	$0
S-3	Asphalt and Base (3"AC/4"AB) - Minor Collector	SF	0	$2	$0
S-4	Asphalt and Base (3"AC/6"AB) - Local Commercial/Industrial	SF	0	$3	$0
S-5	Asphalt and Base (3"AC/6"AB) -Major Collector	SF	0	$3	$0
S-6	Asphalt and Base (4"AC/6"AB) - Minor Arterial	SF	0	$3	$0
S-7	Asphalt and Base (4"AC/6"AB) - Principle Arterial	SF	0	$3	$0
S-8	Asphalt and Base (2"AC/4"AB) - Multi-Use Trail	SF	0	$2	$0
S-9	Roundabout - Single Lane	LS	0	$970,000	$0
S-10	Roundabout - Double Lane	LS	0	$2,200,000	$0
S-11	Conduit and Fiber Interconnect	LF	2500	$120.00	$300,000
S-12	Railroad Crossing Improvements	LS	0	$0	$0
S-13	Structures	LS	0	$0	$0
S-14	Utility Relocations	LS	0	$0	$0
S-15	Storm Drainage (5%)	%	1	5%	$31,373
S-16	Miscellaneous Items (10%)	%	1	10%	$62,745
S-17	Survey (3%)	%	1	3%	$18,824
S-18	Temporary/Permanenet Erosion Control (4%)	%	1	4%	$25,098
S-19	Landscapping and Irrigation (4%)	%	1	4%	$25,098
S-20	Temporary Traffic Control (10%)	%	1	10%	$62,745
S-21	Mobilization (10%)	%	1	10%	$62,745
S-22	Right of Way - Full Acquisition	LS	0	$0	$0
S-23	Right of Way - Residential	SF	0	$18	$0
S-24	Right of Way - Commercial	SF	0	$14	$0
S-25	Right of Way - Industrial	SF	0	$8	$0
S-26	Planning, Engineering, and Administrative Costs	%	1	20%	$125,490
S-27	Construction Engineering and Inspection	%	1	15%	$94,118
				ANTICIPATED PROJECT COST	**$1,136,000**

ENGINEER'S OPINION OF PROBABLE COST

PROJECT:	**SPOKANE ST AND 7TH AVE INTERSECTION**
Detailed Description:	Install ¾ turn movement channelization with center island, restricting east-west through and left turning 7th Ave traffic. Include signage, striping, and pedestrian safety features.
Project Code:	P-84
Project Size:	Small
Project Timeline:	Short Term (2025-2030)
Project Funding:	Local
Roadway Classification:	Minor Arterial
Estimate Date:	November 2025

ITEM NO.	ITEM DESCRIPTION	SCHEDULE OF VALUES			
		UNIT	EST. QUAN	UNIT PRICE	TOTAL
201.4.1.A.1	Clearing and Grubbing	AC	0	$7,480	$0
201.4.1.C.1	Removal of Obstructions	LS	1	$3,000	$3,000
202.4.1.A.1	Excavation	CY	0	$45	$0
202.4.6.A.1	Borrow	CY	0	$50	$0
706.4.1.A.3	Standard Straight Curb	LF	550	$70	$38,500
706.4.1.A.5	Standard 6-inch Vertical Curb & Gutter	LF	0	$76	$0
706.4.1.E.1	Concrete Sidewalk, Thickness 4"	SF	1310	$24	$31,440
706.4.1.H.1	Pedestrian Ramp w/ Detectable Warning Domes	EA	4	$2,700	$10,800
706.4.1.F.1	Concrete Driveway Approach	EA	0	$4,600	$0
808.4.1.A.1	Seal Coat	SY	0	$5.00	$0
1101.4.1.A.1	Traffic Signal	LS	0	$150,000	$0
1102.4.1.A.1	Street Light (Foundation, Conduit, and Junction Box Only)	EA	0	$7,500	$0
1104.4.1.A.1	Pavement Line Paint (2 coats)	LF	0	$1.75	$0
2050.4.1.C.1	Subgrade Separation Geotextile	SY	0	$2	$0
S-1	Asphalt and Base (2"AC/4"AB) - Local Residential	SF	0	$2	$0
S-2	Asphalt and Base (3"AC/6"AB) - Local Commercial/Industrial	SF	0	$4	$0
S-3	Asphalt and Base (3"AC/4"AB) - Minor Collector	SF	0	$3	$0
S-4	Asphalt and Base (3"AC/6"AB) - Local Commercial/Industrial	SF	0	$4	$0
S-5	Asphalt and Base (3"AC/6"AB) -Major Collector	SF	0	$4	$0
S-6	Asphalt and Base (4"AC/6"AB) - Minor Arterial	SF	0	$4	$0
S-7	Asphalt and Base (4"AC/6"AB) - Principle Arterial	SF	0	$4	$0
S-8	Asphalt and Base (2"AC/4"AB) - Multi-Use Trail	SF	0	$2	$0
S-9	Roundabout - Single Lane	LS	0	$970,000	$0
S-10	Roundabout - Double Lane	LS	0	$2,200,000	$0
S-11	Conduit and Fiber Interconnect	LF	0	$160.00	$0
S-12	Railroad Crossing Improvements	LS	0	$0	$0
S-13	Structures	LS	0	$0	$0
S-14	Utility Relocations	LS	0	$0	$0
S-15	Storm Drainage (5%)	%	1	5%	$4,187
S-16	Miscellaneous Items (10%)	%	1	10%	$8,374
S-17	Survey (3%)	%	1	3%	$2,512
S-18	Temporary/Permanenet Erosion Control (4%)	%	1	4%	$3,350
S-19	Landscapping and Irrigation (4%)	%	1	4%	$3,350
S-20	Temporary Traffic Control (10%)	%	1	10%	$8,374
S-21	Mobilization (10%)	%	1	10%	$8,374
S-22	Right of Way - Full Acquisition	LS	0	$0	$0
S-23	Right of Way - Residential	SF	0	$18	$0
S-24	Right of Way - Commercial	SF	0	$14	$0
S-25	Right of Way - Industrial	SF	0	$8	$0
S-26	Planning, Engineering, and Administrative Costs	%	1	25%	$20,935
S-27	Construction Engineering and Inspection	%	1	15%	$12,561
				ANTICIPATED PROJECT COST	**$156,000**

ENGINEER'S OPINION OF PROBABLE COST

PROJECT:	**SPOKANE ST AND I-90 EB INTERSECTION**
Detailed Description:	Reconfigure intersection to include dual eastbound left turn lanes, a shared through and right eastbound lane, a separate eastbound right turn lane, and upgrade signal. Include ADA-compliant ramps and pedestrian facilities.
Project Code:	P-85
Project Size:	Medium
Project Timeline:	Long Term (2036-2045)
Project Funding:	Local
Roadway Classification:	Minor Arterial
Estimate Date:	November 2025

ITEM NO.	ITEM DESCRIPTION	SCHEDULE OF VALUES			
		UNIT	EST. QUAN	UNIT PRICE	TOTAL
201.4.1.A.1	Clearing and Grubbing	AC	0	$6,640	$0
201.4.1.C.1	Removal of Obstructions	LS	1	$10,000	$10,000
202.4.1.A.1	Excavation	CY	0	$26	$0
202.4.6.A.1	Borrow	CY	0	$26	$0
706.4.1.A.3	Standard Straight Curb	LF	0	$60	$0
706.4.1.A.5	Standard 6-inch Vertical Curb & Gutter	LF	0	$40	$0
706.4.1.E.1	Concrete Sidewalk, Thickness 4"	SF	0	$15	$0
706.4.1.H.1	Pedestrian Ramp w/ Detectable Warning Domes	EA	0	$2,700	$0
706.4.1.F.1	Concrete Driveway Approach	EA	0	$4,000	$0
808.4.1.A.1	Seal Coat	SY	0	$4.50	$0
1101.4.1.A.1	Traffic Signal	LS	1	$300,000	$300,000
1102.4.1.A.1	Street Light (Foundation, Conduit, and Junction Box Only)	EA	4	$7,500	$30,000
1104.4.1.A.1	Pavement Line Paint (2 coats)	LF	0	$1.19	$0
2050.4.1.C.1	Subgrade Separation Geotextile	SY	0	$2	$0
S-1	Asphalt and Base (2"AC/4"AB) - Local Residential	SF	0	$2	$0
S-2	Asphalt and Base (3"AC/6"AB) - Local Commercial/Industrial	SF	0	$3	$0
S-3	Asphalt and Base (3"AC/4"AB) - Minor Collector	SF	0	$2	$0
S-4	Asphalt and Base (3"AC/6"AB) - Local Commercial/Industrial	SF	0	$3	$0
S-5	Asphalt and Base (3"AC/6"AB) -Major Collector	SF	0	$3	$0
S-6	Asphalt and Base (4"AC/6"AB) - Minor Arterial	SF	0	$3	$0
S-7	Asphalt and Base (4"AC/6"AB) - Principle Arterial	SF	0	$3	$0
S-8	Asphalt and Base (2"AC/4"AB) - Multi-Use Trail	SF	0	$2	$0
S-9	Roundabout - Single Lane	LS	0	$970,000	$0
S-10	Roundabout - Double Lane	LS	0	$2,200,000	$0
S-11	Conduit and Fiber Interconnect	LF	200	$120.00	$24,000
S-12	Railroad Crossing Improvements	LS	0	$0	$0
S-13	Structures	LS	0	$0	$0
S-14	Utility Relocations	LS	0	$0	$0
S-15	Storm Drainage (5%)	%	1	5%	$18,200
S-16	Miscellaneous Items (10%)	%	1	10%	$36,400
S-17	Survey (3%)	%	1	3%	$10,920
S-18	Temporary/Permanenet Erosion Control (4%)	%	1	4%	$14,560
S-19	Landscapping and Irrigation (4%)	%	1	4%	$14,560
S-20	Temporary Traffic Control (10%)	%	1	10%	$36,400
S-21	Mobilization (10%)	%	1	10%	$36,400
S-22	Right of Way - Full Acquisition	LS	0	$0	$0
S-23	Right of Way - Residential	SF	0	$18	$0
S-24	Right of Way - Commercial	SF	0	$14	$0
S-25	Right of Way - Industrial	SF	0	$8	$0
S-26	Planning, Engineering, and Administrative Costs	%	1	20%	$72,800
S-27	Construction Engineering and Inspection	%	1	15%	$54,600
				ANTICIPATED PROJECT COST	**$659,000**

ENGINEER'S OPINION OF PROBABLE COST

PROJECT:	**SPOKANE ST AND I-90 WB INTERSECTION**
Detailed Description:	Reconfigure intersection adding dual northbound lefts, a separate southbound rigjt turn lane, and upgrade signal. Include ADA ramps and pedestrian facilities.
Project Code:	P-86
Project Size:	Medium
Project Timeline:	Long Term (2036-2045)
Project Funding:	Local
Roadway Classification:	Minor Arterial
Estimate Date:	November 2025

ITEM NO.	ITEM DESCRIPTION	SCHEDULE OF VALUES			
		UNIT	EST. QUAN	UNIT PRICE	TOTAL
201.4.1.A.1	Clearing and Grubbing	AC	0.1	$6,640	$664
201.4.1.C.1	Removal of Obstructions	LS	1	$0	$0
202.4.1.A.1	Excavation	CY	285	$26	$7,423
202.4.6.A.1	Borrow	CY	0	$26	$0
706.4.1.A.3	Standard Straight Curb	LF	0	$60	$0
706.4.1.A.5	Standard 6-inch Vertical Curb & Gutter	LF	870	$40	$34,800
706.4.1.E.1	Concrete Sidewalk, Thickness 4"	SF	1425	$15	$21,375
706.4.1.H.1	Pedestrian Ramp w/ Detectable Warning Domes	EA	3	$2,700	$8,100
706.4.1.F.1	Concrete Driveway Approach	EA	1	$4,000	$4,000
808.4.1.A.1	Seal Coat	SY	1028	$4.50	$4,625
1101.4.1.A.1	Traffic Signal	LS	1	$300,000	$300,000
1102.4.1.A.1	Street Light (Foundation, Conduit, and Junction Box Only)	EA	4	$7,500	$30,000
1104.4.1.A.1	Pavement Line Paint (2 coats)	LF	3100	$1.19	$3,689
2050.4.1.C.1	Subgrade Separation Geotextile	SY	103	$2	$154
S-1	Asphalt and Base (2"AC/4"AB) - Local Residential	SF	0	$2	$0
S-2	Asphalt and Base (3"AC/6"AB) - Local Commercial/Industrial	SF	0	$3	$0
S-3	Asphalt and Base (3"AC/4"AB) - Minor Collector	SF	0	$2	$0
S-4	Asphalt and Base (3"AC/6"AB) - Local Commercial/Industrial	SF	0	$3	$0
S-5	Asphalt and Base (3"AC/6"AB) -Major Collector	SF	0	$3	$0
S-6	Asphalt and Base (4"AC/6"AB) - Minor Arterial	SF	9250	$3	$30,457
S-7	Asphalt and Base (4"AC/6"AB) - Principle Arterial	SF	0	$3	$0
S-8	Asphalt and Base (2"AC/4"AB) - Multi-Use Trail	SF	0	$2	$0
S-9	Roundabout - Single Lane	LS	0	$970,000	$0
S-10	Roundabout - Double Lane	LS	0	$2,200,000	$0
S-11	Conduit and Fiber Interconnect	LF	165	$120.00	$19,800
S-13	Structures	LS	1	$0	$0
S-14	Utility Relocations	LS	1	$0	$0
S-15	Storm Drainage (5%)	%	1	5%	$23,254
S-16	Miscellaneous Items (10%)	%	1	10%	$46,509
S-17	Survey (3%)	%	1	3%	$13,953
S-18	Temporary/Permanenet Erosion Control (4%)	%	1	4%	$18,603
S-19	Landscapping and Irrigation (4%)	%	1	4%	$18,603
S-20	Temporary Traffic Control (10%)	%	1	10%	$46,509
S-21	Mobilization (10%)	%	1	10%	$46,509
S-22	Right of Way - Full Acquisition	LS	0	$0	$0
S-23	Right of Way - Residential	SF		$18	$0
S-24	Right of Way - Commercial	SF	1172	$14	$16,408
S-25	Right of Way - Industrial	SF	0	$8	$0
S-26	Planning, Engineering, and Administrative Costs	%	1	20%	$93,017
S-27	Construction Engineering and Inspection	%	1	15%	$69,763
				ANTICIPATED PROJECT COST	**$859,000**

ENGINEER'S OPINION OF PROBABLE COST

PROJECT:	**SPOKANE ST AND POLELINE AVE INTERSECTION**
Detailed Description:	Modify single lane roundabout adding north bound and west bound slip lanes. Include ADA upgrades, and pedestrian crossings adjustments.
Project Code:	P-87
Project Size:	Small
Project Timeline:	Long Term (2036-2045)
Project Funding:	Local
Roadway Classification:	Minor Arterial
Estimate Date:	November 2025

ITEM NO.	ITEM DESCRIPTION	SCHEDULE OF VALUES			
		UNIT	EST. QUAN	UNIT PRICE	TOTAL
201.4.1.A.1	Clearing and Grubbing	AC	0.31	$7,480	$2,335
201.4.1.C.1	Removal of Obstructions	LS	1	$80,000	$80,000
202.4.1.A.1	Excavation	CY	0	$45	$0
202.4.6.A.1	Borrow	CY	0	$50	$0
706.4.1.A.3	Standard Straight Curb	LF	0	$70	$0
706.4.1.A.5	Standard 6-inch Vertical Curb & Gutter	LF	800	$76	$60,800
706.4.1.E.1	Concrete Sidewalk, Thickness 4"	SF	4000	$24	$96,000
706.4.1.H.1	Pedestrian Ramp w/ Detectable Warning Domes	EA	8	$2,700	$21,600
706.4.1.F.1	Concrete Driveway Approach	EA	2	$4,600	$9,200
808.4.1.A.1	Seal Coat	SY	0	$5.00	$0
1101.4.1.A.1	Traffic Signal	LS	0	$150,000	$0
1102.4.1.A.1	Street Light (Foundation, Conduit, and Junction Box Only)	EA	0	$7,500	$0
1104.4.1.A.1	Pavement Line Paint (2 coats)	LF	800	$1.75	$1,400
2050.4.1.C.1	Subgrade Separation Geotextile	SY	107	$2	$213
S-1	Asphalt and Base (2"AC/4"AB) - Local Residential	SF	0	$2	$0
S-2	Asphalt and Base (3"AC/6"AB) - Local Commercial/Industrial	SF	0	$4	$0
S-3	Asphalt and Base (3"AC/4"AB) - Minor Collector	SF	0	$3	$0
S-4	Asphalt and Base (3"AC/6"AB) - Local Commercial/Industrial	SF	0	$4	$0
S-5	Asphalt and Base (3"AC/6"AB) -Major Collector	SF	9600	$4	$34,384
S-6	Asphalt and Base (4"AC/6"AB) - Minor Arterial	SF	0	$4	$0
S-7	Asphalt and Base (4"AC/6"AB) - Principle Arterial	SF	0	$4	$0
S-8	Asphalt and Base (2"AC/4"AB) - Multi-Use Trail	SF	0	$2	$0
S-9	Roundabout - Single Lane	LS	0	$970,000	$0
S-10	Roundabout - Double Lane	LS	0	$2,200,000	$0
S-13	Structures	LS	0	$250,000	$0
S-14	Utility Relocations	LS	0	$30,000	$0
S-15	Storm Drainage (5%)	%	1	5%	$15,297
S-16	Miscellaneous Items (10%)	%	1	10%	$30,593
S-17	Survey (3%)	%	1	3%	$9,178
S-18	Temporary/Permanenet Erosion Control (4%)	%	1	4%	$12,237
S-19	Landscapping and Irrigation (4%)	%	1	4%	$12,237
S-20	Temporary Traffic Control (10%)	%	1	10%	$30,593
S-21	Mobilization (10%)	%	1	10%	$30,593
S-22	Right of Way - Full Acquisition	LS	0	$887,100	$0
S-23	Right of Way - Residential	SF	0	$18	$0
S-26	Planning, Engineering, and Administrative Costs	%	1	25%	$76,483
S-27	Construction Engineering and Inspection	%	1	15%	$45,890
				ANTICIPATED PROJECT COST	**$570,000**

ENGINEER'S OPINION OF PROBABLE COST

PROJECT:	**SPOKANE ST CORRIDOR - CRESTVIEW DR TO ROSE AVE**
Detailed Description:	Install left turn pockets at Rose Drive and Crestview Court. Include pavement widening, striping, and coordination with corridor improvements.
Project Code:	P-88
Project Size:	Small
Project Timeline:	Long Term (2036-2045)
Project Funding:	Local
Roadway Classification:	Minor Collector
Estimate Date:	November 2025

ITEM NO.	ITEM DESCRIPTION	SCHEDULE OF VALUES			
		UNIT	EST. QUAN	UNIT PRICE	TOTAL
202.4.1.A.1	Excavation	CY	104	$45	$4,667
202.4.6.A.1	Borrow	CY	0	$50	$0
706.4.1.A.3	Standard Straight Curb	LF	0	$70	$0
706.4.1.A.5	Standard 6-inch Vertical Curb & Gutter	LF	650	$76	$49,400
706.4.1.E.1	Concrete Sidewalk, Thickness 4"	SF	0	$24	$0
706.4.1.H.1	Pedestrian Ramp w/ Detectable Warning Domes	EA	0	$2,700	$0
706.4.1.F.1	Concrete Driveway Approach	EA	2	$4,600	$9,200
808.4.1.A.1	Seal Coat	SY	0	$5.00	$0
1101.4.1.A.1	Traffic Signal	LS	0	$150,000	$0
1102.4.1.A.1	Street Light (Foundation, Conduit, and Junction Box Only)	EA	0	$7,500	$0
1104.4.1.A.1	Pavement Line Paint (2 coats)	LF	2868	$1.75	$5,019
2050.4.1.C.1	Subgrade Separation Geotextile	SY	53	$2	$107
S-1	Asphalt and Base (2"AC/4"AB) - Local Residential	SF	0	$2	$0
S-2	Asphalt and Base (3"AC/6"AB) - Local Commercial/Industrial	SF	0	$4	$0
S-3	Asphalt and Base (3"AC/4"AB) - Minor Collector	SF	4800	$3	$15,248
S-4	Asphalt and Base (3"AC/6"AB) - Local Commercial/Industrial	SF	0	$4	$0
S-5	Asphalt and Base (3"AC/6"AB) -Major Collector	SF	0	$4	$0
S-6	Asphalt and Base (4"AC/6"AB) - Minor Arterial	SF	0	$4	$0
S-7	Asphalt and Base (4"AC/6"AB) - Principle Arterial	SF	0	$4	$0
S-8	Asphalt and Base (2"AC/4"AB) - Multi-Use Trail	SF	0	$2	$0
S-9	Roundabout - Single Lane	LS	0	$970,000	$0
S-10	Roundabout - Double Lane	LS	0	$2,200,000	$0
S-11	Conduit and Fiber Interconnect	LF	0	$160.00	$0
S-12	Railroad Crossing Improvements	LS	0	$0	$0
S-13	Structures	LS	0	$0	$0
S-14	Utility Relocations	LS	0	$0	$0
S-15	Storm Drainage (5%)	%	1	5%	$4,182
S-16	Miscellaneous Items (10%)	%	1	10%	$8,364
S-17	Survey (3%)	%	1	3%	$2,509
S-18	Temporary/Permanenet Erosion Control (4%)	%	1	4%	$3,346
S-19	Landscapping and Irrigation (4%)	%	1	4%	$3,346
S-20	Temporary Traffic Control (10%)	%	1	10%	$8,364
S-21	Mobilization (10%)	%	1	10%	$8,364
S-22	Right of Way - Full Acquisition	LS	0	$0	$0
S-23	Right of Way - Residential	SF	5600	$18	$100,800
S-24	Right of Way - Commercial	SF	0	$14	$0
S-25	Right of Way - Industrial	SF	0	$8	$0
S-26	Planning, Engineering, and Administrative Costs	%	1	25%	$20,910
S-27	Construction Engineering and Inspection	%	1	15%	$12,546
				ANTICIPATED PROJECT COST	**$257,000**

ENGINEER'S OPINION OF PROBABLE COST

PROJECT:	**PLEASANT VIEW RD CORRIDOR - INTERSTATE/UPRR TO HWY 53**
Detailed Description:	Widen to five lanes. Match existing arterial section where it is fully built out. Impact fees utilized for 20% of roadway of widening costs, developer responsible for urban improvements and remainder of widening.
Project Code:	P-89
Project Size:	Large
Project Timeline:	Long Term (2036-2045)
Project Funding:	Local
Roadway Classification:	Principle Arterial
Estimate Date:	November 2025

ITEM NO.	ITEM DESCRIPTION	SCHEDULE OF VALUES			
		UNIT	EST. QUAN	UNIT PRICE	TOTAL
201.4.1.A.1	Clearing and Grubbing	AC	19.55	$3,500	$68,435
201.4.1.C.1	Removal of Obstructions	LS	1	$30,000	$30,000
202.4.1.A.1	Excavation	CY	10265	$19	$195,035
202.4.6.A.1	Borrow	CY	0	$21	$0
706.4.1.A.3	Standard Straight Curb	LF	0	$45	$0
706.4.1.A.5	Standard 6-inch Vertical Curb & Gutter	LF	22500	$33	$742,500
706.4.1.E.1	Concrete Sidewalk, Thickness 4"	SF	0	$12	$0
706.4.1.H.1	Pedestrian Ramp w/ Detectable Warning Domes	EA	0	$2,700	$0
706.4.1.F.1	Concrete Driveway Approach	EA	3	$3,500	$10,500
808.4.1.A.1	Seal Coat	SY	0	$4.00	$0
1101.4.1.A.1	Traffic Signal	LS	0	$600,000	$0
1102.4.1.A.1	Street Light (Foundation, Conduit, and Junction Box Only)	EA	75	$7,500	$562,500
1104.4.1.A.1	Pavement Line Paint (2 coats)	LF	67500	$0.40	$27,000
2050.4.1.C.1	Subgrade Separation Geotextile	SY	4945	$2	$7,418
S-1	Asphalt and Base (2"AC/4"AB) - Local Residential	SF	0	$2	$0
S-2	Asphalt and Base (3"AC/6"AB) - Local Commercial/Industrial	SF	0	$2	$0
S-3	Asphalt and Base (3"AC/4"AB) - Minor Collector	SF	0	$2	$0
S-4	Asphalt and Base (3"AC/6"AB) - Local Commercial/Industrial	SF	0	$2	$0
S-5	Asphalt and Base (3"AC/6"AB) -Major Collector	SF	0	$2	$0
S-6	Asphalt and Base (4"AC/6"AB) - Minor Arterial	SF	0	$3	$0
S-7	Asphalt and Base (4"AC/6"AB) - Principle Arterial	SF	332586	$3	$975,759
S-8	Asphalt and Base (2"AC/4"AB) - Multi-Use Trail	SF	112500	$2	$180,511
S-9	Roundabout - Single Lane	LS	0	$970,000	$0
S-10	Roundabout - Double Lane	LS	0	$2,200,000	$0
S-11	Conduit and Fiber Interconnect	LF	0	$80.00	$0
S-12	Railroad Crossing Improvements	LS	1	$2,400,000	$2,400,000
S-13	Structures	LS	1	$15,000	$15,000
S-14	Utility Relocations	LS	0	$421,750	$0
S-15	Storm Drainage (5%)	%	1	5%	$260,733
S-16	Miscellaneous Items (10%)	%	1	10%	$521,466
S-17	Survey (3%)	%	1	3%	$156,440
S-18	Temporary/Permanenet Erosion Control (4%)	%	1	4%	$208,586
S-19	Landscapping and Irrigation (4%)	%	1	4%	$208,586
S-20	Temporary Traffic Control (10%)	%	1	10%	$521,466
S-21	Mobilization (10%)	%	1	10%	$521,466
S-22	Right of Way - Full Acquisition	LS	0	$0	$0
S-23	Right of Way - Residential	SF	0	$18	$0
S-24	Right of Way - Commercial	SF	0	$14	$0
S-25	Right of Way - Industrial	SF	249381	$8	$1,995,048
S-26	Planning, Engineering, and Administrative Costs	%	1	15%	$782,199
S-27	Construction Engineering and Inspection	%	1	15%	$782,199
				ANTICIPATED PROJECT COST	**$11,173,000**

ENGINEER'S OPINION OF PROBABLE COST

PROJECT:	**GRAFFITI ST AND SELTICE WAY INTERSECTION**
Detailed Description:	Install right turn only channelization on Graffiti Street to prevent left hand turns onto Seltice.
Project Code:	S-3
Project Size:	Small
Project Timeline:	Safety
Project Funding:	Local
Roadway Classification:	N/A
Estimate Date:	November 2025

ITEM NO.	ITEM DESCRIPTION	SCHEDULE OF VALUES			
		UNIT	EST. QUAN	UNIT PRICE	TOTAL
201.4.1.A.1	Clearing and Grubbing	AC	0	$7,480	$0
201.4.1.C.1	Removal of Obstructions	LS	0	$0	$0
202.4.1.A.1	Excavation	CY	0	$45	$0
202.4.6.A.1	Borrow	CY	0	$50	$0
706.4.1.A.3	Standard Straight Curb	LF	100	$70	$7,000
706.4.1.A.5	Standard 6-inch Vertical Curb & Gutter	LF	0	$76	$0
706.4.1.E.1	Concrete Sidewalk, Thickness 4"	SF	250	$24	$6,000
706.4.1.H.1	Pedestrian Ramp w/ Detectable Warning Domes	EA	0	$2,700	$0
706.4.1.F.1	Concrete Driveway Approach	EA	0	$4,600	$0
808.4.1.A.1	Seal Coat	SY	0	$5.00	$0
1101.4.1.A.1	Traffic Signal	LS	0	$150,000	$0
1102.4.1.A.1	Street Light (Foundation, Conduit, and Junction Box Only)	EA	0	$7,500	$0
1104.4.1.A.1	Pavement Line Paint (2 coats)	LF	0	$1.75	$0
2050.4.1.C.1	Subgrade Separation Geotextile	SY	0	$2	$0
S-1	Asphalt and Base (2"AC/4"AB) - Local Residential	SF	0	$2	$0
S-2	Asphalt and Base (3"AC/6"AB) - Local Commercial/Industrial	SF	0	$4	$0
S-3	Asphalt and Base (3"AC/4"AB) - Minor Collector	SF	0	$3	$0
S-4	Asphalt and Base (3"AC/6"AB) - Local Commercial/Industrial	SF	0	$4	$0
S-5	Asphalt and Base (3"AC/6"AB) -Major Collector	SF	0	$4	$0
S-6	Asphalt and Base (4"AC/6"AB) - Minor Arterial	SF	0	$4	$0
S-7	Asphalt and Base (4"AC/6"AB) - Principle Arterial	SF	0	$4	$0
S-8	Asphalt and Base (2"AC/4"AB) - Multi-Use Trail	SF	0	$2	$0
S-9	Roundabout - Single Lane	LS	0	$970,000	$0
S-10	Roundabout - Double Lane	LS	0	$2,200,000	$0
S-11	Conduit and Fiber Interconnect	LF	0	$160.00	$0
S-12	Railroad Crossing Improvements	LS	0	$0	$0
S-13	Structures	LS	0	$0	$0
S-14	Utility Relocations	LS	0	$0	$0
S-15	Storm Drainage (5%)	%	1	5%	$650
S-16	Miscellaneous Items (10%)	%	1	10%	$1,300
S-17	Survey (3%)	%	1	3%	$390
S-18	Temporary/Permanenet Erosion Control (4%)	%	1	4%	$520
S-19	Landscapping and Irrigation (4%)	%	1	4%	$520
S-20	Temporary Traffic Control (10%)	%	1	10%	$1,300
S-21	Mobilization (10%)	%	1	10%	$1,300
S-22	Right of Way - Full Acquisition	LS	0	$0	$0
S-23	Right of Way - Residential	SF	0	$18	$0
S-24	Right of Way - Commercial	SF	0	$14	$0
S-25	Right of Way - Industrial	SF	0	$8	$0
S-26	Planning, Engineering, and Administrative Costs	%	1	25%	$3,250
S-27	Construction Engineering and Inspection	%	1	15%	$1,950
				ANTICIPATED PROJECT COST	**$25,000**

ENGINEER'S OPINION OF PROBABLE COST

PROJECT:	**IDAHO RD/SUPER 1 FOODS DRIVEWAY INTERSECTION**
Detailed	Install ¾ turn movement channelization. Include signage, striping, and pedestrian safety features.
Project Code:	S-5
Project Size:	Small
Project Timeline:	Safety
Project Funding:	Local
Roadway	N/A
Estimate Date:	November 2025

ITEM NO.	ITEM DESCRIPTION	SCHEDULE OF VALUES			
		UNIT	EST. QUAN	UNIT PRICE	TOTAL
201.4.1.A.1	Clearing and Grubbing	AC	0	$7,480	$0
201.4.1.C.1	Removal of Obstructions	LS	0	$0	$0
202.4.1.A.1	Excavation	CY	0	$45	$0
202.4.6.A.1	Borrow	CY	0	$50	$0
706.4.1.A.3	Standard Straight Curb	LF	200	$70	$14,000
706.4.1.A.5	Standard 6-inch Vertical Curb & Gutter	LF	0	$76	$0
706.4.1.E.1	Concrete Sidewalk, Thickness 4"	SF	750	$24	$18,000
706.4.1.H.1	Pedestrian Ramp w/ Detectable Warning Domes	EA	0	$2,700	$0
706.4.1.F.1	Concrete Driveway Approach	EA	0	$4,600	$0
808.4.1.A.1	Seal Coat	SY	0	$5.00	$0
1101.4.1.A.1	Traffic Signal	LS	0	$150,000	$0
1102.4.1.A.1	Street Light (Foundation, Conduit, and Junction Box Only)	EA	0	$7,500	$0
1104.4.1.A.1	Pavement Line Paint (2 coats)	LF	0	$1.75	$0
2050.4.1.C.1	Subgrade Separation Geotextile	SY	0	$2	$0
S-1	Asphalt and Base (2"AC/4"AB) - Local Residential	SF	0	$2	$0
S-2	Asphalt and Base (3"AC/6"AB) - Local Commercial/Industrial	SF	0	$4	$0
S-3	Asphalt and Base (3"AC/4"AB) - Minor Collector	SF	0	$3	$0
S-4	Asphalt and Base (3"AC/6"AB) - Local Commercial/Industrial	SF	0	$4	$0
S-5	Asphalt and Base (3"AC/6"AB) -Major Collector	SF	0	$4	$0
S-6	Asphalt and Base (4"AC/6"AB) - Minor Arterial	SF	0	$4	$0
S-7	Asphalt and Base (4"AC/6"AB) - Principle Arterial	SF	0	$4	$0
S-8	Asphalt and Base (2"AC/4"AB) - Multi-Use Trail	SF	0	$2	$0
S-9	Roundabout - Single Lane	LS	0	$970,000	$0
S-10	Roundabout - Double Lane	LS	0	$2,200,000	$0
S-11	Conduit and Fiber Interconnect	LF	0	$160.00	$0
S-12	Railroad Crossing Improvements	LS	0	$0	$0
S-13	Structures	LS	0	$0	$0
S-14	Utility Relocations	LS	0	$0	$0
S-15	Storm Drainage (5%)	%	1	5%	$1,600
S-16	Miscellaneous Items (10%)	%	1	10%	$3,200
S-17	Survey (3%)	%	1	3%	$960
S-18	Temporary/Permanenet Erosion Control (4%)	%	1	4%	$1,280
S-19	Landscapping and Irrigation (4%)	%	1	4%	$1,280
S-20	Temporary Traffic Control (10%)	%	1	10%	$3,200
S-21	Mobilization (10%)	%	1	10%	$3,200
S-22	Right of Way - Full Acquisition	LS	0	$0	$0
S-23	Right of Way - Residential	SF	0	$18	$0
S-24	Right of Way - Commercial	SF	0	$14	$0
S-25	Right of Way - Industrial	SF	0	$8	$0
S-26	Planning, Engineering, and Administrative Costs	%	1	25%	$8,000
S-27	Construction Engineering and Inspection	%	1	15%	$4,800
				ANTICIPATED PROJECT COST	**$60,000**



CITY OF POST FALLS

2025 TRANSPORTATION MASTER PLAN

Itemized Multimodal Project Cost Opinions

ENGINEER'S OPINION OF PROBABLE COST

PROJECT:	**FREDERICK ST MULTI-MODAL IMPROVEMENTS**
Detailed Description:	Install sidewalks both sides beginning at Seltice Way and ending at 16th Street, install Type 2 bike lane (N-S), include 16th connection to PF Middle School
Project Code:	MM-1
Project Size:	Medium
Project Timeline:	Multimodal
Project Funding:	Local
Roadway Classification:	N/A
Estimate Date:	November 2025

ITEM NO.	ITEM DESCRIPTION	SCHEDULE OF VALUES			
		UNIT	EST. QUAN	UNIT PRICE	TOTAL
201.4.1.A.1	Clearing and Grubbing	AC	0.62	$6,640	$4,116
201.4.1.C.1	Removal of Obstructions	LS	1	$3,000	$3,000
202.4.1.A.1	Excavation	CY	0	$26	$0
202.4.6.A.1	Borrow	CY	0	$26	$0
706.4.1.A.3	Standard Straight Curb	LF	0	$60	$0
706.4.1.A.5	Standard 6-inch Vertical Curb & Gutter	LF	0	$40	$0
706.4.1.E.1	Concrete Sidewalk, Thickness 4"	SF	27000	$15	$405,000
706.4.1.H.1	Pedestrian Ramp w/ Detectable Warning Domes	EA	42	$2,700	$113,400
706.4.1.F.1	Concrete Driveway Approach	EA	0	$4,000	$0
808.4.1.A.1	Seal Coat	SY	0	$4.50	$0
1101.4.1.A.1	Traffic Signal	LS	0	$300,000	$0
1102.4.1.A.1	Street Light (Foundation, Conduit, and Junction Box Only)	EA	0	$7,500	$0
1104.4.1.A.1	Pavement Line Paint (2 coats)	LF	5400	$1.19	$6,426
2050.4.1.C.1	Subgrade Separation Geotextile	SY	0	$2	$0
S-1	Asphalt and Base (2"AC/4"AB) - Local Residential	SF	0	$2	$0
S-2	Asphalt and Base (3"AC/6"AB) - Local Commercial/Industrial	SF	0	$3	$0
S-3	Asphalt and Base (3"AC/4"AB) - Minor Collector	SF	0	$2	$0
S-4	Asphalt and Base (3"AC/6"AB) - Local Commercial/Industrial	SF	0	$3	$0
S-5	Asphalt and Base (3"AC/6"AB) -Major Collector	SF	0	$3	$0
S-6	Asphalt and Base (4"AC/6"AB) - Minor Arterial	SF	0	$3	$0
S-7	Asphalt and Base (4"AC/6"AB) - Principle Arterial	SF	0	$3	$0
S-8	Asphalt and Base (2"AC/4"AB) - Multi-Use Trail	SF	0	$2	$0
S-9	Roundabout - Single Lane	LS	0	$970,000	$0
S-10	Roundabout - Double Lane	LS	0	$2,200,000	$0
S-11	Conduit and Fiber Interconnect	LF	0	$120.00	$0
S-12	Railroad Crossing Improvements	LS	0	$0	$0
S-13	Structures	LS	0	$0	$0
S-14	Utility Relocations	LS	0	$0	$0
S-15	Storm Drainage (5%)	%	1	5%	$26,597
S-16	Miscellaneous Items (10%)	%	1	10%	$53,194
S-17	Survey (3%)	%	1	3%	$15,958
S-18	Temporary/Permanenet Erosion Control (4%)	%	1	4%	$21,278
S-19	Landscapping and Irrigation (4%)	%	1	4%	$21,278
S-20	Temporary Traffic Control (10%)	%	1	10%	$53,194
S-21	Mobilization (10%)	%	1	10%	$53,194
S-22	Right of Way - Full Acquisition	LS	1	$0	$0
S-23	Right of Way - Residential	SF		$18	$0
S-24	Right of Way - Commercial	SF		$14	$0
S-25	Right of Way - Industrial	SF		$8	$0
S-26	Planning, Engineering, and Administrative Costs	%	1	20%	$106,388
S-27	Construction Engineering and Inspection	%	1	15%	$79,791
				ANTICIPATED PROJECT COST	**$963,000**

ENGINEER'S OPINION OF PROBABLE COST

PROJECT:	**6TH AVE PATHWAY & CONNECTIONS**
Detailed Description:	Connect multi-modal pathway at RR to west end Treaty Rock Rd, install separated pathway along south side of Treaty Rock Rd, west side of Compton St, and south side of 6th Ave, east to Idaho St, install sidewalk connection from 6th to 7th at Post St.
Project Code:	MM-2
Project Size:	Small
Project Timeline:	Multimodal
Project Funding:	Local
Roadway Classification:	N/A
Estimate Date:	November 2025

ITEM NO.	ITEM DESCRIPTION	SCHEDULE OF VALUES			
		UNIT	EST. QUAN	UNIT PRICE	TOTAL
201.4.1.A.1	Clearing and Grubbing	AC	1.00	$7,480	$7,470
201.4.1.C.1	Removal of Obstructions	LS	0	$0	$0
202.4.1.A.1	Excavation	CY	0	$45	$0
202.4.6.A.1	Borrow	CY	0	$50	$0
706.4.1.A.3	Standard Straight Curb	LF	0	$70	$0
706.4.1.A.5	Standard 6-inch Vertical Curb & Gutter	LF	0	$76	$0
706.4.1.E.1	Concrete Sidewalk, Thickness 4"	SF	1500	$24	$36,000
706.4.1.H.1	Pedestrian Ramp w/ Detectable Warning Domes	EA	2	$2,700	$5,400
706.4.1.F.1	Concrete Driveway Approach	EA	0	$4,600	$0
808.4.1.A.1	Seal Coat	SY	0	$5.00	$0
1101.4.1.A.1	Traffic Signal	LS	0	$150,000	$0
1102.4.1.A.1	Street Light (Foundation, Conduit, and Junction Box Only)	EA	0	$7,500	$0
1104.4.1.A.1	Pavement Line Paint (2 coats)	LF	0	$1.75	$0
2050.4.1.C.1	Subgrade Separation Geotextile	SY	467	$2	$933
S-1	Asphalt and Base (2"AC/4"AB) - Local Residential	SF	0	$2	$0
S-2	Asphalt and Base (3"AC/6"AB) - Local Commercial/Industrial	SF	0	$4	$0
S-3	Asphalt and Base (3"AC/4"AB) - Minor Collector	SF	0	$3	$0
S-4	Asphalt and Base (3"AC/6"AB) - Local Commercial/Industrial	SF	0	$4	$0
S-5	Asphalt and Base (3"AC/6"AB) -Major Collector	SF	0	$4	$0
S-6	Asphalt and Base (4"AC/6"AB) - Minor Arterial	SF	0	$4	$0
S-7	Asphalt and Base (4"AC/6"AB) - Principle Arterial	SF	0	$4	$0
S-8	Asphalt and Base (2"AC/4"AB) - Multi-Use Trail	SF	42000	$2	$100,087
S-9	Roundabout - Single Lane	LS	0	$970,000	$0
S-10	Roundabout - Double Lane	LS	0	$2,200,000	$0
S-11	Conduit and Fiber Interconnect	LF	0	$160.00	$0
S-12	Railroad Crossing Improvements	LS	0	$0	$0
S-13	Structures	LS	0	$0	$0
S-14	Utility Relocations	LS	0	$0	$0
S-15	Storm Drainage (5%)	%	1	5%	$7,495
S-16	Miscellaneous Items (10%)	%	1	10%	$14,989
S-17	Survey (3%)	%	1	3%	$4,497
S-18	Temporary/Permanenet Erosion Control (4%)	%	1	4%	$5,996
S-19	Landscapping and Irrigation (4%)	%	1	4%	$5,996
S-20	Temporary Traffic Control (10%)	%	1	10%	$14,989
S-21	Mobilization (10%)	%	1	10%	$14,989
S-22	Right of Way - Full Acquisition	LS	0	$0	$0
S-23	Right of Way - Residential	SF	0	$18	$0
S-24	Right of Way - Commercial	SF	0	$14	$0
S-25	Right of Way - Industrial	SF	0	$8	$0
S-26	Planning, Engineering, and Administrative Costs	%	1	25%	$37,473
S-27	Construction Engineering and Inspection	%	1	15%	$22,484
				ANTICIPATED PROJECT COST	**$279,000**

ENGINEER'S OPINION OF PROBABLE COST

PROJECT:	**IDAHO ST CYCLE TRACK & CENTENNIAL CONNECTION**
Detailed Description:	Idaho Street, install two-way cycle track from 6th Ave to 5th Ave across bridge (west side only), consider removing NBL from bridge for space (consult queuing analysis)
Project Code:	MM-3
Project Size:	Small
Project Timeline:	Multimodal
Project Funding:	Local
Roadway Classification:	N/A
Estimate Date:	November 2025

ITEM NO.	ITEM DESCRIPTION	SCHEDULE OF VALUES			
		UNIT	EST. QUAN	UNIT PRICE	TOTAL
201.4.1.A.1	Clearing and Grubbing	AC	0	$7,480	$0
201.4.1.C.1	Removal of Obstructions	LS	0	$0	$0
202.4.1.A.1	Excavation	CY	0	$45	$0
202.4.6.A.1	Borrow	CY	0	$50	$0
706.4.1.A.3	Standard Straight Curb	LF	350	$70	$24,500
706.4.1.A.5	Standard 6-inch Vertical Curb & Gutter	LF	0	$76	$0
706.4.1.E.1	Concrete Sidewalk, Thickness 4"	SF	0	$24	$0
706.4.1.H.1	Pedestrian Ramp w/ Detectable Warning Domes	EA	0	$2,700	$0
706.4.1.F.1	Concrete Driveway Approach	EA	0	$4,600	$0
808.4.1.A.1	Seal Coat	SY	0	$5.00	$0
1101.4.1.A.1	Traffic Signal	LS	0	$150,000	$0
1102.4.1.A.1	Street Light (Foundation, Conduit, and Junction Box Only)	EA	0	$7,500	$0
1104.4.1.A.1	Pavement Line Paint (2 coats)	LF	350	$1.75	$613
2050.4.1.C.1	Subgrade Separation Geotextile	SY	0	$2	$0
S-1	Asphalt and Base (2"AC/4"AB) - Local Residential	SF	0	$2	$0
S-2	Asphalt and Base (3"AC/6"AB) - Local Commercial/Industrial	SF	0	$4	$0
S-3	Asphalt and Base (3"AC/4"AB) - Minor Collector	SF	0	$3	$0
S-4	Asphalt and Base (3"AC/6"AB) - Local Commercial/Industrial	SF	0	$4	$0
S-5	Asphalt and Base (3"AC/6"AB) -Major Collector	SF	0	$4	$0
S-6	Asphalt and Base (4"AC/6"AB) - Minor Arterial	SF	0	$4	$0
S-7	Asphalt and Base (4"AC/6"AB) - Principle Arterial	SF	0	$4	$0
S-8	Asphalt and Base (2"AC/4"AB) - Multi-Use Trail	SF	0	$2	$0
S-9	Roundabout - Single Lane	LS	0	$970,000	$0
S-10	Roundabout - Double Lane	LS	0	$2,200,000	$0
S-11	Conduit and Fiber Interconnect	LF	0	$160.00	$0
S-12	Railroad Crossing Improvements	LS	0	$0	$0
S-13	Structures	LS	0	$0	$0
S-14	Utility Relocations	LS	0	$0	$0
S-15	Storm Drainage (5%)	%	1	5%	$1,256
S-16	Miscellaneous Items (10%)	%	1	10%	$2,511
S-17	Survey (3%)	%	1	3%	$753
S-18	Temporary/Permanenet Erosion Control (4%)	%	1	4%	$1,005
S-19	Landscapping and Irrigation (4%)	%	1	4%	$1,005
S-20	Temporary Traffic Control (10%)	%	1	10%	$2,511
S-21	Mobilization (10%)	%	1	10%	$2,511
S-22	Right of Way - Full Acquisition	LS	1	$0	$0
S-23	Right of Way - Residential	SF	0	$18	$0
S-24	Right of Way - Commercial	SF	0	$14	$0
S-25	Right of Way - Industrial	SF	0	$8	$0
S-26	Planning, Engineering, and Administrative Costs	%	1	25%	$6,278
S-27	Construction Engineering and Inspection	%	1	15%	$3,767
				ANTICIPATED PROJECT COST	**$47,000**

ENGINEER'S OPINION OF PROBABLE COST

PROJECT:	**TREATY ROCK CENTENNIAL CONNECTION**
Detailed Description:	Connect multi-modal pathway under freeway along RR connection MM-2 and westward trail with Centennial Trail, potential RR issues (assume rail will be pathway)
Project Code:	MM-4
Project Size:	Small
Project Timeline:	Multimodal
Project Funding:	Local
Roadway Classification:	N/A
Estimate Date:	November 2025

ITEM NO.	ITEM DESCRIPTION	SCHEDULE OF VALUES			
		UNIT	EST. QUAN	UNIT PRICE	TOTAL
201.4.1.A.1	Clearing and Grubbing	AC	0	$7,480	$0
201.4.1.C.1	Removal of Obstructions	LS	0	$0	$0
202.4.1.A.1	Excavation	CY	0	$45	$0
202.4.6.A.1	Borrow	CY	0	$50	$0
706.4.1.A.3	Standard Straight Curb	LF	0	$70	$0
706.4.1.A.5	Standard 6-inch Vertical Curb & Gutter	LF	0	$76	$0
706.4.1.E.1	Concrete Sidewalk, Thickness 4"	SF	0	$24	$0
706.4.1.H.1	Pedestrian Ramp w/ Detectable Warning Domes	EA	0	$2,700	$0
706.4.1.F.1	Concrete Driveway Approach	EA	0	$4,600	$0
808.4.1.A.1	Seal Coat	SY	0	$5.00	$0
1101.4.1.A.1	Traffic Signal	LS	0	$150,000	$0
1102.4.1.A.1	Street Light (Foundation, Conduit, and Junction Box Only)	EA	0	$7,500	$0
1104.4.1.A.1	Pavement Line Paint (2 coats)	LF	0	$1.75	$0
2050.4.1.C.1	Subgrade Separation Geotextile	SY	213	$2	$427
S-1	Asphalt and Base (2"AC/4"AB) - Local Residential	SF	0	$2	$0
S-2	Asphalt and Base (3"AC/6"AB) - Local Commercial/Industrial	SF	0	$4	$0
S-3	Asphalt and Base (3"AC/4"AB) - Minor Collector	SF	0	$3	$0
S-4	Asphalt and Base (3"AC/6"AB) - Local Commercial/Industrial	SF	0	$4	$0
S-5	Asphalt and Base (3"AC/6"AB) -Major Collector	SF	0	$4	$0
S-6	Asphalt and Base (4"AC/6"AB) - Minor Arterial	SF	0	$4	$0
S-7	Asphalt and Base (4"AC/6"AB) - Principle Arterial	SF	0	$4	$0
S-8	Asphalt and Base (2"AC/4"AB) - Multi-Use Trail	SF	19200	$2	$45,754
S-9	Roundabout - Single Lane	LS	0	$970,000	$0
S-10	Roundabout - Double Lane	LS	0	$2,200,000	$0
S-11	Conduit and Fiber Interconnect	LF	0	$160.00	$0
S-12	Railroad Crossing Improvements	LS	0	$0	$0
S-13	Structures	LS	0	$0	$0
S-14	Utility Relocations	LS	0	$0	$0
S-15	Storm Drainage (5%)	%	1	5%	$2,309
S-16	Miscellaneous Items (10%)	%	1	10%	$4,618
S-17	Survey (3%)	%	1	3%	$1,385
S-18	Temporary/Permanenet Erosion Control (4%)	%	1	4%	$1,847
S-19	Landscapping and Irrigation (4%)	%	1	4%	$1,847
S-20	Temporary Traffic Control (10%)	%	1	10%	$4,618
S-21	Mobilization (10%)	%	1	10%	$4,618
S-22	Right of Way - Full Acquisition	LS	0	$0	$0
S-23	Right of Way - Residential	SF	0	$18	$0
S-24	Right of Way - Commercial	SF	0	$14	$0
S-25	Right of Way - Industrial	SF	0	$8	$0
S-26	Planning, Engineering, and Administrative Costs	%	1	25%	$11,545
S-27	Construction Engineering and Inspection	%	1	15%	$6,927
			ANTICIPATED PROJECT COST		**$86,000**

ENGINEER'S OPINION OF PROBABLE COST

PROJECT:	**3RD AVE MULTI-MODAL IMPROVEMENTS**
Detailed Description:	3rd Avenue from Spokane Street to Lincoln Street, install Type 2 bike lanes both sides where missing, install sidewalks where missing or insufficient
Project Code:	MM-5
Project Size:	Small
Project Timeline:	Multimodal
Project Funding:	Local
Roadway Classification:	N/A
Estimate Date:	November 2025

ITEM NO.	ITEM DESCRIPTION	SCHEDULE OF VALUES			
		UNIT	EST. QUAN	UNIT PRICE	TOTAL
201.4.1.A.1	Clearing and Grubbing	AC	0	$7,480	$0
201.4.1.C.1	Removal of Obstructions	LS	0	$0	$0
202.4.1.A.1	Excavation	CY	0	$45	$0
202.4.6.A.1	Borrow	CY	0	$50	$0
706.4.1.A.3	Standard Straight Curb	LF	0	$70	$0
706.4.1.A.5	Standard 6-inch Vertical Curb & Gutter	LF	0	$76	$0
706.4.1.E.1	Concrete Sidewalk, Thickness 4"	SF	5000	$24	$120,000
706.4.1.H.1	Pedestrian Ramp w/ Detectable Warning Domes	EA	13	$2,700	$35,100
706.4.1.F.1	Concrete Driveway Approach	EA	0	$4,600	$0
808.4.1.A.1	Seal Coat	SY	0	$5.00	$0
1101.4.1.A.1	Traffic Signal	LS	0	$150,000	$0
1102.4.1.A.1	Street Light (Foundation, Conduit, and Junction Box Only)	EA	0	$7,500	$0
1104.4.1.A.1	Pavement Line Paint (2 coats)	LF	3800	$1.75	$6,650
2050.4.1.C.1	Subgrade Separation Geotextile	SY	0	$2	$0
S-1	Asphalt and Base (2"AC/4"AB) - Local Residential	SF	0	$2	$0
S-2	Asphalt and Base (3"AC/6"AB) - Local Commercial/Industrial	SF	0	$4	$0
S-3	Asphalt and Base (3"AC/4"AB) - Minor Collector	SF	0	$3	$0
S-4	Asphalt and Base (3"AC/6"AB) - Local Commercial/Industrial	SF	0	$4	$0
S-5	Asphalt and Base (3"AC/6"AB) -Major Collector	SF	0	$4	$0
S-6	Asphalt and Base (4"AC/6"AB) - Minor Arterial	SF	0	$4	$0
S-7	Asphalt and Base (4"AC/6"AB) - Principle Arterial	SF	0	$4	$0
S-8	Asphalt and Base (2"AC/4"AB) - Multi-Use Trail	SF	0	$2	$0
S-9	Roundabout - Single Lane	LS	0	$970,000	$0
S-10	Roundabout - Double Lane	LS	0	$2,200,000	$0
S-11	Conduit and Fiber Interconnect	LF	0	$160.00	$0
S-12	Railroad Crossing Improvements	LS	0	$0	$0
S-13	Structures	LS	0	$0	$0
S-14	Utility Relocations	LS	0	$0	$0
S-15	Storm Drainage (5%)	%	1	5%	$8,088
S-16	Miscellaneous Items (10%)	%	1	10%	$16,175
S-17	Survey (3%)	%	1	3%	$4,853
S-18	Temporary/Permanenet Erosion Control (4%)	%	1	4%	$6,470
S-19	Landscapping and Irrigation (4%)	%	1	4%	$6,470
S-20	Temporary Traffic Control (10%)	%	1	10%	$16,175
S-21	Mobilization (10%)	%	1	10%	$16,175
S-22	Right of Way - Full Acquisition	LS	0	$0	$0
S-23	Right of Way - Residential	SF	0	$18	$0
S-24	Right of Way - Commercial	SF	0	$14	$0
S-25	Right of Way - Industrial	SF	0	$8	$0
S-26	Planning, Engineering, and Administrative Costs	%	1	25%	$40,438
S-27	Construction Engineering and Inspection	%	1	15%	$24,263
			ANTICIPATED PROJECT COST		**$301,000**

ENGINEER'S OPINION OF PROBABLE COST

PROJECT:	**MULLAN AVE CYCLE TRACK, PH 1**
Detailed Description:	Mullan Ave from Spokane Street to Henry Street, install cycle track on Mullan Ave for lower level of stress for on-street bike lanes
Project Code:	MM-6
Project Size:	Small
Project Timeline:	Multimodal
Project Funding:	Local
Roadway Classification:	N/A
Estimate Date:	November 2025

ITEM NO.	ITEM DESCRIPTION	SCHEDULE OF VALUES			
		UNIT	EST. QUAN	UNIT PRICE	TOTAL
201.4.1.A.1	Clearing and Grubbing	AC	0	$7,480	$0
201.4.1.C.1	Removal of Obstructions	LS	0	$0	$0
202.4.1.A.1	Excavation	CY	0	$45	$0
202.4.6.A.1	Borrow	CY	0	$50	$0
706.4.1.A.3	Standard Straight Curb	LF	2200	$70	$154,000
706.4.1.A.5	Standard 6-inch Vertical Curb & Gutter	LF	0	$76	$0
706.4.1.E.1	Concrete Sidewalk, Thickness 4"	SF	0	$24	$0
706.4.1.H.1	Pedestrian Ramp w/ Detectable Warning Domes	EA	0	$2,700	$0
706.4.1.F.1	Concrete Driveway Approach	EA	0	$4,600	$0
808.4.1.A.1	Seal Coat	SY	0	$5.00	$0
1101.4.1.A.1	Traffic Signal	LS	0	$150,000	$0
1102.4.1.A.1	Street Light (Foundation, Conduit, and Junction Box Only)	EA	0	$7,500	$0
1104.4.1.A.1	Pavement Line Paint (2 coats)	LF	0	$1.75	$0
2050.4.1.C.1	Subgrade Separation Geotextile	SY	0	$2	$0
S-1	Asphalt and Base (2"AC/4"AB) - Local Residential	SF	0	$2	$0
S-2	Asphalt and Base (3"AC/6"AB) - Local Commercial/Industrial	SF	0	$4	$0
S-3	Asphalt and Base (3"AC/4"AB) - Minor Collector	SF	0	$3	$0
S-4	Asphalt and Base (3"AC/6"AB) - Local Commercial/Industrial	SF	0	$4	$0
S-5	Asphalt and Base (3"AC/6"AB) -Major Collector	SF	0	$4	$0
S-6	Asphalt and Base (4"AC/6"AB) - Minor Arterial	SF	0	$4	$0
S-7	Asphalt and Base (4"AC/6"AB) - Principle Arterial	SF	0	$4	$0
S-8	Asphalt and Base (2"AC/4"AB) - Multi-Use Trail	SF	0	$2	$0
S-9	Roundabout - Single Lane	LS	0	$970,000	$0
S-10	Roundabout - Double Lane	LS	0	$2,200,000	$0
S-11	Conduit and Fiber Interconnect	LF	0	$160.00	$0
S-12	Railroad Crossing Improvements	LS	0	$0	$0
S-13	Structures	LS	0	$0	$0
S-14	Utility Relocations	LS	0	$0	$0
S-15	Storm Drainage (5%)	%	1	5%	$7,700
S-16	Miscellaneous Items (10%)	%	1	10%	$15,400
S-17	Survey (3%)	%	1	3%	$4,620
S-18	Temporary/Permanenet Erosion Control (4%)	%	1	4%	$6,160
S-19	Landscapping and Irrigation (4%)	%	1	4%	$6,160
S-20	Temporary Traffic Control (10%)	%	1	10%	$15,400
S-21	Mobilization (10%)	%	1	10%	$15,400
S-22	Right of Way - Full Acquisition	LS	0	$0	$0
S-23	Right of Way - Residential	SF	0	$18	$0
S-24	Right of Way - Commercial	SF	0	$14	$0
S-25	Right of Way - Industrial	SF	0	$8	$0
S-26	Planning, Engineering, and Administrative Costs	%	1	25%	$38,500
S-27	Construction Engineering and Inspection	%	1	15%	$23,100
			ANTICIPATED PROJECT COST		**$287,000**

ENGINEER'S OPINION OF PROBABLE COST

PROJECT:	**COMPTON ST MULTI-MODAL CONNECTIONS**
Detailed Description:	Compton Street from Mullan Ave to Poleline Ave, install sharrow lane designation both sides, install sidewalks where missing or insufficient
Project Code:	MM-7
Project Size:	Medium
Project Timeline:	Multimodal
Project Funding:	Local
Roadway Classification:	N/A
Estimate Date:	November 2025

ITEM NO.	ITEM DESCRIPTION	SCHEDULE OF VALUES			
		UNIT	EST. QUAN	UNIT PRICE	TOTAL
201.4.1.A.1	Clearing and Grubbing	AC	1	$6,640	$5,087
201.4.1.C.1	Removal of Obstructions	LS	1	$10,000	$10,000
202.4.1.A.1	Excavation	CY	0	$26	$0
202.4.6.A.1	Borrow	CY	0	$26	$0
706.4.1.A.3	Standard Straight Curb	LF	0	$60	$0
706.4.1.A.5	Standard 6-inch Vertical Curb & Gutter	LF	0	$40	$0
706.4.1.E.1	Concrete Sidewalk, Thickness 4"	SF	33375	$15	$500,625
706.4.1.H.1	Pedestrian Ramp w/ Detectable Warning Domes	EA	46	$2,700	$124,200
706.4.1.F.1	Concrete Driveway Approach	EA	0	$4,000	$0
808.4.1.A.1	Seal Coat	SY	0	$4.50	$0
1101.4.1.A.1	Traffic Signal	LS	0	$300,000	$0
1102.4.1.A.1	Street Light (Foundation, Conduit, and Junction Box Only)	EA	0	$7,500	$0
1104.4.1.A.1	Pavement Line Paint (2 coats)	LF	10640	$1.19	$12,662
2050.4.1.C.1	Subgrade Separation Geotextile	SY	0	$2	$0
S-1	Asphalt and Base (2"AC/4"AB) - Local Residential	SF	0	$2	$0
S-2	Asphalt and Base (3"AC/6"AB) - Local Commercial/Industrial	SF	0	$3	$0
S-3	Asphalt and Base (3"AC/4"AB) - Minor Collector	SF	0	$2	$0
S-4	Asphalt and Base (3"AC/6"AB) - Local Commercial/Industrial	SF	0	$3	$0
S-5	Asphalt and Base (3"AC/6"AB) -Major Collector	SF	0	$3	$0
S-6	Asphalt and Base (4"AC/6"AB) - Minor Arterial	SF	0	$3	$0
S-7	Asphalt and Base (4"AC/6"AB) - Principle Arterial	SF	0	$3	$0
S-8	Asphalt and Base (2"AC/4"AB) - Multi-Use Trail	SF	0	$2	$0
S-9	Roundabout - Single Lane	LS	0	$970,000	$0
S-10	Roundabout - Double Lane	LS	0	$2,200,000	$0
S-11	Conduit and Fiber Interconnect	LF	0	$120.00	$0
S-12	Railroad Crossing Improvements	LS	0	$0	$0
S-13	Structures	LS	0	$0	$0
S-14	Utility Relocations	LS	0	$0	$0
S-15	Storm Drainage (5%)	%	1	5%	$32,629
S-16	Miscellaneous Items (10%)	%	1	10%	$65,257
S-17	Survey (3%)	%	1	3%	$19,577
S-18	Temporary/Permanenet Erosion Control (4%)	%	1	4%	$26,103
S-19	Landscapping and Irrigation (4%)	%	1	4%	$26,103
S-20	Temporary Traffic Control (10%)	%	1	10%	$65,257
S-21	Mobilization (10%)	%	1	10%	$65,257
S-22	Right of Way - Full Acquisition	LS	0	$0	$0
S-23	Right of Way - Residential	SF	0	$18	$0
S-24	Right of Way - Commercial	SF	0	$14	$0
S-25	Right of Way - Industrial	SF	0	$8	$0
S-26	Planning, Engineering, and Administrative Costs	%	1	20%	$130,515
S-27	Construction Engineering and Inspection	%	1	15%	$97,886
				ANTICIPATED PROJECT COST	**$1,182,000**

ENGINEER'S OPINION OF PROBABLE COST

PROJECT:	**MULLAN AVE CYCLE TRACK, PH 2**
Detailed Description:	Mullan Ave from Henry Street to Idaho Street, install cycle track on Mullan Ave for lower level of stress for on-street bike lanes
Project Code:	MM-8
Project Size:	Small
Project Timeline:	Multimodal
Project Funding:	Local
Roadway Classification:	N/A
Estimate Date:	November 2025

ITEM NO.	ITEM DESCRIPTION	SCHEDULE OF VALUES			
		UNIT	EST. QUAN	UNIT PRICE	TOTAL
201.4.1.A.1	Clearing and Grubbing	AC	0	$7,480	$0
201.4.1.C.1	Removal of Obstructions	LS	0	$0	$0
202.4.1.A.1	Excavation	CY	0	$45	$0
202.4.6.A.1	Borrow	CY	0	$50	$0
706.4.1.A.3	Standard Straight Curb	LF	0	$70	$0
706.4.1.A.5	Standard 6-inch Vertical Curb & Gutter	LF	2870	$76	$218,120
706.4.1.E.1	Concrete Sidewalk, Thickness 4"	SF	0	$24	$0
706.4.1.H.1	Pedestrian Ramp w/ Detectable Warning Domes	EA	0	$2,700	$0
706.4.1.F.1	Concrete Driveway Approach	EA	0	$4,600	$0
808.4.1.A.1	Seal Coat	SY	0	$5.00	$0
1101.4.1.A.1	Traffic Signal	LS	0	$150,000	$0
1102.4.1.A.1	Street Light (Foundation, Conduit, and Junction Box Only)	EA	0	$7,500	$0
1104.4.1.A.1	Pavement Line Paint (2 coats)	LF	0	$1.75	$0
2050.4.1.C.1	Subgrade Separation Geotextile	SY	0	$2	$0
S-1	Asphalt and Base (2"AC/4"AB) - Local Residential	SF	0	$2	$0
S-2	Asphalt and Base (3"AC/6"AB) - Local Commercial/Industrial	SF	0	$4	$0
S-3	Asphalt and Base (3"AC/4"AB) - Minor Collector	SF	0	$3	$0
S-4	Asphalt and Base (3"AC/6"AB) - Local Commercial/Industrial	SF	0	$4	$0
S-5	Asphalt and Base (3"AC/6"AB) -Major Collector	SF	0	$4	$0
S-6	Asphalt and Base (4"AC/6"AB) - Minor Arterial	SF	0	$4	$0
S-7	Asphalt and Base (4"AC/6"AB) - Principle Arterial	SF	0	$4	$0
S-8	Asphalt and Base (2"AC/4"AB) - Multi-Use Trail	SF	0	$2	$0
S-9	Roundabout - Single Lane	LS	0	$970,000	$0
S-10	Roundabout - Double Lane	LS	0	$2,200,000	$0
S-11	Conduit and Fiber Interconnect	LF	0	$160.00	$0
S-12	Railroad Crossing Improvements	LS	0	$0	$0
S-13	Structures	LS	0	$0	$0
S-14	Utility Relocations	LS	0	$0	$0
S-15	Storm Drainage (5%)	%	1	5%	$10,906
S-16	Miscellaneous Items (10%)	%	1	10%	$21,812
S-17	Survey (3%)	%	1	3%	$6,544
S-18	Temporary/Permanenet Erosion Control (4%)	%	1	4%	$8,725
S-19	Landscapping and Irrigation (4%)	%	1	4%	$8,725
S-20	Temporary Traffic Control (10%)	%	1	10%	$21,812
S-21	Mobilization (10%)	%	1	10%	$21,812
S-22	Right of Way - Full Acquisition	LS	0	$0	$0
S-23	Right of Way - Residential	SF	0	$18	$0
S-24	Right of Way - Commercial	SF	0	$14	$0
S-25	Right of Way - Industrial	SF	0	$8	$0
S-26	Planning, Engineering, and Administrative Costs	%	1	25%	$54,530
S-27	Construction Engineering and Inspection	%	1	15%	$32,718
			ANTICIPATED PROJECT COST		**$406,000**

ENGINEER'S OPINION OF PROBABLE COST

PROJECT:	**12TH AVE MULTI-MODAL IMPROVEMENTS, PH 1**
Detailed Description:	12th Ave from Chase Road to Spokane Street, install 2-way cycle track (aka multi-modal pathway separated by median) along south side of 12th Ave. Evaluate narrowing of 12th Ave lanes to achieve multi-modal improvements. Install sidewalks where missing or insufficient. Enhance RRFB crossing at Compton Street (across 12th Ave) with pedestrian infrastructure. At 12th Ave and Spokane Street, install 3/4 turn restriction (N-S) (included in CIP project) with pedestrian refuge with RRFBs.
Project Code:	MM-9
Project Size:	Medium
Project Timeline:	Multimodal
Project Funding:	Local
Roadway Classification:	N/A
Estimate Date:	November 2025

ITEM NO.	ITEM DESCRIPTION	SCHEDULE OF VALUES			
		UNIT	EST. QUAN	UNIT PRICE	TOTAL
201.4.1.A.1	Clearing and Grubbing	AC	0.59	$6,640	$3,902
201.4.1.C.1	Removal of Obstructions	LS	1	$8,000	$8,000
202.4.1.A.1	Excavation	CY	0	$26	$0
202.4.6.A.1	Borrow	CY	0	$26	$0
706.4.1.A.3	Standard Straight Curb	LF	2560	$60	$153,600
706.4.1.A.5	Standard 6-inch Vertical Curb & Gutter	LF	0	$40	$0
706.4.1.E.1	Concrete Sidewalk, Thickness 4"	SF	25600	$15	$384,000
706.4.1.H.1	Pedestrian Ramp w/ Detectable Warning Domes	EA	14	$2,700	$37,800
706.4.1.F.1	Concrete Driveway Approach	EA	0	$4,000	$0
808.4.1.A.1	Seal Coat	SY	0	$4.50	$0
1101.4.1.A.1	Traffic Signal	LS	0	$300,000	$0
1102.4.1.A.1	Street Light (Foundation, Conduit, and Junction Box Only)	EA	0	$7,500	$0
1104.4.1.A.1	Pavement Line Paint (2 coats)	LF	5120	$1.19	$6,093
2050.4.1.C.1	Subgrade Separation Geotextile	SY	0	$2	$0
S-1	Asphalt and Base (2"AC/4"AB) - Local Residential	SF	0	$2	$0
S-2	Asphalt and Base (3"AC/6"AB) - Local Commercial/Industrial	SF	0	$3	$0
S-3	Asphalt and Base (3"AC/4"AB) - Minor Collector	SF	0	$2	$0
S-4	Asphalt and Base (3"AC/6"AB) - Local Commercial/Industrial	SF	0	$3	$0
S-5	Asphalt and Base (3"AC/6"AB) -Major Collector	SF	0	$3	$0
S-6	Asphalt and Base (4"AC/6"AB) - Minor Arterial	SF	0	$3	$0
S-7	Asphalt and Base (4"AC/6"AB) - Principle Arterial	SF	0	$3	$0
S-8	Asphalt and Base (2"AC/4"AB) - Multi-Use Trail	SF	0	$2	$0
S-9	Roundabout - Single Lane	LS	0	$970,000	$0
S-10	Roundabout - Double Lane	LS	0	$2,200,000	$0
S-11	Conduit and Fiber Interconnect	LF	0	$120.00	$0
S-12	Railroad Crossing Improvements	LS	0	$0	$0
S-13	Structures	LS	1	$20,000	$20,000
S-14	Utility Relocations	LS	0	$0	$0
S-15	Storm Drainage (5%)	%	1	5%	$30,670
S-16	Miscellaneous Items (10%)	%	1	10%	$61,340
S-17	Survey (3%)	%	1	3%	$18,402
S-18	Temporary/Permanenet Erosion Control (4%)	%	1	4%	$24,536
S-19	Landscapping and Irrigation (4%)	%	1	4%	$24,536
S-20	Temporary Traffic Control (10%)	%	1	10%	$61,340
S-21	Mobilization (10%)	%	1	10%	$61,340
S-22	Right of Way - Full Acquisition	LS	0	$0	$0
S-23	Right of Way - Residential	SF	0	$18	$0
S-24	Right of Way - Commercial	SF	0	$14	$0
S-25	Right of Way - Industrial	SF	0	$8	$0
S-26	Planning, Engineering, and Administrative Costs	%	1	20%	$122,679
S-27	Construction Engineering and Inspection	%	1	15%	$92,009
			ANTICIPATED PROJECT COST		**$1,111,000**

ENGINEER'S OPINION OF PROBABLE COST

PROJECT:	**12TH AVE MULTI-MODAL IMPROVEMENTS, PH 2**
Detailed Description:	12th Ave from Spokane Street to Idaho Street, install Type 2 bike lanes both sides where missing. Install sidewalks where missing or insufficient. Evaluate narrowing 12th lanes to achieve multi-modal improvements. Install 3/4 turn restriction (N-S) at Idaho Street (included in CIP project) with pedestrian refuge with RRFBs.
Project Code:	MM-10
Project Size:	Medium
Project Timeline:	Multimodal
Project Funding:	Local
Roadway Classification:	N/A
Estimate Date:	November 2025

ITEM NO.	ITEM DESCRIPTION	SCHEDULE OF VALUES			
		UNIT	EST. QUAN	UNIT PRICE	TOTAL
201.4.1.A.1	Clearing and Grubbing	AC	0.59	$6,640	$3,902
201.4.1.C.1	Removal of Obstructions	LS	1	$6,000	$6,000
202.4.1.A.1	Excavation	CY	0	$26	$0
202.4.6.A.1	Borrow	CY	0	$26	$0
706.4.1.A.3	Standard Straight Curb	LF	0	$60	$0
706.4.1.A.5	Standard 6-inch Vertical Curb & Gutter	LF	0	$40	$0
706.4.1.E.1	Concrete Sidewalk, Thickness 4"	SF	25600	$15	$384,000
706.4.1.H.1	Pedestrian Ramp w/ Detectable Warning Domes	EA	16	$2,700	$43,200
706.4.1.F.1	Concrete Driveway Approach	EA	0	$4,000	$0
808.4.1.A.1	Seal Coat	SY	0	$4.50	$0
1101.4.1.A.1	Traffic Signal	LS	0	$300,000	$0
1102.4.1.A.1	Street Light (Foundation, Conduit, and Junction Box Only)	EA	0	$7,500	$0
1104.4.1.A.1	Pavement Line Paint (2 coats)	LF	5120	$1.19	$6,093
2050.4.1.C.1	Subgrade Separation Geotextile	SY	0	$2	$0
S-1	Asphalt and Base (2"AC/4"AB) - Local Residential	SF	0	$2	$0
S-2	Asphalt and Base (3"AC/6"AB) - Local Commercial/Industrial	SF	0	$3	$0
S-3	Asphalt and Base (3"AC/4"AB) - Minor Collector	SF	0	$2	$0
S-4	Asphalt and Base (3"AC/6"AB) - Local Commercial/Industrial	SF	0	$3	$0
S-5	Asphalt and Base (3"AC/6"AB) -Major Collector	SF	0	$3	$0
S-6	Asphalt and Base (4"AC/6"AB) - Minor Arterial	SF	0	$3	$0
S-7	Asphalt and Base (4"AC/6"AB) - Principle Arterial	SF	0	$3	$0
S-8	Asphalt and Base (2"AC/4"AB) - Multi-Use Trail	SF	0	$2	$0
S-9	Roundabout - Single Lane	LS	0	$970,000	$0
S-10	Roundabout - Double Lane	LS	0	$2,200,000	$0
S-11	Conduit and Fiber Interconnect	LF	0	$120.00	$0
S-12	Railroad Crossing Improvements	LS	0	$0	$0
S-13	Structures	LS	1	$20,000	$20,000
S-14	Utility Relocations	LS	0	$0	$0
S-15	Storm Drainage (5%)	%	1	5%	$23,160
S-16	Miscellaneous Items (10%)	%	1	10%	$46,320
S-17	Survey (3%)	%	1	3%	$13,896
S-18	Temporary/Permanenet Erosion Control (4%)	%	1	4%	$18,528
S-19	Landscapping and Irrigation (4%)	%	1	4%	$18,528
S-20	Temporary Traffic Control (10%)	%	1	10%	$46,320
S-21	Mobilization (10%)	%	1	10%	$46,320
S-22	Right of Way - Full Acquisition	LS	0	$0	$0
S-23	Right of Way - Residential	SF	0	$18	$0
S-24	Right of Way - Commercial	SF	0	$14	$0
S-25	Right of Way - Industrial	SF	0	$8	$0
S-26	Planning, Engineering, and Administrative Costs	%	1	20%	$92,639
S-27	Construction Engineering and Inspection	%	1	15%	$69,479
				ANTICIPATED PROJECT COST	**$839,000**

ENGINEER'S OPINION OF PROBABLE COST

PROJECT:	**CENTENNIAL TRAIL CONNECTION #1**
Detailed Description:	Install multi-modal pathway on RR grade from Greensferry Road to Ross Point Road, install RRFB's at roadway crossings, assumes RR grade is abandoned
Project Code:	MM-11
Project Size:	Small
Project Timeline:	Multimodal
Project Funding:	Local
Roadway Classification:	N/A
Estimate Date:	November 2025

ITEM NO.	ITEM DESCRIPTION	SCHEDULE OF VALUES			
		UNIT	EST. QUAN	UNIT PRICE	TOTAL
201.4.1.A.1	Clearing and Grubbing	AC	0	$7,480	$0
201.4.1.C.1	Removal of Obstructions	LS	0	$0	$0
202.4.1.A.1	Excavation	CY	0	$45	$0
202.4.6.A.1	Borrow	CY	0	$50	$0
706.4.1.A.3	Standard Straight Curb	LF	0	$70	$0
706.4.1.A.5	Standard 6-inch Vertical Curb & Gutter	LF	0	$76	$0
706.4.1.E.1	Concrete Sidewalk, Thickness 4"	SF	0	$24	$0
706.4.1.H.1	Pedestrian Ramp w/ Detectable Warning Domes	EA	0	$2,700	$0
706.4.1.F.1	Concrete Driveway Approach	EA	0	$4,600	$0
808.4.1.A.1	Seal Coat	SY	0	$5.00	$0
1101.4.1.A.1	Traffic Signal	LS	0	$150,000	$0
1102.4.1.A.1	Street Light (Foundation, Conduit, and Junction Box Only)	EA	0	$7,500	$0
1104.4.1.A.1	Pavement Line Paint (2 coats)	LF	0	$1.75	$0
2050.4.1.C.1	Subgrade Separation Geotextile	SY	680	$2	$1,360
S-1	Asphalt and Base (2"AC/4"AB) - Local Residential	SF	0	$2	$0
S-2	Asphalt and Base (3"AC/6"AB) - Local Commercial/Industrial	SF	0	$4	$0
S-3	Asphalt and Base (3"AC/4"AB) - Minor Collector	SF	0	$3	$0
S-4	Asphalt and Base (3"AC/6"AB) - Local Commercial/Industrial	SF	0	$4	$0
S-5	Asphalt and Base (3"AC/6"AB) -Major Collector	SF	0	$4	$0
S-6	Asphalt and Base (4"AC/6"AB) - Minor Arterial	SF	0	$4	$0
S-7	Asphalt and Base (4"AC/6"AB) - Principle Arterial	SF	0	$4	$0
S-8	Asphalt and Base (2"AC/4"AB) - Multi-Use Trail	SF	61200	$2	$145,841
S-9	Roundabout - Single Lane	LS	0	$970,000	$0
S-10	Roundabout - Double Lane	LS	0	$2,200,000	$0
S-11	Conduit and Fiber Interconnect	LF	0	$160.00	$0
S-12	Railroad Crossing Improvements	LS	0	$0	$0
S-13	Structures	LS	1	$60,000	$60,000
S-14	Utility Relocations	LS	0	$0	$0
S-15	Storm Drainage (5%)	%	1	5%	$10,360
S-16	Miscellaneous Items (10%)	%	1	10%	$20,720
S-17	Survey (3%)	%	1	3%	$6,216
S-18	Temporary/Permanenet Erosion Control (4%)	%	1	4%	$8,288
S-19	Landscapping and Irrigation (4%)	%	1	4%	$8,288
S-20	Temporary Traffic Control (10%)	%	1	10%	$20,720
S-21	Mobilization (10%)	%	1	10%	$20,720
S-22	Right of Way - Full Acquisition	LS	0	$0	$0
S-23	Right of Way - Residential	SF	0	$18	$0
S-24	Right of Way - Commercial	SF	0	$14	$0
S-25	Right of Way - Industrial	SF	0	$8	$0
S-26	Planning, Engineering, and Administrative Costs	%	1	25%	$51,800
S-27	Construction Engineering and Inspection	%	1	15%	$31,080
			ANTICIPATED PROJECT COST		**$386,000**

ENGINEER'S OPINION OF PROBABLE COST

PROJECT:	**LINCOLN ST MULTI-MODAL IMPROVEMENTS**
Detailed Description:	Lincoln St from Seltice Way to 15th Ave, install sidewalks where missing. Install sharrow designation in both directions.
Project Code:	MM-12
Project Size:	Medium
Project Timeline:	Multimodal
Project Funding:	Local
Roadway Classification:	N/A
Estimate Date:	November 2025

ITEM NO.	ITEM DESCRIPTION	SCHEDULE OF VALUES			
		UNIT	EST. QUAN	UNIT PRICE	TOTAL
201.4.1.A.1	Clearing and Grubbing	AC	0.69	$6,640	$4,573
201.4.1.C.1	Removal of Obstructions	LS	1	$7,000	$7,000
202.4.1.A.1	Excavation	CY	0	$26	$0
202.4.6.A.1	Borrow	CY	0	$26	$0
706.4.1.A.3	Standard Straight Curb	LF	0	$60	$0
706.4.1.A.5	Standard 6-inch Vertical Curb & Gutter	LF	0	$40	$0
706.4.1.E.1	Concrete Sidewalk, Thickness 4"	SF	30000	$15	$450,000
706.4.1.H.1	Pedestrian Ramp w/ Detectable Warning Domes	EA	38	$2,700	$102,600
706.4.1.F.1	Concrete Driveway Approach	EA	0	$4,000	$0
808.4.1.A.1	Seal Coat	SY	0	$4.50	$0
1101.4.1.A.1	Traffic Signal	LS	0	$300,000	$0
1102.4.1.A.1	Street Light (Foundation, Conduit, and Junction Box Only)	EA	0	$7,500	$0
1104.4.1.A.1	Pavement Line Paint (2 coats)	LF	6000	$1.19	$7,140
2050.4.1.C.1	Subgrade Separation Geotextile	SY	0	$2	$0
S-1	Asphalt and Base (2"AC/4"AB) - Local Residential	SF	0	$2	$0
S-2	Asphalt and Base (3"AC/6"AB) - Local Commercial/Industrial	SF	0	$3	$0
S-3	Asphalt and Base (3"AC/4"AB) - Minor Collector	SF	0	$2	$0
S-4	Asphalt and Base (3"AC/6"AB) - Local Commercial/Industrial	SF	0	$3	$0
S-5	Asphalt and Base (3"AC/6"AB) -Major Collector	SF	0	$3	$0
S-6	Asphalt and Base (4"AC/6"AB) - Minor Arterial	SF	0	$3	$0
S-7	Asphalt and Base (4"AC/6"AB) - Principle Arterial	SF	0	$3	$0
S-8	Asphalt and Base (2"AC/4"AB) - Multi-Use Trail	SF	0	$2	$0
S-9	Roundabout - Single Lane	LS	0	$970,000	$0
S-10	Roundabout - Double Lane	LS	0	$2,200,000	$0
S-11	Conduit and Fiber Interconnect	LF	0	$120.00	$0
S-12	Railroad Crossing Improvements	LS	0	$0	$0
S-13	Structures	LS	0	$0	$0
S-14	Utility Relocations	LS	0	$0	$0
S-15	Storm Drainage (5%)	%	1	5%	$28,566
S-16	Miscellaneous Items (10%)	%	1	10%	$57,131
S-17	Survey (3%)	%	1	3%	$17,139
S-18	Temporary/Permanenet Erosion Control (4%)	%	1	4%	$22,853
S-19	Landscapping and Irrigation (4%)	%	1	4%	$22,853
S-20	Temporary Traffic Control (10%)	%	1	10%	$57,131
S-21	Mobilization (10%)	%	1	10%	$57,131
S-22	Right of Way - Full Acquisition	LS	0	$0	$0
S-23	Right of Way - Residential	SF	0	$18	$0
S-24	Right of Way - Commercial	SF	0	$14	$0
S-25	Right of Way - Industrial	SF	0	$8	$0
S-26	Planning, Engineering, and Administrative Costs	%	1	20%	$114,263
S-27	Construction Engineering and Inspection	%	1	15%	$85,697
				ANTICIPATED PROJECT COST	**$1,035,000**

ENGINEER'S OPINION OF PROBABLE COST

PROJECT:	**POLELINE AVE MULTI-MODAL IMPROVEMENTS, PH 1**
Detailed Description:	Poleline Spokane Street to Idaho Street widen existing MM pathway (N side), install RRFBs at Henry Street and Lincoln Street, sidewalks along south side
Project Code:	MM-13
Project Size:	Small
Project Timeline:	Multimodal
Project Funding:	Local
Roadway Classification:	N/A
Estimate Date:	November 2025

ITEM NO.	ITEM DESCRIPTION	SCHEDULE OF VALUES			
		UNIT	EST. QUAN	UNIT PRICE	TOTAL
201.4.1.A.1	Clearing and Grubbing	AC	0.73	$7,480	$5,488
201.4.1.C.1	Removal of Obstructions	LS	0	$0	$0
202.4.1.A.1	Excavation	CY	0	$45	$0
202.4.6.A.1	Borrow	CY	0	$50	$0
706.4.1.A.3	Standard Straight Curb	LF	0	$70	$0
706.4.1.A.5	Standard 6-inch Vertical Curb & Gutter	LF	0	$76	$0
706.4.1.E.1	Concrete Sidewalk, Thickness 4"	SF	10800	$24	$259,200
706.4.1.H.1	Pedestrian Ramp w/ Detectable Warning Domes	EA	8	$2,700	$21,600
706.4.1.F.1	Concrete Driveway Approach	EA	0	$4,600	$0
808.4.1.A.1	Seal Coat	SY	0	$5.00	$0
1101.4.1.A.1	Traffic Signal	LS	0	$150,000	$0
1102.4.1.A.1	Street Light (Foundation, Conduit, and Junction Box Only)	EA	0	$7,500	$0
1104.4.1.A.1	Pavement Line Paint (2 coats)	LF	0	$1.75	$0
2050.4.1.C.1	Subgrade Separation Geotextile	SY	240	$2	$480
S-1	Asphalt and Base (2"AC/4"AB) - Local Residential	SF	0	$2	$0
S-2	Asphalt and Base (3"AC/6"AB) - Local Commercial/Industrial	SF	0	$4	$0
S-3	Asphalt and Base (3"AC/4"AB) - Minor Collector	SF	0	$3	$0
S-4	Asphalt and Base (3"AC/6"AB) - Local Commercial/Industrial	SF	0	$4	$0
S-5	Asphalt and Base (3"AC/6"AB) -Major Collector	SF	0	$4	$0
S-6	Asphalt and Base (4"AC/6"AB) - Minor Arterial	SF	0	$4	$0
S-7	Asphalt and Base (4"AC/6"AB) - Principle Arterial	SF	0	$4	$0
S-8	Asphalt and Base (2"AC/4"AB) - Multi-Use Trail	SF	21610	$2	$51,497
S-9	Roundabout - Single Lane	LS	0	$970,000	$0
S-10	Roundabout - Double Lane	LS	0	$2,200,000	$0
S-11	Conduit and Fiber Interconnect	LF	0	$160.00	$0
S-12	Railroad Crossing Improvements	LS	0	$0	$0
S-13	Structures	LS	1	$40,000	$40,000
S-14	Utility Relocations	LS	0	$0	$0
S-15	Storm Drainage (5%)	%	1	5%	$18,913
S-16	Miscellaneous Items (10%)	%	1	10%	$37,827
S-17	Survey (3%)	%	1	3%	$11,348
S-18	Temporary/Permanenet Erosion Control (4%)	%	1	4%	$15,131
S-19	Landscapping and Irrigation (4%)	%	1	4%	$15,131
S-20	Temporary Traffic Control (10%)	%	1	10%	$37,827
S-21	Mobilization (10%)	%	1	10%	$37,827
S-22	Right of Way - Full Acquisition	LS	0	$0	$0
S-23	Right of Way - Residential	SF	0	$18	$0
S-24	Right of Way - Commercial	SF	0	$14	$0
S-25	Right of Way - Industrial	SF	0	$8	$0
S-26	Planning, Engineering, and Administrative Costs	%	1	25%	$94,566
S-27	Construction Engineering and Inspection	%	1	15%	$56,740
				ANTICIPATED PROJECT COST	**$704,000**

ENGINEER'S OPINION OF PROBABLE COST

PROJECT:	**POELINE AVE MULTI-MODAL IMPROVEMENTS, PH 2**
Detailed Description:	Poleline Syringa Street to Greensferry Road install RRFB at Gracie Way, install missing segments of sidewalk (south side)
Project Code:	MM-14
Project Size:	Small
Project Timeline:	Multimodal
Project Funding:	Local
Roadway Classification:	N/A
Estimate Date:	November 2025

ITEM NO.	ITEM DESCRIPTION	SCHEDULE OF VALUES			
		UNIT	EST. QUAN	UNIT PRICE	TOTAL
201.4.1.A.1	Clearing and Grubbing	AC	0.21	$7,480	$1,588
201.4.1.C.1	Removal of Obstructions	LS	0	$0	$0
202.4.1.A.1	Excavation	CY	0	$45	$0
202.4.6.A.1	Borrow	CY	0	$50	$0
706.4.1.A.3	Standard Straight Curb	LF	0	$70	$0
706.4.1.A.5	Standard 6-inch Vertical Curb & Gutter	LF	0	$76	$0
706.4.1.E.1	Concrete Sidewalk, Thickness 4"	SF	9250	$24	$222,000
706.4.1.H.1	Pedestrian Ramp w/ Detectable Warning Domes	EA	8	$2,700	$21,600
706.4.1.F.1	Concrete Driveway Approach	EA	0	$4,600	$0
808.4.1.A.1	Seal Coat	SY	0	$5.00	$0
1101.4.1.A.1	Traffic Signal	LS	0	$150,000	$0
1102.4.1.A.1	Street Light (Foundation, Conduit, and Junction Box Only)	EA	0	$7,500	$0
1104.4.1.A.1	Pavement Line Paint (2 coats)	LF	0	$1.75	$0
2050.4.1.C.1	Subgrade Separation Geotextile	SY	0	$2	$0
S-1	Asphalt and Base (2"AC/4"AB) - Local Residential	SF	0	$2	$0
S-2	Asphalt and Base (3"AC/6"AB) - Local Commercial/Industrial	SF	0	$4	$0
S-3	Asphalt and Base (3"AC/4"AB) - Minor Collector	SF	0	$3	$0
S-4	Asphalt and Base (3"AC/6"AB) - Local Commercial/Industrial	SF	0	$4	$0
S-5	Asphalt and Base (3"AC/6"AB) -Major Collector	SF	0	$4	$0
S-6	Asphalt and Base (4"AC/6"AB) - Minor Arterial	SF	0	$4	$0
S-7	Asphalt and Base (4"AC/6"AB) - Principle Arterial	SF	0	$4	$0
S-8	Asphalt and Base (2"AC/4"AB) - Multi-Use Trail	SF	0	$2	$0
S-9	Roundabout - Single Lane	LS	0	$970,000	$0
S-10	Roundabout - Double Lane	LS	0	$2,200,000	$0
S-11	Conduit and Fiber Interconnect	LF	0	$160.00	$0
S-12	Railroad Crossing Improvements	LS	0	$0	$0
S-13	Structures	LS	1	$20,000	$20,000
S-14	Utility Relocations	LS	0	$0	$0
S-15	Storm Drainage (5%)	%	1	5%	$13,259
S-16	Miscellaneous Items (10%)	%	1	10%	$26,519
S-17	Survey (3%)	%	1	3%	$7,956
S-18	Temporary/Permanenet Erosion Control (4%)	%	1	4%	$10,608
S-19	Landscapping and Irrigation (4%)	%	1	4%	$10,608
S-20	Temporary Traffic Control (10%)	%	1	10%	$26,519
S-21	Mobilization (10%)	%	1	10%	$26,519
S-22	Right of Way - Full Acquisition	LS	0	$0	$0
S-23	Right of Way - Residential	SF	0	$18	$0
S-24	Right of Way - Commercial	SF	0	$14	$0
S-25	Right of Way - Industrial	SF	0	$8	$0
S-26	Planning, Engineering, and Administrative Costs	%	1	25%	$66,297
S-27	Construction Engineering and Inspection	%	1	15%	$39,778
			ANTICIPATED PROJECT COST		**$494,000**

ENGINEER'S OPINION OF PROBABLE COST

PROJECT:	**CHASE RD MULTI-MODAL IMPROVEMENTS**
Detailed Description:	Chase Rd from Mullan Ave to Seltice Way, install MM trail along west side of Chase Rd from Karren Streeter Memorial Trail to Mullan Ave.
Project Code:	MM-15
Project Size:	Small
Project Timeline:	Multimodal
Project Funding:	Local
Roadway Classification:	N/A
Estimate Date:	November 2025

ITEM NO.	ITEM DESCRIPTION	SCHEDULE OF VALUES			
		UNIT	EST. QUAN	UNIT PRICE	TOTAL
201.4.1.A.1	Clearing and Grubbing	AC	0.07	$7,480	$495
201.4.1.C.1	Removal of Obstructions	LS	0	$0	$0
202.4.1.A.1	Excavation	CY	0	$45	$0
202.4.6.A.1	Borrow	CY	0	$50	$0
706.4.1.A.3	Standard Straight Curb	LF	0	$70	$0
706.4.1.A.5	Standard 6-inch Vertical Curb & Gutter	LF	240	$76	$18,240
706.4.1.E.1	Concrete Sidewalk, Thickness 4"	SF	0	$24	$0
706.4.1.H.1	Pedestrian Ramp w/ Detectable Warning Domes	EA	0	$2,700	$0
706.4.1.F.1	Concrete Driveway Approach	EA	0	$4,600	$0
808.4.1.A.1	Seal Coat	SY	0	$5.00	$0
1101.4.1.A.1	Traffic Signal	LS	0	$150,000	$0
1102.4.1.A.1	Street Light (Foundation, Conduit, and Junction Box Only)	EA	0	$7,500	$0
1104.4.1.A.1	Pavement Line Paint (2 coats)	LF	0	$1.75	$0
2050.4.1.C.1	Subgrade Separation Geotextile	SY	32	$2	$64
S-1	Asphalt and Base (2"AC/4"AB) - Local Residential	SF	0	$2	$0
S-2	Asphalt and Base (3"AC/6"AB) - Local Commercial/Industrial	SF	0	$4	$0
S-3	Asphalt and Base (3"AC/4"AB) - Minor Collector	SF	0	$3	$0
S-4	Asphalt and Base (3"AC/6"AB) - Local Commercial/Industrial	SF	0	$4	$0
S-5	Asphalt and Base (3"AC/6"AB) -Major Collector	SF	0	$4	$0
S-6	Asphalt and Base (4"AC/6"AB) - Minor Arterial	SF	0	$4	$0
S-7	Asphalt and Base (4"AC/6"AB) - Principle Arterial	SF	0	$4	$0
S-8	Asphalt and Base (2"AC/4"AB) - Multi-Use Trail	SF	2880	$2	$6,863
S-9	Roundabout - Single Lane	LS	0	$970,000	$0
S-10	Roundabout - Double Lane	LS	0	$2,200,000	$0
S-11	Conduit and Fiber Interconnect	LF	0	$160.00	$0
S-12	Railroad Crossing Improvements	LS	0	$300,000	$0
S-13	Structures	LS	0	$0	$0
S-14	Utility Relocations	LS	0	$0	$0
S-15	Storm Drainage (5%)	%	1	5%	$1,283
S-16	Miscellaneous Items (10%)	%	1	10%	$2,566
S-17	Survey (3%)	%	1	3%	$770
S-18	Temporary/Permanenet Erosion Control (4%)	%	1	4%	$1,026
S-19	Landscapping and Irrigation (4%)	%	1	4%	$1,026
S-20	Temporary Traffic Control (10%)	%	1	10%	$2,566
S-21	Mobilization (10%)	%	1	10%	$2,566
S-22	Right of Way - Full Acquisition	LS	0	$0	$0
S-23	Right of Way - Residential	SF	0	$18	$0
S-24	Right of Way - Commercial	SF	0	$14	$0
S-25	Right of Way - Industrial	SF	0	$8	$0
S-26	Planning, Engineering, and Administrative Costs	%	1	25%	$6,415
S-27	Construction Engineering and Inspection	%	1	15%	$3,849
				ANTICIPATED PROJECT COST	**$48,000**

ENGINEER'S OPINION OF PROBABLE COST

PROJECT:	**PLEASANT VIEW RD MULTI-MODAL IMPROVEMENTS, PH 1**
Detailed Description:	Pleasant View Riverbend Ave to Expo Parkway install multi-modal pathway on west side of Pleasant View Road. Connect to both the Centennial Trail and the Park and Ride, install retaining wall supporting underslope below freeway, include pedestrian scramble connecting Centennial Trail diagonally, include signal re-timing in project. Coordinate with ITD for partnering opportunity through I-90
Project Code:	MM-16
Project Size:	Small
Project Timeline:	Multimodal
Project Funding:	Local
Roadway Classification:	N/A
Estimate Date:	November 2025

ITEM NO.	ITEM DESCRIPTION	SCHEDULE OF VALUES			
		UNIT	EST. QUAN	UNIT PRICE	TOTAL
201.4.1.A.1	Clearing and Grubbing	AC	0.39	$7,480	$2,885
201.4.1.C.1	Removal of Obstructions	LS	1	$15,000	$15,000
202.4.1.A.1	Excavation	CY	0	$45	$0
202.4.6.A.1	Borrow	CY	0	$50	$0
706.4.1.A.3	Standard Straight Curb	LF	0	$70	$0
706.4.1.A.5	Standard 6-inch Vertical Curb & Gutter	LF	0	$76	$0
706.4.1.E.1	Concrete Sidewalk, Thickness 4"	SF	0	$24	$0
706.4.1.H.1	Pedestrian Ramp w/ Detectable Warning Domes	EA	6	$2,700	$16,200
706.4.1.F.1	Concrete Driveway Approach	EA	0	$4,600	$0
808.4.1.A.1	Seal Coat	SY	0	$5.00	$0
1101.4.1.A.1	Traffic Signal	LS	0	$150,000	$0
1102.4.1.A.1	Street Light (Foundation, Conduit, and Junction Box Only)	EA	0	$7,500	$0
1104.4.1.A.1	Pavement Line Paint (2 coats)	LF	0	$1.75	$0
2050.4.1.C.1	Subgrade Separation Geotextile	SY	187	$2	$373
S-1	Asphalt and Base (2"AC/4"AB) - Local Residential	SF	0	$2	$0
S-2	Asphalt and Base (3"AC/6"AB) - Local Commercial/Industrial	SF	0	$4	$0
S-3	Asphalt and Base (3"AC/4"AB) - Minor Collector	SF	0	$3	$0
S-4	Asphalt and Base (3"AC/6"AB) - Local Commercial/Industrial	SF	0	$4	$0
S-5	Asphalt and Base (3"AC/6"AB) -Major Collector	SF	0	$4	$0
S-6	Asphalt and Base (4"AC/6"AB) - Minor Arterial	SF	0	$4	$0
S-7	Asphalt and Base (4"AC/6"AB) - Principle Arterial	SF	0	$4	$0
S-8	Asphalt and Base (2"AC/4"AB) - Multi-Use Trail	SF	16800	$2	$40,035
S-9	Roundabout - Single Lane	LS	0	$970,000	$0
S-10	Roundabout - Double Lane	LS	0	$2,200,000	$0
S-11	Conduit and Fiber Interconnect	LF	0	$160.00	$0
S-12	Railroad Crossing Improvements	LS	0	$0	$0
S-13	Structures	LS	1	$84,000	$84,000
S-14	Utility Relocations	LS	0	$0	$0
S-15	Storm Drainage (5%)	%	1	5%	$7,925
S-16	Miscellaneous Items (10%)	%	1	10%	$15,849
S-17	Survey (3%)	%	1	3%	$4,755
S-18	Temporary/Permanenet Erosion Control (4%)	%	1	4%	$6,340
S-19	Landscapping and Irrigation (4%)	%	1	4%	$6,340
S-20	Temporary Traffic Control (10%)	%	1	10%	$15,849
S-21	Mobilization (10%)	%	1	10%	$15,849
S-22	Right of Way - Full Acquisition	LS	0	$0	$0
S-23	Right of Way - Residential	SF	0	$18	$0
S-24	Right of Way - Commercial	SF	0	$14	$0
S-25	Right of Way - Industrial	SF	0	$8	$0
S-26	Planning, Engineering, and Administrative Costs	%	1	25%	$39,623
S-27	Construction Engineering and Inspection	%	1	15%	$23,774
				ANTICIPATED PROJECT COST	**$295,000**

ENGINEER'S OPINION OF PROBABLE COST

PROJECT:	**PLEASANT VIEW RD MULTI-MODAL IMPROVEMENTS, PH 2**
Detailed Description:	Connect MM-16 with Karren Streeter Memorial Trail at Seltice Way along west side of Pleasant View, install multi-use pathway
Project Code:	MM-17
Project Size:	Small
Project Timeline:	Multimodal
Project Funding:	Local
Roadway Classification:	N/A
Estimate Date:	November 2025

ITEM NO.	ITEM DESCRIPTION	SCHEDULE OF VALUES			
		UNIT	EST. QUAN	UNIT PRICE	TOTAL
201.4.1.A.1	Clearing and Grubbing	AC		$7,480	$0
201.4.1.C.1	Removal of Obstructions	LS	1	$2,500	$2,500
202.4.1.A.1	Excavation	CY	0	$45	$0
202.4.6.A.1	Borrow	CY	0	$50	$0
706.4.1.A.3	Standard Straight Curb	LF	0	$70	$0
706.4.1.A.5	Standard 6-inch Vertical Curb & Gutter	LF	0	$76	$0
706.4.1.E.1	Concrete Sidewalk, Thickness 4"	SF	0	$24	$0
706.4.1.H.1	Pedestrian Ramp w/ Detectable Warning Domes	EA	5	$2,700	$13,500
706.4.1.F.1	Concrete Driveway Approach	EA	0	$4,600	$0
808.4.1.A.1	Seal Coat	SY	0	$5.00	$0
1101.4.1.A.1	Traffic Signal	LS	0	$150,000	$0
1102.4.1.A.1	Street Light (Foundation, Conduit, and Junction Box Only)	EA	0	$7,500	$0
1104.4.1.A.1	Pavement Line Paint (2 coats)	LF	0	$1.75	$0
2050.4.1.C.1	Subgrade Separation Geotextile	SY	200	$2	$400
S-1	Asphalt and Base (2"AC/4"AB) - Local Residential	SF	0	$2	$0
S-2	Asphalt and Base (3"AC/6"AB) - Local Commercial/Industrial	SF	0	$4	$0
S-3	Asphalt and Base (3"AC/4"AB) - Minor Collector	SF	0	$3	$0
S-4	Asphalt and Base (3"AC/6"AB) - Local Commercial/Industrial	SF	0	$4	$0
S-5	Asphalt and Base (3"AC/6"AB) -Major Collector	SF	0	$4	$0
S-6	Asphalt and Base (4"AC/6"AB) - Minor Arterial	SF	0	$4	$0
S-7	Asphalt and Base (4"AC/6"AB) - Principle Arterial	SF	0	$4	$0
S-8	Asphalt and Base (2"AC/4"AB) - Multi-Use Trail	SF	18000	$2	$42,894
S-9	Roundabout - Single Lane	LS	0	$970,000	$0
S-10	Roundabout - Double Lane	LS	0	$2,200,000	$0
S-11	Conduit and Fiber Interconnect	LF	0	$160.00	$0
S-12	Railroad Crossing Improvements	LS	0	$300,000	$0
S-13	Structures	LS	0	$0	$0
S-14	Utility Relocations	LS	0	$0	$0
S-15	Storm Drainage (5%)	%	1	5%	$2,965
S-16	Miscellaneous Items (10%)	%	1	10%	$5,929
S-17	Survey (3%)	%	1	3%	$1,779
S-18	Temporary/Permanenet Erosion Control (4%)	%	1	4%	$2,372
S-19	Landscapping and Irrigation (4%)	%	1	4%	$2,372
S-20	Temporary Traffic Control (10%)	%	1	10%	$5,929
S-21	Mobilization (10%)	%	1	10%	$5,929
S-22	Right of Way - Full Acquisition	LS	0	$0	$0
S-23	Right of Way - Residential	SF	0	$18	$0
S-24	Right of Way - Commercial	SF	0	$14	$0
S-25	Right of Way - Industrial	SF	0	$8	$0
S-26	Planning, Engineering, and Administrative Costs	%	1	25%	$14,824
S-27	Construction Engineering and Inspection	%	1	15%	$8,894
				ANTICIPATED PROJECT COST	**$111,000**

ENGINEER'S OPINION OF PROBABLE COST

PROJECT:	**CENTENNIAL TRAIL CONNECTION #2**
Detailed Description:	4th Ave to Spokane Street, install multi-modal pathway on RR grade, install RRFB's at roadway crossings, assumes RR grade is abandoned
Project Code:	MM-18
Project Size:	Small
Project Timeline:	Multimodal
Project Funding:	Local
Roadway Classification:	N/A
Estimate Date:	November 2025

ITEM NO.	ITEM DESCRIPTION	SCHEDULE OF VALUES			
		UNIT	EST. QUAN	UNIT PRICE	TOTAL
201.4.1.A.1	Clearing and Grubbing	AC	0	$7,480	$0
201.4.1.C.1	Removal of Obstructions	LS	0	$0	$0
202.4.1.A.1	Excavation	CY	0	$45	$0
202.4.6.A.1	Borrow	CY	0	$50	$0
706.4.1.A.3	Standard Straight Curb	LF	0	$70	$0
706.4.1.A.5	Standard 6-inch Vertical Curb & Gutter	LF	0	$76	$0
706.4.1.E.1	Concrete Sidewalk, Thickness 4"	SF	0	$24	$0
706.4.1.H.1	Pedestrian Ramp w/ Detectable Warning Domes	EA	0	$2,700	$0
706.4.1.F.1	Concrete Driveway Approach	EA	0	$4,600	$0
808.4.1.A.1	Seal Coat	SY	0	$5.00	$0
1101.4.1.A.1	Traffic Signal	LS	0	$150,000	$0
1102.4.1.A.1	Street Light (Foundation, Conduit, and Junction Box Only)	EA	0	$7,500	$0
1104.4.1.A.1	Pavement Line Paint (2 coats)	LF	0	$1.75	$0
2050.4.1.C.1	Subgrade Separation Geotextile	SY	93	$2	$187
S-1	Asphalt and Base (2"AC/4"AB) - Local Residential	SF	0	$2	$0
S-2	Asphalt and Base (3"AC/6"AB) - Local Commercial/Industrial	SF	0	$4	$0
S-3	Asphalt and Base (3"AC/4"AB) - Minor Collector	SF	0	$3	$0
S-4	Asphalt and Base (3"AC/6"AB) - Local Commercial/Industrial	SF	0	$4	$0
S-5	Asphalt and Base (3"AC/6"AB) -Major Collector	SF	0	$4	$0
S-6	Asphalt and Base (4"AC/6"AB) - Minor Arterial	SF	0	$4	$0
S-7	Asphalt and Base (4"AC/6"AB) - Principle Arterial	SF	0	$4	$0
S-8	Asphalt and Base (2"AC/4"AB) - Multi-Use Trail	SF	8400	$2	$20,017
S-9	Roundabout - Single Lane	LS	0	$970,000	$0
S-10	Roundabout - Double Lane	LS	0	$2,200,000	$0
S-11	Conduit and Fiber Interconnect	LF	0	$160.00	$0
S-12	Railroad Crossing Improvements	LS	0	$0	$0
S-13	Structures	LS	1	$40,000	$40,000
S-14	Utility Relocations	LS	0	$0	$0
S-15	Storm Drainage (5%)	%	1	5%	$3,010
S-16	Miscellaneous Items (10%)	%	1	10%	$6,020
S-17	Survey (3%)	%	1	3%	$1,806
S-18	Temporary/Permanenet Erosion Control (4%)	%	1	4%	$2,408
S-19	Landscapping and Irrigation (4%)	%	1	4%	$2,408
S-20	Temporary Traffic Control (10%)	%	1	10%	$6,020
S-21	Mobilization (10%)	%	1	10%	$6,020
S-22	Right of Way - Full Acquisition	LS	0	$0	$0
S-23	Right of Way - Residential	SF	0	$18	$0
S-24	Right of Way - Commercial	SF	0	$14	$0
S-25	Right of Way - Industrial	SF	0	$8	$0
S-26	Planning, Engineering, and Administrative Costs	%	1	25%	$15,051
S-27	Construction Engineering and Inspection	%	1	15%	$9,031
				ANTICIPATED PROJECT COST	**$112,000**

ENGINEER'S OPINION OF PROBABLE COST

PROJECT:	**CENTENNIAL TRAIL CONNECTION #3**
Detailed Description:	Ross Point Road to Huetter Road, install multi-modal pathway on RR grade, install RRFB's at roadway crossings, assumes RR grade is abandoned
Project Code:	MM-19
Project Size:	Small
Project Timeline:	Multimodal
Project Funding:	Local
Roadway Classification:	N/A
Estimate Date:	November 2025

ITEM NO.	ITEM DESCRIPTION	SCHEDULE OF VALUES			
		UNIT	EST. QUAN	UNIT PRICE	TOTAL
201.4.1.A.1	Clearing and Grubbing	AC	0	$7,480	$0
201.4.1.C.1	Removal of Obstructions	LS	0	$0	$0
202.4.1.A.1	Excavation	CY	0	$45	$0
202.4.6.A.1	Borrow	CY	0	$50	$0
706.4.1.A.3	Standard Straight Curb	LF	0	$70	$0
706.4.1.A.5	Standard 6-inch Vertical Curb & Gutter	LF	0	$76	$0
706.4.1.E.1	Concrete Sidewalk, Thickness 4"	SF	0	$24	$0
706.4.1.H.1	Pedestrian Ramp w/ Detectable Warning Domes	EA	4	$2,700	$10,800
706.4.1.F.1	Concrete Driveway Approach	EA	0	$4,600	$0
808.4.1.A.1	Seal Coat	SY	0	$5.00	$0
1101.4.1.A.1	Traffic Signal	LS	0	$150,000	$0
1102.4.1.A.1	Street Light (Foundation, Conduit, and Junction Box Only)	EA	0	$7,500	$0
1104.4.1.A.1	Pavement Line Paint (2 coats)	LF	0	$1.75	$0
2050.4.1.C.1	Subgrade Separation Geotextile	SY	0	$2	$0
S-1	Asphalt and Base (2"AC/4"AB) - Local Residential	SF	0	$2	$0
S-2	Asphalt and Base (3"AC/6"AB) - Local Commercial/Industrial	SF	0	$4	$0
S-3	Asphalt and Base (3"AC/4"AB) - Minor Collector	SF	0	$3	$0
S-4	Asphalt and Base (3"AC/6"AB) - Local Commercial/Industrial	SF	0	$4	$0
S-5	Asphalt and Base (3"AC/6"AB) -Major Collector	SF	0	$4	$0
S-6	Asphalt and Base (4"AC/6"AB) - Minor Arterial	SF	0	$4	$0
S-7	Asphalt and Base (4"AC/6"AB) - Principle Arterial	SF	0	$4	$0
S-8	Asphalt and Base (2"AC/4"AB) - Multi-Use Trail	SF	137400	$2	$327,428
S-9	Roundabout - Single Lane	LS	0	$970,000	$0
S-10	Roundabout - Double Lane	LS	0	$2,200,000	$0
S-11	Conduit and Fiber Interconnect	LF	0	$160.00	$0
S-12	Railroad Crossing Improvements	LS	0	$0	$0
S-13	Structures	LS	1	$40,000	$40,000
S-14	Utility Relocations	LS	0	$0	$0
S-15	Storm Drainage (5%)	%	1	5%	$18,911
S-16	Miscellaneous Items (10%)	%	1	10%	$37,823
S-17	Survey (3%)	%	1	3%	$11,347
S-18	Temporary/Permanenet Erosion Control (4%)	%	1	4%	$15,129
S-19	Landscapping and Irrigation (4%)	%	1	4%	$15,129
S-20	Temporary Traffic Control (10%)	%	1	10%	$37,823
S-21	Mobilization (10%)	%	1	10%	$37,823
S-22	Right of Way - Full Acquisition	LS	0	$0	$0
S-23	Right of Way - Residential	SF	0	$18	$0
S-24	Right of Way - Commercial	SF	0	$14	$0
S-25	Right of Way - Industrial	SF	0	$8	$0
S-26	Planning, Engineering, and Administrative Costs	%	1	25%	$94,557
S-27	Construction Engineering and Inspection	%	1	15%	$56,734
			ANTICIPATED PROJECT COST		**$704,000**

ENGINEER'S OPINION OF PROBABLE COST

PROJECT:	**HY LINE DITCH GREENWAY**
Detailed Description:	Mullan Avenue to Prairie Trail (Huetter Road) install recreational greenway in this natural resource, likely ROW issues, many private parcels, include S connection along Mikelson Canal to Mullan Ave
Project Code:	MM-20
Project Size:	Large
Project Timeline:	Multimodal
Project Funding:	Local
Roadway Classification:	N/A
Estimate Date:	November 2025

ITEM NO.	ITEM DESCRIPTION	SCHEDULE OF VALUES			
		UNIT	EST. QUAN	UNIT PRICE	TOTAL
201.4.1.A.1	Clearing and Grubbing	AC	4.42	$3,500	$15,473
201.4.1.C.1	Removal of Obstructions	LS	1	$100,000	$100,000
202.4.1.A.1	Excavation	CY	0	$19	$0
202.4.6.A.1	Borrow	CY	0	$21	$0
706.4.1.A.3	Standard Straight Curb	LF	0	$45	$0
706.4.1.A.5	Standard 6-inch Vertical Curb & Gutter	LF	0	$33	$0
706.4.1.E.1	Concrete Sidewalk, Thickness 4"	SF	0	$12	$0
706.4.1.H.1	Pedestrian Ramp w/ Detectable Warning Domes	EA	0	$2,700	$0
706.4.1.F.1	Concrete Driveway Approach	EA	0	$3,500	$0
808.4.1.A.1	Seal Coat	SY	0	$4.00	$0
1101.4.1.A.1	Traffic Signal	LS	0	$600,000	$0
1102.4.1.A.1	Street Light (Foundation, Conduit, and Junction Box Only)	EA	0	$7,500	$0
1104.4.1.A.1	Pavement Line Paint (2 coats)	LF	0	$0.40	$0
2050.4.1.C.1	Subgrade Separation Geotextile	SY	2140	$2	$3,210
S-1	Asphalt and Base (2"AC/4"AB) - Local Residential	SF	0	$2	$0
S-2	Asphalt and Base (3"AC/6"AB) - Local Commercial/Industrial	SF	0	$2	$0
S-3	Asphalt and Base (3"AC/4"AB) - Minor Collector	SF	0	$2	$0
S-4	Asphalt and Base (3"AC/6"AB) - Local Commercial/Industrial	SF	0	$2	$0
S-5	Asphalt and Base (3"AC/6"AB) -Major Collector	SF	0	$2	$0
S-6	Asphalt and Base (4"AC/6"AB) - Minor Arterial	SF	0	$3	$0
S-7	Asphalt and Base (4"AC/6"AB) - Principle Arterial	SF	0	$3	$0
S-8	Asphalt and Base (2"AC/4"AB) - Multi-Use Trail	SF	192576	$2	$308,996
S-9	Roundabout - Single Lane	LS	0	$970,000	$0
S-10	Roundabout - Double Lane	LS	0	$2,200,000	$0
S-11	Conduit and Fiber Interconnect	LF	0	$80.00	$0
S-12	Railroad Crossing Improvements	LS	0	$0	$0
S-13	Structures (Trail Lighting & Retaining Wall)	LS	1	$295,000	$295,000
S-14	Utility Relocations	LS	1	$0	$0
S-15	Storm Drainage (5%)	%	1	5%	$36,134
S-16	Miscellaneous Items (10%)	%	1	10%	$72,268
S-17	Survey (3%)	%	1	3%	$21,680
S-18	Temporary/Permanenet Erosion Control (4%)	%	1	4%	$28,907
S-19	Landscapping and Irrigation (4%)	%	1	4%	$28,907
S-20	Temporary Traffic Control (10%)	%	1	10%	$72,268
S-21	Mobilization (10%)	%	1	10%	$72,268
S-22	Right of Way - Full Acquisition	LS	1	$0	$0
S-23	Right of Way - Residential	SF	601440	$18	$10,825,920
S-24	Right of Way - Commercial	SF	0	$14	$0
S-25	Right of Way - Industrial	SF	0	$8	$0
S-26	Planning, Engineering, and Administrative Costs	%	1	15%	$108,402
S-27	Construction Engineering and Inspection	%	1	15%	$108,402
				ANTICIPATED PROJECT COST	**$12,098,000**

ENGINEER'S OPINION OF PROBABLE COST

PROJECT:	**Q'EMILN PARK CONNECTION**
Detailed Description:	Spokane Street (at RR) to Parkway Drive (at park), install multi-modal pathway connection across bridge (widen existing sidewalk, no bridge expansion assumed) to Q'Emlin Park (install Type 2 bike lanes in interim)
Project Code:	MM-21
Project Size:	Small
Project Timeline:	Multimodal
Project Funding:	Local
Roadway Classification:	N/A
Estimate Date:	November 2025

ITEM NO.	ITEM DESCRIPTION	SCHEDULE OF VALUES			
		UNIT	EST. QUAN	UNIT PRICE	TOTAL
201.4.1.A.1	Clearing and Grubbing	AC	0	$7,480	$0
201.4.1.C.1	Removal of Obstructions	LS	0	$0	$0
202.4.1.A.1	Excavation	CY	0	$45	$0
202.4.6.A.1	Borrow	CY	0	$50	$0
706.4.1.A.3	Standard Straight Curb	LF	0	$70	$0
706.4.1.A.5	Standard 6-inch Vertical Curb & Gutter	LF	0	$76	$0
706.4.1.E.1	Concrete Sidewalk, Thickness 4"	SF	11200	$24	$268,800
706.4.1.H.1	Pedestrian Ramp w/ Detectable Warning Domes	EA	0	$2,700	$0
706.4.1.F.1	Concrete Driveway Approach	EA	0	$4,600	$0
808.4.1.A.1	Seal Coat	SY	0	$5.00	$0
1101.4.1.A.1	Traffic Signal	LS	0	$150,000	$0
1102.4.1.A.1	Street Light (Foundation, Conduit, and Junction Box Only)	EA	0	$7,500	$0
1104.4.1.A.1	Pavement Line Paint (2 coats)	LF	3200	$1.75	$5,600
2050.4.1.C.1	Subgrade Separation Geotextile	SY	0	$2	$0
S-1	Asphalt and Base (2"AC/4"AB) - Local Residential	SF	0	$2	$0
S-2	Asphalt and Base (3"AC/6"AB) - Local Commercial/Industrial	SF	0	$4	$0
S-3	Asphalt and Base (3"AC/4"AB) - Minor Collector	SF	0	$3	$0
S-4	Asphalt and Base (3"AC/6"AB) - Local Commercial/Industrial	SF	0	$4	$0
S-5	Asphalt and Base (3"AC/6"AB) -Major Collector	SF	0	$4	$0
S-6	Asphalt and Base (4"AC/6"AB) - Minor Arterial	SF	0	$4	$0
S-7	Asphalt and Base (4"AC/6"AB) - Principle Arterial	SF	0	$4	$0
S-8	Asphalt and Base (2"AC/4"AB) - Multi-Use Trail	SF	0	$2	$0
S-9	Roundabout - Single Lane	LS	0	$970,000	$0
S-10	Roundabout - Double Lane	LS	0	$2,200,000	$0
S-11	Conduit and Fiber Interconnect	LF	0	$160.00	$0
S-12	Railroad Crossing Improvements	LS	0	$0	$0
S-13	Structures	LS	0	$0	$0
S-14	Utility Relocations	LS	0	$0	$0
S-15	Storm Drainage (5%)	%	1	5%	$13,720
S-16	Miscellaneous Items (10%)	%	1	10%	$27,440
S-17	Survey (3%)	%	1	3%	$8,232
S-18	Temporary/Permanenet Erosion Control (4%)	%	1	4%	$10,976
S-19	Landscapping and Irrigation (4%)	%	1	4%	$10,976
S-20	Temporary Traffic Control (10%)	%	1	10%	$27,440
S-21	Mobilization (10%)	%	1	10%	$27,440
S-22	Right of Way - Full Acquisition	LS	0	$0	$0
S-23	Right of Way - Residential	SF	0	$18	$0
S-24	Right of Way - Commercial	SF	0	$14	$0
S-25	Right of Way - Industrial	SF	0	$8	$0
S-26	Planning, Engineering, and Administrative Costs	%	1	25%	$40,000
S-27	Construction Engineering and Inspection	%	1	15%	$41,160
				ANTICIPATED PROJECT COST	**$482,000**

ENGINEER'S OPINION OF PROBABLE COST

PROJECT:	**SELTICE WAY CYCLE TRACK, PH 1**
Detailed Description:	Seltice Way Plesant View Road to McGuire Road, install cycle track along S side of Seltice Way for EB travel
Project Code:	MM-22
Project Size:	Medium
Project Timeline:	Multimodal
Project Funding:	Local
Roadway Classification:	N/A
Estimate Date:	November 2025

ITEM NO.	ITEM DESCRIPTION	SCHEDULE OF VALUES			
		UNIT	EST. QUAN	UNIT PRICE	TOTAL
201.4.1.A.1	Clearing and Grubbing	AC	0.85	$6,640	$5,634
201.4.1.C.1	Removal of Obstructions	LS	1	$15,000	$15,000
202.4.1.A.1	Excavation	CY	1141	$26	$29,659
202.4.6.A.1	Borrow	CY	0	$26	$0
706.4.1.A.3	Standard Straight Curb	LF	5280	$60	$316,800
706.4.1.A.5	Standard 6-inch Vertical Curb & Gutter	LF	5280	$40	$211,200
706.4.1.E.1	Concrete Sidewalk, Thickness 4"	SF	0	$15	$0
706.4.1.H.1	Pedestrian Ramp w/ Detectable Warning Domes	EA	6	$2,700	$16,200
706.4.1.F.1	Concrete Driveway Approach	EA	13	$4,000	$52,000
808.4.1.A.1	Seal Coat	SY	0	$4.50	$0
1101.4.1.A.1	Traffic Signal	LS	0	$300,000	$0
1102.4.1.A.1	Street Light (Foundation, Conduit, and Junction Box Only)	EA	0	$7,500	$0
1104.4.1.A.1	Pavement Line Paint (2 coats)	LF	5280	$1.19	$6,283
2050.4.1.C.1	Subgrade Separation Geotextile	SY	293	$2	$440
S-1	Asphalt and Base (2"AC/4"AB) - Local Residential	SF	0	$2	$0
S-2	Asphalt and Base (3"AC/6"AB) - Local Commercial/Industrial	SF	0	$3	$0
S-3	Asphalt and Base (3"AC/4"AB) - Minor Collector	SF	0	$2	$0
S-4	Asphalt and Base (3"AC/6"AB) - Local Commercial/Industrial	SF	0	$3	$0
S-5	Asphalt and Base (3"AC/6"AB) -Major Collector	SF	0	$3	$0
S-6	Asphalt and Base (4"AC/6"AB) - Minor Arterial	SF		$3	$0
S-7	Asphalt and Base (4"AC/6"AB) - Principle Arterial	SF	26400	$3	$86,925
S-8	Asphalt and Base (2"AC/4"AB) - Multi-Use Trail	SF	0	$2	$0
S-9	Roundabout - Single Lane	LS	0	$970,000	$0
S-10	Roundabout - Double Lane	LS	0	$2,200,000	$0
S-11	Conduit and Fiber Interconnect	LF	0	$120.00	$0
S-12	Railroad Crossing Improvements	LS	0	$0	$0
S-13	Structures	LS	0	$0	$0
S-14	Utility Relocations	LS	0	$0	$0
S-15	Storm Drainage (5%)	%	1	5%	$37,007
S-16	Miscellaneous Items (10%)	%	1	10%	$74,014
S-17	Survey (3%)	%	1	3%	$22,204
S-18	Temporary/Permanenet Erosion Control (4%)	%	1	4%	$29,606
S-19	Landscapping and Irrigation (4%)	%	1	4%	$29,606
S-20	Temporary Traffic Control (10%)	%	1	10%	$74,014
S-21	Mobilization (10%)	%	1	10%	$74,014
S-22	Right of Way - Full Acquisition	LS	0	$0	$0
S-23	Right of Way - Residential	SF	0	$18	$0
S-24	Right of Way - Commercial	SF	0	$14	$0
S-25	Right of Way - Industrial	SF	0	$8	$0
S-26	Planning, Engineering, and Administrative Costs	%	1	20%	$148,028
S-27	Construction Engineering and Inspection	%	1	15%	$111,021
				ANTICIPATED PROJECT COST	**$1,340,000**

ENGINEER'S OPINION OF PROBABLE COST

PROJECT:	**SELTICE WAY CYCLE TRACK, PH 2**
Detailed Description:	Seltice Way McGuire Road to Pleasant View Road, install cycle track along N side of Seltice Way for WB travel
Project Code:	MM-23
Project Size:	Medium
Project Timeline:	Multimodal
Project Funding:	Local
Roadway Classification:	N/A
Estimate Date:	November 2025

ITEM NO.	ITEM DESCRIPTION	SCHEDULE OF VALUES			
		UNIT	EST. QUAN	UNIT PRICE	TOTAL
201.4.1.A.1	Clearing and Grubbing	AC	0.85	$6,640	$5,634
201.4.1.C.1	Removal of Obstructions	LS	1	$15,000	$15,000
202.4.1.A.1	Excavation	CY	1141	$26	$29,659
202.4.6.A.1	Borrow	CY	0	$26	$0
706.4.1.A.3	Standard Straight Curb	LF	5280	$60	$316,800
706.4.1.A.5	Standard 6-inch Vertical Curb & Gutter	LF	5280	$40	$211,200
706.4.1.E.1	Concrete Sidewalk, Thickness 4"	SF	0	$15	$0
706.4.1.H.1	Pedestrian Ramp w/ Detectable Warning Domes	EA	6	$2,700	$16,200
706.4.1.F.1	Concrete Driveway Approach	EA	15	$4,000	$60,000
808.4.1.A.1	Seal Coat	SY	0	$4.50	$0
1101.4.1.A.1	Traffic Signal	LS	0	$300,000	$0
1102.4.1.A.1	Street Light (Foundation, Conduit, and Junction Box Only)	EA	0	$7,500	$0
1104.4.1.A.1	Pavement Line Paint (2 coats)	LF	5280	$1.19	$6,283
2050.4.1.C.1	Subgrade Separation Geotextile	SY	293	$2	$440
S-1	Asphalt and Base (2"AC/4"AB) - Local Residential	SF	0	$2	$0
S-2	Asphalt and Base (3"AC/6"AB) - Local Commercial/Industrial	SF	0	$3	$0
S-3	Asphalt and Base (3"AC/4"AB) - Minor Collector	SF	0	$2	$0
S-4	Asphalt and Base (3"AC/6"AB) - Local Commercial/Industrial	SF	0	$3	$0
S-5	Asphalt and Base (3"AC/6"AB) -Major Collector	SF	0	$3	$0
S-6	Asphalt and Base (4"AC/6"AB) - Minor Arterial	SF	0	$3	$0
S-7	Asphalt and Base (4"AC/6"AB) - Principle Arterial	SF	26400	$3	$86,925
S-8	Asphalt and Base (2"AC/4"AB) - Multi-Use Trail	SF	0	$2	$0
S-9	Roundabout - Single Lane	LS	0	$970,000	$0
S-10	Roundabout - Double Lane	LS	0	$2,200,000	$0
S-11	Conduit and Fiber Interconnect	LF	0	$120.00	$0
S-12	Railroad Crossing Improvements	LS	0	$0	$0
S-13	Structures	LS	0	$0	$0
S-14	Utility Relocations	LS	0	$0	$0
S-15	Storm Drainage (5%)	%	1	5%	$37,407
S-16	Miscellaneous Items (10%)	%	1	10%	$74,814
S-17	Survey (3%)	%	1	3%	$22,444
S-18	Temporary/Permanenet Erosion Control (4%)	%	1	4%	$29,926
S-19	Landscapping and Irrigation (4%)	%	1	4%	$29,926
S-20	Temporary Traffic Control (10%)	%	1	10%	$74,814
S-21	Mobilization (10%)	%	1	10%	$74,814
S-22	Right of Way - Full Acquisition	LS	0	$0	$0
S-23	Right of Way - Residential	SF	0	$18	$0
S-24	Right of Way - Commercial	SF	0	$14	$0
S-25	Right of Way - Industrial	SF	0	$8	$0
S-26	Planning, Engineering, and Administrative Costs	%	1	20%	$149,628
S-27	Construction Engineering and Inspection	%	1	15%	$112,221
				ANTICIPATED PROJECT COST	**$1,355,000**

ENGINEER'S OPINION OF PROBABLE COST

PROJECT:	**CENTENNAIL SPUR TRAIL**
Detailed Description:	Stateline (south of I-90) to Pleasant View Road install multi-modal pathway along Spokane River as an alternate recreational route (see previous plan)
Project Code:	MM-24
Project Size:	Large
Project Timeline:	Multimodal
Project Funding:	Local
Roadway Classification:	N/A
Estimate Date:	November 2025

ITEM NO.	ITEM DESCRIPTION	SCHEDULE OF VALUES			
		UNIT	EST. QUAN	UNIT PRICE	TOTAL
201.4.1.A.1	Clearing and Grubbing	AC	4.41	$3,500	$15,427
201.4.1.C.1	Removal of Obstructions	LS	1	$10,000	$10,000
202.4.1.A.1	Excavation	CY	0	$19	$0
202.4.6.A.1	Borrow	CY	0	$21	$0
706.4.1.A.3	Standard Straight Curb	LF	0	$45	$0
706.4.1.A.5	Standard 6-inch Vertical Curb & Gutter	LF	0	$33	$0
706.4.1.E.1	Concrete Sidewalk, Thickness 4"	SF	0	$12	$0
706.4.1.H.1	Pedestrian Ramp w/ Detectable Warning Domes	EA	0	$2,700	$0
706.4.1.F.1	Concrete Driveway Approach	EA	0	$3,500	$0
808.4.1.A.1	Seal Coat	SY	0	$4.00	$0
1101.4.1.A.1	Traffic Signal	LS	0	$600,000	$0
1102.4.1.A.1	Street Light (Foundation, Conduit, and Junction Box Only)	EA	0	$7,500	$0
1104.4.1.A.1	Pavement Line Paint (2 coats)	LF	0	$0.40	$0
2050.4.1.C.1	Subgrade Separation Geotextile	SY	1600	$2	$2,400
S-1	Asphalt and Base (2"AC/4"AB) - Local Residential	SF	0	$2	$0
S-2	Asphalt and Base (3"AC/6"AB) - Local Commercial/Industrial	SF	0	$2	$0
S-3	Asphalt and Base (3"AC/4"AB) - Minor Collector	SF	0	$2	$0
S-4	Asphalt and Base (3"AC/6"AB) - Local Commercial/Industrial	SF	0	$2	$0
S-5	Asphalt and Base (3"AC/6"AB) -Major Collector	SF	0	$2	$0
S-6	Asphalt and Base (4"AC/6"AB) - Minor Arterial	SF	0	$3	$0
S-7	Asphalt and Base (4"AC/6"AB) - Principle Arterial	SF	0	$3	$0
S-8	Asphalt and Base (2"AC/4"AB) - Multi-Use Trail	SF	144000	$2	$231,054
S-9	Roundabout - Single Lane	LS	0	$970,000	$0
S-10	Roundabout - Double Lane	LS	0	$2,200,000	$0
S-11	Conduit and Fiber Interconnect	LF	0	$80.00	$0
S-12	Railroad Crossing Improvements	LS	0	$0	$0
S-13	Structures	LS	0	$0	$0
S-14	Utility Relocations	LS	0	$0	$0
S-15	Storm Drainage (5%)	%	1	5%	$12,944
S-16	Miscellaneous Items (10%)	%	1	10%	$25,888
S-17	Survey (3%)	%	1	3%	$7,766
S-18	Temporary/Permanenet Erosion Control (4%)	%	1	4%	$10,355
S-19	Landscapping and Irrigation (4%)	%	1	4%	$10,355
S-20	Temporary Traffic Control (10%)	%	1	10%	$25,888
S-21	Mobilization (10%)	%	1	10%	$25,888
S-22	Right of Way - Full Acquisition	LS	0	$0	$0
S-23	Right of Way - Residential	SF	0	$18	$0
S-24	Right of Way - Commercial	SF	0	$14	$0
S-25	Right of Way - Industrial	SF	1120000	$8	$8,960,000
S-26	Planning, Engineering, and Administrative Costs	%	1	15%	$38,832
S-27	Construction Engineering and Inspection	%	1	15%	$38,832
				ANTICIPATED PROJECT COST	**$9,416,000**

ENGINEER'S OPINION OF PROBABLE COST

PROJECT:	**SPOKANE ST SIDEWALK IMPROVEMENTS**
Detailed Description:	Spokane Street from 16th Ave to Poleline Avenue, install missing sidewalk on west side
Project Code:	MM-25
Project Size:	Small
Project Timeline:	Multimodal
Project Funding:	Local
Roadway Classification:	N/A
Estimate Date:	November 2025

ITEM NO.	ITEM DESCRIPTION	SCHEDULE OF VALUES			
		UNIT	EST. QUAN	UNIT PRICE	TOTAL
201.4.1.A.1	Clearing and Grubbing	AC	0.30	$7,480	$2,232
201.4.1.C.1	Removal of Obstructions	LS	1.0	$15,000	$15,000
202.4.1.A.1	Excavation	CY	0	$45	$0
202.4.6.A.1	Borrow	CY	0	$50	$0
706.4.1.A.3	Standard Straight Curb	LF	0	$70	$0
706.4.1.A.5	Standard 6-inch Vertical Curb & Gutter	LF	0	$76	$0
706.4.1.E.1	Concrete Sidewalk, Thickness 4"	SF	13000	$24	$312,000
706.4.1.H.1	Pedestrian Ramp w/ Detectable Warning Domes	EA	40	$2,700	$108,000
706.4.1.F.1	Concrete Driveway Approach	EA	0	$4,600	$0
808.4.1.A.1	Seal Coat	SY	0	$5.00	$0
1101.4.1.A.1	Traffic Signal	LS	0	$150,000	$0
1102.4.1.A.1	Street Light (Foundation, Conduit, and Junction Box Only)	EA	0	$7,500	$0
1104.4.1.A.1	Pavement Line Paint (2 coats)	LF	0	$1.75	$0
2050.4.1.C.1	Subgrade Separation Geotextile	SY	0	$2	$0
S-1	Asphalt and Base (2"AC/4"AB) - Local Residential	SF	0	$2	$0
S-2	Asphalt and Base (3"AC/6"AB) - Local Commercial/Industrial	SF	0	$4	$0
S-3	Asphalt and Base (3"AC/4"AB) - Minor Collector	SF	0	$3	$0
S-4	Asphalt and Base (3"AC/6"AB) - Local Commercial/Industrial	SF	0	$4	$0
S-5	Asphalt and Base (3"AC/6"AB) -Major Collector	SF	0	$4	$0
S-6	Asphalt and Base (4"AC/6"AB) - Minor Arterial	SF	0	$4	$0
S-7	Asphalt and Base (4"AC/6"AB) - Principle Arterial	SF	0	$4	$0
S-8	Asphalt and Base (2"AC/4"AB) - Multi-Use Trail	SF	0	$2	$0
S-9	Roundabout - Single Lane	LS	0	$970,000	$0
S-10	Roundabout - Double Lane	LS	0	$2,200,000	$0
S-11	Conduit and Fiber Interconnect	LF	0	$160.00	$0
S-12	Railroad Crossing Improvements	LS	0	$0	$0
S-13	Structures	LS	0	$0	$0
S-14	Utility Relocations	LS	0	$0	$0
S-15	Storm Drainage (5%)	%	1	5%	$21,862
S-16	Miscellaneous Items (10%)	%	1	10%	$43,723
S-17	Survey (3%)	%	1	3%	$13,117
S-18	Temporary/Permanenet Erosion Control (4%)	%	1	4%	$17,489
S-19	Landscapping and Irrigation (4%)	%	1	4%	$17,489
S-20	Temporary Traffic Control (10%)	%	1	10%	$43,723
S-21	Mobilization (10%)	%	1	10%	$43,723
S-22	Right of Way - Full Acquisition	LS	0	$0	$0
S-23	Right of Way - Residential	SF	0	$18	$0
S-24	Right of Way - Commercial	SF	0	$14	$0
S-25	Right of Way - Industrial	SF	0	$8	$0
S-26	Planning, Engineering, and Administrative Costs	%	1	25%	$109,308
S-27	Construction Engineering and Inspection	%	1	15%	$65,585
				ANTICIPATED PROJECT COST	**$814,000**

ENGINEER'S OPINION OF PROBABLE COST

PROJECT:	**SELTICE WAY EAST MULTI-MODAL PATHWAY**
Detailed Description:	Seltice Way SH-41 interchange to Huetter Road, install multi-modal pathway along north side of Seltice way connecting trail from CDA into Post Falls (some segments exist) connect to centennial trail and i/c trail system
Project Code:	MM-26
Project Size:	Small
Project Timeline:	Multimodal
Project Funding:	Local
Roadway Classification:	N/A
Estimate Date:	November 2025

ITEM NO.	ITEM DESCRIPTION	SCHEDULE OF VALUES			
		UNIT	EST. QUAN	UNIT PRICE	TOTAL
201.4.1.A.1	Clearing and Grubbing	AC	1.92	$7,480	$14,338
201.4.1.C.1	Removal of Obstructions	LS	1	$7,500	$7,500
202.4.1.A.1	Excavation	CY	0	$45	$0
202.4.6.A.1	Borrow	CY	0	$50	$0
706.4.1.A.3	Standard Straight Curb	LF	0	$70	$0
706.4.1.A.5	Standard 6-inch Vertical Curb & Gutter	LF	0	$76	$0
706.4.1.E.1	Concrete Sidewalk, Thickness 4"	SF	0	$24	$0
706.4.1.H.1	Pedestrian Ramp w/ Detectable Warning Domes	EA	26	$2,700	$70,200
706.4.1.F.1	Concrete Driveway Approach	EA	0	$4,600	$0
808.4.1.A.1	Seal Coat	SY	0	$5.00	$0
1101.4.1.A.1	Traffic Signal	LS	0	$150,000	$0
1102.4.1.A.1	Street Light (Foundation, Conduit, and Junction Box Only)	EA	0	$7,500	$0
1104.4.1.A.1	Pavement Line Paint (2 coats)	LF	0	$1.75	$0
2050.4.1.C.1	Subgrade Separation Geotextile	SY	928	$2	$1,856
S-1	Asphalt and Base (2"AC/4"AB) - Local Residential	SF	0	$2	$0
S-2	Asphalt and Base (3"AC/6"AB) - Local Commercial/Industrial	SF	0	$4	$0
S-3	Asphalt and Base (3"AC/4"AB) - Minor Collector	SF	0	$3	$0
S-4	Asphalt and Base (3"AC/6"AB) - Local Commercial/Industrial	SF	0	$4	$0
S-5	Asphalt and Base (3"AC/6"AB) -Major Collector	SF	0	$4	$0
S-6	Asphalt and Base (4"AC/6"AB) - Minor Arterial	SF	0	$4	$0
S-7	Asphalt and Base (4"AC/6"AB) - Principle Arterial	SF	0	$4	$0
S-8	Asphalt and Base (2"AC/4"AB) - Multi-Use Trail	SF	83500	$2	$198,983
S-9	Roundabout - Single Lane	LS	0	$970,000	$0
S-10	Roundabout - Double Lane	LS	0	$2,200,000	$0
S-11	Conduit and Fiber Interconnect	LF	0	$160.00	$0
S-12	Railroad Crossing Improvements	LS	0	$0	$0
S-13	Structures	LS	0	$0	$0
S-14	Utility Relocations	LS	0	$0	$0
S-15	Storm Drainage (5%)	%	1	5%	$14,644
S-16	Miscellaneous Items (10%)	%	1	10%	$29,288
S-17	Survey (3%)	%	1	3%	$8,786
S-18	Temporary/Permanenet Erosion Control (4%)	%	1	4%	$11,715
S-19	Landscapping and Irrigation (4%)	%	1	4%	$11,715
S-20	Temporary Traffic Control (10%)	%	1	10%	$29,288
S-21	Mobilization (10%)	%	1	10%	$29,288
S-22	Right of Way - Full Acquisition	LS	0	$0	$0
S-23	Right of Way - Residential	SF	0	$18	$0
S-24	Right of Way - Commercial	SF	0	$14	$0
S-25	Right of Way - Industrial	SF	0	$8	$0
S-26	Planning, Engineering, and Administrative Costs	%	1	25%	$73,219
S-27	Construction Engineering and Inspection	%	1	15%	$43,931
				ANTICIPATED PROJECT COST	**$545,000**

ENGINEER'S OPINION OF PROBABLE COST

PROJECT:	**GREENSFERRY RD MULTI-MODAL IMPROVEMENTS**
Detailed Description:	Greensferry Road Horsehaven Avenue to Poleline Avenue, install multi-modal pathway along e side of greensferry rd, install curb and gutter where missing, install striped bike lanes both directions
Project Code:	MM-27
Project Size:	Small
Project Timeline:	Multimodal
Project Funding:	Local
Roadway Classification:	N/A
Estimate Date:	November 2025

ITEM NO.	ITEM DESCRIPTION	SCHEDULE OF VALUES			
		UNIT	EST. QUAN	UNIT PRICE	TOTAL
201.4.1.A.1	Clearing and Grubbing	AC	0.03	$7,480	$215
201.4.1.C.1	Removal of Obstructions	LS	1	$3,000	$3,000
202.4.1.A.1	Excavation	CY	0	$45	$0
202.4.6.A.1	Borrow	CY	0	$50	$0
706.4.1.A.3	Standard Straight Curb	LF	0	$70	$0
706.4.1.A.5	Standard 6-inch Vertical Curb & Gutter	LF	1250	$76	$95,000
706.4.1.E.1	Concrete Sidewalk, Thickness 4"	SF	0	$24	$0
706.4.1.H.1	Pedestrian Ramp w/ Detectable Warning Domes	EA	4	$2,700	$10,800
706.4.1.F.1	Concrete Driveway Approach	EA	0	$4,600	$0
808.4.1.A.1	Seal Coat	SY	0	$5.00	$0
1101.4.1.A.1	Traffic Signal	LS	0	$150,000	$0
1102.4.1.A.1	Street Light (Foundation, Conduit, and Junction Box Only)	EA	0	$7,500	$0
1104.4.1.A.1	Pavement Line Paint (2 coats)	LF	2500	$1.75	$4,375
2050.4.1.C.1	Subgrade Separation Geotextile	SY	139	$2	$278
S-1	Asphalt and Base (2"AC/4"AB) - Local Residential	SF	0	$2	$0
S-2	Asphalt and Base (3"AC/6"AB) - Local Commercial/Industrial	SF	0	$4	$0
S-3	Asphalt and Base (3"AC/4"AB) - Minor Collector	SF	0	$3	$0
S-4	Asphalt and Base (3"AC/6"AB) - Local Commercial/Industrial	SF	0	$4	$0
S-5	Asphalt and Base (3"AC/6"AB) -Major Collector	SF	0	$4	$0
S-6	Asphalt and Base (4"AC/6"AB) - Minor Arterial	SF	0	$4	$0
S-7	Asphalt and Base (4"AC/6"AB) - Principle Arterial	SF	0	$4	$0
S-8	Asphalt and Base (2"AC/4"AB) - Multi-Use Trail	SF	12500	$2	$29,788
S-9	Roundabout - Single Lane	LS	0	$970,000	$0
S-10	Roundabout - Double Lane	LS	0	$2,200,000	$0
S-11	Conduit and Fiber Interconnect	LF	0	$160.00	$0
S-12	Railroad Crossing Improvements	LS	0	$0	$0
S-13	Structures	LS	1	$0	$0
S-14	Utility Relocations	LS	1	$0	$0
S-15	Storm Drainage (5%)	%	1	5%	$7,173
S-16	Miscellaneous Items (10%)	%	1	10%	$14,346
S-17	Survey (3%)	%	1	3%	$4,304
S-18	Temporary/Permanenet Erosion Control (4%)	%	1	4%	$5,738
S-19	Landscapping and Irrigation (4%)	%	1	4%	$5,738
S-20	Temporary Traffic Control (10%)	%	1	10%	$14,346
S-21	Mobilization (10%)	%	1	10%	$14,346
S-22	Right of Way - Full Acquisition	LS	0	$0	$0
S-23	Right of Way - Residential	SF	0	$18	$0
S-24	Right of Way - Commercial	SF	0	$14	$0
S-25	Right of Way - Industrial	SF	0	$8	$0
S-26	Planning, Engineering, and Administrative Costs	%	1	25%	$35,864
S-27	Construction Engineering and Inspection	%	1	15%	$21,518
				ANTICIPATED PROJECT COST	**$267,000**

ENGINEER'S OPINION OF PROBABLE COST

PROJECT:	**MULLAN AVE MULTI-MODAL IMPROVEMENTS**
Detailed Description:	Mullan Avenue Chase Road to Compton Street, install sidewalks both sides where missing, install multi-modal pathway, install type 2 bike lanes
Project Code:	MM-28
Project Size:	Small
Project Timeline:	Multimodal
Project Funding:	Local
Roadway Classification:	N/A
Estimate Date:	November 2025

ITEM NO.	ITEM DESCRIPTION	SCHEDULE OF VALUES			
		UNIT	EST. QUAN	UNIT PRICE	TOTAL
201.4.1.A.1	Clearing and Grubbing	AC	0.49	$7,480	$3,670
201.4.1.C.1	Removal of Obstructions	LS	1	$6,000	$6,000
202.4.1.A.1	Excavation	CY	0	$45	$0
202.4.6.A.1	Borrow	CY	0	$50	$0
706.4.1.A.3	Standard Straight Curb	LF	0	$70	$0
706.4.1.A.5	Standard 6-inch Vertical Curb & Gutter	LF	0	$76	$0
706.4.1.E.1	Concrete Sidewalk, Thickness 4"	SF	3375	$24	$81,000
706.4.1.H.1	Pedestrian Ramp w/ Detectable Warning Domes	EA	6	$2,700	$16,200
706.4.1.F.1	Concrete Driveway Approach	EA	0	$4,600	$0
808.4.1.A.1	Seal Coat	SY	0	$5.00	$0
1101.4.1.A.1	Traffic Signal	LS	0	$150,000	$0
1102.4.1.A.1	Street Light (Foundation, Conduit, and Junction Box Only)	EA	0	$7,500	$0
1104.4.1.A.1	Pavement Line Paint (2 coats)	LF	3000	$1.75	$5,250
2050.4.1.C.1	Subgrade Separation Geotextile	SY	167	$2	$333
S-1	Asphalt and Base (2"AC/4"AB) - Local Residential	SF	0	$2	$0
S-2	Asphalt and Base (3"AC/6"AB) - Local Commercial/Industrial	SF	0	$4	$0
S-3	Asphalt and Base (3"AC/4"AB) - Minor Collector	SF	0	$3	$0
S-4	Asphalt and Base (3"AC/6"AB) - Local Commercial/Industrial	SF	0	$4	$0
S-5	Asphalt and Base (3"AC/6"AB) -Major Collector	SF	0	$4	$0
S-6	Asphalt and Base (4"AC/6"AB) - Minor Arterial	SF	0	$4	$0
S-7	Asphalt and Base (4"AC/6"AB) - Principle Arterial	SF	0	$4	$0
S-8	Asphalt and Base (2"AC/4"AB) - Multi-Use Trail	SF	15000	$2	$35,745
S-9	Roundabout - Single Lane	LS	0	$970,000	$0
S-10	Roundabout - Double Lane	LS	0	$2,200,000	$0
S-11	Conduit and Fiber Interconnect	LF	0	$160.00	$0
S-12	Railroad Crossing Improvements	LS	0	$0	$0
S-13	Structures	LS	0	$0	$0
S-14	Utility Relocations	LS	0	$0	$0
S-15	Storm Drainage (5%)	%	1	5%	$7,410
S-16	Miscellaneous Items (10%)	%	1	10%	$14,820
S-17	Survey (3%)	%	1	3%	$4,446
S-18	Temporary/Permanenet Erosion Control (4%)	%	1	4%	$5,928
S-19	Landscapping and Irrigation (4%)	%	1	4%	$5,928
S-20	Temporary Traffic Control (10%)	%	1	10%	$14,820
S-21	Mobilization (10%)	%	1	10%	$14,820
S-22	Right of Way - Full Acquisition	LS	0	$0	$0
S-23	Right of Way - Residential	SF	0	$18	$0
S-24	Right of Way - Commercial	SF	0	$14	$0
S-25	Right of Way - Industrial	SF	0	$8	$0
S-26	Planning, Engineering, and Administrative Costs	%	1	25%	$37,050
S-27	Construction Engineering and Inspection	%	1	15%	$22,230
				ANTICIPATED PROJECT COST	**$276,000**

ENGINEER'S OPINION OF PROBABLE COST

PROJECT:	**SH-41 MULTI-MODAL IMPROVEMENTS**
Detailed Description:	Install multi-modal pathway along west ROW of SH-41 from h=Horsehaven Avenue to railroad tracks
Project Code:	MM-29
Project Size:	Small
Project Timeline:	Multimodal
Project Funding:	Local
Roadway Classification:	N/A
Estimate Date:	November 2025

ITEM NO.	ITEM DESCRIPTION	SCHEDULE OF VALUES			
		UNIT	EST. QUAN	UNIT PRICE	TOTAL
201.4.1.A.1	Clearing and Grubbing	AC	0.20	$7,480	$1,477
201.4.1.C.1	Removal of Obstructions	LS	1	$4,000	$4,000
202.4.1.A.1	Excavation	CY	0	$45	$0
202.4.6.A.1	Borrow	CY	0	$50	$0
706.4.1.A.3	Standard Straight Curb	LF	0	$70	$0
706.4.1.A.5	Standard 6-inch Vertical Curb & Gutter	LF	0	$76	$0
706.4.1.E.1	Concrete Sidewalk, Thickness 4"	SF	0	$24	$0
706.4.1.H.1	Pedestrian Ramp w/ Detectable Warning Domes	EA	10	$2,700	$27,000
706.4.1.F.1	Concrete Driveway Approach	EA	0	$4,600	$0
808.4.1.A.1	Seal Coat	SY	0	$5.00	$0
1101.4.1.A.1	Traffic Signal	LS	0	$150,000	$0
1102.4.1.A.1	Street Light (Foundation, Conduit, and Junction Box Only)	EA	0	$7,500	$0
1104.4.1.A.1	Pavement Line Paint (2 coats)	LF	0	$1.75	$0
2050.4.1.C.1	Subgrade Separation Geotextile	SY	967	$2	$1,933
S-1	Asphalt and Base (2"AC/4"AB) - Local Residential	SF	0	$2	$0
S-2	Asphalt and Base (3"AC/6"AB) - Local Commercial/Industrial	SF	0	$4	$0
S-3	Asphalt and Base (3"AC/4"AB) - Minor Collector	SF	0	$3	$0
S-4	Asphalt and Base (3"AC/6"AB) - Local Commercial/Industrial	SF	0	$4	$0
S-5	Asphalt and Base (3"AC/6"AB) -Major Collector	SF	0	$4	$0
S-6	Asphalt and Base (4"AC/6"AB) - Minor Arterial	SF	0	$4	$0
S-7	Asphalt and Base (4"AC/6"AB) - Principle Arterial	SF	0	$4	$0
S-8	Asphalt and Base (2"AC/4"AB) - Multi-Use Trail	SF	87000	$2	$207,323
S-9	Roundabout - Single Lane	LS	0	$970,000	$0
S-10	Roundabout - Double Lane	LS	0	$2,200,000	$0
S-11	Conduit and Fiber Interconnect	LF	0	$160.00	$0
S-12	Railroad Crossing Improvements	LS	0	$0	$0
S-13	Structures	LS	0	$0	$0
S-14	Utility Relocations	LS	0	$0	$0
S-15	Storm Drainage (5%)	%	1	5%	$12,087
S-16	Miscellaneous Items (10%)	%	1	10%	$24,173
S-17	Survey (3%)	%	1	3%	$7,252
S-18	Temporary/Permanenet Erosion Control (4%)	%	1	4%	$9,669
S-19	Landscapping and Irrigation (4%)	%	1	4%	$9,669
S-20	Temporary Traffic Control (10%)	%	1	10%	$24,173
S-21	Mobilization (10%)	%	1	10%	$24,173
S-22	Right of Way - Full Acquisition	LS	0	$0	$0
S-23	Right of Way - Residential	SF	0	$18	$0
S-24	Right of Way - Commercial	SF	0	$14	$0
S-25	Right of Way - Industrial	SF	0	$8	$0
S-26	Planning, Engineering, and Administrative Costs	%	1	25%	$60,433
S-27	Construction Engineering and Inspection	%	1	15%	$36,260
				ANTICIPATED PROJECT COST	**$450,000**

ENGINEER'S OPINION OF PROBABLE COST

PROJECT:	**POLELINE AVE MULTI-MODAL PATHWAY**
Detailed Description:	Poleline Avenue Charleville Road to SH-41. Install sidewalk on south side where missing, install multi-modal pathway on north side
Project Code:	MM-30
Project Size:	Small
Project Timeline:	Multimodal
Project Funding:	Local
Roadway Classification:	N/A
Estimate Date:	November 2025

ITEM NO.	ITEM DESCRIPTION	SCHEDULE OF VALUES			
		UNIT	EST. QUAN	UNIT PRICE	TOTAL
201.4.1.A.1	Clearing and Grubbing	AC	0.33	$7,480	$2,468
201.4.1.C.1	Removal of Obstructions	LS	1	$2,000	$2,000
202.4.1.A.1	Excavation	CY	0	$45	$0
202.4.6.A.1	Borrow	CY	0	$50	$0
706.4.1.A.3	Standard Straight Curb	LF	0	$70	$0
706.4.1.A.5	Standard 6-inch Vertical Curb & Gutter	LF	0	$76	$0
706.4.1.E.1	Concrete Sidewalk, Thickness 4"	SF	2875	$24	$69,000
706.4.1.H.1	Pedestrian Ramp w/ Detectable Warning Domes	EA	0	$2,700	$0
706.4.1.F.1	Concrete Driveway Approach	EA	0	$4,600	$0
808.4.1.A.1	Seal Coat	SY	0	$5.00	$0
1101.4.1.A.1	Traffic Signal	LS	0	$150,000	$0
1102.4.1.A.1	Street Light (Foundation, Conduit, and Junction Box Only)	EA	0	$7,500	$0
1104.4.1.A.1	Pavement Line Paint (2 coats)	LF	0	$1.75	$0
2050.4.1.C.1	Subgrade Separation Geotextile	SY	128	$2	$256
S-1	Asphalt and Base (2"AC/4"AB) - Local Residential	SF	0	$2	$0
S-2	Asphalt and Base (3"AC/6"AB) - Local Commercial/Industrial	SF	0	$4	$0
S-3	Asphalt and Base (3"AC/4"AB) - Minor Collector	SF	0	$3	$0
S-4	Asphalt and Base (3"AC/6"AB) - Local Commercial/Industrial	SF	0	$4	$0
S-5	Asphalt and Base (3"AC/6"AB) -Major Collector	SF	0	$4	$0
S-6	Asphalt and Base (4"AC/6"AB) - Minor Arterial	SF	0	$4	$0
S-7	Asphalt and Base (4"AC/6"AB) - Principle Arterial	SF	0	$4	$0
S-8	Asphalt and Base (2"AC/4"AB) - Multi-Use Trail	SF	11500	$2	$27,405
S-9	Roundabout - Single Lane	LS	0	$970,000	$0
S-10	Roundabout - Double Lane	LS	0	$2,200,000	$0
S-11	Conduit and Fiber Interconnect	LF	0	$160.00	$0
S-12	Railroad Crossing Improvements	LS	0	$0	$0
S-13	Structures	LS	0	$0	$0
S-14	Utility Relocations	LS	0	$0	$0
S-15	Storm Drainage (5%)	%	1	5%	$5,056
S-16	Miscellaneous Items (10%)	%	1	10%	$10,113
S-17	Survey (3%)	%	1	3%	$3,034
S-18	Temporary/Permanenet Erosion Control (4%)	%	1	4%	$4,045
S-19	Landscapping and Irrigation (4%)	%	1	4%	$4,045
S-20	Temporary Traffic Control (10%)	%	1	10%	$10,113
S-21	Mobilization (10%)	%	1	10%	$10,113
S-22	Right of Way - Full Acquisition	LS	0	$0	$0
S-23	Right of Way - Residential	SF	0	$18	$0
S-24	Right of Way - Commercial	SF	0	$14	$0
S-25	Right of Way - Industrial	SF	0	$8	$0
S-26	Planning, Engineering, and Administrative Costs	%	1	25%	$25,282
S-27	Construction Engineering and Inspection	%	1	15%	$15,169
				ANTICIPATED PROJECT COST	**$189,000**



CITY OF POST FALLS

2025 TRANSPORTATION MASTER PLAN

Capacity Analysis Reports

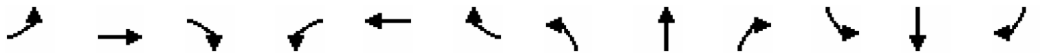
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	27	188	32	204	225	198	22	50	213	160	38	22
Future Volume (veh/h)	27	188	32	204	225	198	22	50	213	160	38	22
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
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	1885	1885	1885	1796	1796	1796	1796	1796	1796	1781	1781	1781
Adj Flow Rate, veh/h	29	200	34	217	239	211	23	53	227	170	40	23
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	1	1	1	7	7	7	7	7	7	8	8	8
Cap, veh/h	348	366	61	455	750	334	513	67	285	685	303	174
Arrive On Green	0.05	0.12	0.12	0.15	0.22	0.22	0.05	0.22	0.22	0.09	0.29	0.29
Sat Flow, veh/h	1795	3070	513	1711	3413	1522	1711	297	1271	3291	1061	610
Grp Volume(v), veh/h	29	115	119	217	239	211	23	0	280	170	0	63
Grp Sat Flow(s),veh/h/ln	1795	1791	1793	1711	1706	1522	1711	0	1568	1646	0	1672
Q Serve(g_s), s	0.7	3.1	3.2	5.2	3.0	6.5	0.5	0.0	8.7	1.9	0.0	1.4
Cycle Q Clear(g_c), s	0.7	3.1	3.2	5.2	3.0	6.5	0.5	0.0	8.7	1.9	0.0	1.4
Prop In Lane	1.00		0.29	1.00		1.00	1.00		0.81	1.00		0.37
Lane Grp Cap(c), veh/h	348	213	214	455	750	334	513	0	352	685	0	477
V/C Ratio(X)	0.08	0.54	0.56	0.48	0.32	0.63	0.04	0.00	0.80	0.25	0.00	0.13
Avail Cap(c_a), veh/h	850	596	596	761	1115	497	997	0	521	713	0	546
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	0.00	1.00
Uniform Delay (d), s/veh	17.9	21.3	21.4	14.5	16.8	18.2	13.8	0.0	18.8	13.6	0.0	13.7
Incr Delay (d2), s/veh	0.1	2.1	2.3	0.8	0.2	2.0	0.0	0.0	5.2	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	0.3	1.3	1.3	1.8	1.1	2.1	0.2	0.0	3.2	0.6	0.0	0.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	18.0	23.4	23.6	15.3	17.1	20.1	13.8	0.0	24.0	13.8	0.0	13.8
LnGrp LOS	B	C	C	B	B	C	B		C	B		B
Approach Vol, veh/h		263			667			303			233	
Approach Delay, s/veh		22.9			17.5			23.3			13.8	
Approach LOS		C			B			C			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.6	16.5	10.6	16.7	12.8	11.3	7.4	19.9
Change Period (Y+Rc), s	4.9	5.2	6.0	* 5.2	5.2	* 5.2	4.9	5.2
Max Green Setting (Gmax), s	17.1	16.8	5.0	* 17	16.8	* 17	17.1	16.8
Max Q Clear Time (g_c+I1), s	2.7	8.5	3.9	10.7	7.2	5.2	2.5	3.4
Green Ext Time (p_c), s	0.0	1.4	0.1	0.9	0.4	0.9	0.0	0.2

Intersection Summary	
HCM 7th Control Delay, s/veh	19.1
HCM 7th LOS	B

Notes

* HCM 7th computational engine requires equal clearance times for the phases crossing the barrier.



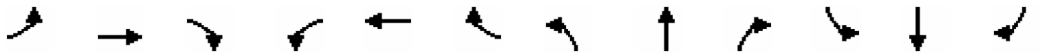
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	35	241	41	245	271	238	30	68	288	229	54	32
Future Volume (veh/h)	35	241	41	245	271	238	30	68	288	229	54	32
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
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	1885	1885	1885	1796	1796	1796	1796	1796	1796	1781	1781	1781
Adj Flow Rate, veh/h	37	256	44	261	288	253	32	72	306	244	57	34
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	1	1	1	7	7	7	7	7	7	8	8	8
Cap, veh/h	368	648	110	380	761	340	125	87	368	333	336	200
Arrive On Green	0.07	0.21	0.21	0.08	0.22	0.22	0.07	0.29	0.29	0.10	0.32	0.32
Sat Flow, veh/h	1795	3063	519	1711	3413	1522	1711	299	1269	3291	1046	624
Grp Volume(v), veh/h	37	148	152	261	288	253	32	0	378	244	0	91
Grp Sat Flow(s),veh/h/ln	1795	1791	1792	1711	1706	1522	1711	0	1568	1646	0	1669
Q Serve(g_s), s	1.0	4.9	5.0	5.3	4.9	10.6	1.2	0.0	15.5	4.9	0.0	2.7
Cycle Q Clear(g_c), s	1.0	4.9	5.0	5.3	4.9	10.6	1.2	0.0	15.5	4.9	0.0	2.7
Prop In Lane	1.00		0.29	1.00		1.00	1.00		0.81	1.00		0.37
Lane Grp Cap(c), veh/h	368	379	379	380	761	340	125	0	455	333	0	536
V/C Ratio(X)	0.10	0.39	0.40	0.69	0.38	0.74	0.26	0.00	0.83	0.73	0.00	0.17
Avail Cap(c_a), veh/h	388	959	960	380	1803	804	147	0	888	369	0	989
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	0.00	1.00
Uniform Delay (d), s/veh	18.1	23.3	23.3	23.1	22.6	24.9	30.1	0.0	22.8	30.0	0.0	16.7
Incr Delay (d2), s/veh	0.1	0.7	0.7	5.1	0.3	3.3	1.1	0.0	4.0	6.6	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	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	2.0	2.1	1.8	1.9	3.9	0.5	0.0	5.7	2.2	0.0	1.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	18.2	23.9	24.0	28.2	23.0	28.1	31.2	0.0	26.8	36.6	0.0	16.9
LnGrp LOS	B	C	C	C	C	C	C		C	D		B
Approach Vol, veh/h		337			802			410			335	
Approach Delay, s/veh		23.3			26.3			27.2			31.2	
Approach LOS		C			C			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.2	21.0	12.2	25.2	11.0	20.2	10.1	27.4
Change Period (Y+Rc), s	5.2	5.7	5.3	* 5.3	5.7	* 5.7	5.1	5.3
Max Green Setting (Gmax), s	5.8	36.3	7.7	* 39	5.3	* 37	5.9	40.7
Max Q Clear Time (g_c+I1), s	3.0	12.6	6.9	17.5	7.3	7.0	3.2	4.7
Green Ext Time (p_c), s	0.0	2.7	0.1	2.4	0.0	1.7	0.0	0.5

Intersection Summary	
HCM 7th Control Delay, s/veh	26.8
HCM 7th LOS	C

Notes

* HCM 7th computational engine requires equal clearance times for the phases crossing the barrier.



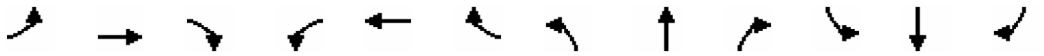
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	40	278	47	275	303	267	35	80	342	279	66	38
Future Volume (veh/h)	40	278	47	275	303	267	35	80	342	279	66	38
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
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	1885	1885	1885	1796	1796	1796	1796	1796	1796	1781	1781	1781
Adj Flow Rate, veh/h	43	296	50	293	322	284	37	85	364	297	70	40
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	1	1	1	7	7	7	7	7	7	8	8	8
Cap, veh/h	335	699	117	349	811	362	108	98	418	321	389	222
Arrive On Green	0.06	0.23	0.23	0.07	0.24	0.24	0.06	0.33	0.33	0.10	0.37	0.37
Sat Flow, veh/h	1795	3071	513	1711	3413	1522	1711	297	1271	3291	1064	608
Grp Volume(v), veh/h	43	171	175	293	322	284	37	0	449	297	0	110
Grp Sat Flow(s),veh/h/ln	1795	1791	1793	1711	1706	1522	1711	0	1568	1646	0	1672
Q Serve(g_s), s	1.4	6.4	6.6	5.3	6.3	13.8	1.6	0.0	21.3	7.1	0.0	3.5
Cycle Q Clear(g_c), s	1.4	6.4	6.6	5.3	6.3	13.8	1.6	0.0	21.3	7.1	0.0	3.5
Prop In Lane	1.00		0.29	1.00		1.00	1.00		0.81	1.00		0.36
Lane Grp Cap(c), veh/h	335	408	408	349	811	362	108	0	515	321	0	611
V/C Ratio(X)	0.13	0.42	0.43	0.84	0.40	0.78	0.34	0.00	0.87	0.92	0.00	0.18
Avail Cap(c_a), veh/h	353	836	837	349	1571	701	128	0	773	321	0	863
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	0.00	1.00
Uniform Delay (d), s/veh	20.5	26.0	26.1	28.6	25.3	28.2	35.4	0.0	24.9	35.3	0.0	17.0
Incr Delay (d2), s/veh	0.2	0.7	0.7	16.3	0.3	3.8	1.8	0.0	7.2	31.4	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	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	2.7	2.8	4.5	2.5	5.1	0.7	0.0	8.3	4.1	0.0	1.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	20.7	26.7	26.8	44.9	25.6	31.9	37.2	0.0	32.1	66.7	0.0	17.1
LnGrp LOS	C	C	C	D	C	C	D		C	E		B
Approach Vol, veh/h		389			899			486			407	
Approach Delay, s/veh		26.1			33.9			32.5			53.3	
Approach LOS		C			C			C			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.2	24.4	13.0	31.2	11.0	23.6	10.1	34.1
Change Period (Y+Rc), s	5.2	5.7	5.3	* 5.3	5.7	* 5.7	5.1	5.3
Max Green Setting (Gmax), s	5.8	36.3	7.7	* 39	5.3	* 37	5.9	40.7
Max Q Clear Time (g_c+I1), s	3.4	15.8	9.1	23.3	7.3	8.6	3.6	5.5
Green Ext Time (p_c), s	0.0	3.0	0.0	2.7	0.0	2.0	0.0	0.6

Intersection Summary	
HCM 7th Control Delay, s/veh	35.8
HCM 7th LOS	D

Notes

* HCM 7th computational engine requires equal clearance times for the phases crossing the barrier.



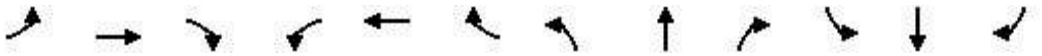
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	51	353	60	334	368	324	46	106	449	378	90	52
Future Volume (veh/h)	51	353	60	334	368	324	46	106	449	378	90	52
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
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	1885	1885	1885	1796	1796	1796	1796	1796	1796	1781	1781	1781
Adj Flow Rate, veh/h	54	376	64	355	391	345	49	113	478	402	96	55
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	1	1	1	7	7	7	7	7	7	8	8	8
Cap, veh/h	277	649	110	325	908	405	81	110	464	393	467	268
Arrive On Green	0.05	0.21	0.21	0.10	0.27	0.27	0.05	0.37	0.37	0.12	0.44	0.44
Sat Flow, veh/h	1795	3066	517	1711	3413	1522	1711	300	1268	3291	1063	609
Grp Volume(v), veh/h	54	218	222	355	391	345	49	0	591	402	0	151
Grp Sat Flow(s),veh/h/ln	1795	1791	1792	1711	1706	1522	1711	0	1568	1646	0	1672
Q Serve(g_s), s	2.4	11.6	11.8	10.3	10.1	22.9	3.0	0.0	38.9	12.7	0.0	5.9
Cycle Q Clear(g_c), s	2.4	11.6	11.8	10.3	10.1	22.9	3.0	0.0	38.9	12.7	0.0	5.9
Prop In Lane	1.00		0.29	1.00		1.00	1.00		0.81	1.00		0.36
Lane Grp Cap(c), veh/h	277	379	379	325	908	405	81	0	573	393	0	735
V/C Ratio(X)	0.20	0.58	0.58	1.09	0.43	0.85	0.61	0.00	1.03	1.02	0.00	0.21
Avail Cap(c_a), veh/h	290	619	620	325	1324	591	159	0	573	393	0	735
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	0.00	1.00
Uniform Delay (d), s/veh	30.2	37.7	37.7	36.6	32.4	37.1	49.7	0.0	33.8	46.9	0.0	18.4
Incr Delay (d2), s/veh	0.3	1.4	1.4	77.3	0.3	7.9	7.2	0.0	45.9	51.5	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	1.1	5.2	5.3	10.7	4.1	9.2	1.4	0.0	21.4	7.9	0.0	2.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	30.6	39.0	39.2	113.8	32.7	45.0	56.9	0.0	79.6	98.4	0.0	18.5
LnGrp LOS	C	D	D	F	C	D	E		F	F		B
Approach Vol, veh/h		494			1091			640			553	
Approach Delay, s/veh		38.2			63.0			77.9			76.6	
Approach LOS		D			E			E			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.2	34.0	18.0	44.2	16.0	28.2	10.1	52.1
Change Period (Y+Rc), s	5.2	5.7	5.3	* 5.3	5.7	* 5.7	5.1	5.3
Max Green Setting (Gmax), s	5.8	41.3	12.7	* 39	10.3	* 37	9.9	41.7
Max Q Clear Time (g_c+I1), s	4.4	24.9	14.7	40.9	12.3	13.8	5.0	7.9
Green Ext Time (p_c), s	0.0	3.4	0.0	0.0	0.0	2.5	0.0	0.9

Intersection Summary	
HCM 7th Control Delay, s/veh	64.7
HCM 7th LOS	E

Notes

* HCM 7th 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)	51	353	60	334	368	324	46	106	449	378	90	52
Future Volume (veh/h)	51	353	60	334	368	324	46	106	449	378	90	52
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
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	1885	1885	1885	1796	1796	1796	1796	1796	1796	1781	1781	1781
Adj Flow Rate, veh/h	54	376	64	355	391	345	49	113	478	402	96	55
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	1	1	1	7	7	7	7	7	7	8	8	8
Cap, veh/h	327	681	115	377	953	425	525	621	526	831	371	213
Arrive On Green	0.06	0.22	0.22	0.11	0.28	0.28	0.06	0.35	0.35	0.06	0.35	0.35
Sat Flow, veh/h	1795	3066	517	1711	3413	1522	1711	1796	1522	3291	1063	609
Grp Volume(v), veh/h	54	218	222	355	391	345	49	113	478	402	0	151
Grp Sat Flow(s),veh/h/ln	1795	1791	1792	1711	1706	1522	1711	1796	1522	1646	0	1672
Q Serve(g_s), s	1.9	9.1	9.2	9.3	7.9	17.8	1.5	3.7	25.2	5.1	0.0	5.4
Cycle Q Clear(g_c), s	1.9	9.1	9.2	9.3	7.9	17.8	1.5	3.7	25.2	5.1	0.0	5.4
Prop In Lane	1.00		0.29	1.00		1.00	1.00		1.00	1.00		0.36
Lane Grp Cap(c), veh/h	327	398	398	377	953	425	525	621	526	831	0	584
V/C Ratio(X)	0.17	0.55	0.56	0.94	0.41	0.81	0.09	0.18	0.91	0.48	0.00	0.26
Avail Cap(c_a), veh/h	327	772	773	377	1646	734	527	811	687	831	0	754
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	0.00	1.00
Uniform Delay (d), s/veh	22.5	29.0	29.1	27.7	24.7	28.3	15.5	19.2	26.3	18.0	0.0	19.6
Incr Delay (d2), s/veh	0.2	1.2	1.2	31.8	0.3	3.8	0.1	0.1	13.4	0.4	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	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	3.9	4.0	6.1	3.1	6.6	0.6	1.5	10.4	0.5	0.0	2.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	22.7	30.2	30.3	59.6	25.0	32.1	15.6	19.4	39.7	18.5	0.0	19.8
LnGrp LOS	C	C	C	E	C	C	B	B	D	B		B
Approach Vol, veh/h		494			1091			640			553	
Approach Delay, s/veh		29.4			38.5			34.3			18.9	
Approach LOS		C			D			C			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.2	29.2	10.4	34.4	15.0	24.4	10.1	34.7
Change Period (Y+Rc), s	5.2	5.7	5.3	* 5.3	5.7	* 5.7	5.1	5.3
Max Green Setting (Gmax), s	5.0	40.6	5.1	* 38	9.3	* 36	5.1	38.0
Max Q Clear Time (g_c+I1), s	3.9	19.8	7.1	27.2	11.3	11.2	3.5	7.4
Green Ext Time (p_c), s	0.0	3.7	0.0	1.9	0.0	2.6	0.0	0.8

Intersection Summary	
HCM 7th Control Delay, s/veh	32.0
HCM 7th LOS	C

Notes

* HCM 7th computational engine requires equal clearance times for the phases crossing the barrier.

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	125	2	58	1	1	1	34	129	0	2	196	119
Future Vol, veh/h	125	2	58	1	1	1	34	129	0	2	196	119
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
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	97	97	97	97	97	97	97	97	97	97	97	97
Heavy Vehicles, %	2	2	2	0	0	0	1	1	1	1	1	1
Mvmt Flow	129	2	60	1	1	1	35	133	0	2	202	123

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	410	409	202	410	532	133	325	0	0	133	0	0
Stage 1	206	206	-	203	203	-	-	-	-	-	-	-
Stage 2	204	203	-	207	329	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.1	6.5	6.2	4.11	-	-	4.11	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.5	4	3.3	2.209	-	-	2.209	-	-
Pot Cap-1 Maneuver	552	532	839	555	456	922	1241	-	-	1458	-	-
Stage 1	796	731	-	803	737	-	-	-	-	-	-	-
Stage 2	798	733	-	799	650	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	533	515	839	497	442	922	1241	-	-	1458	-	-
Mov Cap-2 Maneuver	533	515	-	497	442	-	-	-	-	-	-	-
Stage 1	794	730	-	779	715	-	-	-	-	-	-	-
Stage 2	772	711	-	739	649	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	12.55	11.47	1.67	0.05
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	375	-	-	533	821	560	18	-	-
HCM Lane V/C Ratio	0.028	-	-	0.242	0.075	0.006	0.001	-	-
HCM Ctrl Dly (s/v)	8	0	-	13.9	9.7	11.5	7.5	0	-
HCM Lane LOS	A	A	-	B	A	B	A	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0.9	0.2	0	0	-	-

Intersection	
Intersection Delay, s/veh	16.1
Intersection LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	32	37	32	27	51	9	57	400	36	7	236	20
Future Vol, veh/h	32	37	32	27	51	9	57	400	36	7	236	20
Peak Hour Factor	0.95	0.95	0.92	0.92	0.95	0.95	0.92	0.92	0.92	0.95	0.92	0.95
Heavy Vehicles, %	0	0	2	2	0	0	2	2	2	0	2	0
Mvmt Flow	34	39	35	29	54	9	62	435	39	7	257	21
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay, s/veh	10.4	10.5	20.5	11.9
HCM LOS	B	B	C	B

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	12%	32%	31%	3%
Vol Thru, %	81%	37%	59%	90%
Vol Right, %	7%	32%	10%	8%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	493	101	87	263
LT Vol	57	32	27	7
Through Vol	400	37	51	236
RT Vol	36	32	9	20
Lane Flow Rate	536	107	93	285
Geometry Grp	1	1	1	1
Degree of Util (X)	0.736	0.18	0.16	0.412
Departure Headway (Hd)	4.942	6.018	6.212	5.207
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	734	595	575	690
Service Time	2.976	4.071	4.268	3.248
HCM Lane V/C Ratio	0.73	0.18	0.162	0.413
HCM Control Delay, s/veh	20.5	10.4	10.5	11.9
HCM Lane LOS	C	B	B	B
HCM 95th-tile Q	6.6	0.7	0.6	2

Intersection	
Intersection Delay, s/veh	27.5
Intersection LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	38	45	38	32	61	11	67	471	42	8	278	24
Future Vol, veh/h	38	45	38	32	61	11	67	471	42	8	278	24
Peak Hour Factor	0.95	0.95	0.92	0.92	0.95	0.95	0.92	0.92	0.92	0.95	0.92	0.95
Heavy Vehicles, %	0	0	2	2	0	0	2	2	2	0	2	0
Mvmt Flow	40	47	41	35	64	12	73	512	46	8	302	25
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay, s/veh	11.7	11.7	40.4	14.7
HCM LOS	B	B	E	B

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	12%	31%	31%	3%
Vol Thru, %	81%	37%	59%	90%
Vol Right, %	7%	31%	11%	8%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	580	121	104	310
LT Vol	67	38	32	8
Through Vol	471	45	61	278
RT Vol	42	38	11	24
Lane Flow Rate	630	129	111	336
Geometry Grp	1	1	1	1
Degree of Util (X)	0.919	0.238	0.211	0.522
Departure Headway (Hd)	5.245	6.664	6.878	5.599
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	687	542	525	638
Service Time	3.321	4.67	4.883	3.693
HCM Lane V/C Ratio	0.917	0.238	0.211	0.527
HCM Control Delay, s/veh	40.4	11.7	11.7	14.7
HCM Lane LOS	E	B	B	B
HCM 95th-tile Q	12.2	0.9	0.8	3

Intersection	
Intersection Delay, s/veh	107.7
Intersection LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	51	60	51	42	80	15	87	612	55	10	364	31
Future Vol, veh/h	51	60	51	42	80	15	87	612	55	10	364	31
Peak Hour Factor	0.95	0.95	0.92	0.92	0.95	0.95	0.92	0.92	0.92	0.95	0.92	0.95
Heavy Vehicles, %	0	0	2	2	0	0	2	2	2	0	2	0
Mvmt Flow	54	63	55	46	84	16	95	665	60	11	396	33
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay, s/veh	15.1	14.8	187	26.8
HCM LOS	C	B	F	D

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	12%	31%	31%	2%
Vol Thru, %	81%	37%	58%	90%
Vol Right, %	7%	31%	11%	8%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	754	162	137	405
LT Vol	87	51	42	10
Through Vol	612	60	80	364
RT Vol	55	51	15	31
Lane Flow Rate	820	172	146	439
Geometry Grp	1	1	1	1
Degree of Util (X)	1.35	0.344	0.3	0.746
Departure Headway (Hd)	5.929	7.996	8.276	6.686
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	615	453	437	544
Service Time	4.009	5.996	6.276	4.686
HCM Lane V/C Ratio	1.333	0.38	0.334	0.807
HCM Control Delay, s/veh	187	15.1	14.8	26.8
HCM Lane LOS	F	C	B	D
HCM 95th-tile Q	34.9	1.5	1.2	6.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	51	60	51	42	80	15	87	612	55	10	364	31
Future Volume (veh/h)	51	60	51	42	80	15	87	612	55	10	364	31
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
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	1900	1900	1870	1870	1900	1900	1870	1870	1870	1900	1870	1900
Adj Flow Rate, veh/h	54	63	55	46	84	16	95	665	60	11	396	33
Peak Hour Factor	0.95	0.95	0.92	0.92	0.95	0.95	0.92	0.92	0.92	0.95	0.92	0.95
Percent Heavy Veh, %	0	0	2	2	0	0	2	2	2	0	2	0
Cap, veh/h	175	110	81	175	173	29	170	828	71	95	948	77
Arrive On Green	0.15	0.15	0.15	0.15	0.15	0.15	0.57	0.57	0.57	0.57	0.57	0.57
Sat Flow, veh/h	421	742	547	419	1161	194	132	1464	126	13	1675	137
Grp Volume(v), veh/h	172	0	0	146	0	0	820	0	0	440	0	0
Grp Sat Flow(s),veh/h/ln	1710	0	0	1774	0	0	1722	0	0	1825	0	0
Q Serve(g_s), s	0.8	0.0	0.0	0.0	0.0	0.0	8.6	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	3.8	0.0	0.0	3.0	0.0	0.0	16.1	0.0	0.0	5.7	0.0	0.0
Prop In Lane	0.31		0.32	0.32		0.11	0.12		0.07	0.02		0.07
Lane Grp Cap(c), veh/h	367	0	0	376	0	0	1070	0	0	1120	0	0
V/C Ratio(X)	0.47	0.00	0.00	0.39	0.00	0.00	0.77	0.00	0.00	0.39	0.00	0.00
Avail Cap(c_a), veh/h	735	0	0	754	0	0	1396	0	0	1468	0	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)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	16.8	0.0	0.0	16.5	0.0	0.0	7.3	0.0	0.0	5.2	0.0	0.0
Incr Delay (d2), s/veh	0.9	0.0	0.0	0.7	0.0	0.0	1.9	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	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.4	0.0	0.0	1.1	0.0	0.0	4.1	0.0	0.0	1.3	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	17.8	0.0	0.0	17.2	0.0	0.0	9.2	0.0	0.0	5.4	0.0	0.0
LnGrp LOS	B			B			A			A		
Approach Vol, veh/h		172			146			820			440	
Approach Delay, s/veh		17.8			17.2			9.2			5.4	
Approach LOS		B			B			A			A	

Timer - Assigned Phs	2	4	6	8
Phs Duration (G+Y+Rc), s	29.8	12.2	29.8	12.2
Change Period (Y+Rc), s	6.0	6.0	6.0	6.0
Max Green Setting (Gmax), s	32.0	16.0	32.0	16.0
Max Q Clear Time (g_c+I1), s	18.1	5.8	7.7	5.0
Green Ext Time (p_c), s	5.7	0.6	2.9	0.5

Intersection Summary	
HCM 7th Control Delay, s/veh	9.8
HCM 7th LOS	A

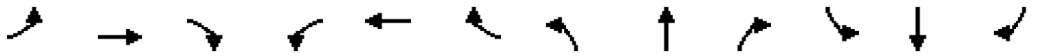
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	118	0	358	167	819	0	0	505	389
Future Volume (veh/h)	0	0	0	118	0	358	167	819	0	0	505	389
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Lane Width Adj.				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)				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
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1885	1885	1885	1870	1870	0	0	1885	1885
Adj Flow Rate, veh/h				124	0	377	176	862	0	0	532	409
Peak Hour Factor				0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %				1	1	1	2	2	0	0	1	1
Cap, veh/h				511	0	455	368	1949	0	0	758	583
Arrive On Green				0.28	0.00	0.28	0.09	0.55	0.00	0.00	0.39	0.39
Sat Flow, veh/h				1795	0	1598	1781	3647	0	0	2022	1482
Grp Volume(v), veh/h				124	0	377	176	862	0	0	494	447
Grp Sat Flow(s),veh/h/ln				1795	0	1598	1781	1777	0	0	1791	1618
Q Serve(g_s), s				3.3	0.0	13.8	3.3	9.0	0.0	0.0	14.4	14.4
Cycle Q Clear(g_c), s				3.3	0.0	13.8	3.3	9.0	0.0	0.0	14.4	14.4
Prop In Lane				1.00		1.00	1.00		0.00	0.00		0.92
Lane Grp Cap(c), veh/h				511	0	455	368	1949	0	0	704	637
V/C Ratio(X)				0.24	0.00	0.83	0.48	0.44	0.00	0.00	0.70	0.70
Avail Cap(c_a), veh/h				1274	0	1134	807	4301	0	0	1455	1315
HCM Platoon Ratio				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	1.00	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				17.1	0.0	20.9	11.3	8.4	0.0	0.0	15.8	15.8
Incr Delay (d2), s/veh				0.2	0.0	4.0	1.0	0.2	0.0	0.0	1.3	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
%ile BackOfQ(50%),veh/ln				1.2	0.0	4.9	1.2	3.0	0.0	0.0	5.6	5.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh				17.4	0.0	24.8	12.2	8.5	0.0	0.0	17.1	17.3
LnGrp LOS				B		C	B	A			B	B
Approach Vol, veh/h					501			1038			941	
Approach Delay, s/veh					23.0			9.2			17.2	
Approach LOS					C			A			B	

Timer - Assigned Phs	1	2	4	6
Phs Duration (G+Y+Rc), s	9.7	29.1	23.5	38.8
Change Period (Y+Rc), s	4.2	* 4.6	5.8	4.6
Max Green Setting (Gmax), s	20.8	* 51	44.2	75.4
Max Q Clear Time (g_c+I1), s	5.3	16.4	15.8	11.0
Green Ext Time (p_c), s	0.4	8.1	2.0	8.2

Intersection Summary	
HCM 7th Control Delay, s/veh	15.0
HCM 7th LOS	B

Notes

* HCM 7th computational engine requires equal clearance times for the phases crossing the barrier.



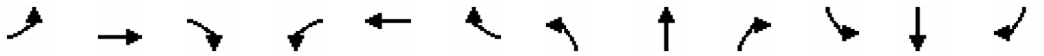
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	279	734	61	211	444	155	372	168	138	132	108	114
Future Volume (veh/h)	279	734	61	211	444	155	372	168	138	132	108	114
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.98	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	1885	1885	1885	1885	1870	1885	1870	1885	1870	1870	1870
Adj Flow Rate, veh/h	303	757	63	218	458	168	384	183	142	143	117	124
Peak Hour Factor	0.92	0.97	0.97	0.97	0.97	0.92	0.97	0.92	0.97	0.92	0.92	0.92
Percent Heavy Veh, %	2	1	1	1	1	2	1	2	1	2	2	2
Cap, veh/h	420	971	81	337	621	226	370	228	177	297	185	196
Arrive On Green	0.15	0.29	0.29	0.11	0.24	0.24	0.09	0.24	0.24	0.08	0.22	0.22
Sat Flow, veh/h	1781	3347	278	1795	2572	936	1795	969	752	1781	831	881
Grp Volume(v), veh/h	303	405	415	218	318	308	384	0	325	143	0	241
Grp Sat Flow(s),veh/h/ln	1781	1791	1835	1795	1791	1717	1795	0	1720	1781	0	1712
Q Serve(g_s), s	9.8	16.3	16.3	7.1	12.9	13.0	7.4	0.0	14.0	4.8	0.0	10.0
Cycle Q Clear(g_c), s	9.8	16.3	16.3	7.1	12.9	13.0	7.4	0.0	14.0	4.8	0.0	10.0
Prop In Lane	1.00		0.15	1.00		0.55	1.00		0.44	1.00		0.51
Lane Grp Cap(c), veh/h	420	519	532	337	433	415	370	0	405	297	0	381
V/C Ratio(X)	0.72	0.78	0.78	0.65	0.73	0.74	1.04	0.00	0.80	0.48	0.00	0.63
Avail Cap(c_a), veh/h	424	766	784	337	668	640	370	0	753	297	0	727
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	0.00	1.00
Uniform Delay (d), s/veh	19.2	25.6	25.6	20.5	27.5	27.5	28.5	0.0	28.3	21.9	0.0	27.6
Incr Delay (d2), s/veh	5.9	3.1	3.0	4.3	2.4	2.6	56.9	0.0	3.7	1.2	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	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.4	6.9	7.1	3.2	5.5	5.4	9.3	0.0	6.0	2.0	0.0	4.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	25.1	28.7	28.6	24.8	29.9	30.2	85.4	0.0	32.1	23.1	0.0	29.4
LnGrp LOS	C	C	C	C	C	C	F		C	C		C
Approach Vol, veh/h		1123			844			709			384	
Approach Delay, s/veh		27.7			28.7			60.9			27.1	
Approach LOS		C			C			E			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	14.0	28.5	13.0	23.1	17.8	24.7	12.0	24.1
Change Period (Y+Rc), s	5.7	* 5.7	5.6	5.6	6.0	5.7	5.6	5.6
Max Green Setting (Gmax), s	8.3	* 34	7.4	33.4	12.0	29.3	6.4	34.4
Max Q Clear Time (g_c+I1), s	9.1	18.3	9.4	12.0	11.8	15.0	6.8	16.0
Green Ext Time (p_c), s	0.0	4.5	0.0	1.4	0.0	3.3	0.0	2.0

Intersection Summary	
HCM 7th Control Delay, s/veh	35.6
HCM 7th LOS	D

Notes

* HCM 7th computational engine requires equal clearance times for the phases crossing the barrier.



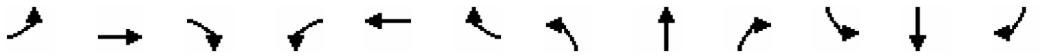
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	321	843	70	234	492	172	436	197	162	151	124	131
Future Volume (veh/h)	321	843	70	234	492	172	436	197	162	151	124	131
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.98	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	1885	1885	1885	1885	1870	1885	1870	1885	1870	1870	1870
Adj Flow Rate, veh/h	349	869	72	241	507	187	449	214	167	164	135	142
Peak Hour Factor	0.92	0.97	0.97	0.97	0.97	0.92	0.97	0.92	0.97	0.92	0.92	0.92
Percent Heavy Veh, %	2	1	1	1	1	2	1	2	1	2	2	2
Cap, veh/h	404	1005	83	309	649	238	438	276	216	311	160	169
Arrive On Green	0.16	0.30	0.30	0.12	0.25	0.25	0.19	0.29	0.29	0.09	0.19	0.19
Sat Flow, veh/h	1781	3349	277	1795	2565	941	1795	966	754	1781	835	878
Grp Volume(v), veh/h	349	465	476	241	353	341	449	0	381	164	0	277
Grp Sat Flow(s),veh/h/ln	1781	1791	1835	1795	1791	1716	1795	0	1720	1781	0	1712
Q Serve(g_s), s	15.4	27.0	27.0	10.7	20.2	20.4	20.4	0.0	22.4	8.0	0.0	17.2
Cycle Q Clear(g_c), s	15.4	27.0	27.0	10.7	20.2	20.4	20.4	0.0	22.4	8.0	0.0	17.2
Prop In Lane	1.00		0.15	1.00		0.55	1.00		0.44	1.00		0.51
Lane Grp Cap(c), veh/h	404	537	551	309	453	434	438	0	492	311	0	329
V/C Ratio(X)	0.86	0.86	0.86	0.78	0.78	0.79	1.02	0.00	0.77	0.53	0.00	0.84
Avail Cap(c_a), veh/h	456	628	643	348	525	503	438	0	663	333	0	519
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	0.00	1.00
Uniform Delay (d), s/veh	25.9	36.4	36.4	28.3	38.3	38.3	29.6	0.0	36.1	31.9	0.0	42.9
Incr Delay (d2), s/veh	14.4	10.8	10.6	9.7	6.4	7.0	49.5	0.0	4.0	1.4	0.0	7.1
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	7.9	13.1	13.4	5.3	9.5	9.2	15.2	0.0	9.9	3.6	0.0	7.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	40.3	47.2	47.0	38.1	44.7	45.3	79.0	0.0	40.1	33.3	0.0	50.0
LnGrp LOS	D	D	D	D	D	D	F		D	C		D
Approach Vol, veh/h		1290			935			830			441	
Approach Delay, s/veh		45.2			43.2			61.1			43.8	
Approach LOS		D			D			E			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	18.6	38.7	26.0	26.7	23.8	33.6	15.7	37.1
Change Period (Y+Rc), s	5.7	* 5.7	5.6	5.6	6.0	5.7	5.6	5.6
Max Green Setting (Gmax), s	15.3	* 39	20.4	33.4	21.0	32.3	11.4	42.4
Max Q Clear Time (g_c+I1), s	12.7	29.0	22.4	19.2	17.4	22.4	10.0	24.4
Green Ext Time (p_c), s	0.2	4.0	0.0	1.4	0.4	3.0	0.1	2.4

Intersection Summary	
HCM 7th Control Delay, s/veh	48.3
HCM 7th LOS	D

Notes

* HCM 7th 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)	403	1061	88	280	590	206	563	255	209	190	156	165
Future Volume (veh/h)	403	1061	88	280	590	206	563	255	209	190	156	165
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.98	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	1885	1885	1885	1885	1870	1885	1870	1885	1870	1870	1870
Adj Flow Rate, veh/h	438	1094	91	289	608	224	580	277	215	207	170	179
Peak Hour Factor	0.92	0.97	0.97	0.97	0.97	0.92	0.97	0.92	0.97	0.92	0.92	0.92
Percent Heavy Veh, %	2	1	1	1	1	2	1	2	1	2	2	2
Cap, veh/h	357	1039	86	240	628	231	433	313	243	273	184	194
Arrive On Green	0.17	0.31	0.31	0.10	0.24	0.24	0.20	0.32	0.32	0.10	0.22	0.22
Sat Flow, veh/h	1781	3348	278	1795	2563	943	1795	969	752	1781	834	878
Grp Volume(v), veh/h	438	585	600	289	425	407	580	0	492	207	0	349
Grp Sat Flow(s),veh/h/ln	1781	1791	1835	1795	1791	1715	1795	0	1721	1781	0	1712
Q Serve(g_s), s	23.0	42.6	42.6	14.3	32.2	32.3	27.4	0.0	37.2	12.3	0.0	27.4
Cycle Q Clear(g_c), s	23.0	42.6	42.6	14.3	32.2	32.3	27.4	0.0	37.2	12.3	0.0	27.4
Prop In Lane	1.00		0.15	1.00		0.55	1.00		0.44	1.00		0.51
Lane Grp Cap(c), veh/h	357	556	570	240	439	420	433	0	556	273	0	378
V/C Ratio(X)	1.23	1.05	1.05	1.21	0.97	0.97	1.34	0.00	0.89	0.76	0.00	0.92
Avail Cap(c_a), veh/h	357	556	570	240	439	420	433	0	595	273	0	417
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	0.00	1.00
Uniform Delay (d), s/veh	42.3	47.3	47.3	40.3	51.3	51.3	39.1	0.0	44.0	38.6	0.0	52.3
Incr Delay (d2), s/veh	123.9	52.6	52.5	125.4	34.7	36.0	167.2	0.0	14.3	11.5	0.0	24.7
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	24.5	26.8	27.5	14.6	18.5	17.9	32.3	0.0	18.1	6.3	0.0	14.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	166.2	99.9	99.8	165.7	86.0	87.3	206.3	0.0	58.3	50.1	0.0	77.0
LnGrp LOS	F	F	F	F	F	F	F		E	D		E
Approach Vol, veh/h		1623			1121			1072			556	
Approach Delay, s/veh		117.7			107.0			138.4			67.0	
Approach LOS		F			F			F			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	20.0	48.3	33.0	35.9	29.0	39.3	19.0	49.9
Change Period (Y+Rc), s	5.7	* 5.7	5.6	5.6	6.0	5.7	5.6	5.6
Max Green Setting (Gmax), s	14.3	* 43	27.4	33.4	23.0	33.3	13.4	47.4
Max Q Clear Time (g_c+I1), s	16.3	44.6	29.4	29.4	25.0	34.3	14.3	39.2
Green Ext Time (p_c), s	0.0	0.0	0.0	0.8	0.0	0.0	0.0	2.2

Intersection Summary	
HCM 7th Control Delay, s/veh	113.6
HCM 7th LOS	F

Notes

* HCM 7th 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)	403	1061	88	280	590	206	563	255	209	190	156	165
Future Volume (veh/h)	403	1061	88	280	590	206	563	255	209	190	156	165
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.98	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	1885	1885	1885	1885	1870	1885	1870	1885	1870	1870	1870
Adj Flow Rate, veh/h	438	1094	91	289	608	224	580	277	215	207	170	179
Peak Hour Factor	0.92	0.97	0.97	0.97	0.97	0.92	0.97	0.92	0.97	0.92	0.92	0.92
Percent Heavy Veh, %	2	1	1	1	1	2	1	2	1	2	2	2
Cap, veh/h	774	1244	103	333	989	364	594	367	308	229	354	300
Arrive On Green	0.10	0.37	0.37	0.12	0.39	0.39	0.06	0.20	0.20	0.05	0.19	0.19
Sat Flow, veh/h	3456	3348	278	1795	2563	943	3483	1870	1569	1781	1870	1585
Grp Volume(v), veh/h	438	585	600	289	425	407	580	277	215	207	170	179
Grp Sat Flow(s),veh/h/ln	1728	1791	1835	1795	1791	1715	1742	1870	1569	1781	1870	1585
Q Serve(g_s), s	6.7	27.0	27.0	8.6	16.9	16.9	5.4	12.4	11.3	4.8	7.2	9.1
Cycle Q Clear(g_c), s	6.7	27.0	27.0	8.6	16.9	16.9	5.4	12.4	11.3	4.8	7.2	9.1
Prop In Lane	1.00		0.15	1.00		0.55	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	774	666	682	333	691	662	594	367	308	229	354	300
V/C Ratio(X)	0.57	0.88	0.88	0.87	0.61	0.62	0.98	0.75	0.70	0.90	0.48	0.60
Avail Cap(c_a), veh/h	880	721	738	383	735	704	594	719	603	229	706	598
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	16.0	25.9	26.0	19.3	21.9	21.9	35.3	33.5	33.1	34.7	32.0	32.8
Incr Delay (d2), s/veh	0.7	11.4	11.3	17.1	1.4	1.5	30.8	3.2	2.9	34.7	1.0	1.9
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	2.5	12.8	13.1	4.8	6.9	6.7	6.3	5.9	4.5	4.3	3.3	3.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	16.7	37.4	37.3	36.4	23.3	23.4	66.1	36.7	36.0	69.3	33.0	34.6
LnGrp LOS	B	D	D	D	C	C	E	D	D	E	C	C
Approach Vol, veh/h		1623			1121			1072			556	
Approach Delay, s/veh		31.7			26.7			52.4			47.0	
Approach LOS		C			C			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	16.5	38.6	11.0	22.4	15.3	39.8	10.4	23.0
Change Period (Y+Rc), s	5.7	* 5.7	5.6	5.6	6.0	5.7	5.6	5.6
Max Green Setting (Gmax), s	13.3	* 36	5.4	33.4	12.0	36.3	4.8	34.0
Max Q Clear Time (g_c+I1), s	10.6	29.0	7.4	11.1	8.7	18.9	6.8	14.4
Green Ext Time (p_c), s	0.2	3.9	0.0	1.5	0.5	4.9	0.0	2.4

Intersection Summary	
HCM 7th Control Delay, s/veh	37.5
HCM 7th LOS	D

Notes

* HCM 7th computational engine requires equal clearance times for the phases crossing the barrier.

Intersection	
Int Delay, s/veh	1

Movement	EBU	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations							
Traffic Vol, veh/h	1	433	23	24	487	24	23
Future Vol, veh/h	1	433	23	24	487	24	23
Conflicting Peds, #/hr	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	-	None	-	None	-	None
Storage Length	-	-	0	300	-	0	-
Veh in Median Storage, #	-	0	-	-	0	0	-
Grade, %	-	0	-	-	0	0	-
Peak Hour Factor	93	93	93	93	93	93	93
Heavy Vehicles, %	1	1	1	2	2	0	0
Mvmt Flow	1	466	25	26	524	26	25

Major/Minor	Major1			Major2		Minor1	
Conflicting Flow All	-	0	0	490	0	1041	466
Stage 1	-	-	-	-	-	466	-
Stage 2	-	-	-	-	-	575	-
Critical Hdwy	-	-	-	4.12	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	-	2.218	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	-	1073	-	257	601
Stage 1	-	-	-	-	-	636	-
Stage 2	-	-	-	-	-	567	-
Platoon blocked, %		-	-		-		
Mov Cap-1 Maneuver	-	-	-	1073	-	251	601
Mov Cap-2 Maneuver	-	-	-	-	-	251	-
Stage 1	-	-	-	-	-	636	-
Stage 2	-	-	-	-	-	553	-

Approach	EB	WB	NB
HCM Ctrl Dly, s/v		0.4	16.98
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	351	-	-	1073	-
HCM Lane V/C Ratio	0.144	-	-	0.024	-
HCM Ctrl Dly (s/v)	17	-	-	8.4	-
HCM Lane LOS	C	-	-	A	-
HCM 95th %tile Q(veh)	0.5	-	-	0.1	-

Intersection	
Int Delay, s/veh	1.6

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	600	32	32	643	34	33
Future Vol, veh/h	600	32	32	643	34	33
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	300	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	1	1	2	2	0	0
Mvmt Flow	645	34	34	691	37	35

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	680	0	1405	645
Stage 1	-	-	-	-	645	-
Stage 2	-	-	-	-	760	-
Critical Hdwy	-	-	4.12	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.218	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	913	-	155	476
Stage 1	-	-	-	-	526	-
Stage 2	-	-	-	-	465	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	913	-	149	476
Mov Cap-2 Maneuver	-	-	-	-	149	-
Stage 1	-	-	-	-	526	-
Stage 2	-	-	-	-	448	-

Approach	EB	WB	NB
HCM Ctrl Dly, s/v	0	0.43	28.29
HCM LOS			D

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	225	-	-	913	-
HCM Lane V/C Ratio	0.32	-	-	0.038	-
HCM Ctrl Dly (s/v)	28.3	-	-	9.1	-
HCM Lane LOS	D	-	-	A	-
HCM 95th %tile Q(veh)	1.3	-	-	0.1	-

Intersection	
Int Delay, s/veh	2.7

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	719	38	37	754	41	40
Future Vol, veh/h	719	38	37	754	41	40
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	300	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	1	1	2	2	0	0
Mvmt Flow	773	41	40	811	44	43

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	814	0	1663	773
Stage 1	-	-	-	-	773	-
Stage 2	-	-	-	-	890	-
Critical Hdwy	-	-	4.12	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.218	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	813	-	108	402
Stage 1	-	-	-	-	459	-
Stage 2	-	-	-	-	404	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	813	-	103	402
Mov Cap-2 Maneuver	-	-	-	-	103	-
Stage 1	-	-	-	-	459	-
Stage 2	-	-	-	-	385	-

Approach	EB	WB	NB
HCM Ctrl Dly, s/v	0	0.45	50.33
HCM LOS			F

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	162	-	-	813	-
HCM Lane V/C Ratio	0.537	-	-	0.049	-
HCM Ctrl Dly (s/v)	50.3	-	-	9.7	-
HCM Lane LOS	F	-	-	A	-
HCM 95th %tile Q(veh)	2.7	-	-	0.2	-

Intersection	
Int Delay, s/veh	0.2

Movement	EBU	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations													
Traffic Vol, veh/h	1	10	957	51	48	977	0	56	238	53	69	244	178
Future Vol, veh/h	1	10	957	51	48	977	0	56	238	53	69	244	178
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	100	-	-	300	-	-	100	-	-	100	-	-
Veh in Median Storage, #	-	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	93	92	93	93	93	93	92	93	92	93	92	92	92
Heavy Vehicles, %	1	2	1	1	2	2	2	0	2	0	2	2	2
Mvmt Flow	1	11	1029	55	52	1051	0	60	259	57	75	265	193

Major/Minor	Major1				Major2			Minor1			Minor2		
Conflicting Flow All	-	1051	0	0	1084	0	0	2365	2234	1056	2334	2262	1051
Stage 1	-	-	-	-	-	-	-	1078	1080	-	1154	1154	-
Stage 2	-	-	-	-	-	-	-	1286	1154	-	1180	1108	-
Critical Hdwy	-	4.12	-	-	4.12	-	-	7.1	6.52	6.2	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	-	6.1	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	6.1	5.52	-	6.12	5.52	-
Follow-up Hdwy	-	2.218	-	-	2.218	-	-	3.5	4.018	3.3	3.518	4.018	3.318
Pot Cap-1 Maneuver	-	663	-	-	644	-	-	~ 25	~ 43	276	~ 26	~ 41	276
Stage 1	-	-	-	-	-	-	-	267	294	-	240	272	-
Stage 2	-	-	-	-	-	-	-	204	272	-	232	286	-
Platoon blocked, %			-	-		-	-						
Mov Cap-1 Maneuver	~ -3	~ -3	-	-	644	-	-	-	~ 39	276	-	~ 38	276
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	~ 39	-	-	~ 38	-
Stage 1	-	-	-	-	-	-	-	267	294	-	221	~ 250	-
Stage 2	-	-	-	-	-	-	-	-	~ 250	-	~ 22	286	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v		0.52		
HCM LOS			-	-

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	-	46	+	-	-	644	-	-	-	59
HCM Lane V/C Ratio	-	6.81	-	-	-	0.08	-	-	-	7.749
HCM Ctrl Dly (s/v)	-	$ 2785.3	-	-	-	11.1	-	-	-	$ 3171.3
HCM Lane LOS	-	F	-	-	-	B	-	-	-	F
HCM 95th %tile Q(veh)	-	36.9	-	-	-	0.3	-	-	-	53.2

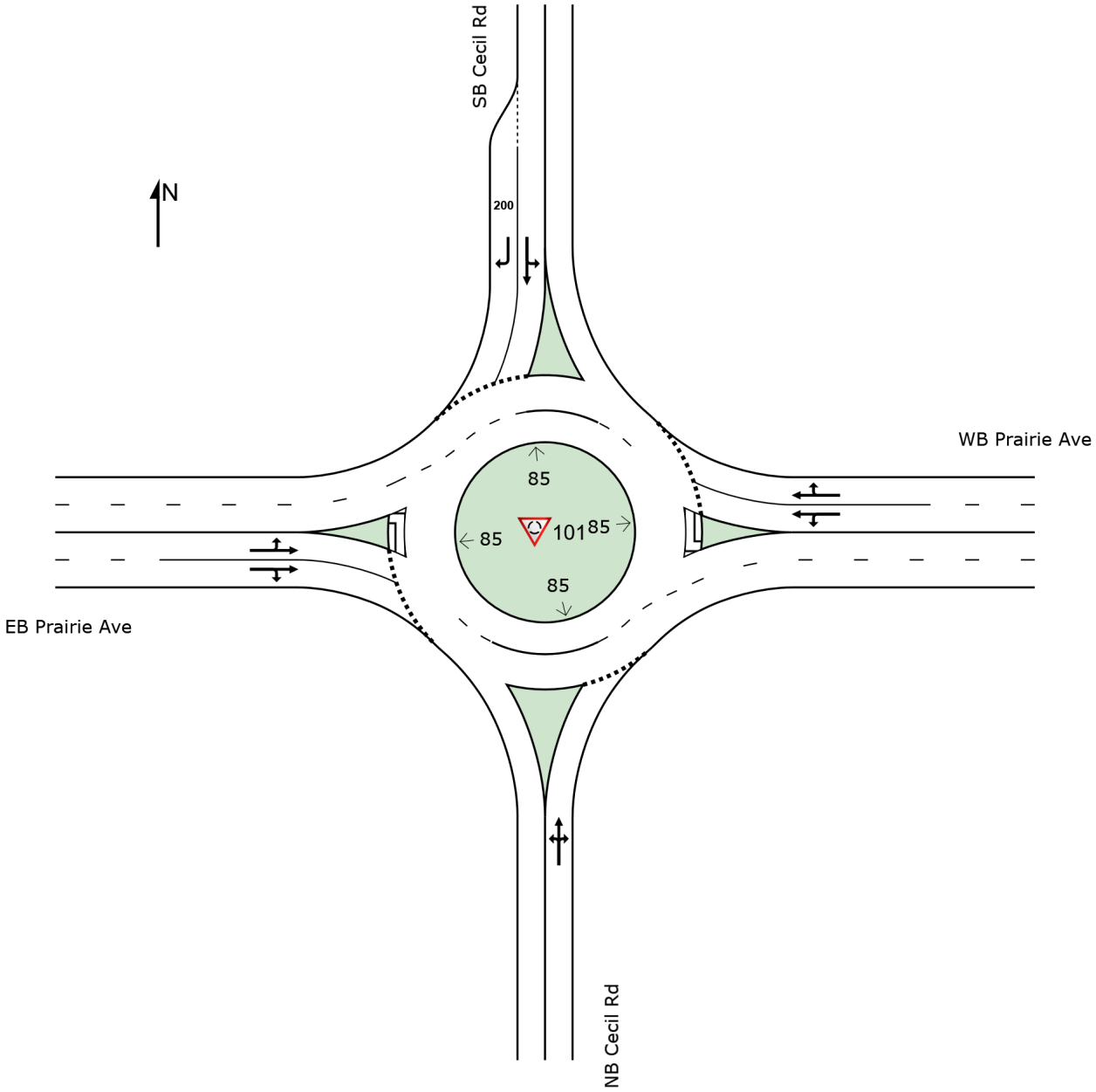
Notes	
~: Volume exceeds capacity	$: Delay exceeds 300s
+: Computation Not Defined	*: All major volume in platoon

SITE LAYOUT

Site: 101 [Cecil_Prairie_2045_PM (Site Folder: General)]

New Site
Site Category: (None)
Roundabout

Layout pictures are schematic functional drawings reflecting input data. They are not design drawings.



MOVEMENT SUMMARY

Site: 101 [Cecil_Prairie_2045_PM (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

New Site
Site Category: (None)
Roundabout

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] ft	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed mph
South: NB Cecil Rd															
3	L2	All MCs	61	3.0	61	3.0	0.761	30.0	LOS C	6.4	163.4	0.89	1.42	1.66	16.6
8	T1	All MCs	259	3.0	259	3.0	0.761	30.0	LOS C	6.4	163.4	0.89	1.42	1.66	15.5
18	R2	All MCs	58	3.0	58	3.0	0.761	30.0	LOS C	6.4	163.4	0.89	1.42	1.66	16.6
Approach			377	3.0	377	3.0	0.761	30.0	LOS C	6.4	163.4	0.89	1.42	1.66	15.8
East: WB Prairie Ave															
1	L2	All MCs	52	3.0	52	3.0	0.544	10.7	LOS B	5.0	127.1	0.75	0.58	0.81	17.9
6	T1	All MCs	1062	3.0	1062	3.0	0.544	10.1	LOS B	5.0	127.1	0.75	0.54	0.78	19.4
16	R2	All MCs	1	3.0	1	3.0	0.544	9.7	LOS A	4.8	122.1	0.74	0.51	0.75	18.0
Approach			1115	3.0	1115	3.0	0.544	10.2	LOS B	5.0	127.1	0.75	0.54	0.78	19.3
North: SB Cecil Rd															
7	L2	All MCs	75	3.0	75	3.0	0.685	24.7	LOS C	4.9	126.6	0.86	1.25	1.44	17.3
4	T1	All MCs	265	3.0	265	3.0	0.685	24.7	LOS C	4.9	126.6	0.86	1.25	1.44	16.1
14	R2	All MCs	193	3.0	193	3.0	0.491	19.9	LOS B	2.6	65.4	0.80	0.99	1.09	18.0
Approach			534	3.0	534	3.0	0.685	22.9	LOS C	4.9	126.6	0.84	1.16	1.31	16.9
West: EB Prairie Ave															
5	L2	All MCs	11	3.0	11	3.0	0.568	11.7	LOS B	5.7	147.0	0.80	0.74	0.96	17.7
2	T1	All MCs	1040	3.0	1040	3.0	0.568	11.1	LOS B	5.7	147.0	0.79	0.70	0.93	19.3
12	R2	All MCs	55	3.0	55	3.0	0.568	10.6	LOS B	5.7	146.9	0.79	0.67	0.90	17.9
Approach			1107	3.0	1107	3.0	0.568	11.1	LOS B	5.7	147.0	0.79	0.70	0.93	19.2
All Vehicles			3133	3.0	3133	3.0	0.761	15.1	LOS B	6.4	163.4	0.80	0.81	1.03	18.3

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Options tab).
Roundabout LOS Method: Same as Signalised Intersections.
Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.
LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).
Roundabout Capacity Model: SIDRA HCM.
Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

SIDRA INTERSECTION 9.1 | Copyright © 2000-2024 Akcelik and Associates Pty Ltd | sidrasolutions.com

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	2	7	1	2	4	205	16	3	161	2
Future Vol, veh/h	0	0	2	7	1	2	4	205	16	3	161	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	88	88	88	88	88	88	88	88	88	88	88	88
Heavy Vehicles, %	0	0	0	0	0	0	3	3	3	4	4	4
Mvmt Flow	0	0	2	8	1	2	5	233	18	3	183	2

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	317	451	184	441	443	126	185	0	0	251	0	0
Stage 1	191	191	-	251	251	-	-	-	-	-	-	-
Stage 2	126	260	-	190	192	-	-	-	-	-	-	-
Critical Hdwy	7.3	6.5	6.2	7.3	6.5	6.9	4.145	-	-	4.16	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.5	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2285	-	-	2.238	-	-
Pot Cap-1 Maneuver	628	507	863	517	512	908	1381	-	-	1300	-	-
Stage 1	816	746	-	737	703	-	-	-	-	-	-	-
Stage 2	870	696	-	817	745	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	621	503	863	513	509	908	1381	-	-	1300	-	-
Mov Cap-2 Maneuver	621	503	-	513	509	-	-	-	-	-	-	-
Stage 1	813	744	-	734	700	-	-	-	-	-	-	-
Stage 2	864	694	-	812	743	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	9.18	11.55	0.14	0.14
HCM LOS	A	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1381	-	-	863	561	32	-	-
HCM Lane V/C Ratio	0.003	-	-	0.003	0.02	0.003	-	-
HCM Ctrl Dly (s/v)	7.6	-	-	9.2	11.5	7.8	0	-
HCM Lane LOS	A	-	-	A	B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0	0.1	0	-	-

Intersection	
Intersection Delay, s/veh	18.5
Intersection LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	53	80	10	52	97	306	12	147	43	188	164	45
Future Vol, veh/h	53	80	10	52	97	306	12	147	43	188	164	45
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles, %	0	0	0	0	0	0	1	1	1	0	0	0
Mvmt Flow	57	86	11	56	104	329	13	158	46	202	176	48
Number of Lanes	0	1	0	0	1	1	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	2	1
HCM Control Delay, s/veh	13.4	15.7	14.2	25.7
HCM LOS	B	C	B	D

Lane	NBLn1	EBLn1	WBLn1	WBLn2	SBLn1
Vol Left, %	6%	37%	35%	0%	47%
Vol Thru, %	73%	56%	65%	0%	41%
Vol Right, %	21%	7%	0%	100%	11%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	202	143	149	306	397
LT Vol	12	53	52	0	188
Through Vol	147	80	97	0	164
RT Vol	43	10	0	306	45
Lane Flow Rate	217	154	160	329	427
Geometry Grp	2	4a	5	5	2
Degree of Util (X)	0.403	0.306	0.317	0.569	0.747
Departure Headway (Hd)	6.674	7.172	7.121	6.226	6.299
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	539	500	505	579	572
Service Time	4.736	5.244	4.875	3.98	4.349
HCM Lane V/C Ratio	0.403	0.308	0.317	0.568	0.747
HCM Control Delay, s/veh	14.2	13.4	13.2	16.9	25.7
HCM Lane LOS	B	B	B	C	D
HCM 95th-tile Q	1.9	1.3	1.3	3.6	6.5

Intersection	
Intersection Delay, s/veh	37.2
Intersection LOS	E

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	68	103	13	66	122	383	13	161	47	218	189	52
Future Vol, veh/h	68	103	13	66	122	383	13	161	47	218	189	52
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles, %	0	0	0	0	0	0	1	1	1	0	0	0
Mvmt Flow	73	111	14	71	131	412	14	173	51	234	203	56
Number of Lanes	0	1	0	0	1	1	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	2	1
HCM Control Delay, s/veh	18.4	28.8	19.3	63.9
HCM LOS	C	D	C	F

Lane	NBLn1	EBLn1	WBLn1	WBLn2	SBLn1
Vol Left, %	6%	37%	35%	0%	47%
Vol Thru, %	73%	56%	65%	0%	41%
Vol Right, %	21%	7%	0%	100%	11%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	221	184	188	383	459
LT Vol	13	68	66	0	218
Through Vol	161	103	122	0	189
RT Vol	47	13	0	383	52
Lane Flow Rate	238	198	202	412	494
Geometry Grp	2	4a	5	5	2
Degree of Util (X)	0.521	0.459	0.451	0.815	0.986
Departure Headway (Hd)	7.894	8.358	8.025	7.122	7.19
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	456	429	449	507	503
Service Time	5.971	6.442	5.79	4.886	5.247
HCM Lane V/C Ratio	0.522	0.462	0.45	0.813	0.982
HCM Control Delay, s/veh	19.3	18.4	17.3	34.4	63.9
HCM Lane LOS	C	C	C	D	F
HCM 95th-tile Q	2.9	2.4	2.3	7.9	13.1

Intersection	
Intersection Delay, s/veh	125.5
Intersection LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	99	150	19	92	171	536	15	190	55	276	241	66
Future Vol, veh/h	99	150	19	92	171	536	15	190	55	276	241	66
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles, %	0	0	0	0	0	0	1	1	1	0	0	0
Mvmt Flow	106	161	20	99	184	576	16	204	59	297	259	71
Number of Lanes	0	1	0	0	1	1	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	2	1
HCM Control Delay, s/veh	35.2	114.2	32	224.2
HCM LOS	E	F	D	F

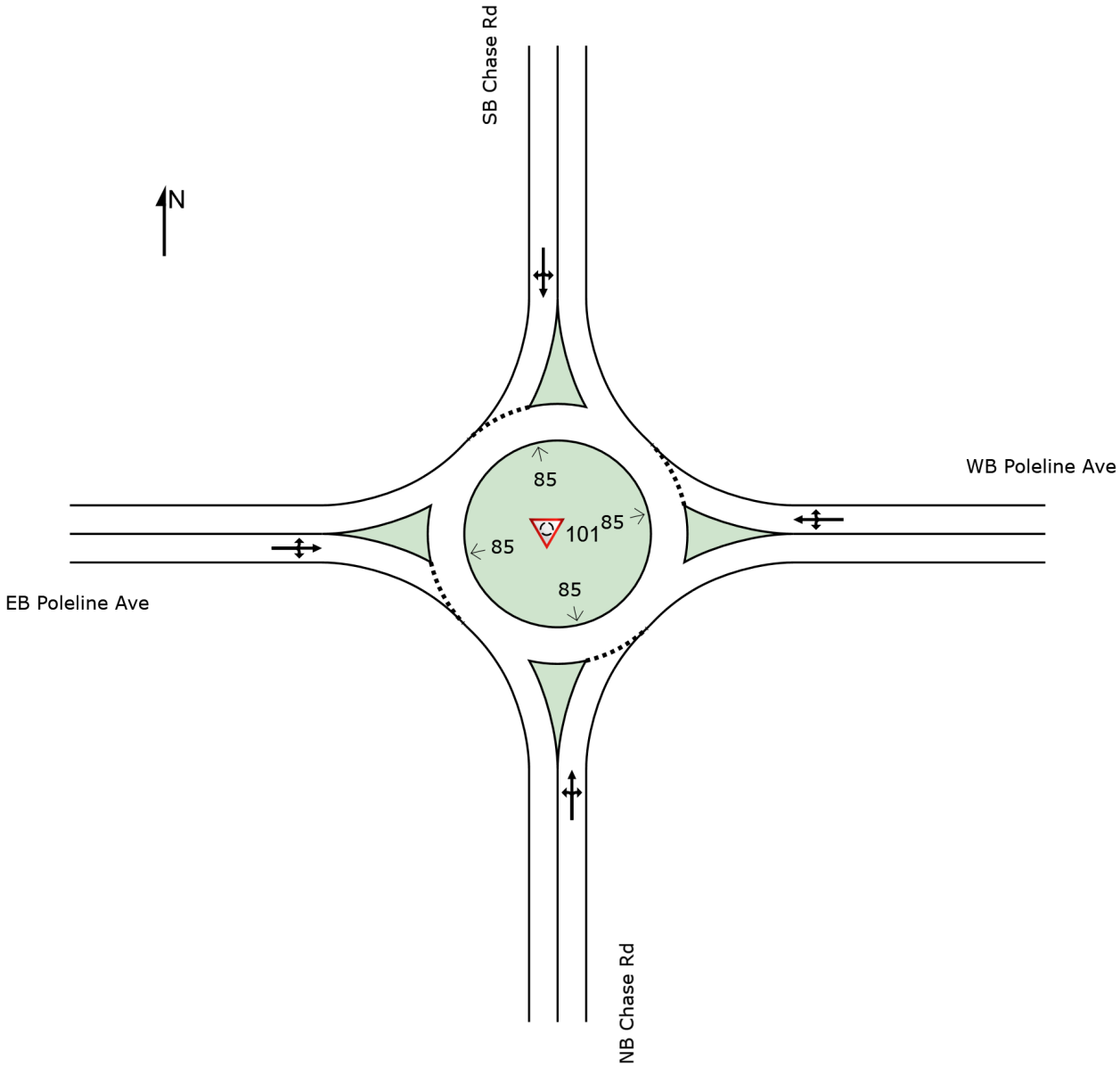
Lane	NBLn1	EBLn1	WBLn1	WBLn2	SBLn1
Vol Left, %	6%	37%	35%	0%	47%
Vol Thru, %	73%	56%	65%	0%	41%
Vol Right, %	21%	7%	0%	100%	11%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	260	268	263	536	583
LT Vol	15	99	92	0	276
Through Vol	190	150	171	0	241
RT Vol	55	19	0	536	66
Lane Flow Rate	280	288	283	576	627
Geometry Grp	2	4a	5	5	2
Degree of Util (X)	0.679	0.71	0.679	1.243	1.416
Departure Headway (Hd)	10.109	10.398	9.732	8.817	8.5
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	361	352	373	415	433
Service Time	8.109	8.398	7.432	6.517	6.5
HCM Lane V/C Ratio	0.776	0.818	0.759	1.388	1.448
HCM Control Delay, s/veh	32	35.2	30.7	155.2	224.2
HCM Lane LOS	D	E	D	F	F
HCM 95th-tile Q	4.8	5.2	4.8	21.3	29.6

SITE LAYOUT

Site: 101 [Chase_Poleline_2045_PM (Site Folder: General)]

New Site
Site Category: (None)
Roundabout

Layout pictures are schematic functional drawings reflecting input data. They are not design drawings.



SIDRA INTERSECTION 9.1 | Copyright © 2000-2024 Akcelik and Associates Pty Ltd | sidrasolutions.com
Organisation: J.U.B ENGINEERS, INC. | Licence: PLUS / 1PC | Created: Thursday, July 3, 2025 10:59:05 AM
Project: \\jub.com\Central\Clients\ID\PostFallsCity\Projects\07-23-040_TMP\Planning\Traffic\Sidra\2045Build\Chase_Poleline.sip9

MOVEMENT SUMMARY

Site: 101 [Chase_Poleline_2045_PM (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

New Site
Site Category: (None)
Roundabout

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] ft	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed mph
South: NB Chase Rd															
3	L2	All MCs	16	3.0	16	3.0	0.384	9.7	LOS A	2.5	64.3	0.76	0.59	0.76	18.7
8	T1	All MCs	207	3.0	207	3.0	0.384	9.7	LOS A	2.5	64.3	0.76	0.59	0.76	19.2
18	R2	All MCs	60	3.0	60	3.0	0.384	9.7	LOS A	2.5	64.3	0.76	0.59	0.76	18.7
Approach			283	3.0	283	3.0	0.384	9.7	LOS A	2.5	64.3	0.76	0.59	0.76	19.1
East: WB Poleline Ave															
1	L2	All MCs	100	3.0	100	3.0	0.941	35.8	LOS D	32.7	837.7	1.00	2.31	2.43	15.4
6	T1	All MCs	186	3.0	186	3.0	0.941	35.8	LOS D	32.7	837.7	1.00	2.31	2.43	15.4
16	R2	All MCs	583	3.0	583	3.0	0.941	35.8	LOS D	32.7	837.7	1.00	2.31	2.43	15.7
Approach			868	3.0	868	3.0	0.941	35.8	LOS D	32.7	837.7	1.00	2.31	2.43	15.6
North: SB Chase Rd															
7	L2	All MCs	300	3.0	300	3.0	0.692	15.3	LOS B	10.4	266.5	0.87	0.94	1.20	17.8
4	T1	All MCs	262	3.0	262	3.0	0.692	15.3	LOS B	10.4	266.5	0.87	0.94	1.20	17.8
14	R2	All MCs	72	3.0	72	3.0	0.692	15.3	LOS B	10.4	266.5	0.87	0.94	1.20	17.8
Approach			634	3.0	634	3.0	0.692	15.3	LOS B	10.4	266.5	0.87	0.94	1.20	17.8
West: EB Poleline Ave															
5	L2	All MCs	108	3.0	108	3.0	0.465	12.9	LOS B	3.7	95.3	0.88	0.81	1.00	18.6
2	T1	All MCs	163	3.0	163	3.0	0.465	12.9	LOS B	3.7	95.3	0.88	0.81	1.00	18.2
12	R2	All MCs	21	3.0	21	3.0	0.465	12.9	LOS B	3.7	95.3	0.88	0.81	1.00	18.2
Approach			291	3.0	291	3.0	0.465	12.9	LOS B	3.7	95.3	0.88	0.81	1.00	18.4
All Vehicles			2076	3.0	2076	3.0	0.941	22.8	LOS C	32.7	837.7	0.91	1.45	1.63	17.0

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Options tab).
Roundabout LOS Method: Same as Signalised Intersections.
Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.
LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).
Roundabout Capacity Model: SIDRA HCM.
Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

SIDRA INTERSECTION 9.1 | Copyright © 2000-2024 Akcelik and Associates Pty Ltd | sidrasolutions.com

Intersection	
Int Delay, s/veh	4.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	20	25	33	22	24	20	33	618	44	8	461	17
Future Vol, veh/h	20	25	33	22	24	20	33	618	44	8	461	17
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	-	-	120	-	-	85	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	89	89	89	89	89	89	89	89	89	89	89	89
Heavy Vehicles, %	0	0	0	4	4	4	1	1	1	1	1	1
Mvmt Flow	22	28	37	25	27	22	37	694	49	9	518	19

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	980	1363	528	1343	1348	372	537	0	0	744	0	0
Stage 1	546	546	-	793	793	-	-	-	-	-	-	-
Stage 2	435	818	-	550	555	-	-	-	-	-	-	-
Critical Hdwy	7.3	6.5	6.2	7.36	6.56	6.96	4.115	-	-	4.115	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.56	5.56	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.5	5.5	-	6.16	5.56	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.538	4.038	3.338	2.2095	-	-	2.2095	-	-
Pot Cap-1 Maneuver	219	149	555	118	148	621	1035	-	-	867	-	-
Stage 1	526	522	-	345	395	-	-	-	-	-	-	-
Stage 2	575	393	-	514	508	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	164	142	555	85	141	621	1035	-	-	867	-	-
Mov Cap-2 Maneuver	164	142	-	85	141	-	-	-	-	-	-	-
Stage 1	520	516	-	333	381	-	-	-	-	-	-	-
Stage 2	497	379	-	449	503	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	32.12	38.88	0.41	0.15
HCM LOS	D	E		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1035	-	-	218	85	218	867	-	-
HCM Lane V/C Ratio	0.036	-	-	0.401	0.291	0.227	0.01	-	-
HCM Ctrl Dly (s/v)	8.6	-	-	32.1	64.1	26.3	9.2	-	-
HCM Lane LOS	A	-	-	D	F	D	A	-	-
HCM 95th %tile Q(veh)	0.1	-	-	1.8	1.1	0.8	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	7	41	21	38	50	13	27	518	112	9	373	11
Future Vol, veh/h	7	41	21	38	50	13	27	518	112	9	373	11
Conflicting Peds, #/hr	0	0	2	3	0	1	0	0	1	1	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	284	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	96	96	96	96	96	96	96	96	96	96	96	96
Heavy Vehicles, %	0	0	0	4	4	4	1	1	1	0	0	0
Mvmt Flow	7	43	22	40	52	14	28	540	117	9	389	11

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1036	1127	397	1028	1016	542	400	0	0	657	0	0
Stage 1	413	413	-	597	597	-	-	-	-	-	-	-
Stage 2	623	714	-	432	419	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.14	6.54	6.24	4.11	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.14	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.14	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.536	4.036	3.336	2.209	-	-	2.2	-	-
Pot Cap-1 Maneuver	212	206	657	210	236	537	1164	-	-	940	-	-
Stage 1	620	597	-	486	488	-	-	-	-	-	-	-
Stage 2	477	438	-	598	587	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	152	196	655	152	224	536	1164	-	-	939	-	-
Mov Cap-2 Maneuver	152	196	-	152	224	-	-	-	-	-	-	-
Stage 1	612	589	-	467	469	-	-	-	-	-	-	-
Stage 2	397	421	-	528	579	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	26.31	40.39	0.34	0.2
HCM LOS	D	E		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	89	-	-	240	203	41	-	-
HCM Lane V/C Ratio	0.024	-	-	0.3	0.518	0.01	-	-
HCM Ctrl Dly (s/v)	8.2	0	-	26.3	40.4	8.9	0	-
HCM Lane LOS	A	A	-	D	E	A	A	-
HCM 95th %tile Q(veh)	0.1	-	-	1.2	2.7	0	-	-

Intersection	
Int Delay, s/veh	11.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↰	↱		↕	
Traffic Vol, veh/h	9	50	26	47	61	16	32	605	131	10	408	13
Future Vol, veh/h	9	50	26	47	61	16	32	605	131	10	408	13
Conflicting Peds, #/hr	0	0	2	3	0	1	0	0	1	1	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	284	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	96	96	96	96	96	96	96	96	96	96	96	96
Heavy Vehicles, %	0	0	0	4	4	4	1	1	1	0	0	0
Mvmt Flow	9	52	27	49	64	17	33	630	136	10	425	14

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1182	1287	435	1173	1157	632	439	0	0	768	0	0
Stage 1	453	453	-	698	698	-	-	-	-	-	-	-
Stage 2	730	834	-	475	459	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.14	6.54	6.24	4.11	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.14	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.14	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.536	4.036	3.336	2.209	-	-	2.2	-	-
Pot Cap-1 Maneuver	168	166	626	168	195	477	1127	-	-	855	-	-
Stage 1	591	574	-	428	439	-	-	-	-	-	-	-
Stage 2	417	386	-	567	563	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	100	154	624	101	181	476	1127	-	-	855	-	-
Mov Cap-2 Maneuver	100	154	-	101	181	-	-	-	-	-	-	-
Stage 1	581	564	-	405	416	-	-	-	-	-	-	-
Stage 2	323	365	-	483	554	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	40.58	102.08	0.35	0.21
HCM LOS	E	F		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	90	-	-	187	148	42	-	-
HCM Lane V/C Ratio	0.03	-	-	0.474	0.871	0.012	-	-
HCM Ctrl Dly (s/v)	8.3	0	-	40.6	102.1	9.3	0	-
HCM Lane LOS	A	A	-	E	F	A	A	-
HCM 95th %tile Q(veh)	0.1	-	-	2.3	5.9	0	-	-

Intersection	
Int Delay, s/veh	147.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↰	↱		↕	
Traffic Vol, veh/h	12	68	35	64	84	22	41	779	169	12	476	15
Future Vol, veh/h	12	68	35	64	84	22	41	779	169	12	476	15
Conflicting Peds, #/hr	0	0	2	3	0	1	0	0	1	1	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	284	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	96	96	96	96	96	96	96	96	96	96	96	96
Heavy Vehicles, %	0	0	0	4	4	4	1	1	1	0	0	0
Mvmt Flow	13	71	36	67	88	23	43	811	176	13	496	16

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1470	1603	507	1457	1434	813	511	0	0	989	0	0
Stage 1	529	529	-	898	898	-	-	-	-	-	-	-
Stage 2	942	1074	-	559	536	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.14	6.54	6.24	4.11	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.14	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.14	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.536	4.036	3.336	2.209	-	-	2.2	-	-
Pot Cap-1 Maneuver	106	107	570	106	132	375	1059	-	-	707	-	-
Stage 1	537	531	-	331	355	-	-	-	-	-	-	-
Stage 2	318	299	-	510	520	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	24	94	568	~ 24	117	375	1059	-	-	707	-	-
Mov Cap-2 Maneuver	24	94	-	~ 24	117	-	-	-	-	-	-	-
Stage 1	524	518	-	300	322	-	-	-	-	-	-	-
Stage 2	197	271	-	401	507	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	290.01	$ 1340.12	0.35	0.24
HCM LOS	F	F		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	90	-	-	90	49	43	-	-
HCM Lane V/C Ratio	0.04	-	-	1.328	3.596	0.018	-	-
HCM Ctrl Dly (s/v)	8.5	0	-	299	$ 1340.1	10.2	0	-
HCM Lane LOS	A	A	-	F	F	B	A	-
HCM 95th %tile Q(veh)	0.1	-	-	8.8	19.4	0.1	-	-

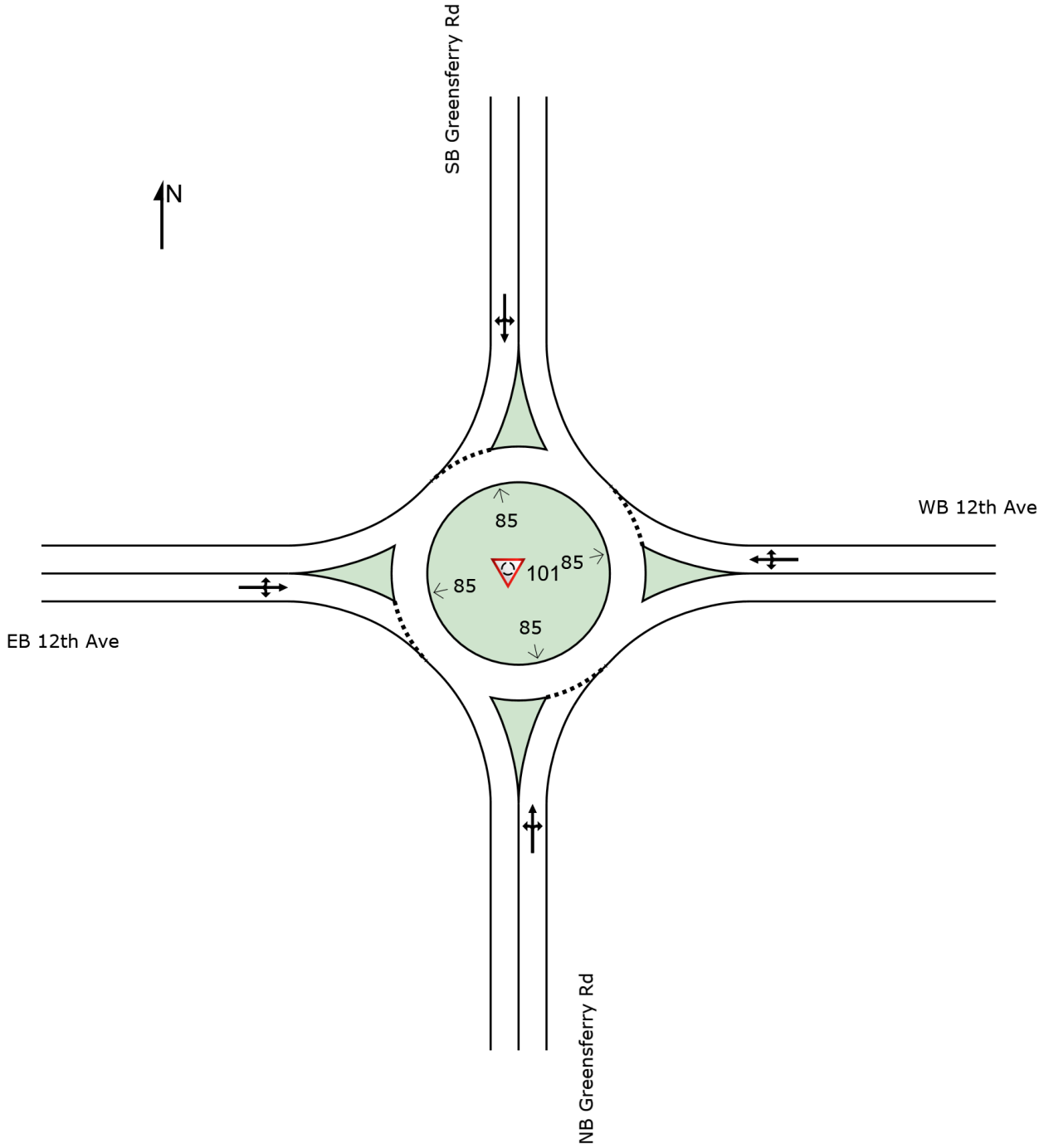
Notes	
~: Volume exceeds capacity	$: Delay exceeds 300s
+: Computation Not Defined	*: All major volume in platoon

SITE LAYOUT

Site: 101 [Greensferry_12th_2045_PM (Site Folder: General)]

New Site
Site Category: (None)
Roundabout

Layout pictures are schematic functional drawings reflecting input data. They are not design drawings.



MOVEMENT SUMMARY

Site: 101 [Greensferry_12th_2045_PM (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

New Site
Site Category: (None)
Roundabout

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] ft	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed mph
South: NB Greensferry Rd															
3	L2	All MCs	45	3.0	45	3.0	0.933	27.5	LOS C	31.4	803.0	1.00	0.88	1.20	16.3
8	T1	All MCs	847	3.0	847	3.0	0.933	27.5	LOS C	31.4	803.0	1.00	0.88	1.20	16.3
18	R2	All MCs	184	3.0	184	3.0	0.933	27.5	LOS C	31.4	803.0	1.00	0.88	1.20	16.3
Approach			1075	3.0	1075	3.0	0.933	27.5	LOS C	31.4	803.0	1.00	0.88	1.20	16.3
East: WB 12th Ave															
1	L2	All MCs	70	3.0	70	3.0	0.471	19.2	LOS B	3.8	97.5	1.00	0.95	1.14	17.3
6	T1	All MCs	91	3.0	91	3.0	0.471	19.2	LOS B	3.8	97.5	1.00	0.95	1.14	17.3
16	R2	All MCs	24	3.0	24	3.0	0.471	19.2	LOS B	3.8	97.5	1.00	0.95	1.14	17.3
Approach			185	3.0	185	3.0	0.471	19.2	LOS B	3.8	97.5	1.00	0.95	1.14	17.3
North: SB Greensferry Rd															
7	L2	All MCs	13	3.0	13	3.0	0.534	9.9	LOS A	4.5	116.2	0.64	0.39	0.64	18.7
4	T1	All MCs	517	3.0	517	3.0	0.534	9.9	LOS A	4.5	116.2	0.64	0.39	0.64	18.7
14	R2	All MCs	16	3.0	16	3.0	0.534	9.9	LOS A	4.5	116.2	0.64	0.39	0.64	18.7
Approach			547	3.0	547	3.0	0.534	9.9	LOS A	4.5	116.2	0.64	0.39	0.64	18.7
West: EB 12th Ave															
5	L2	All MCs	13	3.0	13	3.0	0.179	7.2	LOS A	1.1	27.6	0.72	0.55	0.72	19.1
2	T1	All MCs	74	3.0	74	3.0	0.179	7.2	LOS A	1.1	27.6	0.72	0.55	0.72	19.1
12	R2	All MCs	38	3.0	38	3.0	0.179	7.2	LOS A	1.1	27.6	0.72	0.55	0.72	19.1
Approach			125	3.0	125	3.0	0.179	7.2	LOS A	1.1	27.6	0.72	0.55	0.72	19.1
All Vehicles			1932	3.0	1932	3.0	0.933	20.4	LOS C	31.4	803.0	0.88	0.73	1.01	17.2

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Options tab).
Roundabout LOS Method: Same as Signalised Intersections.
Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.
LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).
Roundabout Capacity Model: SIDRA HCM.
Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

SIDRA INTERSECTION 9.1 | Copyright © 2000-2024 Akcelik and Associates Pty Ltd | sidrasolutions.com

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	5	29	15	26	34	9	21	396	86	8	325	10
Future Vol, veh/h	5	29	15	26	34	9	21	396	86	8	325	10
Conflicting Peds, #/hr	0	0	2	3	0	1	0	0	1	1	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	284	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	96	96	96	96	96	96	96	96	96	96	96	96
Heavy Vehicles, %	0	0	0	4	4	4	1	1	1	0	0	0
Mvmt Flow	5	30	16	27	35	9	22	413	90	8	339	10

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	835	907	347	831	823	415	349	0	0	503	0	0
Stage 1	360	360	-	457	457	-	-	-	-	-	-	-
Stage 2	475	547	-	373	366	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.14	6.54	6.24	4.11	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.14	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.14	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.536	4.036	3.336	2.209	-	-	2.2	-	-
Pot Cap-1 Maneuver	289	278	701	287	306	634	1215	-	-	1072	-	-
Stage 1	662	630	-	579	564	-	-	-	-	-	-	-
Stage 2	574	521	-	643	619	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	243	268	699	240	295	633	1215	-	-	1071	-	-
Mov Cap-2 Maneuver	243	268	-	240	295	-	-	-	-	-	-	-
Stage 1	656	624	-	564	549	-	-	-	-	-	-	-
Stage 2	515	507	-	591	613	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	18.09	21.42	0.33	0.2
HCM LOS	C	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	91	-	-	326	290	42	-	-
HCM Lane V/C Ratio	0.018	-	-	0.157	0.247	0.008	-	-
HCM Ctrl Dly (s/v)	8	0	-	18.1	21.4	8.4	0	-
HCM Lane LOS	A	A	-	C	C	A	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0.5	1	0	-	-

Intersection	
Intersection Delay, s/veh	23.4
Intersection LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	14	92	24	69	98	48	27	442	43	19	308	15
Future Vol, veh/h	14	92	24	69	98	48	27	442	43	19	308	15
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Heavy Vehicles, %	1	1	1	0	0	0	0	0	0	0	0	0
Mvmt Flow	14	95	25	71	101	49	28	456	44	20	318	15
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay, s/veh	12.7	14.6	33.4	18
HCM LOS	B	B	D	C

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	5%	11%	32%	6%
Vol Thru, %	86%	71%	46%	90%
Vol Right, %	8%	18%	22%	4%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	512	130	215	342
LT Vol	27	14	69	19
Through Vol	442	92	98	308
RT Vol	43	24	48	15
Lane Flow Rate	528	134	222	353
Geometry Grp	1	1	1	1
Degree of Util (X)	0.851	0.263	0.417	0.6
Departure Headway (Hd)	5.804	7.055	6.768	6.131
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	623	507	530	585
Service Time	3.857	5.132	4.834	4.192
HCM Lane V/C Ratio	0.848	0.264	0.419	0.603
HCM Control Delay, s/veh	33.4	12.7	14.6	18
HCM Lane LOS	D	B	B	C
HCM 95th-tile Q	9.4	1	2	4

Intersection	
Intersection Delay, s/veh	52.3
Intersection LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	17	112	29	86	123	61	30	508	49	21	335	16
Future Vol, veh/h	17	112	29	86	123	61	30	508	49	21	335	16
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Heavy Vehicles, %	1	1	1	0	0	0	0	0	0	0	0	0
Mvmt Flow	18	115	30	89	127	63	31	524	51	22	345	16
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay, s/veh	15.7	20.5	92.8	27.1
HCM LOS	C	C	F	D

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	5%	11%	32%	6%
Vol Thru, %	87%	71%	46%	90%
Vol Right, %	8%	18%	23%	4%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	587	158	270	372
LT Vol	30	17	86	21
Through Vol	508	112	123	335
RT Vol	49	29	61	16
Lane Flow Rate	605	163	278	384
Geometry Grp	1	1	1	1
Degree of Util (X)	1.098	0.355	0.572	0.73
Departure Headway (Hd)	6.534	8.226	7.706	7.134
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	557	440	470	510
Service Time	4.581	6.226	5.706	5.134
HCM Lane V/C Ratio	1.086	0.37	0.591	0.753
HCM Control Delay, s/veh	92.8	15.7	20.5	27.1
HCM Lane LOS	F	C	C	D
HCM 95th-tile Q	18.7	1.6	3.5	6

Intersection	
Intersection Delay, s/veh	193
Intersection LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	23	151	39	121	174	86	38	640	62	24	389	19
Future Vol, veh/h	23	151	39	121	174	86	38	640	62	24	389	19
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Heavy Vehicles, %	1	1	1	0	0	0	0	0	0	0	0	0
Mvmt Flow	24	156	40	125	179	89	39	660	64	25	401	20
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay, s/veh	28.4	61.3	372.3	83.3
HCM LOS	D	F	F	F

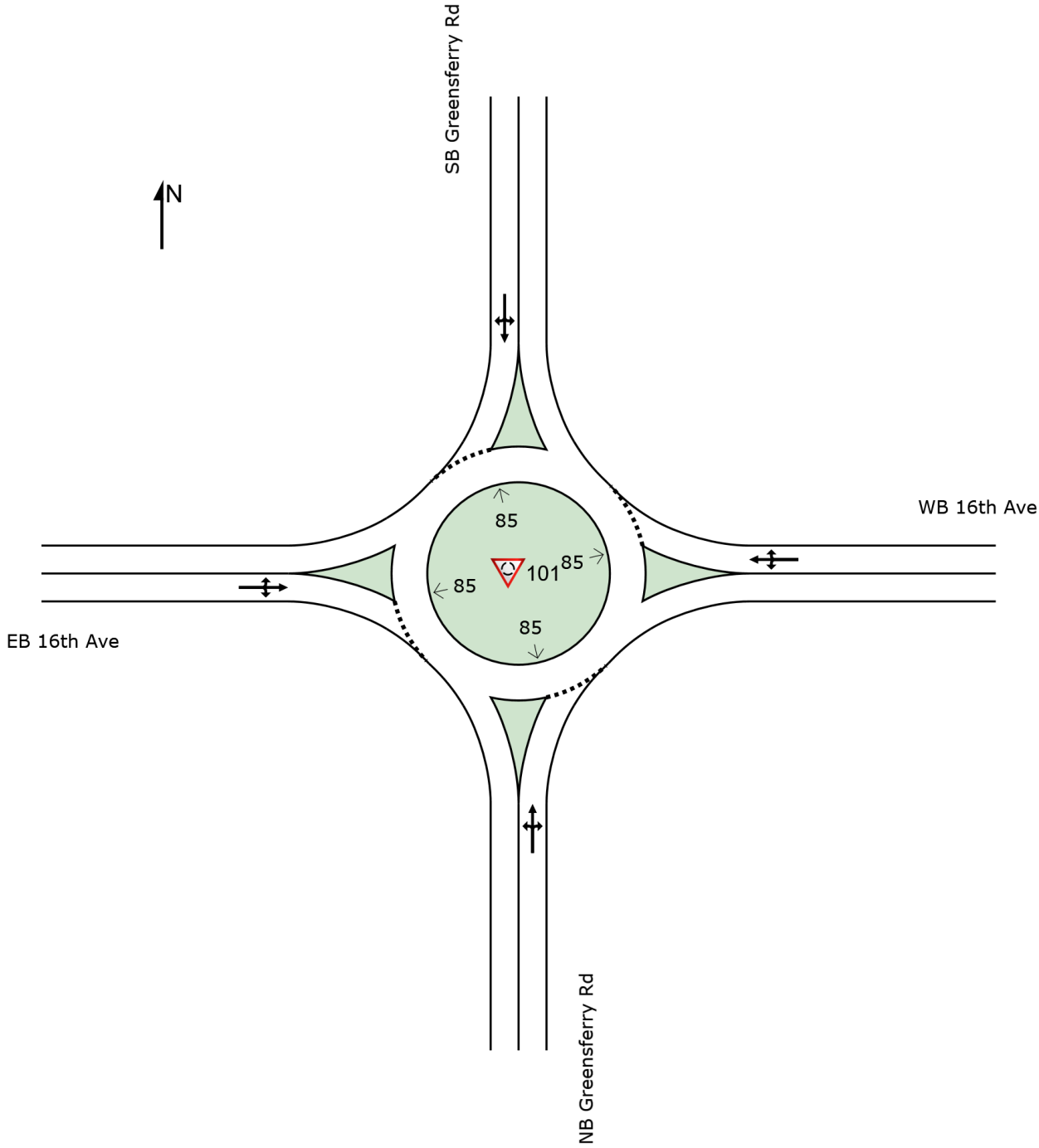
Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	5%	11%	32%	6%
Vol Thru, %	86%	71%	46%	90%
Vol Right, %	8%	18%	23%	4%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	740	213	381	432
LT Vol	38	23	121	24
Through Vol	640	151	174	389
RT Vol	62	39	86	19
Lane Flow Rate	763	220	393	445
Geometry Grp	1	1	1	1
Degree of Util (X)	1.761	0.566	0.914	1.014
Departure Headway (Hd)	8.312	11.459	10.154	9.903
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	442	318	361	370
Service Time	6.403	9.459	8.154	7.903
HCM Lane V/C Ratio	1.726	0.692	1.089	1.203
HCM Control Delay, s/veh	372.3	28.4	61.3	83.3
HCM Lane LOS	F	D	F	F
HCM 95th-tile Q	46.8	3.3	9.3	12.1

SITE LAYOUT

Site: 101 [Greensferry_16_2045_PM (Site Folder: General)]

New Site
Site Category: (None)
Roundabout

Layout pictures are schematic functional drawings reflecting input data. They are not design drawings.



MOVEMENT SUMMARY

Site: 101 [Greensferry_16_2045_PM (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

New Site
Site Category: (None)
Roundabout

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] ft	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed mph
South: NB Greensferry Rd															
3	L2	All MCs	41	3.0	41	3.0	0.789	18.3	LOS B	17.3	442.1	0.91	1.02	1.34	17.5
8	T1	All MCs	696	3.0	696	3.0	0.789	18.3	LOS B	17.3	442.1	0.91	1.02	1.34	17.9
18	R2	All MCs	67	3.0	67	3.0	0.789	18.3	LOS B	17.3	442.1	0.91	1.02	1.34	17.5
Approach			804	3.0	804	3.0	0.789	18.3	LOS B	17.3	442.1	0.91	1.02	1.34	17.8
East: WB 16th Ave															
1	L2	All MCs	132	3.0	132	3.0	0.795	31.4	LOS C	10.7	275.1	1.00	1.52	1.74	15.8
6	T1	All MCs	189	3.0	189	3.0	0.795	31.4	LOS C	10.7	275.1	1.00	1.52	1.74	15.8
16	R2	All MCs	93	3.0	93	3.0	0.795	31.4	LOS C	10.7	275.1	1.00	1.52	1.74	16.2
Approach			414	3.0	414	3.0	0.795	31.4	LOS C	10.7	275.1	1.00	1.52	1.74	15.9
North: SB Greensferry Rd															
7	L2	All MCs	26	3.0	26	3.0	0.544	11.6	LOS B	5.1	131.7	0.78	0.67	0.90	18.4
4	T1	All MCs	423	3.0	423	3.0	0.544	11.6	LOS B	5.1	131.7	0.78	0.67	0.90	18.4
14	R2	All MCs	21	3.0	21	3.0	0.544	11.6	LOS B	5.1	131.7	0.78	0.67	0.90	18.4
Approach			470	3.0	470	3.0	0.544	11.6	LOS B	5.1	131.7	0.78	0.67	0.90	18.4
West: EB 16th Ave															
5	L2	All MCs	25	3.0	25	3.0	0.327	9.1	LOS A	2.1	54.5	0.77	0.59	0.77	19.3
2	T1	All MCs	164	3.0	164	3.0	0.327	9.1	LOS A	2.1	54.5	0.77	0.59	0.77	18.8
12	R2	All MCs	42	3.0	42	3.0	0.327	9.1	LOS A	2.1	54.5	0.77	0.59	0.77	18.8
Approach			232	3.0	232	3.0	0.327	9.1	LOS A	2.1	54.5	0.77	0.59	0.77	18.9
All Vehicles			1920	3.0	1920	3.0	0.795	18.4	LOS B	17.3	442.1	0.88	0.99	1.25	17.6

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Options tab).
Roundabout LOS Method: Same as Signalised Intersections.
Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.
LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).
Roundabout Capacity Model: SIDRA HCM.
Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

SIDRA INTERSECTION 9.1 | Copyright © 2000-2024 Akcelik and Associates Pty Ltd | sidrasolutions.com

Intersection	
Int Delay, s/veh	15.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	47	295	17	63	311	16	12	125	51	18	94	52
Future Vol, veh/h	47	295	17	63	311	16	12	125	51	18	94	52
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	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	94	94	94	94	94	94	94	94	94	94	94	94
Heavy Vehicles, %	2	2	2	4	4	4	0	0	0	7	7	7
Mvmt Flow	50	314	18	67	331	17	13	133	54	19	100	55

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	348	0	0	332	0	0	938	905	323	954	905	339
Stage 1	-	-	-	-	-	-	423	423	-	473	473	-
Stage 2	-	-	-	-	-	-	515	482	-	480	432	-
Critical Hdwy	4.12	-	-	4.14	-	-	7.1	6.5	6.2	7.17	6.57	6.27
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.17	5.57	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.17	5.57	-
Follow-up Hdwy	2.218	-	-	2.236	-	-	3.5	4	3.3	3.563	4.063	3.363
Pot Cap-1 Maneuver	1211	-	-	1216	-	-	247	279	723	234	271	692
Stage 1	-	-	-	-	-	-	613	591	-	562	550	-
Stage 2	-	-	-	-	-	-	546	557	-	557	574	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1211	-	-	1216	-	-	123	246	723	94	240	692
Mov Cap-2 Maneuver	-	-	-	-	-	-	123	246	-	94	240	-
Stage 1	-	-	-	-	-	-	582	561	-	524	512	-
Stage 2	-	-	-	-	-	-	377	519	-	373	545	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	1.06	1.31	45.16	47.58
HCM LOS			E	E

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	278	233	-	-	288	-	-	249
HCM Lane V/C Ratio	0.719	0.041	-	-	0.055	-	-	0.701
HCM Ctrl Dly (s/v)	45.2	8.1	0	-	8.1	0	-	47.6
HCM Lane LOS	E	A	A	-	A	A	-	E
HCM 95th %tile Q(veh)	5.1	0.1	-	-	0.2	-	-	4.7

Intersection	
Int Delay, s/veh	60.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	67	419	24	77	380	20	15	155	63	20	104	57
Future Vol, veh/h	67	419	24	77	380	20	15	155	63	20	104	57
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	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	94	94	94	94	94	94	94	94	94	94	94	94
Heavy Vehicles, %	2	2	2	4	4	4	0	0	0	7	7	7
Mvmt Flow	71	446	26	82	404	21	16	165	67	21	111	61

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	426	0	0	471	0	0	1224	1190	459	1249	1193	415
Stage 1	-	-	-	-	-	-	601	601	-	579	579	-
Stage 2	-	-	-	-	-	-	623	589	-	671	614	-
Critical Hdwy	4.12	-	-	4.14	-	-	7.1	6.5	6.2	7.17	6.57	6.27
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.17	5.57	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.17	5.57	-
Follow-up Hdwy	2.218	-	-	2.236	-	-	3.5	4	3.3	3.563	4.063	3.363
Pot Cap-1 Maneuver	1134	-	-	1080	-	-	157	189	607	146	183	627
Stage 1	-	-	-	-	-	-	491	493	-	492	493	-
Stage 2	-	-	-	-	-	-	477	498	-	438	475	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1134	-	-	1080	-	-	36	~ 156	607	-	151	627
Mov Cap-2 Maneuver	-	-	-	-	-	-	36	~ 156	-	-	151	-
Stage 1	-	-	-	-	-	-	449	450	-	443	444	-
Stage 2	-	-	-	-	-	-	291	449	-	226	434	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	1.1	1.39	$ 357.87	
HCM LOS			F	-

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	153	234	-	-	288	-	-	-
HCM Lane V/C Ratio	1.617	0.063	-	-	0.076	-	-	-
HCM Ctrl Dly (s/v)	$ 357.9	8.4	0	-	8.6	0	-	-
HCM Lane LOS	F	A	A	-	A	A	-	-
HCM 95th %tile Q(veh)	17.2	0.2	-	-	0.2	-	-	-

Notes	
~: Volume exceeds capacity	$: Delay exceeds 300s
+: Computation Not Defined	*: All major volume in platoon

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	81	507	29	87	430	22	17	176	72	21	110	61
Future Vol, veh/h	81	507	29	87	430	22	17	176	72	21	110	61
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	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	94	94	94	94	94	94	94	94	94	94	94	94
Heavy Vehicles, %	2	2	2	4	4	4	0	0	0	7	7	7
Mvmt Flow	86	539	31	93	457	23	18	187	77	22	117	65

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	481	0	0	570	0	0	1428	1393	555	1460	1397	469
Stage 1	-	-	-	-	-	-	727	727	-	654	654	-
Stage 2	-	-	-	-	-	-	701	666	-	805	743	-
Critical Hdwy	4.12	-	-	4.14	-	-	7.1	6.5	6.2	7.17	6.57	6.27
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.17	5.57	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.17	5.57	-
Follow-up Hdwy	2.218	-	-	2.236	-	-	3.5	4	3.3	3.563	4.063	3.363
Pot Cap-1 Maneuver	1082	-	-	992	-	-	114	~ 143	535	104	138	584
Stage 1	-	-	-	-	-	-	418	432	-	447	455	-
Stage 2	-	-	-	-	-	-	432	460	-	369	415	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1082	-	-	992	-	-	-	~ 110	535	-	~ 106	584
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	~ 110	-	-	~ 106	-
Stage 1	-	-	-	-	-	-	369	381	-	390	397	-
Stage 2	-	-	-	-	-	-	237	402	-	142	366	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	1.13	1.45		
HCM LOS			-	-

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	-	234	-	-	288	-	-	-
HCM Lane V/C Ratio	-	0.08	-	-	0.093	-	-	-
HCM Ctrl Dly (s/v)	-	8.6	0	-	9	0	-	-
HCM Lane LOS	-	A	A	-	A	A	-	-
HCM 95th %tile Q(veh)	-	0.3	-	-	0.3	-	-	-

Notes	
~: Volume exceeds capacity	$: Delay exceeds 300s
+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	1

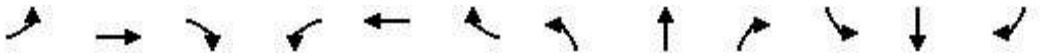
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	109	684	39	107	529	27	21	219	89	24	124	69
Future Vol, veh/h	109	684	39	107	529	27	21	219	89	24	124	69
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	94	94	94	94	94	94	94	94	94	94	94	94
Heavy Vehicles, %	2	2	2	4	4	4	0	0	0	7	7	7
Mvmt Flow	116	728	41	114	563	29	22	233	95	26	132	73

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	591	0	0	769	0	0	1837	1799	748	1881	1806	577
Stage 1	-	-	-	-	-	-	980	980	-	805	805	-
Stage 2	-	-	-	-	-	-	856	819	-	1076	1001	-
Critical Hdwy	4.12	-	-	4.14	-	-	7.1	6.5	6.2	7.17	6.57	6.27
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.17	5.57	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.17	5.57	-
Follow-up Hdwy	2.218	-	-	2.236	-	-	3.5	4	3.3	3.563	4.063	3.363
Pot Cap-1 Maneuver	984	-	-	836	-	-	59	~ 81	415	53	~ 77	507
Stage 1	-	-	-	-	-	-	303	330	-	369	388	-
Stage 2	-	-	-	-	-	-	355	392	-	260	314	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	984	-	-	836	-	-	-	~ 51	415	-	~ 49	507
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	~ 51	-	-	~ 49	-
Stage 1	-	-	-	-	-	-	240	262	-	294	309	-
Stage 2	-	-	-	-	-	-	139	312	-	~ 18	249	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	1.2	1.61		
HCM LOS			-	-

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	-	233	-	-	288	-	-	-
HCM Lane V/C Ratio	-	0.118	-	-	0.136	-	-	-
HCM Ctrl Dly (s/v)	-	9.1	0	-	10	0	-	-
HCM Lane LOS	-	A	A	-	A	A	-	-
HCM 95th %tile Q(veh)	-	0.4	-	-	0.5	-	-	-

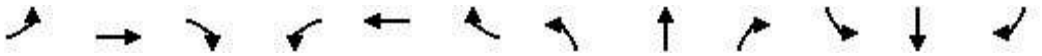
Notes	
~: Volume exceeds capacity	$: Delay exceeds 300s
+: Computation Not Defined	*: All major volume in platoon



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	109	684	39	107	529	27	21	219	89	24	124	69
Future Volume (veh/h)	109	684	39	107	529	27	21	219	89	24	124	69
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
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	1841	1841	1841	1900	1900	1900	1796	1796	1796
Adj Flow Rate, veh/h	116	728	41	114	563	29	22	233	95	26	132	73
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	4	4	4	0	0	0	7	7	7
Cap, veh/h	317	762	43	204	754	39	242	260	106	156	223	124
Arrive On Green	0.06	0.43	0.43	0.05	0.43	0.43	0.02	0.20	0.20	0.03	0.21	0.21
Sat Flow, veh/h	1781	1754	99	1753	1735	89	1810	1283	523	1711	1087	601
Grp Volume(v), veh/h	116	0	769	114	0	592	22	0	328	26	0	205
Grp Sat Flow(s),veh/h/ln	1781	0	1853	1753	0	1825	1810	0	1806	1711	0	1688
Q Serve(g_s), s	3.0	0.0	34.3	3.0	0.0	23.2	0.8	0.0	15.1	1.0	0.0	9.4
Cycle Q Clear(g_c), s	3.0	0.0	34.3	3.0	0.0	23.2	0.8	0.0	15.1	1.0	0.0	9.4
Prop In Lane	1.00		0.05	1.00		0.05	1.00		0.29	1.00		0.36
Lane Grp Cap(c), veh/h	317	0	805	204	0	793	242	0	365	156	0	347
V/C Ratio(X)	0.37	0.00	0.95	0.56	0.00	0.75	0.09	0.00	0.90	0.17	0.00	0.59
Avail Cap(c_a), veh/h	323	0	824	210	0	812	305	0	381	210	0	356
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	15.6	0.0	23.3	19.7	0.0	20.2	26.4	0.0	33.2	27.1	0.0	30.7
Incr Delay (d2), s/veh	0.7	0.0	20.9	3.1	0.0	3.7	0.2	0.0	22.7	0.5	0.0	2.5
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	1.1	0.0	17.6	1.2	0.0	9.5	0.3	0.0	8.5	0.4	0.0	3.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	16.3	0.0	44.2	22.8	0.0	23.9	26.5	0.0	55.9	27.6	0.0	33.2
LnGrp LOS	B		D	C		C	C		E	C		C
Approach Vol, veh/h		885			706			350			231	
Approach Delay, s/veh		40.6			23.8			54.0			32.5	
Approach LOS		D			C			D			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.3	23.3	10.7	43.1	8.0	23.5	10.7	43.1
Change Period (Y+Rc), s	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
Max Green Setting (Gmax), s	5.0	18.0	5.0	38.0	5.0	18.0	5.0	38.0
Max Q Clear Time (g_c+I1), s	3.0	17.1	5.0	36.3	2.8	11.4	5.0	25.2
Green Ext Time (p_c), s	0.0	0.2	0.0	0.9	0.0	0.5	0.0	2.9

Intersection Summary	
HCM 7th Control Delay, s/veh	36.4
HCM 7th LOS	D



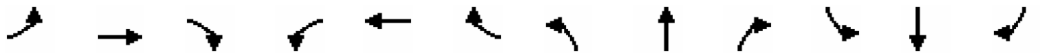
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	76	263	49	163	219	135	80	605	146	85	414	32
Future Volume (veh/h)	76	263	49	163	219	135	80	605	146	85	414	32
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
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	1885	1885	1885	1900	1900	1900	1900	1900	1900	1885	1885	1885
Adj Flow Rate, veh/h	79	274	51	170	228	141	83	630	152	89	431	33
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	1	1	1	0	0	0	0	0	0	1	1	1
Cap, veh/h	354	368	312	355	476	404	388	859	207	277	1016	78
Arrive On Green	0.05	0.20	0.20	0.10	0.25	0.25	0.05	0.30	0.30	0.05	0.30	0.30
Sat Flow, veh/h	1795	1885	1598	1810	1900	1610	1810	2885	695	1795	3372	257
Grp Volume(v), veh/h	79	274	51	170	228	141	83	394	388	89	228	236
Grp Sat Flow(s),veh/h/ln	1795	1885	1598	1810	1900	1610	1810	1805	1775	1795	1791	1839
Q Serve(g_s), s	2.2	8.8	1.7	4.7	6.6	4.6	2.0	12.6	12.6	2.2	6.5	6.6
Cycle Q Clear(g_c), s	2.2	8.8	1.7	4.7	6.6	4.6	2.0	12.6	12.6	2.2	6.5	6.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.39	1.00		0.14
Lane Grp Cap(c), veh/h	354	368	312	355	476	404	388	537	528	277	539	554
V/C Ratio(X)	0.22	0.74	0.16	0.48	0.48	0.35	0.21	0.73	0.73	0.32	0.42	0.43
Avail Cap(c_a), veh/h	460	881	747	372	888	753	497	805	791	379	798	820
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	19.2	24.3	21.5	18.3	20.5	19.7	14.7	20.2	20.3	15.7	18.0	18.0
Incr Delay (d2), s/veh	0.3	3.0	0.2	1.0	0.7	0.5	0.3	2.0	2.0	0.7	0.5	0.5
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	0.9	4.1	0.6	1.9	2.8	1.7	0.8	5.3	5.2	0.9	2.6	2.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	19.5	27.3	21.7	19.3	21.2	20.3	15.0	22.2	22.3	16.3	18.5	18.5
LnGrp LOS	B	C	C	B	C	C	B	C	C	B	B	B
Approach Vol, veh/h		404			539			865			553	
Approach Delay, s/veh		25.1			20.4			21.5			18.1	
Approach LOS		C			C			C			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.4	18.5	8.5	24.7	8.8	22.1	8.8	24.5
Change Period (Y+Rc), s	6.0	* 6	5.4	5.4	5.6	6.0	5.4	5.4
Max Green Setting (Gmax), s	7.0	* 30	7.0	28.6	7.0	30.0	7.0	28.6
Max Q Clear Time (g_c+I1), s	6.7	10.8	4.0	8.6	4.2	8.6	4.2	14.6
Green Ext Time (p_c), s	0.0	1.7	0.0	2.8	0.0	1.7	0.0	4.5

Intersection Summary	
HCM 7th Control Delay, s/veh	21.1
HCM 7th LOS	C

Notes

* HCM 7th computational engine requires equal clearance times for the phases crossing the barrier.



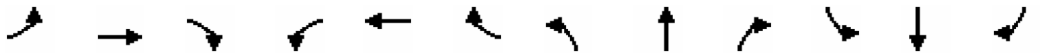
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	73	284	56	80	336	91	70	346	97	44	257	91
Future Volume (veh/h)	73	284	56	80	336	91	70	346	97	44	257	91
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
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	1900	1900	1900	1900	1900	1900	1885	1885	1885
Adj Flow Rate, veh/h	80	312	62	88	369	100	77	380	107	48	282	100
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2	0	0	0	0	0	0	1	1	1
Cap, veh/h	230	859	168	403	421	114	370	446	125	220	543	459
Arrive On Green	0.05	0.29	0.29	0.05	0.29	0.29	0.06	0.31	0.31	0.03	0.29	0.29
Sat Flow, veh/h	1781	2960	581	1810	1440	390	1810	1426	402	1795	1885	1592
Grp Volume(v), veh/h	80	186	188	88	0	469	77	0	487	48	282	100
Grp Sat Flow(s),veh/h/ln	1781	1777	1763	1810	0	1830	1810	0	1828	1795	1885	1592
Q Serve(g_s), s	2.2	5.9	6.0	2.4	0.0	17.4	2.1	0.0	17.8	1.3	8.9	3.4
Cycle Q Clear(g_c), s	2.2	5.9	6.0	2.4	0.0	17.4	2.1	0.0	17.8	1.3	8.9	3.4
Prop In Lane	1.00		0.33	1.00		0.21	1.00		0.22	1.00		1.00
Lane Grp Cap(c), veh/h	230	516	512	403	0	535	370	0	571	220	543	459
V/C Ratio(X)	0.35	0.36	0.37	0.22	0.00	0.88	0.21	0.00	0.85	0.22	0.52	0.22
Avail Cap(c_a), veh/h	281	784	778	426	0	784	379	0	832	272	861	727
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	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	18.6	20.0	20.1	16.5	0.0	23.9	16.5	0.0	22.9	18.7	21.2	19.2
Incr Delay (d2), s/veh	0.3	0.2	0.2	0.1	0.0	5.6	0.1	0.0	5.9	0.2	0.8	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	0.9	2.3	2.3	0.9	0.0	7.7	0.8	0.0	7.9	0.5	3.8	1.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	19.0	20.2	20.2	16.6	0.0	29.6	16.6	0.0	28.8	18.9	22.0	19.5
LnGrp LOS	B	C	C	B		C	B		C	B	C	B
Approach Vol, veh/h		454			557			564			430	
Approach Delay, s/veh		20.0			27.5			27.1			21.0	
Approach LOS		B			C			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.7	26.1	9.0	26.4	8.0	27.8	9.1	26.3
Change Period (Y+Rc), s	5.6	* 5.6	5.6	* 5.6	5.5	5.6	5.5	5.6
Max Green Setting (Gmax), s	4.4	* 33	5.4	* 31	4.5	32.4	4.5	31.4
Max Q Clear Time (g_c+I1), s	4.1	10.9	4.2	19.4	3.3	19.8	4.4	8.0
Green Ext Time (p_c), s	0.0	1.9	0.0	1.5	0.0	2.5	0.0	1.3

Intersection Summary	
HCM 7th Control Delay, s/veh	24.3
HCM 7th LOS	C

Notes

* HCM 7th computational engine requires equal clearance times for the phases crossing the barrier.



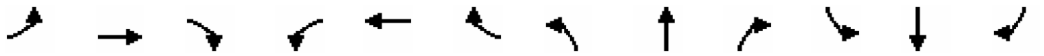
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	84	329	65	91	379	103	83	412	116	49	287	101
Future Volume (veh/h)	84	329	65	91	379	103	83	412	116	49	287	101
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
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	1900	1900	1900	1900	1900	1900	1885	1885	1885
Adj Flow Rate, veh/h	92	362	71	100	416	113	91	453	127	54	315	111
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2	0	0	0	0	0	0	1	1	1
Cap, veh/h	205	931	181	388	451	122	361	491	138	176	614	519
Arrive On Green	0.05	0.31	0.31	0.05	0.31	0.31	0.05	0.34	0.34	0.03	0.33	0.33
Sat Flow, veh/h	1781	2966	576	1810	1439	391	1810	1428	400	1795	1885	1593
Grp Volume(v), veh/h	92	215	218	100	0	529	91	0	580	54	315	111
Grp Sat Flow(s),veh/h/ln	1781	1777	1765	1810	0	1830	1810	0	1828	1795	1885	1593
Q Serve(g_s), s	3.0	8.2	8.4	3.2	0.0	24.2	2.9	0.0	26.4	1.7	11.7	4.4
Cycle Q Clear(g_c), s	3.0	8.2	8.4	3.2	0.0	24.2	2.9	0.0	26.4	1.7	11.7	4.4
Prop In Lane	1.00		0.33	1.00		0.21	1.00		0.22	1.00		1.00
Lane Grp Cap(c), veh/h	205	558	554	388	0	573	361	0	629	176	614	519
V/C Ratio(X)	0.45	0.39	0.39	0.26	0.00	0.92	0.25	0.00	0.92	0.31	0.51	0.21
Avail Cap(c_a), veh/h	224	645	640	388	0	645	361	0	684	209	708	598
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	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	22.2	23.2	23.2	18.9	0.0	28.7	18.6	0.0	27.3	22.1	23.6	21.2
Incr Delay (d2), s/veh	0.6	0.2	0.2	0.1	0.0	16.9	0.1	0.0	17.3	0.4	0.7	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	1.2	3.3	3.3	1.3	0.0	12.7	1.1	0.0	13.8	0.7	5.1	1.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	22.8	23.3	23.4	19.0	0.0	45.6	18.7	0.0	44.6	22.5	24.3	21.4
LnGrp LOS	C	C	C	B		D	B		D	C	C	C
Approach Vol, veh/h		525			629			671			480	
Approach Delay, s/veh		23.3			41.4			41.1			23.4	
Approach LOS		C			D			D			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.0	33.8	10.1	32.7	8.4	35.4	10.0	32.8
Change Period (Y+Rc), s	5.6	* 5.6	5.6	* 5.6	5.5	5.6	5.5	5.6
Max Green Setting (Gmax), s	4.4	* 33	5.4	* 31	4.5	32.4	4.5	31.4
Max Q Clear Time (g_c+I1), s	4.9	13.7	5.0	26.2	3.7	28.4	5.2	10.4
Green Ext Time (p_c), s	0.0	2.0	0.0	0.9	0.0	1.4	0.0	1.5

Intersection Summary	
HCM 7th Control Delay, s/veh	33.4
HCM 7th LOS	C

Notes

* HCM 7th 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	417	83	111	465	126	111	546	154	60	346	122
Future Volume (veh/h)	107	417	83	111	465	126	111	546	154	60	346	122
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
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	1900	1900	1900	1900	1900	1900	1885	1885	1885
Adj Flow Rate, veh/h	118	458	91	122	511	138	122	600	169	66	380	134
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2	0	0	0	0	0	0	1	1	1
Cap, veh/h	140	992	196	339	492	133	370	603	170	108	754	638
Arrive On Green	0.05	0.34	0.34	0.06	0.34	0.34	0.05	0.42	0.42	0.03	0.40	0.40
Sat Flow, veh/h	1781	2957	584	1810	1441	389	1810	1426	402	1795	1885	1594
Grp Volume(v), veh/h	118	274	275	122	0	649	122	0	769	66	380	134
Grp Sat Flow(s),veh/h/ln	1781	1777	1763	1810	0	1830	1810	0	1828	1795	1885	1594
Q Serve(g_s), s	6.3	17.6	17.8	6.4	0.0	49.5	5.7	0.0	60.8	3.2	22.0	8.0
Cycle Q Clear(g_c), s	6.3	17.6	17.8	6.4	0.0	49.5	5.7	0.0	60.8	3.2	22.0	8.0
Prop In Lane	1.00		0.33	1.00		0.21	1.00		0.22	1.00		1.00
Lane Grp Cap(c), veh/h	140	596	592	339	0	624	370	0	773	108	754	638
V/C Ratio(X)	0.84	0.46	0.46	0.36	0.00	1.04	0.33	0.00	0.99	0.61	0.50	0.21
Avail Cap(c_a), veh/h	140	596	592	353	0	624	378	0	773	108	754	638
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	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	37.4	37.9	38.0	30.0	0.0	47.8	25.2	0.0	41.7	36.0	32.7	28.5
Incr Delay (d2), s/veh	32.7	0.2	0.2	0.2	0.0	46.7	0.2	0.0	30.9	7.1	0.5	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	4.0	7.7	7.7	2.8	0.0	30.3	2.5	0.0	33.4	1.6	10.1	3.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	70.1	38.1	38.2	30.2	0.0	94.5	25.4	0.0	72.5	43.0	33.2	28.7
LnGrp LOS	E	D	D	C		F	C		E	D	C	C
Approach Vol, veh/h		667			771			891			580	
Approach Delay, s/veh		43.8			84.3			66.1			33.3	
Approach LOS		D			F			E			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	13.3	63.7	13.0	55.1	10.0	67.0	13.8	54.3
Change Period (Y+Rc), s	5.6	* 5.6	5.6	* 5.6	5.5	5.6	5.5	5.6
Max Green Setting (Gmax), s	8.4	* 58	7.4	* 50	4.5	61.4	9.5	47.4
Max Q Clear Time (g_c+I1), s	7.7	24.0	8.3	51.5	5.2	62.8	8.4	19.8
Green Ext Time (p_c), s	0.0	2.9	0.0	0.0	0.0	0.0	0.0	2.1

Intersection Summary	
HCM 7th Control Delay, s/veh	59.3
HCM 7th LOS	E

Notes

* HCM 7th 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	417	83	111	465	126	111	546	154	60	346	122
Future Volume (veh/h)	107	417	83	111	465	126	111	546	154	60	346	122
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
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	1900	1900	1900	1900	1900	1900	1885	1885	1885
Adj Flow Rate, veh/h	118	458	91	122	511	138	122	600	169	66	380	134
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2	0	0	0	0	0	0	1	1	1
Cap, veh/h	263	719	142	285	637	171	373	695	589	219	631	534
Arrive On Green	0.07	0.24	0.24	0.05	0.23	0.23	0.07	0.37	0.37	0.04	0.33	0.33
Sat Flow, veh/h	1781	2956	583	1810	2813	756	1810	1900	1610	1795	1885	1595
Grp Volume(v), veh/h	118	274	275	122	327	322	122	600	169	66	380	134
Grp Sat Flow(s),veh/h/ln	1781	1777	1762	1810	1805	1764	1810	1900	1610	1795	1885	1595
Q Serve(g_s), s	3.7	10.3	10.5	3.9	12.8	13.0	3.2	21.9	5.6	1.8	12.6	4.6
Cycle Q Clear(g_c), s	3.7	10.3	10.5	3.9	12.8	13.0	3.2	21.9	5.6	1.8	12.6	4.6
Prop In Lane	1.00		0.33	1.00		0.43	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	263	432	429	285	409	399	373	695	589	219	631	534
V/C Ratio(X)	0.45	0.63	0.64	0.43	0.80	0.81	0.33	0.86	0.29	0.30	0.60	0.25
Avail Cap(c_a), veh/h	300	687	682	285	633	619	396	905	767	244	843	713
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	21.2	25.4	25.4	21.4	27.4	27.4	15.5	22.0	16.8	18.0	20.8	18.1
Incr Delay (d2), s/veh	0.4	0.6	0.6	0.4	1.9	2.2	0.2	6.9	0.3	0.3	0.9	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	1.5	4.2	4.2	1.6	5.4	5.4	1.2	10.2	1.9	0.7	5.3	1.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	21.6	26.0	26.0	21.8	29.3	29.6	15.7	28.9	17.1	18.3	21.7	18.4
LnGrp LOS	C	C	C	C	C	C	B	C	B	B	C	B
Approach Vol, veh/h		667			771			891			580	
Approach Delay, s/veh		25.2			28.2			24.9			20.6	
Approach LOS		C			C			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.8	30.7	10.9	22.6	8.5	33.0	9.6	23.8
Change Period (Y+Rc), s	5.6	* 5.6	5.6	* 5.6	5.5	5.6	5.5	5.6
Max Green Setting (Gmax), s	6.2	* 34	6.8	* 26	4.0	35.7	4.1	29.0
Max Q Clear Time (g_c+I1), s	5.2	14.6	5.7	15.0	3.8	23.9	5.9	12.5
Green Ext Time (p_c), s	0.0	2.5	0.0	2.0	0.0	3.5	0.0	1.9

Intersection Summary	
HCM 7th Control Delay, s/veh	25.0
HCM 7th LOS	C

Notes

* HCM 7th computational engine requires equal clearance times for the phases crossing the barrier.

Intersection	
Int Delay, s/veh	16.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	58	399	18	118	352	27	9	58	64	14	66	34
Future Vol, veh/h	58	399	18	118	352	27	9	58	64	14	66	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	-	-	-	-	-	-	-	-	-	-	-	-
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	63	434	20	128	383	29	10	63	70	15	72	37

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	412	0	0	453	0	0	1245	1238	443	1245	1233	397
Stage 1	-	-	-	-	-	-	570	570	-	654	654	-
Stage 2	-	-	-	-	-	-	675	668	-	591	579	-
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	1147	-	-	1107	-	-	151	176	614	151	177	652
Stage 1	-	-	-	-	-	-	507	506	-	456	463	-
Stage 2	-	-	-	-	-	-	444	456	-	493	500	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1147	-	-	1107	-	-	61	138	614	63	139	652
Mov Cap-2 Maneuver	-	-	-	-	-	-	61	138	-	63	139	-
Stage 1	-	-	-	-	-	-	469	468	-	387	393	-
Stage 2	-	-	-	-	-	-	291	387	-	350	464	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	1.02	2.06	61.52	88.53
HCM LOS			F	F

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	195	218	-	-	421	-	-	152
HCM Lane V/C Ratio	0.73	0.055	-	-	0.116	-	-	0.813
HCM Ctrl Dly (s/v)	61.5	8.3	0	-	8.7	0	-	88.5
HCM Lane LOS	F	A	A	-	A	A	-	F
HCM 95th %tile Q(veh)	4.7	0.2	-	-	0.4	-	-	5.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	100	692	32	196	583	45	14	88	98	29	138	71
Future Volume (veh/h)	100	692	32	196	583	45	14	88	98	29	138	71
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
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	1856	1752	1900	1900	1767	1900	1693	1900	1811	1900	1856	1900
Adj Flow Rate, veh/h	115	795	37	204	607	47	17	109	121	43	203	104
Peak Hour Factor	0.87	0.87	0.87	0.96	0.96	0.96	0.81	0.81	0.81	0.68	0.68	0.68
Percent Heavy Veh, %	3	10	0	0	9	0	14	0	6	0	3	0
Cap, veh/h	137	812	37	256	1197	1091	96	155	172	156	218	112
Arrive On Green	0.68	0.68	0.68	0.68	0.68	0.68	0.19	0.19	0.19	0.19	0.19	0.19
Sat Flow, veh/h	136	1198	54	670	1767	1610	970	823	913	1169	1156	592
Grp Volume(v), veh/h	947	0	0	204	607	47	17	0	230	43	0	307
Grp Sat Flow(s),veh/h/ln	1388	0	0	670	1767	1610	970	0	1736	1169	0	1749
Q Serve(g_s), s	45.8	0.0	0.0	0.0	15.2	0.9	1.5	0.0	11.2	3.2	0.0	15.5
Cycle Q Clear(g_c), s	61.0	0.0	0.0	61.0	15.2	0.9	17.0	0.0	11.2	14.4	0.0	15.5
Prop In Lane	0.12		0.04	1.00		1.00	1.00		0.53	1.00		0.34
Lane Grp Cap(c), veh/h	985	0	0	256	1197	1091	96	0	328	156	0	330
V/C Ratio(X)	0.96	0.00	0.00	0.80	0.51	0.04	0.18	0.00	0.70	0.28	0.00	0.93
Avail Cap(c_a), veh/h	985	0	0	256	1197	1091	96	0	328	156	0	330
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	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	15.8	0.0	0.0	18.7	7.1	4.8	44.3	0.0	34.1	40.8	0.0	35.9
Incr Delay (d2), s/veh	19.8	0.0	0.0	16.0	0.4	0.0	0.9	0.0	6.5	0.9	0.0	31.8
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	20.1	0.0	0.0	5.4	4.2	0.2	0.4	0.0	5.1	0.9	0.0	9.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	35.6	0.0	0.0	34.7	7.5	4.8	45.2	0.0	40.7	41.8	0.0	67.7
LnGrp LOS	D			C	A	A	D		D	D		E
Approach Vol, veh/h		947			858			247			350	
Approach Delay, s/veh		35.6			13.8			41.0			64.6	
Approach LOS		D			B			D			E	

Timer - Assigned Phs	2	4	6	8
Phs Duration (G+Y+Rc), s	23.0	67.0	23.0	67.0
Change Period (Y+Rc), s	6.0	6.0	6.0	6.0
Max Green Setting (Gmax), s	17.0	61.0	17.0	61.0
Max Q Clear Time (g_c+I1), s	19.0	63.0	17.5	63.0
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 7th Control Delay, s/veh	32.6
HCM 7th LOS	C

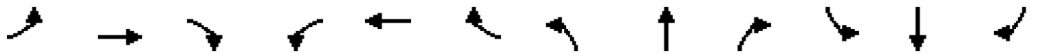
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	121	390	186	249	389	88	238	677	165	66	403	74
Future Volume (veh/h)	121	390	186	249	389	88	238	677	165	66	403	74
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
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	1885	1885	1885	1885	1885	1885	1885	1885	1885	1870	1870	1870
Adj Flow Rate, veh/h	125	402	192	257	401	91	245	698	170	68	415	76
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	1	1	1	1	1	1	1	1	1	2	2	2
Cap, veh/h	368	514	242	377	798	179	427	907	221	237	746	136
Arrive On Green	0.08	0.22	0.22	0.14	0.27	0.27	0.12	0.32	0.32	0.05	0.25	0.25
Sat Flow, veh/h	1795	2361	1114	1795	2905	653	1795	2856	695	1781	3003	546
Grp Volume(v), veh/h	125	304	290	257	246	246	245	438	430	68	244	247
Grp Sat Flow(s),veh/h/ln	1795	1791	1685	1795	1791	1768	1795	1791	1760	1781	1777	1772
Q Serve(g_s), s	4.3	12.9	13.2	8.5	9.3	9.5	7.7	17.9	17.9	2.3	9.7	9.8
Cycle Q Clear(g_c), s	4.3	12.9	13.2	8.5	9.3	9.5	7.7	17.9	17.9	2.3	9.7	9.8
Prop In Lane	1.00		0.66	1.00		0.37	1.00		0.39	1.00		0.31
Lane Grp Cap(c), veh/h	368	390	366	377	492	486	427	569	559	237	442	440
V/C Ratio(X)	0.34	0.78	0.79	0.68	0.50	0.51	0.57	0.77	0.77	0.29	0.55	0.56
Avail Cap(c_a), veh/h	603	537	506	553	586	578	535	854	839	718	1088	1085
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	21.9	29.9	30.0	20.5	24.7	24.7	18.2	25.0	25.0	21.9	26.5	26.6
Incr Delay (d2), s/veh	0.5	5.0	5.9	2.2	0.8	0.8	1.2	2.4	2.5	0.7	1.1	1.1
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	1.8	5.8	5.7	3.5	3.9	3.9	3.2	7.7	7.6	0.9	4.0	4.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	22.5	34.8	35.8	22.7	25.5	25.6	19.5	27.4	27.5	22.5	27.6	27.7
LnGrp LOS	C	C	D	C	C	C	B	C	C	C	C	C
Approach Vol, veh/h		719			749			1113			559	
Approach Delay, s/veh		33.1			24.6			25.7			27.0	
Approach LOS		C			C			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.5	32.1	16.0	23.3	15.1	26.5	11.4	28.0
Change Period (Y+Rc), s	5.6	* 6.4	5.1	5.7	5.1	6.4	5.3	* 5.7
Max Green Setting (Gmax), s	25.8	* 39	18.9	24.3	14.9	49.6	16.7	* 27
Max Q Clear Time (g_c+I1), s	4.3	19.9	10.5	15.2	9.7	11.8	6.3	11.5
Green Ext Time (p_c), s	0.1	5.8	0.5	2.4	0.3	3.1	0.2	2.5

Intersection Summary	
HCM 7th Control Delay, s/veh	27.3
HCM 7th LOS	C

Notes

* HCM 7th computational engine requires equal clearance times for the phases crossing the barrier.



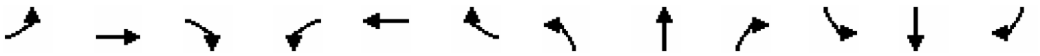
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	196	578	24	132	478	102	23	125	182	104	51	126
Future Volume (veh/h)	196	578	24	132	478	102	23	125	182	104	51	126
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
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	1856	1856	1856	1870	1870	1870	1885	1885	1885	1856	1856	1856
Adj Flow Rate, veh/h	200	590	24	135	488	104	23	128	186	106	52	129
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	3	3	3	2	2	2	1	1	1	3	3	3
Cap, veh/h	421	941	38	380	726	154	414	218	316	305	148	368
Arrive On Green	0.12	0.27	0.27	0.08	0.25	0.25	0.31	0.31	0.31	0.31	0.31	0.31
Sat Flow, veh/h	1767	3453	140	1781	2918	618	1213	694	1009	1057	472	1172
Grp Volume(v), veh/h	200	301	313	135	296	296	23	0	314	106	0	181
Grp Sat Flow(s),veh/h/ln	1767	1763	1830	1781	1777	1759	1213	0	1704	1057	0	1645
Q Serve(g_s), s	4.3	7.9	7.9	2.9	7.9	8.0	0.8	0.0	8.1	4.9	0.0	4.5
Cycle Q Clear(g_c), s	4.3	7.9	7.9	2.9	7.9	8.0	5.2	0.0	8.1	13.1	0.0	4.5
Prop In Lane	1.00		0.08	1.00		0.35	1.00		0.59	1.00		0.71
Lane Grp Cap(c), veh/h	421	480	499	380	442	438	414	0	534	305	0	516
V/C Ratio(X)	0.48	0.63	0.63	0.36	0.67	0.68	0.06	0.00	0.59	0.35	0.00	0.35
Avail Cap(c_a), veh/h	540	960	997	440	846	838	808	0	1087	650	0	1052
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	0.00	1.00
Uniform Delay (d), s/veh	12.8	16.8	16.8	13.3	17.8	17.8	15.9	0.0	15.2	20.7	0.0	13.9
Incr Delay (d2), s/veh	0.8	1.3	1.3	0.6	1.8	1.8	0.1	0.0	1.0	0.7	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	1.5	2.9	3.0	1.0	3.0	3.0	0.2	0.0	2.8	1.1	0.0	1.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	13.6	18.1	18.1	13.8	19.5	19.6	16.0	0.0	16.2	21.3	0.0	14.3
LnGrp LOS	B	B	B	B	B	B	B		B	C		B
Approach Vol, veh/h		814			727			337			287	
Approach Delay, s/veh		17.0			18.5			16.2			16.9	
Approach LOS		B			B			B			B	

Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		22.0	11.5	19.1		22.0	10.2	20.3				
Change Period (Y+Rc), s		* 5.5	* 5.4	6.0		5.5	6.0	* 6				
Max Green Setting (Gmax), s		* 34	* 9.6	25.0		33.5	6.0	* 29				
Max Q Clear Time (g_c+I1), s		15.1	6.3	10.0		10.1	4.9	9.9				
Green Ext Time (p_c), s		1.4	0.2	3.1		2.0	0.0	3.5				

Intersection Summary	
HCM 7th Control Delay, s/veh	17.4
HCM 7th LOS	B

Notes

* HCM 7th 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)	224	658	27	142	516	111	28	151	220	118	57	143
Future Volume (veh/h)	224	658	27	142	516	111	28	151	220	118	57	143
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
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	1856	1856	1856	1870	1870	1870	1885	1885	1885	1856	1856	1856
Adj Flow Rate, veh/h	229	671	28	145	527	113	29	154	224	120	58	146
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	3	3	3	2	2	2	1	1	1	3	3	3
Cap, veh/h	401	967	40	345	726	155	427	245	357	285	165	416
Arrive On Green	0.12	0.28	0.28	0.08	0.25	0.25	0.35	0.35	0.35	0.35	0.35	0.35
Sat Flow, veh/h	1767	3449	144	1781	2913	622	1187	694	1009	997	467	1176
Grp Volume(v), veh/h	229	343	356	145	321	319	29	0	378	120	0	204
Grp Sat Flow(s),veh/h/ln	1767	1763	1830	1781	1777	1758	1187	0	1703	997	0	1644
Q Serve(g_s), s	5.8	10.8	10.8	3.7	10.2	10.3	1.1	0.0	11.4	7.1	0.0	5.7
Cycle Q Clear(g_c), s	5.8	10.8	10.8	3.7	10.2	10.3	6.8	0.0	11.4	18.5	0.0	5.7
Prop In Lane	1.00		0.08	1.00		0.35	1.00		0.59	1.00		0.72
Lane Grp Cap(c), veh/h	401	494	513	345	443	438	427	0	602	285	0	581
V/C Ratio(X)	0.57	0.69	0.69	0.42	0.72	0.73	0.07	0.00	0.63	0.42	0.00	0.35
Avail Cap(c_a), veh/h	454	813	844	368	716	709	649	0	920	472	0	891
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	0.00	1.00
Uniform Delay (d), s/veh	15.2	19.9	19.9	15.8	21.3	21.4	17.3	0.0	16.7	24.3	0.0	14.8
Incr Delay (d2), s/veh	1.3	1.8	1.7	0.8	2.3	2.3	0.1	0.0	1.1	1.0	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	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.2	4.2	4.3	1.4	4.1	4.1	0.3	0.0	4.1	1.6	0.0	1.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	16.5	21.7	21.6	16.6	23.6	23.7	17.4	0.0	17.7	25.3	0.0	15.2
LnGrp LOS	B	C	C	B	C	C	B		B	C		B
Approach Vol, veh/h		928			785			407			324	
Approach Delay, s/veh		20.4			22.3			17.7			18.9	
Approach LOS		C			C			B			B	

Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		27.4	13.1	21.5		27.4	11.2	23.4				
Change Period (Y+Rc), s		* 5.5	* 5.4	6.0		5.5	6.0	* 6				
Max Green Setting (Gmax), s		* 34	* 9.6	25.0		33.5	6.0	* 29				
Max Q Clear Time (g_c+I1), s		20.5	7.8	12.3		13.4	5.7	12.8				
Green Ext Time (p_c), s		1.4	0.1	3.1		2.4	0.0	3.8				

Intersection Summary	
HCM 7th Control Delay, s/veh	20.4
HCM 7th LOS	C

Notes

* HCM 7th 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)	278	819	33	163	592	127	37	204	297	146	71	177
Future Volume (veh/h)	278	819	33	163	592	127	37	204	297	146	71	177
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
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	1856	1856	1856	1870	1870	1870	1885	1885	1885	1856	1856	1856
Adj Flow Rate, veh/h	284	836	34	166	604	130	38	208	303	149	72	181
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	3	3	3	2	2	2	1	1	1	3	3	3
Cap, veh/h	368	1005	41	285	720	155	435	288	419	229	194	488
Arrive On Green	0.14	0.29	0.29	0.09	0.25	0.25	0.42	0.42	0.42	0.42	0.42	0.42
Sat Flow, veh/h	1767	3453	140	1781	2910	625	1136	693	1010	882	468	1176
Grp Volume(v), veh/h	284	427	443	166	368	366	38	0	511	149	0	253
Grp Sat Flow(s),veh/h/ln	1767	1763	1830	1781	1777	1758	1136	0	1703	882	0	1644
Q Serve(g_s), s	10.0	19.4	19.4	5.8	16.9	17.0	2.1	0.0	21.5	14.1	0.0	9.1
Cycle Q Clear(g_c), s	10.0	19.4	19.4	5.8	16.9	17.0	11.2	0.0	21.5	35.6	0.0	9.1
Prop In Lane	1.00		0.08	1.00		0.36	1.00		0.59	1.00		0.72
Lane Grp Cap(c), veh/h	368	513	533	285	440	435	435	0	707	229	0	682
V/C Ratio(X)	0.77	0.83	0.83	0.58	0.84	0.84	0.09	0.00	0.72	0.65	0.00	0.37
Avail Cap(c_a), veh/h	379	608	632	291	518	512	435	0	707	229	0	682
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	0.00	1.00
Uniform Delay (d), s/veh	21.3	28.4	28.4	22.7	30.6	30.7	21.2	0.0	21.0	36.0	0.0	17.3
Incr Delay (d2), s/veh	9.2	8.3	8.0	2.8	10.1	10.5	0.1	0.0	3.6	6.4	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	4.8	8.9	9.2	2.5	8.1	8.1	0.5	0.0	8.6	3.4	0.0	3.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	30.6	36.8	36.5	25.5	40.8	41.1	21.3	0.0	24.6	42.4	0.0	17.7
LnGrp LOS	C	D	D	C	D	D	C		C	D		B
Approach Vol, veh/h		1154			900			549			402	
Approach Delay, s/veh		35.1			38.1			24.4			26.8	
Approach LOS		D			D			C			C	

Timer - Assigned Phs	2	3	4	6	7	8
Phs Duration (G+Y+Rc), s	41.1	17.4	27.2	41.1	13.7	31.0
Change Period (Y+Rc), s	* 5.5	* 5.4	6.0	5.5	6.0	* 6
Max Green Setting (Gmax), s	* 36	* 13	25.0	35.5	8.0	* 30
Max Q Clear Time (g_c+I1), s	37.6	12.0	19.0	23.5	7.8	21.4
Green Ext Time (p_c), s	0.0	0.1	2.3	2.8	0.0	3.3

Intersection Summary	
HCM 7th Control Delay, s/veh	32.9
HCM 7th LOS	C

Notes

* HCM 7th computational engine requires equal clearance times for the phases crossing the barrier.

Intersection	
Int Delay, s/veh	198.7

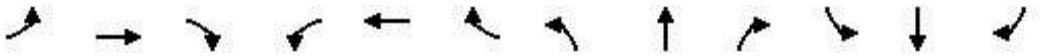
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	16	493	24	162	539	8	32	72	124	6	59	27
Future Vol, veh/h	16	493	24	162	539	8	32	72	124	6	59	27
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
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	17	536	26	176	586	9	35	78	135	7	64	29

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	595	0	0	562	0	0	1554	1530	549	1552	1539	590
Stage 1	-	-	-	-	-	-	584	584	-	942	942	-
Stage 2	-	-	-	-	-	-	970	947	-	610	597	-
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	982	-	-	1009	-	-	92	117	536	92	115	507
Stage 1	-	-	-	-	-	-	498	498	-	315	341	-
Stage 2	-	-	-	-	-	-	304	340	-	482	492	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	982	-	-	1009	-	-	~ 18	84	536	~ 5	83	507
Mov Cap-2 Maneuver	-	-	-	-	-	-	~ 18	84	-	~ 5	83	-
Stage 1	-	-	-	-	-	-	485	485	-	233	252	-
Stage 2	-	-	-	-	-	-	158	251	-	295	479	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	0.26	2.13	$ 1052.48	$ 747.55
HCM LOS			F	F

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	80	54	-	-	410	-	-	45
HCM Lane V/C Ratio	3.09	0.018	-	-	0.174	-	-	2.209
HCM Ctrl Dly (s/v)	$ 1052.5	8.7	0	-	9.3	0	-	$ 747.6
HCM Lane LOS	F	A	A	-	A	A	-	F
HCM 95th %tile Q(veh)	24.7	0.1	-	-	0.6	-	-	10.4

Notes	
~: Volume exceeds capacity	$: Delay exceeds 300s
+: Computation Not Defined	*: All major volume in platoon



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	26	815	40	304	1011	16	65	146	249	13	124	58
Future Volume (veh/h)	26	815	40	304	1011	16	65	146	249	13	124	58
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
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	1900	1856	1900	1885	1811	1604	1900	1856	1870	1900	1900	1900
Adj Flow Rate, veh/h	32	1019	50	349	1162	18	84	190	323	21	203	95
Peak Hour Factor	0.80	0.80	0.80	0.87	0.87	0.87	0.77	0.77	0.77	0.61	0.61	0.61
Percent Heavy Veh, %	0	3	0	1	6	20	0	3	2	0	0	0
Cap, veh/h	363	2550	125	405	2585	40	113	270	406	109	276	234
Arrive On Green	0.75	0.75	0.75	0.75	0.75	0.75	0.15	0.15	0.15	0.15	0.15	0.15
Sat Flow, veh/h	483	3420	168	532	3468	54	1098	1856	2790	901	1900	1610
Grp Volume(v), veh/h	32	525	544	349	576	604	84	190	323	21	203	95
Grp Sat Flow(s),veh/h/ln	483	1763	1825	532	1721	1801	1098	1856	1395	901	1900	1610
Q Serve(g_s), s	3.0	11.9	11.9	70.1	14.1	14.1	4.8	10.7	12.3	2.5	11.2	5.9
Cycle Q Clear(g_c), s	17.1	11.9	11.9	82.0	14.1	14.1	16.0	10.7	12.3	13.2	11.2	5.9
Prop In Lane	1.00		0.09	1.00		0.03	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	363	1314	1361	405	1283	1343	113	270	406	109	276	234
V/C Ratio(X)	0.09	0.40	0.40	0.86	0.45	0.45	0.74	0.70	0.80	0.19	0.73	0.41
Avail Cap(c_a), veh/h	363	1314	1361	405	1283	1343	113	270	406	109	276	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	1.00
Uniform Delay (d), s/veh	8.6	5.1	5.1	20.9	5.4	5.4	53.7	44.7	45.4	51.0	45.0	42.7
Incr Delay (d2), s/veh	0.1	0.2	0.2	17.2	0.2	0.2	23.1	8.0	10.6	0.9	9.7	1.1
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	0.3	3.2	3.3	9.5	3.7	3.9	3.0	5.5	4.8	0.6	6.0	2.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	8.7	5.3	5.3	38.1	5.6	5.6	76.7	52.8	56.0	51.9	54.7	43.8
LnGrp LOS	A	A	A	D	A	A	E	D	E	D	D	D
Approach Vol, veh/h		1101			1529			597			319	
Approach Delay, s/veh		5.4			13.0			57.9			51.3	
Approach LOS		A			B			E			D	

Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		22.0		88.0		22.0		88.0				
Change Period (Y+Rc), s		6.0		6.0		6.0		6.0				
Max Green Setting (Gmax), s		16.0		82.0		16.0		82.0				
Max Q Clear Time (g_c+I1), s		18.0		19.1		15.2		84.0				
Green Ext Time (p_c), s		0.0		8.5		0.1		0.0				

Intersection Summary												
HCM 7th Control Delay, s/veh			21.6									
HCM 7th LOS			C									

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	4	164	4	14	169	35	7	8	26	31	22	5
Future Vol, veh/h	4	164	4	14	169	35	7	8	26	31	22	5
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	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	93	93	93	93	93	93	93	93	93	93	93	93
Heavy Vehicles, %	1	1	1	1	1	1	2	2	2	0	0	0
Mvmt Flow	4	176	4	15	182	38	8	9	28	33	24	5

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	219	0	0	181	0	0	411	437	178	420	420	201
Stage 1	-	-	-	-	-	-	187	187	-	231	231	-
Stage 2	-	-	-	-	-	-	224	249	-	189	189	-
Critical Hdwy	4.11	-	-	4.11	-	-	7.12	6.52	6.22	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.1	5.5	-
Follow-up Hdwy	2.209	-	-	2.209	-	-	3.518	4.018	3.318	3.5	4	3.3
Pot Cap-1 Maneuver	1356	-	-	1401	-	-	551	513	864	547	528	845
Stage 1	-	-	-	-	-	-	815	745	-	777	717	-
Stage 2	-	-	-	-	-	-	779	700	-	817	747	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1356	-	-	1401	-	-	515	505	864	512	519	845
Mov Cap-2 Maneuver	-	-	-	-	-	-	515	505	-	512	519	-
Stage 1	-	-	-	-	-	-	812	743	-	767	708	-
Stage 2	-	-	-	-	-	-	739	692	-	779	745	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	0.18	0.49	10.58	12.64
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	689	42	-	-	112	-	-	533
HCM Lane V/C Ratio	0.064	0.003	-	-	0.011	-	-	0.117
HCM Ctrl Dly (s/v)	10.6	7.7	0	-	7.6	0	-	12.6
HCM Lane LOS	B	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.2	0	-	-	0	-	-	0.4

Intersection	
Int Delay, s/veh	2.9

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	75	39	35	588	348	65
Future Vol, veh/h	75	39	35	588	348	65
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	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	0	0	1	1	0	0
Mvmt Flow	80	41	37	626	370	69

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1105	405	439	0	-	0
Stage 1	405	-	-	-	-	-
Stage 2	700	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.11	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.209	-	-	-
Pot Cap-1 Maneuver	235	650	1126	-	-	-
Stage 1	678	-	-	-	-	-
Stage 2	496	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	223	650	1126	-	-	-
Mov Cap-2 Maneuver	223	-	-	-	-	-
Stage 1	644	-	-	-	-	-
Stage 2	496	-	-	-	-	-

Approach	EB	NB	SB
HCM Ctrl Dly, s/v	26.27	0.47	0
HCM LOS	D		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	101	-	288	-	-
HCM Lane V/C Ratio	0.033	-	0.421	-	-
HCM Ctrl Dly (s/v)	8.3	0	26.3	-	-
HCM Lane LOS	A	A	D	-	-
HCM 95th %tile Q(veh)	0.1	-	2	-	-

Intersection	
Int Delay, s/veh	5.9

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	94	49	40	681	443	83
Future Vol, veh/h	94	49	40	681	443	83
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	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	0	0	1	1	0	0
Mvmt Flow	100	52	43	724	471	88

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1325	515	560	0	-	0
Stage 1	515	-	-	-	-	-
Stage 2	810	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.11	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.209	-	-	-
Pot Cap-1 Maneuver	174	563	1016	-	-	-
Stage 1	604	-	-	-	-	-
Stage 2	441	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	161	563	1016	-	-	-
Mov Cap-2 Maneuver	161	-	-	-	-	-
Stage 1	561	-	-	-	-	-
Stage 2	441	-	-	-	-	-

Approach	EB	NB	SB
HCM Ctrl Dly, s/v	55.06	0.48	0
HCM LOS	F		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	100	-	214	-	-
HCM Lane V/C Ratio	0.042	-	0.712	-	-
HCM Ctrl Dly (s/v)	8.7	0	55.1	-	-
HCM Lane LOS	A	A	F	-	-
HCM 95th %tile Q(veh)	0.1	-	4.6	-	-

Intersection	
Int Delay, s/veh	0.2

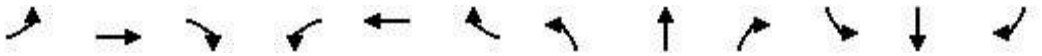
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	132	168	69	100	240	90	51	867	0	0	634	119
Future Vol, veh/h	132	168	69	100	240	90	51	867	0	0	634	119
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	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	94	92	94	92	92	92	94	94	92	92	94	94
Heavy Vehicles, %	0	2	0	2	2	2	1	1	2	2	0	0
Mvmt Flow	140	183	73	109	261	98	54	922	0	0	674	127

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1899	1769	738	1797	1832	922	801	0	-	-	-	0
Stage 1	738	738	-	1031	1031	-	-	-	-	-	-	-
Stage 2	1161	1031	-	766	801	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.52	6.2	7.12	6.52	6.22	4.11	-	-	-	-	-
Critical Hdwy Stg 1	6.1	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4.018	3.3	3.518	4.018	3.318	2.209	-	-	-	-	-
Pot Cap-1 Maneuver	~ 53	~ 83	421	~ 62	~ 76	327	827	-	0	0	-	-
Stage 1	413	424	-	281	310	-	-	-	0	0	-	-
Stage 2	240	310	-	395	397	-	-	-	0	0	-	-
Platoon blocked, %								-			-	-
Mov Cap-1 Maneuver	-	~ 72	421	-	~ 66	327	827	-	-	-	-	-
Mov Cap-2 Maneuver	-	~ 72	-	-	~ 66	-	-	-	-	-	-	-
Stage 1	413	424	-	244	269	-	-	-	-	-	-	-
Stage 2	~ 4	269	-	186	397	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v			0.54	0
HCM LOS	-	-		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	WBLn1	SBT	SBR
Capacity (veh/h)	100	-	-	-	-	-
HCM Lane V/C Ratio	0.066	-	-	-	-	-
HCM Ctrl Dly (s/v)	9.7	0	-	-	-	-
HCM Lane LOS	A	A	-	-	-	-
HCM 95th %tile Q(veh)	0.2	-	-	-	-	-

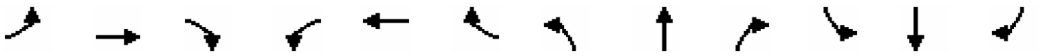
Notes	
~: Volume exceeds capacity	$: Delay exceeds 300s
+: Computation Not Defined	*: All major volume in platoon



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	132	168	69	100	240	90	51	867	0	0	634	119
Future Volume (veh/h)	132	168	69	100	240	90	51	867	0	0	634	119
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
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	1900	1870	1900	1870	1870	1870	1885	1885	0	0	1900	1900
Adj Flow Rate, veh/h	140	183	73	109	261	98	54	922	0	0	674	127
Peak Hour Factor	0.94	0.92	0.94	0.92	0.92	0.92	0.94	0.94	0.92	0.92	0.94	0.94
Percent Heavy Veh, %	0	2	0	2	2	2	1	1	0	0	0	0
Cap, veh/h	168	194	69	144	294	103	178	968	0	0	798	150
Arrive On Green	0.35	0.35	0.35	0.35	0.35	0.35	0.51	0.51	0.00	0.00	0.51	0.51
Sat Flow, veh/h	322	554	198	268	839	293	684	1885	0	0	1554	293
Grp Volume(v), veh/h	396	0	0	468	0	0	54	922	0	0	0	801
Grp Sat Flow(s),veh/h/ln	1074	0	0	1400	0	0	684	1885	0	0	0	1847
Q Serve(g_s), s	2.4	0.0	0.0	0.0	0.0	0.0	6.5	41.2	0.0	0.0	0.0	32.9
Cycle Q Clear(g_c), s	31.0	0.0	0.0	28.6	0.0	0.0	39.4	41.2	0.0	0.0	0.0	32.9
Prop In Lane	0.35		0.18	0.23		0.21	1.00		0.00	0.00		0.16
Lane Grp Cap(c), veh/h	432	0	0	541	0	0	178	968	0	0	0	949
V/C Ratio(X)	0.92	0.00	0.00	0.86	0.00	0.00	0.30	0.95	0.00	0.00	0.00	0.84
Avail Cap(c_a), veh/h	432	0	0	541	0	0	190	1002	0	0	0	982
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	1.00	0.00	0.00	0.00	1.00
Uniform Delay (d), s/veh	28.9	0.0	0.0	27.3	0.0	0.0	35.4	20.5	0.0	0.0	0.0	18.5
Incr Delay (d2), s/veh	24.2	0.0	0.0	13.7	0.0	0.0	0.9	17.8	0.0	0.0	0.0	6.7
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	10.8	0.0	0.0	10.7	0.0	0.0	1.1	19.9	0.0	0.0	0.0	13.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	53.1	0.0	0.0	41.0	0.0	0.0	36.3	38.3	0.0	0.0	0.0	25.1
LnGrp LOS	D			D			D	D				C
Approach Vol, veh/h		396			468			976			801	
Approach Delay, s/veh		53.1			41.0			38.1			25.1	
Approach LOS		D			D			D			C	

Timer - Assigned Phs	2	4	6	8
Phs Duration (G+Y+Rc), s	51.4	37.0	51.4	37.0
Change Period (Y+Rc), s	6.0	6.0	6.0	6.0
Max Green Setting (Gmax), s	47.0	31.0	47.0	31.0
Max Q Clear Time (g_c+I1), s	43.2	33.0	34.9	30.6
Green Ext Time (p_c), s	2.2	0.0	4.2	0.1

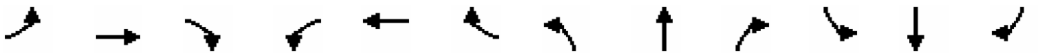
Intersection Summary	
HCM 7th Control Delay, s/veh	37.0
HCM 7th LOS	D



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	106	0	55	0	0	0	124	481	0	0	254	106
Future Volume (veh/h)	106	0	55	0	0	0	124	481	0	0	254	106
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
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	1885	1870	1885	1870	1870	1870	1885	1885	1870	1870	1900	1900
Adj Flow Rate, veh/h	122	0	63	0	0	0	143	553	0	0	292	122
Peak Hour Factor	0.87	0.92	0.87	0.92	0.92	0.92	0.87	0.87	0.92	0.92	0.87	0.87
Percent Heavy Veh, %	1	2	1	2	2	2	1	1	2	2	0	0
Cap, veh/h	172	0	181	5	5	0	186	1065	0	5	383	160
Arrive On Green	0.10	0.00	0.11	0.00	0.00	0.00	0.10	0.56	0.00	0.00	0.30	0.30
Sat Flow, veh/h	1795	0	1585	1781	1870	0	1795	1885	0	1781	1273	532
Grp Volume(v), veh/h	122	0	63	0	0	0	143	553	0	0	0	414
Grp Sat Flow(s),veh/h/ln	1795	0	1585	1781	1870	0	1795	1885	0	1781	0	1804
Q Serve(g_s), s	2.5	0.0	1.4	0.0	0.0	0.0	2.9	6.8	0.0	0.0	0.0	7.8
Cycle Q Clear(g_c), s	2.5	0.0	1.4	0.0	0.0	0.0	2.9	6.8	0.0	0.0	0.0	7.8
Prop In Lane	1.00		1.00	1.00		0.00	1.00		0.00	1.00		0.29
Lane Grp Cap(c), veh/h	172	0	181	5	5	0	186	1065	0	5	0	543
V/C Ratio(X)	0.71	0.00	0.35	0.00	0.00	0.00	0.77	0.52	0.00	0.00	0.00	0.76
Avail Cap(c_a), veh/h	240	0	678	238	800	0	336	1065	0	238	0	869
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	0.00	0.00	0.00	1.00	1.00	0.00	0.00	0.00	1.00
Uniform Delay (d), s/veh	16.4	0.0	15.3	0.0	0.0	0.0	16.3	5.0	0.0	0.0	0.0	11.9
Incr Delay (d2), s/veh	5.5	0.0	1.1	0.0	0.0	0.0	6.6	0.4	0.0	0.0	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	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	0.0	0.4	0.0	0.0	0.0	1.2	0.9	0.0	0.0	0.0	2.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	21.9	0.0	16.4	0.0	0.0	0.0	22.9	5.5	0.0	0.0	0.0	14.1
LnGrp LOS	C		B				C	A				B
Approach Vol, veh/h		185			0			696			414	
Approach Delay, s/veh		20.0			0.0			9.0			14.1	
Approach LOS		C						A			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	0.0	27.1	0.0	10.3	9.9	17.2	9.6	0.7
Change Period (Y+Rc), s	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
Max Green Setting (Gmax), s	5.0	20.0	5.0	16.0	7.0	18.0	5.0	16.0
Max Q Clear Time (g_c+I1), s	0.0	8.8	0.0	3.4	4.9	9.8	4.5	0.0
Green Ext Time (p_c), s	0.0	2.5	0.0	0.2	0.1	1.5	0.0	0.0

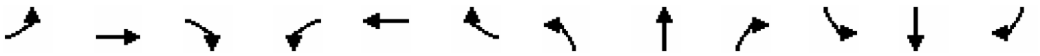
Intersection Summary	
HCM 7th Control Delay, s/veh	12.2
HCM 7th LOS	B



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	133	0	69	0	0	0	140	542	0	0	285	119
Future Volume (veh/h)	133	0	69	0	0	0	140	542	0	0	285	119
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
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	1885	1870	1885	1870	1870	1870	1885	1885	1870	1870	1900	1900
Adj Flow Rate, veh/h	153	0	79	0	0	0	161	623	0	0	328	137
Peak Hour Factor	0.87	0.92	0.87	0.92	0.92	0.92	0.87	0.87	0.92	0.92	0.87	0.87
Percent Heavy Veh, %	1	2	1	2	2	2	1	1	2	2	0	0
Cap, veh/h	195	0	182	4	5	0	207	1105	0	4	409	171
Arrive On Green	0.11	0.00	0.12	0.00	0.00	0.00	0.12	0.59	0.00	0.00	0.32	0.32
Sat Flow, veh/h	1795	0	1585	1781	1870	0	1795	1885	0	1781	1273	532
Grp Volume(v), veh/h	153	0	79	0	0	0	161	623	0	0	0	465
Grp Sat Flow(s),veh/h/ln	1795	0	1585	1781	1870	0	1795	1885	0	1781	0	1804
Q Serve(g_s), s	3.3	0.0	1.9	0.0	0.0	0.0	3.5	8.2	0.0	0.0	0.0	9.5
Cycle Q Clear(g_c), s	3.3	0.0	1.9	0.0	0.0	0.0	3.5	8.2	0.0	0.0	0.0	9.5
Prop In Lane	1.00		1.00	1.00		0.00	1.00		0.00	1.00		0.29
Lane Grp Cap(c), veh/h	195	0	182	4	5	0	207	1105	0	4	0	580
V/C Ratio(X)	0.78	0.00	0.43	0.00	0.00	0.00	0.78	0.56	0.00	0.00	0.00	0.80
Avail Cap(c_a), veh/h	223	0	631	222	745	0	313	1105	0	222	0	808
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	0.00	0.00	0.00	1.00	1.00	0.00	0.00	0.00	1.00
Uniform Delay (d), s/veh	17.4	0.0	16.6	0.0	0.0	0.0	17.3	5.1	0.0	0.0	0.0	12.5
Incr Delay (d2), s/veh	14.7	0.0	1.6	0.0	0.0	0.0	6.8	0.7	0.0	0.0	0.0	4.0
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	1.9	0.0	0.6	0.0	0.0	0.0	1.5	1.2	0.0	0.0	0.0	3.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	32.1	0.0	18.2	0.0	0.0	0.0	24.1	5.8	0.0	0.0	0.0	16.5
LnGrp LOS	C		B				C	A				B
Approach Vol, veh/h		232			0			784			465	
Approach Delay, s/veh		27.4			0.0			9.5			16.5	
Approach LOS		C						A			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	0.0	29.6	0.0	10.6	10.6	18.9	10.4	0.3
Change Period (Y+Rc), s	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
Max Green Setting (Gmax), s	5.0	20.0	5.0	16.0	7.0	18.0	5.0	16.0
Max Q Clear Time (g_c+I1), s	0.0	10.2	0.0	3.9	5.5	11.5	5.3	0.0
Green Ext Time (p_c), s	0.0	2.6	0.0	0.2	0.1	1.5	0.0	0.0

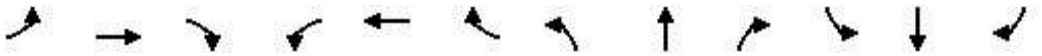
Intersection Summary	
HCM 7th Control Delay, s/veh	14.5
HCM 7th LOS	B



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	188	0	97	0	0	0	171	664	0	0	348	146
Future Volume (veh/h)	188	0	97	0	0	0	171	664	0	0	348	146
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
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	1885	1870	1885	1870	1870	1870	1885	1885	1870	1870	1900	1900
Adj Flow Rate, veh/h	216	0	111	0	0	0	197	763	0	0	400	168
Peak Hour Factor	0.87	0.92	0.87	0.92	0.92	0.92	0.87	0.87	0.92	0.92	0.87	0.87
Percent Heavy Veh, %	1	2	1	2	2	2	1	1	2	2	0	0
Cap, veh/h	268	0	237	3	4	0	249	1180	0	3	476	200
Arrive On Green	0.15	0.00	0.15	0.00	0.00	0.00	0.14	0.63	0.00	0.00	0.37	0.37
Sat Flow, veh/h	1795	0	1585	1781	1870	0	1795	1885	0	1781	1270	534
Grp Volume(v), veh/h	216	0	111	0	0	0	197	763	0	0	0	568
Grp Sat Flow(s),veh/h/ln	1795	0	1585	1781	1870	0	1795	1885	0	1781	0	1804
Q Serve(g_s), s	6.2	0.0	3.4	0.0	0.0	0.0	5.7	13.6	0.0	0.0	0.0	15.3
Cycle Q Clear(g_c), s	6.2	0.0	3.4	0.0	0.0	0.0	5.7	13.6	0.0	0.0	0.0	15.3
Prop In Lane	1.00		1.00	1.00		0.00	1.00		0.00	1.00		0.30
Lane Grp Cap(c), veh/h	268	0	237	3	4	0	249	1180	0	3	0	676
V/C Ratio(X)	0.81	0.00	0.47	0.00	0.00	0.00	0.79	0.65	0.00	0.00	0.00	0.84
Avail Cap(c_a), veh/h	336	0	623	167	560	0	370	1235	0	167	0	979
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	0.00	0.00	0.00	1.00	1.00	0.00	0.00	0.00	1.00
Uniform Delay (d), s/veh	22.0	0.0	20.8	0.0	0.0	0.0	22.3	6.3	0.0	0.0	0.0	15.2
Incr Delay (d2), s/veh	10.8	0.0	1.4	0.0	0.0	0.0	6.8	1.1	0.0	0.0	0.0	4.5
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	3.1	0.0	1.2	0.0	0.0	0.0	2.5	2.9	0.0	0.0	0.0	5.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	32.8	0.0	22.2	0.0	0.0	0.0	29.1	7.4	0.0	0.0	0.0	19.7
LnGrp LOS	C		C				C	A				B
Approach Vol, veh/h		327			0			960			568	
Approach Delay, s/veh		29.2			0.0			11.8			19.7	
Approach LOS		C						B			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	0.0	39.4	0.0	14.0	13.4	26.0	14.0	0.0
Change Period (Y+Rc), s	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
Max Green Setting (Gmax), s	5.0	35.0	5.0	21.0	11.0	29.0	10.0	16.0
Max Q Clear Time (g_c+I1), s	0.0	15.6	0.0	5.4	7.7	17.3	8.2	0.0
Green Ext Time (p_c), s	0.0	4.8	0.0	0.4	0.2	2.7	0.1	0.0

Intersection Summary	
HCM 7th Control Delay, s/veh	17.3
HCM 7th LOS	B



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	188	1033	97	179	927	13	171	664	99	21	348	146
Future Volume (veh/h)	188	1033	97	179	927	13	171	664	99	21	348	146
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
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	1885	1870	1885	1870	1870	1870	1885	1885	1870	1870	1900	1900
Adj Flow Rate, veh/h	216	1123	111	195	1008	14	197	763	108	23	400	168
Peak Hour Factor	0.87	0.92	0.87	0.92	0.92	0.92	0.87	0.87	0.92	0.92	0.87	0.87
Percent Heavy Veh, %	1	2	1	2	2	2	1	1	2	2	0	0
Cap, veh/h	288	1199	539	245	1169	16	354	862	122	155	690	308
Arrive On Green	0.09	0.34	0.34	0.08	0.33	0.33	0.11	0.27	0.27	0.02	0.19	0.19
Sat Flow, veh/h	1795	3554	1598	1781	3588	50	1795	3150	446	1781	3610	1610
Grp Volume(v), veh/h	216	1123	111	195	499	523	197	434	437	23	400	168
Grp Sat Flow(s),veh/h/ln	1795	1777	1598	1781	1777	1861	1795	1791	1805	1781	1805	1610
Q Serve(g_s), s	6.8	26.1	4.2	6.2	22.4	22.4	7.1	19.8	19.8	0.9	8.6	8.0
Cycle Q Clear(g_c), s	6.8	26.1	4.2	6.2	22.4	22.4	7.1	19.8	19.8	0.9	8.6	8.0
Prop In Lane	1.00		1.00	1.00		0.03	1.00		0.25	1.00		1.00
Lane Grp Cap(c), veh/h	288	1199	539	245	579	606	354	490	494	155	690	308
V/C Ratio(X)	0.75	0.94	0.21	0.80	0.86	0.86	0.56	0.88	0.88	0.15	0.58	0.55
Avail Cap(c_a), veh/h	288	1210	544	245	584	612	393	526	530	216	806	359
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	20.4	27.3	20.1	21.2	26.9	26.9	22.8	29.6	29.6	27.5	31.3	31.1
Incr Delay (d2), s/veh	10.4	13.3	0.2	16.4	12.5	12.0	1.4	15.7	15.6	0.4	0.8	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	3.4	12.3	1.5	3.4	10.8	11.2	2.9	9.9	10.0	0.4	3.6	3.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	30.8	40.7	20.3	37.6	39.4	38.9	24.2	45.3	45.3	27.9	32.1	32.6
LnGrp LOS	C	D	C	D	D	D	C	D	D	C	C	C
Approach Vol, veh/h		1450			1217			1068			591	
Approach Delay, s/veh		37.6			38.9			41.4			32.1	
Approach LOS		D			D			D			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.1	29.3	13.0	34.7	15.1	22.3	14.0	33.7
Change Period (Y+Rc), s	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
Max Green Setting (Gmax), s	5.0	25.0	7.0	29.0	11.0	19.0	8.0	28.0
Max Q Clear Time (g_c+I1), s	2.9	21.8	8.2	28.1	9.1	10.6	8.8	24.4
Green Ext Time (p_c), s	0.0	1.5	0.0	0.7	0.1	1.9	0.0	2.0

Intersection Summary	
HCM 7th Control Delay, s/veh	38.2
HCM 7th LOS	D

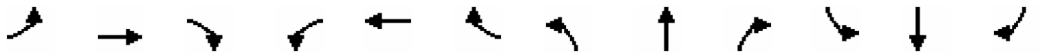
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	3	678	27	161	783	47	71	130	264	68	103	13
Future Volume (veh/h)	3	678	27	161	783	47	71	130	264	68	103	13
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
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	1885	1885	1885	1885	1885	1885	1870	1870	1870	1856	1856	1856
Adj Flow Rate, veh/h	3	706	28	168	816	49	74	135	275	71	107	14
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	1	1	1	1	1	1	2	2	2	3	3	3
Cap, veh/h	228	898	36	349	1192	72	413	406	344	363	340	44
Arrive On Green	0.00	0.26	0.26	0.09	0.35	0.35	0.05	0.22	0.22	0.04	0.21	0.21
Sat Flow, veh/h	1795	3512	139	1795	3433	206	1781	1870	1585	1767	1607	210
Grp Volume(v), veh/h	3	360	374	168	426	439	74	135	275	71	0	121
Grp Sat Flow(s),veh/h/ln	1795	1791	1860	1795	1791	1848	1781	1870	1585	1767	0	1818
Q Serve(g_s), s	0.1	10.2	10.2	3.5	11.1	11.1	1.8	3.3	9.0	1.7	0.0	3.1
Cycle Q Clear(g_c), s	0.1	10.2	10.2	3.5	11.1	11.1	1.8	3.3	9.0	1.7	0.0	3.1
Prop In Lane	1.00		0.07	1.00		0.11	1.00		1.00	1.00		0.12
Lane Grp Cap(c), veh/h	228	458	475	349	622	642	413	406	344	363	0	384
V/C Ratio(X)	0.01	0.79	0.79	0.48	0.68	0.68	0.18	0.33	0.80	0.20	0.00	0.31
Avail Cap(c_a), veh/h	416	552	574	373	622	642	529	587	498	488	0	577
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	0.00	1.00
Uniform Delay (d), s/veh	15.4	18.9	18.9	13.3	15.2	15.2	15.7	18.0	20.2	15.8	0.0	18.1
Incr Delay (d2), s/veh	0.0	6.2	6.0	1.0	3.1	3.0	0.2	0.5	5.9	0.3	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	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	4.3	4.4	1.2	4.1	4.2	0.6	1.3	3.3	0.6	0.0	1.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	15.4	25.1	24.9	14.3	18.3	18.2	15.9	18.5	26.1	16.0	0.0	18.6
LnGrp LOS	B	C	C	B	B	B	B	B	C	B		B
Approach Vol, veh/h		737			1033			484			192	
Approach Delay, s/veh		24.9			17.6			22.4			17.7	
Approach LOS		C			B			C			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	5.6	24.4	7.7	16.7	10.6	19.4	7.5	17.0
Change Period (Y+Rc), s	5.5	5.5	5.2	* 5.2	5.5	5.5	5.0	5.2
Max Green Setting (Gmax), s	5.8	16.8	6.1	* 17	5.8	16.8	6.3	17.1
Max Q Clear Time (g_c+I1), s	2.1	13.1	3.8	5.1	5.5	12.2	3.7	11.0
Green Ext Time (p_c), s	0.0	1.7	0.0	0.4	0.0	1.7	0.0	0.9

Intersection Summary	
HCM 7th Control Delay, s/veh	20.8
HCM 7th LOS	C

Notes

* HCM 7th computational engine requires equal clearance times for the phases crossing the barrier.



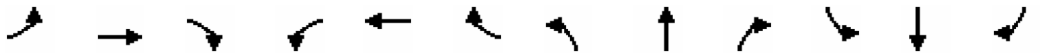
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	4	939	37	223	1084	65	79	145	295	74	113	14
Future Volume (veh/h)	4	939	37	223	1084	65	79	145	295	74	113	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
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	1885	1885	1885	1885	1885	1885	1870	1870	1870	1856	1856	1856
Adj Flow Rate, veh/h	4	978	39	232	1129	68	82	151	307	77	118	15
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	1	1	1	1	1	1	2	2	2	3	3	3
Cap, veh/h	168	1099	44	318	1428	86	403	434	368	345	366	46
Arrive On Green	0.01	0.31	0.31	0.11	0.42	0.42	0.06	0.23	0.23	0.05	0.23	0.23
Sat Flow, veh/h	1795	3511	140	1795	3432	207	1781	1870	1585	1767	1614	205
Grp Volume(v), veh/h	4	499	518	232	589	608	82	151	307	77	0	133
Grp Sat Flow(s),veh/h/ln	1795	1791	1860	1795	1791	1848	1781	1870	1585	1767	0	1819
Q Serve(g_s), s	0.1	19.6	19.6	6.1	21.2	21.2	2.6	5.0	13.7	2.4	0.0	4.5
Cycle Q Clear(g_c), s	0.1	19.6	19.6	6.1	21.2	21.2	2.6	5.0	13.7	2.4	0.0	4.5
Prop In Lane	1.00		0.08	1.00		0.11	1.00		1.00	1.00		0.11
Lane Grp Cap(c), veh/h	168	561	582	318	745	769	403	434	368	345	0	412
V/C Ratio(X)	0.02	0.89	0.89	0.73	0.79	0.79	0.20	0.35	0.83	0.22	0.00	0.32
Avail Cap(c_a), veh/h	289	590	613	328	745	769	440	747	633	390	0	734
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	0.00	1.00
Uniform Delay (d), s/veh	18.5	24.2	24.2	17.0	18.8	18.8	20.2	23.8	27.1	20.2	0.0	23.9
Incr Delay (d2), s/veh	0.1	15.1	14.6	7.8	5.8	5.6	0.2	0.5	5.0	0.3	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	9.7	10.0	2.8	8.6	8.9	1.0	2.1	5.2	0.9	0.0	1.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	18.6	39.3	38.8	24.8	24.6	24.5	20.4	24.2	32.1	20.5	0.0	24.3
LnGrp LOS	B	D	D	C	C	C	C	C	C	C		C
Approach Vol, veh/h		1021			1429			540			210	
Approach Delay, s/veh		39.0			24.6			28.1			22.9	
Approach LOS		D			C			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.0	36.4	9.5	22.2	13.6	28.8	9.1	22.6
Change Period (Y+Rc), s	* 5.6	* 5.6	5.4	* 5.4	* 5.6	* 5.6	* 5.1	5.4
Max Green Setting (Gmax), s	* 5.4	* 27	5.6	* 30	* 8.4	* 24	* 5.9	29.6
Max Q Clear Time (g_c+I1), s	2.1	23.2	4.6	6.5	8.1	21.6	4.4	15.7
Green Ext Time (p_c), s	0.0	2.6	0.0	0.6	0.0	1.5	0.0	1.5

Intersection Summary	
HCM 7th Control Delay, s/veh	29.7
HCM 7th LOS	C

Notes

* HCM 7th computational engine requires equal clearance times for the phases crossing the barrier.



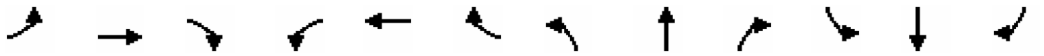
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	5	1125	45	267	1300	78	85	156	318	79	119	15
Future Volume (veh/h)	5	1125	45	267	1300	78	85	156	318	79	119	15
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
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	1885	1885	1885	1885	1885	1885	1870	1870	1870	1856	1856	1856
Adj Flow Rate, veh/h	5	1172	47	278	1354	81	89	162	331	82	124	16
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	1	1	1	1	1	1	2	2	2	3	3	3
Cap, veh/h	117	1102	44	287	1427	85	411	459	389	343	386	50
Arrive On Green	0.01	0.31	0.31	0.11	0.42	0.42	0.05	0.25	0.25	0.05	0.24	0.24
Sat Flow, veh/h	1795	3510	141	1795	3434	205	1781	1870	1585	1767	1610	208
Grp Volume(v), veh/h	5	598	621	278	705	730	89	162	331	82	0	140
Grp Sat Flow(s),veh/h/ln	1795	1791	1860	1795	1791	1848	1781	1870	1585	1767	0	1818
Q Serve(g_s), s	0.1	24.4	24.4	8.0	29.5	29.7	2.9	5.6	15.5	2.7	0.0	4.9
Cycle Q Clear(g_c), s	0.1	24.4	24.4	8.0	29.5	29.7	2.9	5.6	15.5	2.7	0.0	4.9
Prop In Lane	1.00		0.08	1.00		0.11	1.00		1.00	1.00		0.11
Lane Grp Cap(c), veh/h	117	562	584	287	744	768	411	459	389	343	0	436
V/C Ratio(X)	0.04	1.06	1.06	0.97	0.95	0.95	0.22	0.35	0.85	0.24	0.00	0.32
Avail Cap(c_a), veh/h	230	562	584	287	744	768	441	712	604	383	0	700
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	0.00	1.00
Uniform Delay (d), s/veh	21.1	26.7	26.7	18.8	21.9	21.9	20.5	24.2	28.0	20.5	0.0	24.3
Incr Delay (d2), s/veh	0.1	55.7	55.3	44.7	21.0	21.3	0.3	0.5	7.0	0.4	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	0.1	17.9	18.6	6.4	14.9	15.5	1.1	2.3	6.1	1.0	0.0	2.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	21.2	82.4	82.0	63.5	42.9	43.3	20.8	24.7	35.0	20.9	0.0	24.7
LnGrp LOS	C	F	F	E	D	D	C	C	C	C		C
Approach Vol, veh/h		1224			1713			582			222	
Approach Delay, s/veh		81.9			46.4			29.9			23.3	
Approach LOS		F			D			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.1	37.9	9.7	24.0	14.0	30.0	9.2	24.5
Change Period (Y+Rc), s	* 5.6	* 5.6	5.4	* 5.4	* 5.6	* 5.6	* 5.1	5.4
Max Green Setting (Gmax), s	* 5.4	* 27	5.6	* 30	* 8.4	* 24	* 5.9	29.6
Max Q Clear Time (g_c+I1), s	2.1	31.7	4.9	6.9	10.0	26.4	4.7	17.5
Green Ext Time (p_c), s	0.0	0.0	0.0	0.6	0.0	0.0	0.0	1.6

Intersection Summary	
HCM 7th Control Delay, s/veh	54.1
HCM 7th LOS	D

Notes

* HCM 7th computational engine requires equal clearance times for the phases crossing the barrier.



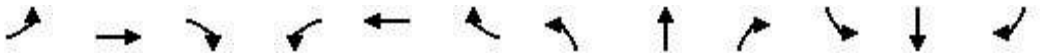
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	7	1498	60	356	1730	104	97	178	362	88	133	17
Future Volume (veh/h)	7	1498	60	356	1730	104	97	178	362	88	133	17
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
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	1885	1885	1885	1885	1885	1885	1870	1870	1870	1856	1856	1856
Adj Flow Rate, veh/h	7	1560	62	371	1802	108	101	185	377	92	139	18
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	1	1	1	1	1	1	2	2	2	3	3	3
Cap, veh/h	99	1511	60	364	2051	122	277	382	324	220	329	43
Arrive On Green	0.01	0.43	0.43	0.18	0.60	0.60	0.04	0.20	0.20	0.04	0.20	0.20
Sat Flow, veh/h	1795	3512	139	1795	3435	204	1781	1870	1585	1767	1610	208
Grp Volume(v), veh/h	7	793	829	371	931	979	101	185	377	92	0	157
Grp Sat Flow(s),veh/h/ln	1795	1791	1860	1795	1791	1848	1781	1870	1585	1767	0	1818
Q Serve(g_s), s	0.3	62.4	62.4	25.4	63.3	65.8	5.6	12.7	29.6	5.9	0.0	10.9
Cycle Q Clear(g_c), s	0.3	62.4	62.4	25.4	63.3	65.8	5.6	12.7	29.6	5.9	0.0	10.9
Prop In Lane	1.00		0.07	1.00		0.11	1.00		1.00	1.00		0.11
Lane Grp Cap(c), veh/h	99	771	800	364	1069	1104	277	382	324	220	0	371
V/C Ratio(X)	0.07	1.03	1.04	1.02	0.87	0.89	0.36	0.48	1.17	0.42	0.00	0.42
Avail Cap(c_a), veh/h	151	771	800	364	1069	1104	277	382	324	220	0	375
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	0.00	1.00
Uniform Delay (d), s/veh	29.1	41.3	41.3	50.5	24.5	25.0	45.9	51.0	57.7	44.4	0.0	50.3
Incr Delay (d2), s/veh	0.3	40.1	41.3	52.0	8.0	8.9	0.8	1.0	102.7	1.3	0.0	0.8
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	0.1	34.8	36.4	17.8	27.0	29.1	0.5	5.9	20.8	2.7	0.0	5.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	29.4	81.4	82.6	102.6	32.5	34.0	46.7	51.9	160.4	45.7	0.0	51.0
LnGrp LOS	C	F	F	F	C	C	D	D	F	D		D
Approach Vol, veh/h		1629			2281			663			249	
Approach Delay, s/veh		81.8			44.5			112.8			49.1	
Approach LOS		F			D			F			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.8	92.2	11.0	35.0	31.0	68.0	11.0	35.0
Change Period (Y+Rc), s	* 5.6	* 5.6	5.4	* 5.4	* 5.6	* 5.6	* 5.1	5.4
Max Green Setting (Gmax), s	* 5.4	* 82	5.6	* 30	* 25	* 62	* 5.9	29.6
Max Q Clear Time (g_c+I1), s	2.3	67.8	7.6	12.9	27.4	64.4	7.9	31.6
Green Ext Time (p_c), s	0.0	10.7	0.0	0.6	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 7th Control Delay, s/veh	66.7
HCM 7th LOS	E

Notes

* HCM 7th 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)	7	1498	60	356	1730	104	97	178	362	88	133	17
Future Volume (veh/h)	7	1498	60	356	1730	104	97	178	362	88	133	17
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
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	1885	1885	1885	1885	1885	1885	1870	1870	1870	1856	1856	1856
Adj Flow Rate, veh/h	7	1560	62	371	1802	108	101	185	377	92	139	18
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	1	1	1	1	1	1	2	2	2	3	3	3
Cap, veh/h	131	1658	740	393	2275	1015	229	297	443	175	291	246
Arrive On Green	0.01	0.46	0.46	0.18	0.64	0.64	0.04	0.16	0.16	0.04	0.16	0.16
Sat Flow, veh/h	1795	3582	1598	1795	3582	1598	1781	1870	2790	1767	1856	1572
Grp Volume(v), veh/h	7	1560	62	371	1802	108	101	185	377	92	139	18
Grp Sat Flow(s),veh/h/ln	1795	1791	1598	1795	1791	1598	1781	1870	1395	1767	1856	1572
Q Serve(g_s), s	0.3	56.2	2.9	22.4	50.1	3.6	5.1	12.5	17.8	5.1	9.3	1.3
Cycle Q Clear(g_c), s	0.3	56.2	2.9	22.4	50.1	3.6	5.1	12.5	17.8	5.1	9.3	1.3
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	131	1658	740	393	2275	1015	229	297	443	175	291	246
V/C Ratio(X)	0.05	0.94	0.08	0.94	0.79	0.11	0.44	0.62	0.85	0.52	0.48	0.07
Avail Cap(c_a), veh/h	182	1698	757	398	2275	1015	229	400	596	175	397	336
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	21.7	34.7	20.4	44.0	18.2	9.7	48.9	53.3	55.5	48.8	52.1	48.8
Incr Delay (d2), s/veh	0.2	10.7	0.0	31.1	2.0	0.0	1.3	2.1	8.7	2.8	1.2	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	0.1	25.5	1.1	15.5	19.1	1.2	0.7	5.9	6.7	0.6	4.3	0.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	21.9	45.4	20.4	75.1	20.2	9.7	50.2	55.4	64.2	51.6	53.4	48.9
LnGrp LOS	C	D	C	E	C	A	D	E	E	D	D	D
Approach Vol, veh/h		1629			2281			663			249	
Approach Delay, s/veh		44.4			28.6			59.6			52.4	
Approach LOS		D			C			E			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.8	91.7	10.5	26.6	30.1	68.4	10.2	26.9
Change Period (Y+Rc), s	* 5.6	* 5.6	5.4	* 5.4	* 5.6	* 5.6	* 5.1	5.4
Max Green Setting (Gmax), s	* 5	* 84	5.1	* 29	* 25	* 64	* 5.1	29.0
Max Q Clear Time (g_c+I1), s	2.3	52.1	7.1	11.3	24.4	58.2	7.1	19.8
Green Ext Time (p_c), s	0.0	18.1	0.0	0.6	0.1	4.6	0.0	1.7

Intersection Summary	
HCM 7th Control Delay, s/veh	39.4
HCM 7th LOS	D

Notes

* HCM 7th computational engine requires equal clearance times for the phases crossing the barrier.

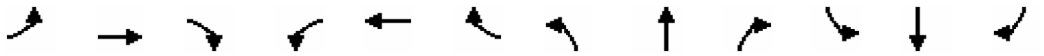
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	76	16	6	42	8	117	16	355	46	167	478	53
Future Volume (veh/h)	76	16	6	42	8	117	16	355	46	167	478	53
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
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	1885	1885	1885	1841	1841	1841	1856	1856	1856	1885	1885	1885
Adj Flow Rate, veh/h	81	17	6	45	9	124	17	378	49	178	509	56
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	1	1	1	4	4	4	3	3	3	1	1	1
Cap, veh/h	313	194	68	394	14	188	30	675	87	239	1077	118
Arrive On Green	0.06	0.15	0.15	0.04	0.13	0.13	0.02	0.21	0.21	0.13	0.33	0.33
Sat Flow, veh/h	1795	1331	470	1753	107	1470	1767	3141	404	1795	3255	357
Grp Volume(v), veh/h	81	0	23	45	0	133	17	211	216	178	279	286
Grp Sat Flow(s),veh/h/ln	1795	0	1801	1753	0	1576	1767	1763	1783	1795	1791	1821
Q Serve(g_s), s	1.8	0.0	0.5	1.0	0.0	3.8	0.4	5.0	5.1	4.5	5.8	5.8
Cycle Q Clear(g_c), s	1.8	0.0	0.5	1.0	0.0	3.8	0.4	5.0	5.1	4.5	5.8	5.8
Prop In Lane	1.00		0.26	1.00		0.93	1.00		0.23	1.00		0.20
Lane Grp Cap(c), veh/h	313	0	262	394	0	202	30	379	383	239	593	603
V/C Ratio(X)	0.26	0.00	0.09	0.11	0.00	0.66	0.57	0.56	0.56	0.75	0.47	0.47
Avail Cap(c_a), veh/h	1151	0	940	1243	0	823	922	2047	2070	937	2079	2114
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	1.00	1.00
Uniform Delay (d), s/veh	16.5	0.0	17.4	16.8	0.0	19.5	22.9	16.4	16.5	19.6	12.5	12.5
Incr Delay (d2), s/veh	0.4	0.0	0.1	0.1	0.0	3.6	15.8	1.3	1.3	4.6	0.6	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	0.7	0.0	0.2	0.4	0.0	1.5	0.3	2.0	2.0	2.0	2.1	2.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	17.0	0.0	17.5	16.9	0.0	23.1	38.7	17.7	17.8	24.2	13.0	13.0
LnGrp LOS	B		B	B		C	D	B	B	C	B	B
Approach Vol, veh/h		104			178			444			743	
Approach Delay, s/veh		17.1			21.6			18.6			15.7	
Approach LOS		B			C			B			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.7	15.6	7.3	12.3	6.3	21.0	8.1	11.5
Change Period (Y+Rc), s	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5
Max Green Setting (Gmax), s	24.5	54.5	24.5	24.5	24.5	54.5	24.5	24.5
Max Q Clear Time (g_c+I1), s	6.5	7.1	3.0	2.5	2.4	7.8	3.8	5.8
Green Ext Time (p_c), s	0.4	3.0	0.1	0.1	0.0	4.1	0.2	0.7

Intersection Summary	
HCM 7th Control Delay, s/veh	17.4
HCM 7th LOS	B

Notes

User approved pedestrian interval to be less than phase max green.



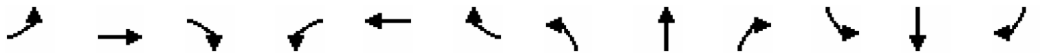
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	232	547	38	95	746	342	30	55	83	186	53	132
Future Volume (veh/h)	232	547	38	95	746	342	30	55	83	186	53	132
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
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	1885	1885	1885	1841	1841	1841	1885	1885	1885
Adj Flow Rate, veh/h	249	588	41	102	802	368	32	59	89	200	57	142
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	1	1	1	4	4	4	1	1	1
Cap, veh/h	329	1498	104	465	927	424	220	83	125	290	81	202
Arrive On Green	0.11	0.44	0.44	0.06	0.39	0.39	0.03	0.13	0.13	0.08	0.17	0.17
Sat Flow, veh/h	1781	3370	235	1795	2388	1092	1753	662	999	1795	479	1192
Grp Volume(v), veh/h	249	310	319	102	601	569	32	0	148	200	0	199
Grp Sat Flow(s),veh/h/ln	1781	1777	1828	1795	1791	1689	1753	0	1661	1795	0	1671
Q Serve(g_s), s	6.0	8.7	8.8	2.5	23.0	23.2	1.2	0.0	6.4	6.0	0.0	8.4
Cycle Q Clear(g_c), s	6.0	8.7	8.8	2.5	23.0	23.2	1.2	0.0	6.4	6.0	0.0	8.4
Prop In Lane	1.00		0.13	1.00		0.65	1.00		0.60	1.00		0.71
Lane Grp Cap(c), veh/h	329	790	813	465	695	655	220	0	208	290	0	282
V/C Ratio(X)	0.76	0.39	0.39	0.22	0.86	0.87	0.15	0.00	0.71	0.69	0.00	0.70
Avail Cap(c_a), veh/h	399	884	910	492	757	713	297	0	884	290	0	896
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	0.00	1.00
Uniform Delay (d), s/veh	16.1	13.9	13.9	12.2	21.0	21.1	27.1	0.0	31.3	27.8	0.0	29.2
Incr Delay (d2), s/veh	6.6	0.3	0.3	0.2	9.7	10.5	0.3	0.0	4.5	6.7	0.0	3.2
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	2.5	3.1	3.1	0.9	10.5	10.1	0.5	0.0	2.8	3.5	0.0	3.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	22.6	14.3	14.3	12.5	30.7	31.5	27.4	0.0	35.8	34.5	0.0	32.4
LnGrp LOS	C	B	B	B	C	C	C		D	C		C
Approach Vol, veh/h		878			1272			180			399	
Approach Delay, s/veh		16.6			29.6			34.3			33.5	
Approach LOS		B			C			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	14.1	34.8	7.7	17.9	9.9	39.0	11.0	14.6
Change Period (Y+Rc), s	5.9	* 5.9	5.3	* 5.3	5.5	5.9	5.0	5.3
Max Green Setting (Gmax), s	11.1	* 32	5.7	* 40	5.5	37.1	6.0	39.7
Max Q Clear Time (g_c+I1), s	8.0	25.2	3.2	10.4	4.5	10.8	8.0	8.4
Green Ext Time (p_c), s	0.2	3.8	0.0	1.2	0.0	3.6	0.0	0.9

Intersection Summary	
HCM 7th Control Delay, s/veh	26.3
HCM 7th LOS	C

Notes

* HCM 7th 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)	268	632	44	110	863	395	37	69	104	226	64	160
Future Volume (veh/h)	268	632	44	110	863	395	37	69	104	226	64	160
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
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	1885	1885	1885	1841	1841	1841	1885	1885	1885
Adj Flow Rate, veh/h	288	680	47	118	928	425	40	74	112	243	69	172
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	1	1	1	4	4	4	1	1	1
Cap, veh/h	303	1619	112	440	1002	454	188	98	149	254	85	212
Arrive On Green	0.11	0.48	0.48	0.06	0.42	0.42	0.04	0.15	0.15	0.07	0.18	0.18
Sat Flow, veh/h	1781	3372	233	1795	2396	1085	1753	661	1000	1795	478	1192
Grp Volume(v), veh/h	288	358	369	118	691	662	40	0	186	243	0	241
Grp Sat Flow(s),veh/h/ln	1781	1777	1828	1795	1791	1690	1753	0	1661	1795	0	1671
Q Serve(g_s), s	9.2	11.6	11.6	3.3	32.2	33.1	1.7	0.0	9.5	6.0	0.0	12.2
Cycle Q Clear(g_c), s	9.2	11.6	11.6	3.3	32.2	33.1	1.7	0.0	9.5	6.0	0.0	12.2
Prop In Lane	1.00		0.13	1.00		0.64	1.00		0.60	1.00		0.71
Lane Grp Cap(c), veh/h	303	853	878	440	749	707	188	0	247	254	0	297
V/C Ratio(X)	0.95	0.42	0.42	0.27	0.92	0.94	0.21	0.00	0.75	0.96	0.00	0.81
Avail Cap(c_a), veh/h	303	853	878	531	762	719	239	0	748	254	0	758
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	0.00	1.00
Uniform Delay (d), s/veh	23.3	14.9	14.9	13.2	24.3	24.5	30.6	0.0	36.0	35.6	0.0	34.8
Incr Delay (d2), s/veh	38.5	0.3	0.3	0.3	16.5	19.6	0.6	0.0	4.6	44.9	0.0	5.3
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	6.6	4.2	4.3	1.3	16.0	16.0	0.7	0.0	4.1	5.4	0.0	5.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	61.8	15.3	15.3	13.6	40.8	44.2	31.2	0.0	40.6	80.6	0.0	40.1
LnGrp LOS	E	B	B	B	D	D	C		D	F		D
Approach Vol, veh/h		1015			1471			226			484	
Approach Delay, s/veh		28.5			40.1			38.9			60.4	
Approach LOS		C			D			D			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	16.0	42.8	8.4	21.0	10.6	48.2	11.0	18.4
Change Period (Y+Rc), s	5.9	* 5.9	5.3	* 5.3	5.5	5.9	5.0	5.3
Max Green Setting (Gmax), s	10.1	* 38	5.7	* 40	9.5	38.1	6.0	39.7
Max Q Clear Time (g_c+I1), s	11.2	35.1	3.7	14.2	5.3	13.6	8.0	11.5
Green Ext Time (p_c), s	0.0	1.8	0.0	1.5	0.1	4.2	0.0	1.2

Intersection Summary	
HCM 7th Control Delay, s/veh	39.4
HCM 7th LOS	D

Notes

* HCM 7th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations												
Traffic Volume (veh/h)	340	803	56	4	139	1096	502	52	97	146	307	87
Future Volume (veh/h)	340	803	56	4	139	1096	502	52	97	146	307	87
Initial Q (Qb), veh	0	0	0		0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	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
Work Zone On Approach		No				No			No			No
Adj Sat Flow, veh/h/ln	1870	1870	1870		1885	1885	1885	1841	1841	1841	1885	1885
Adj Flow Rate, veh/h	366	863	60		149	1178	540	56	104	157	330	94
Peak Hour Factor	0.93	0.93	0.93		0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2		1	1	1	4	4	4	1	1
Cap, veh/h	300	1744	121		380	1061	465	146	129	195	215	105
Arrive On Green	0.14	0.52	0.52		0.06	0.44	0.44	0.04	0.20	0.20	0.06	0.22
Sat Flow, veh/h	1781	3371	234		1795	2423	1062	1753	662	999	1795	480
Grp Volume(v), veh/h	366	455	468		149	857	861	56	0	261	330	0
Grp Sat Flow(s),veh/h/ln	1781	1777	1828		1795	1791	1694	1753	0	1661	1795	0
Q Serve(g_s), s	18.1	21.8	21.8		5.9	57.5	57.5	3.3	0.0	19.7	8.0	0.0
Cycle Q Clear(g_c), s	18.1	21.8	21.8		5.9	57.5	57.5	3.3	0.0	19.7	8.0	0.0
Prop In Lane	1.00		0.13		1.00		0.63	1.00		0.60	1.00	
Lane Grp Cap(c), veh/h	300	919	946		380	784	742	146	0	324	215	0
V/C Ratio(X)	1.22	0.49	0.49		0.39	1.09	1.16	0.38	0.00	0.81	1.54	0.00
Avail Cap(c_a), veh/h	300	919	946		454	784	742	173	0	502	215	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
Upstream Filter(I)	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	45.1	20.6	20.6		18.6	36.9	36.9	42.1	0.0	50.5	49.9	0.0
Incr Delay (d2), s/veh	124.7	0.4	0.4		0.7	60.2	87.1	1.6	0.0	5.4	263.1	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
%ile BackOfQ(50%),veh/ln	15.7	8.7	8.9		2.5	37.4	40.9	1.5	0.0	8.8	18.9	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	169.8	21.0	21.0		19.3	97.1	124.0	43.7	0.0	55.8	313.0	0.0
LnGrp LOS	F	C	C		B	F	F	D		E	F	
Approach Vol, veh/h		1289				1867			317			657
Approach Delay, s/veh		63.2				103.3			53.7			188.9
Approach LOS		E				F			D			F

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	24.0	63.4	10.0	34.0	13.6	73.8	13.0	30.9
Change Period (Y+Rc), s	5.9	* 5.9	5.3	* 5.3	5.5	5.9	5.0	5.3
Max Green Setting (Gmax), s	18.1	* 58	6.7	* 41	13.5	62.1	8.0	39.7
Max Q Clear Time (g_c+I1), s	20.1	59.5	5.3	27.0	7.9	23.8	10.0	21.7
Green Ext Time (p_c), s	0.0	0.0	0.0	1.7	0.2	6.1	0.0	1.5

Intersection Summary	
HCM 7th Control Delay, s/veh	100.6
HCM 7th LOS	F

Notes

User approved ignoring U-Turning movement.

* HCM 7th computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations												
Traffic Volume (veh/h)	340	803	56	4	139	1096	502	52	97	146	307	87
Future Volume (veh/h)	340	803	56	4	139	1096	502	52	97	146	307	87
Initial Q (Qb), veh	0	0	0		0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	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
Work Zone On Approach		No				No			No			No
Adj Sat Flow, veh/h/ln	1870	1870	1870		1885	1885	1885	1841	1841	1841	1885	1885
Adj Flow Rate, veh/h	366	863	60		149	1178	540	56	104	157	330	94
Peak Hour Factor	0.93	0.93	0.93		0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2		1	1	1	4	4	4	1	1
Cap, veh/h	520	1409	98		336	1501	636	196	146	221	513	111
Arrive On Green	0.08	0.42	0.42		0.07	0.40	0.40	0.04	0.22	0.22	0.05	0.23
Sat Flow, veh/h	3456	3371	234		1795	3770	1598	1753	662	999	3483	480
Grp Volume(v), veh/h	366	455	468		149	1178	540	56	0	261	330	0
Grp Sat Flow(s),veh/h/ln	1728	1777	1828		1795	1885	1598	1753	0	1661	1742	0
Q Serve(g_s), s	5.6	18.3	18.3		4.4	25.0	28.1	2.2	0.0	13.3	5.0	0.0
Cycle Q Clear(g_c), s	5.6	18.3	18.3		4.4	25.0	28.1	2.2	0.0	13.3	5.0	0.0
Prop In Lane	1.00		0.13		1.00		1.00	1.00		0.60	1.00	
Lane Grp Cap(c), veh/h	520	743	764		336	1501	636	196	0	367	513	0
V/C Ratio(X)	0.70	0.61	0.61		0.44	0.78	0.85	0.29	0.00	0.71	0.64	0.00
Avail Cap(c_a), veh/h	558	747	769		402	1623	688	221	0	728	513	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
Upstream Filter(I)	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	19.9	20.8	20.8		16.1	24.1	25.0	27.3	0.0	33.0	31.0	0.0
Incr Delay (d2), s/veh	3.7	1.5	1.4		0.9	2.4	9.3	0.8	0.0	2.6	2.8	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
%ile BackOfQ(50%),veh/ln	2.2	7.2	7.4		1.8	10.9	11.9	1.0	0.0	5.6	1.3	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	23.6	22.3	22.3		17.0	26.5	34.3	28.0	0.0	35.5	33.8	0.0
LnGrp LOS	C	C	C		B	C	C	C		D	C	
Approach Vol, veh/h		1289				1867			317			657
Approach Delay, s/veh		22.6				28.0			34.2			36.3
Approach LOS		C				C			C			D

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	13.7	42.4	9.1	26.4	11.9	44.2	10.0	25.5
Change Period (Y+Rc), s	5.9	* 5.9	5.3	* 5.3	5.5	5.9	5.0	5.3
Max Green Setting (Gmax), s	8.8	* 39	5.1	* 40	9.7	38.5	5.0	40.1
Max Q Clear Time (g_c+I1), s	7.6	30.1	4.2	19.1	6.4	20.3	7.0	15.3
Green Ext Time (p_c), s	0.2	6.3	0.0	2.0	0.1	5.1	0.0	1.7

Intersection Summary	
HCM 7th Control Delay, s/veh	28.1
HCM 7th LOS	C

Notes

User approved volume balancing among the lanes for turning movement.
User approved ignoring U-Turning movement.



Movement	SBR
Lane Configurations	
Traffic Volume (veh/h)	217
Future Volume (veh/h)	217
Initial Q (Qb), veh	0
Lane Width Adj.	1.00
Ped-Bike Adj(A_pbT)	1.00
Parking Bus, Adj	1.00
Work Zone On Approach	
Adj Sat Flow, veh/h/ln	1885
Adj Flow Rate, veh/h	233
Peak Hour Factor	0.93
Percent Heavy Veh, %	1
Cap, veh/h	275
Arrive On Green	0.23
Sat Flow, veh/h	1191
Grp Volume(v), veh/h	327
Grp Sat Flow(s),veh/h/ln	1671
Q Serve(g_s), s	17.1
Cycle Q Clear(g_c), s	17.1
Prop In Lane	0.71
Lane Grp Cap(c), veh/h	385
V/C Ratio(X)	0.85
Avail Cap(c_a), veh/h	730
HCM Platoon Ratio	1.00
Upstream Filter(I)	1.00
Uniform Delay (d), s/veh	33.7
Incr Delay (d2), s/veh	5.2
Initial Q Delay(d3), s/veh	0.0
%ile BackOfQ(50%),veh/ln	7.3
Unsig. Movement Delay, s/veh	
LnGrp Delay(d), s/veh	38.9
LnGrp LOS	D
Approach Vol, veh/h	
Approach Delay, s/veh	
Approach LOS	
Timer - Assigned Phs	

* HCM 7th computational engine requires equal clearance times for the phases crossing the barrier.

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	1	2	6	21	10	25	7	788	31	17	427	8
Future Vol, veh/h	1	2	6	21	10	25	7	788	31	17	427	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	-	-	-	-	-	-	120	-	-	120	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	94	94	94	94	94	94	94	94	94	94	94	94
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	1	2	6	22	11	27	7	838	33	18	454	9

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	934	1381	231	1134	1369	436	463	0	0	871	0	0
Stage 1	495	495	-	870	870	-	-	-	-	-	-	-
Stage 2	439	886	-	264	499	-	-	-	-	-	-	-
Critical Hdwy	7.5	6.5	6.9	7.5	6.5	6.9	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.5	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.5	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	224	145	777	160	148	574	1109	-	-	782	-	-
Stage 1	530	549	-	317	372	-	-	-	-	-	-	-
Stage 2	572	365	-	724	547	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	192	141	777	152	144	574	1109	-	-	782	-	-
Mov Cap-2 Maneuver	192	141	-	152	144	-	-	-	-	-	-	-
Stage 1	518	537	-	315	369	-	-	-	-	-	-	-
Stage 2	526	363	-	698	534	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	16.16	26.99	0.07	0.37
HCM LOS	C	D		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1109	-	-	332	222	782	-	-
HCM Lane V/C Ratio	0.007	-	-	0.029	0.268	0.023	-	-
HCM Ctrl Dly (s/v)	8.3	-	-	16.2	27	9.7	-	-
HCM Lane LOS	A	-	-	C	D	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.1	1	0.1	-	-

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	1	3	8	33	16	39	9	1009	40	22	547	10
Future Vol, veh/h	1	3	8	33	16	39	9	1009	40	22	547	10
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	-	-	-	-	-	-	120	-	-	120	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	94	94	94	94	94	94	94	94	94	94	94	94
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	1	3	9	35	17	41	10	1073	43	23	582	11

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1198	1769	296	1453	1753	558	593	0	0	1116	0	0
Stage 1	634	634	-	1114	1114	-	-	-	-	-	-	-
Stage 2	564	1135	-	339	639	-	-	-	-	-	-	-
Critical Hdwy	7.5	6.5	6.9	7.5	6.5	6.9	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.5	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.5	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	143	84	706	93	86	478	993	-	-	633	-	-
Stage 1	439	476	-	225	286	-	-	-	-	-	-	-
Stage 2	482	280	-	654	473	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	100	80	706	84	82	478	993	-	-	633	-	-
Mov Cap-2 Maneuver	100	80	-	84	82	-	-	-	-	-	-	-
Stage 1	422	458	-	223	283	-	-	-	-	-	-	-
Stage 2	410	277	-	618	456	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	23.75	80.95	0.07	0.41
HCM LOS	C	F		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	993	-	-	205	132	633	-	-
HCM Lane V/C Ratio	0.01	-	-	0.062	0.71	0.037	-	-
HCM Ctrl Dly (s/v)	8.7	-	-	23.8	80.9	10.9	-	-
HCM Lane LOS	A	-	-	C	F	B	-	-
HCM 95th %tile Q(veh)	0	-	-	0.2	4	0.1	-	-

Intersection	
Int Delay, s/veh	15.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	1	3	9	41	20	49	10	1166	46	25	632	12
Future Vol, veh/h	1	3	9	41	20	49	10	1166	46	25	632	12
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	-	-	-	-	-	-	120	-	-	120	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	94	94	94	94	94	94	94	94	94	94	94	94
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	1	3	10	44	21	52	11	1240	49	27	672	13

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1384	2043	343	1677	2024	645	685	0	0	1289	0	0
Stage 1	732	732	-	1286	1286	-	-	-	-	-	-	-
Stage 2	652	1311	-	391	738	-	-	-	-	-	-	-
Critical Hdwy	7.5	6.5	6.9	7.5	6.5	6.9	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.5	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.5	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	105	57	659	63	59	420	918	-	-	545	-	-
Stage 1	383	430	-	177	237	-	-	-	-	-	-	-
Stage 2	428	231	-	610	427	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	54	54	659	55	55	420	918	-	-	545	-	-
Mov Cap-2 Maneuver	54	54	-	55	55	-	-	-	-	-	-	-
Stage 1	365	409	-	175	234	-	-	-	-	-	-	-
Stage 2	337	228	-	568	406	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	31.91	278.88	0.07	0.45
HCM LOS	D	F		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	918	-	-	148	90	545	-	-
HCM Lane V/C Ratio	0.012	-	-	0.094	1.298	0.049	-	-
HCM Ctrl Dly (s/v)	9	-	-	31.9	278.9	11.9	-	-
HCM Lane LOS	A	-	-	D	F	B	-	-
HCM 95th %tile Q(veh)	0	-	-	0.3	8.5	0.2	-	-

Intersection	
Int Delay, s/veh	106.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	2	4	11	58	28	69	13	1481	58	32	803	15
Future Vol, veh/h	2	4	11	58	28	69	13	1481	58	32	803	15
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	-	-	-	-	-	-	120	-	-	120	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	94	94	94	94	94	94	94	94	94	94	94	94
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	2	4	12	62	30	73	14	1576	62	34	854	16

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1761	2595	435	2131	2572	819	870	0	0	1637	0	0
Stage 1	930	930	-	1634	1634	-	-	-	-	-	-	-
Stage 2	830	1665	-	497	938	-	-	-	-	-	-	-
Critical Hdwy	7.5	6.5	6.9	7.5	6.5	6.9	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.5	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.5	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	55	25	575	~ 29	~ 26	323	783	-	-	401	-	-
Stage 1	291	349	-	107	161	-	-	-	-	-	-	-
Stage 2	335	155	-	528	346	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	-	23	575	~ 21	~ 24	323	783	-	-	401	-	-
Mov Cap-2 Maneuver	-	23	-	~ 21	~ 24	-	-	-	-	-	-	-
Stage 1	267	319	-	106	158	-	-	-	-	-	-	-
Stage 2	206	153	-	467	316	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v		$ 1761.19	0.08	0.56
HCM LOS	-	F		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	783	-	-	-	37	401	-	-
HCM Lane V/C Ratio	0.018	-	-	-	4.43	0.085	-	-
HCM Ctrl Dly (s/v)	9.7	-	-	-	$ 1761.2	14.8	-	-
HCM Lane LOS	A	-	-	-	F	B	-	-
HCM 95th %tile Q(veh)	0.1	-	-	-	19.2	0.3	-	-

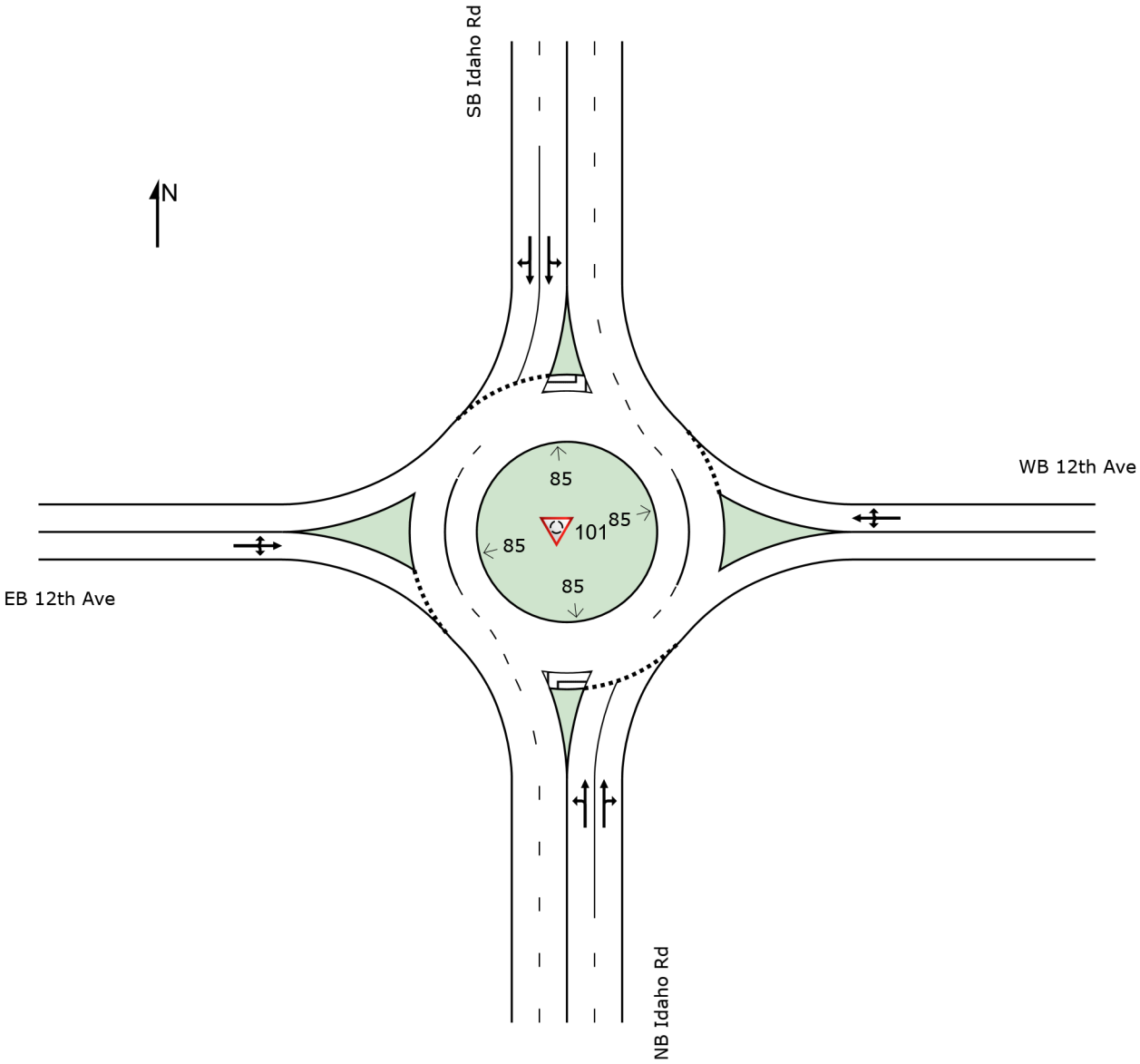
Notes	
~: Volume exceeds capacity	$: Delay exceeds 300s
+: Computation Not Defined	*: All major volume in platoon

SITE LAYOUT

Site: 101 [Idaho_12th_2045_PM (Site Folder: General)]

New Site
Site Category: (None)
Roundabout

Layout pictures are schematic functional drawings reflecting input data. They are not design drawings.



SIDRA INTERSECTION 9.1 | Copyright © 2000-2024 Akcelik and Associates Pty Ltd | sidrasolutions.com
Organisation: J.U.B ENGINEERS, INC. | Licence: PLUS / 1PC | Created: Thursday, July 3, 2025 11:13:40 AM
Project: \\jub.com\Central\Clients\ID\PostFallsCity\Projects\07-23-040_TMP\Planning\Traffic\Sidra\2045Build\Idaho_12th.sip9

MOVEMENT SUMMARY

Site: 101 [Idaho_12th_2045_PM (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

New Site
Site Category: (None)
Roundabout

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] ft	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed mph
South: NB Idaho Rd															
3	L2	All MCs	14	3.0	14	3.0	0.605	8.8	LOS A	6.3	161.4	0.32	0.11	0.32	17.2
8	T1	All MCs	1610	3.0	1610	3.0	0.605	8.6	LOS A	6.3	161.4	0.31	0.11	0.31	17.3
18	R2	All MCs	63	3.0	63	3.0	0.605	8.4	LOS A	6.3	161.3	0.30	0.11	0.30	17.3
Approach			1687	3.0	1687	3.0	0.605	8.6	LOS A	6.3	161.4	0.31	0.11	0.31	17.3
East: WB 12th Ave															
1	L2	All MCs	63	3.0	63	3.0	0.358	13.6	LOS B	1.6	41.2	0.77	0.87	0.92	16.6
6	T1	All MCs	30	3.0	30	3.0	0.358	13.6	LOS B	1.6	41.2	0.77	0.87	0.92	16.6
16	R2	All MCs	75	3.0	75	3.0	0.358	13.6	LOS B	1.6	41.2	0.77	0.87	0.92	16.6
Approach			168	3.0	168	3.0	0.358	13.6	LOS B	1.6	41.2	0.77	0.87	0.92	16.6
North: SB Idaho Rd															
7	L2	All MCs	35	3.0	35	3.0	0.357	6.2	LOS A	2.6	67.3	0.39	0.18	0.39	17.6
4	T1	All MCs	873	3.0	873	3.0	0.357	6.0	LOS A	2.7	68.4	0.38	0.18	0.38	17.6
14	R2	All MCs	16	3.0	16	3.0	0.357	5.8	LOS A	2.7	68.4	0.38	0.17	0.38	17.6
Approach			924	3.0	924	3.0	0.357	6.0	LOS A	2.7	68.4	0.38	0.18	0.38	17.6
West: EB 12th Ave															
5	L2	All MCs	2	3.0	2	3.0	0.030	6.1	LOS A	0.1	2.8	0.59	0.51	0.59	17.6
2	T1	All MCs	4	3.0	4	3.0	0.030	6.1	LOS A	0.1	2.8	0.59	0.51	0.59	17.6
12	R2	All MCs	12	3.0	12	3.0	0.030	6.1	LOS A	0.1	2.8	0.59	0.51	0.59	17.6
Approach			18	3.0	18	3.0	0.030	6.1	LOS A	0.1	2.8	0.59	0.51	0.59	17.6
All Vehicles			2798	3.0	2798	3.0	0.605	8.0	LOS A	6.3	161.4	0.36	0.18	0.37	17.3

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Options tab).
Roundabout LOS Method: Same as Signalised Intersections.
Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.
LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).
Roundabout Capacity Model: SIDRA HCM.
Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

SIDRA INTERSECTION 9.1 | Copyright © 2000-2024 Akcelik and Associates Pty Ltd | sidrasolutions.com

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	2	4	11	58	28	69	13	1481	58	32	803	15
Future Volume (veh/h)	2	4	11	58	28	69	13	1481	58	32	803	15
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
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	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	2	4	12	62	30	73	14	1576	62	34	854	16
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	48	63	142	113	48	88	512	2675	105	246	2738	51
Arrive On Green	0.12	0.12	0.12	0.12	0.12	0.12	0.76	0.76	0.76	0.76	0.76	0.76
Sat Flow, veh/h	64	506	1139	510	382	708	647	3541	139	311	3625	68
Grp Volume(v), veh/h	18	0	0	165	0	0	14	801	837	34	425	445
Grp Sat Flow(s),veh/h/ln	1709	0	0	1600	0	0	647	1805	1875	311	1805	1888
Q Serve(g_s), s	0.0	0.0	0.0	8.3	0.0	0.0	0.7	19.5	19.7	5.4	7.5	7.5
Cycle Q Clear(g_c), s	0.9	0.0	0.0	10.0	0.0	0.0	8.2	19.5	19.7	25.2	7.5	7.5
Prop In Lane	0.11		0.67	0.38		0.44	1.00		0.07	1.00		0.04
Lane Grp Cap(c), veh/h	253	0	0	249	0	0	512	1363	1416	246	1363	1426
V/C Ratio(X)	0.07	0.00	0.00	0.66	0.00	0.00	0.03	0.59	0.59	0.14	0.31	0.31
Avail Cap(c_a), veh/h	375	0	0	368	0	0	512	1363	1416	246	1363	1426
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)	0.95	0.00	0.00	1.00	0.00	0.00	0.44	0.44	0.44	0.40	0.40	0.40
Uniform Delay (d), s/veh	38.7	0.0	0.0	42.6	0.0	0.0	5.2	5.4	5.4	11.0	3.9	3.9
Incr Delay (d2), s/veh	0.1	0.0	0.0	3.0	0.0	0.0	0.0	0.8	0.8	0.5	0.2	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	0.4	0.0	0.0	4.2	0.0	0.0	0.1	6.3	6.6	0.4	2.4	2.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	38.8	0.0	0.0	45.6	0.0	0.0	5.3	6.2	6.2	11.4	4.2	4.1
LnGrp LOS	D			D			A	A	A	B	A	A
Approach Vol, veh/h		18			165			1652			904	
Approach Delay, s/veh		38.8			45.6			6.2			4.4	
Approach LOS		D			D			A			A	

Timer - Assigned Phs	2	4	6	8
Phs Duration (G+Y+Rc), s	81.5	18.5	81.5	18.5
Change Period (Y+Rc), s	6.0	6.0	6.0	6.0
Max Green Setting (Gmax), s	68.0	20.0	68.0	20.0
Max Q Clear Time (g_c+I1), s	21.7	2.9	27.2	12.0
Green Ext Time (p_c), s	20.6	0.0	8.2	0.5

Intersection Summary	
HCM 7th Control Delay, s/veh	8.2
HCM 7th LOS	A

Intersection	
Int Delay, s/veh	0.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Lane Configurations													
Traffic Vol, veh/h	2	0	2	8	1	25	1	315	27	1	156	313	1
Future Vol, veh/h	2	0	2	8	1	25	1	315	27	1	156	313	1
Conflicting Peds, #/hr	0	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	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	-	None
Storage Length	130	-	-	67	-	-	50	-	-	-	100	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	-	0	-
Peak Hour Factor	89	89	89	89	89	89	89	89	89	89	89	89	89
Heavy Vehicles, %	0	0	0	0	0	0	3	3	3	2	2	2	2
Mvmt Flow	2	0	2	9	1	28	1	354	30	1	175	352	1

Major/Minor	Minor2			Minor1			Major1			Major2			
Conflicting Flow All	1059	1091	352	1074	1077	369	353	0	0	-	384	0	0
Stage 1	702	704	-	371	371	-	-	-	-	-	-	-	-
Stage 2	357	387	-	702	706	-	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.13	-	-	-	4.12	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.227	-	-	-	2.218	-	-
Pot Cap-1 Maneuver	204	217	696	199	221	681	1200	-	-	-	1174	-	-
Stage 1	432	442	-	653	623	-	-	-	-	-	-	-	-
Stage 2	665	613	-	432	442	-	-	-	-	-	-	-	-
Platoon blocked, %								-	-			-	-
Mov Cap-1 Maneuver	194	216	696	199	221	681	1200	-	-	~	-172	~ -172	-	-
Mov Cap-2 Maneuver	194	216	-	199	221	-	-	-	-	-	-	-	-	-
Stage 1	432	442	-	653	622	-	-	-	-	-	-	-	-	-
Stage 2	636	613	-	430	442	-	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	16.96	14.05	0.02	
HCM LOS	C	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1200	-	-	194	696	199	630	+	-	-
HCM Lane V/C Ratio	0.001	-	-	0.012	0.003	0.045	0.046	-	-	-
HCM Ctrl Dly (s/v)	8	-	-	23.7	10.2	24	11	-	-	-
HCM Lane LOS	A	-	-	C	B	C	B	-	-	-
HCM 95th %tile Q(veh)	0	-	-	0	0	0.1	0.1	-	-	-

Notes	
~: Volume exceeds capacity	$: Delay exceeds 300s
+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	22.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	28	36	47	31	34	28	42	791	56	10	590	22
Future Vol, veh/h	28	36	47	31	34	28	42	791	56	10	590	22
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	-	-	120	-	-	85	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	89	89	89	89	89	89	89	89	89	89	89	89
Heavy Vehicles, %	0	0	0	4	4	4	1	1	1	1	1	1
Mvmt Flow	31	40	53	35	38	31	47	889	63	11	663	25

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1256	1744	675	1720	1725	476	688	0	0	952	0	0
Stage 1	698	698	-	1015	1015	-	-	-	-	-	-	-
Stage 2	558	1046	-	706	710	-	-	-	-	-	-	-
Critical Hdwy	7.3	6.5	6.2	7.36	6.56	6.96	4.115	-	-	4.115	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.56	5.56	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.5	5.5	-	6.16	5.56	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.538	4.038	3.338	2.2095	-	-	2.2095	-	-
Pot Cap-1 Maneuver	140	87	457	63	87	532	910	-	-	725	-	-
Stage 1	434	445	-	253	312	-	-	-	-	-	-	-
Stage 2	487	308	-	422	432	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	67	82	457	~ 27	81	532	910	-	-	725	-	-
Mov Cap-2 Maneuver	67	82	-	~ 27	81	-	-	-	-	-	-	-
Stage 1	428	439	-	240	295	-	-	-	-	-	-	-
Stage 2	378	292	-	333	425	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	178.74	203.19	0.43	0.16
HCM LOS	F	F		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	910	-	-	115	27	132	725	-	-
HCM Lane V/C Ratio	0.052	-	-	1.08	1.292	0.53	0.016	-	-
HCM Ctrl Dly (s/v)	9.2	-	-	178.7$	490.3	59.6	10	-	-
HCM Lane LOS	A	-	-	F	F	F	B	-	-
HCM 95th %tile Q(veh)	0.2	-	-	7.4	4.1	2.5	0	-	-

Notes	
~: Volume exceeds capacity	$: Delay exceeds 300s
+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	248.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	34	43	57	38	41	34	49	915	65	12	682	25
Future Vol, veh/h	34	43	57	38	41	34	49	915	65	12	682	25
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	-	-	120	-	-	85	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	89	89	89	89	89	89	89	89	89	89	89	89
Heavy Vehicles, %	0	0	0	4	4	4	1	1	1	1	1	1
Mvmt Flow	38	48	64	43	46	38	55	1028	73	13	766	28

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1454	2019	780	1992	1996	551	794	0	0	1101	0	0
Stage 1	807	807	-	1175	1175	-	-	-	-	-	-	-
Stage 2	647	1211	-	817	821	-	-	-	-	-	-	-
Critical Hdwy	7.3	6.5	6.2	7.36	6.56	6.96	4.115	-	-	4.115	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.56	5.56	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.5	5.5	-	6.16	5.56	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.538	4.038	3.338	2.2095	-	-	2.2095	-	-
Pot Cap-1 Maneuver	101	59	398	~ 40	59	475	830	-	-	637	-	-
Stage 1	378	397	-	202	261	-	-	-	-	-	-	-
Stage 2	431	257	-	366	384	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	~ 13	54	398	~ 3	54	475	830	-	-	637	-	-
Mov Cap-2 Maneuver	~ 13	54	-	~ 3	54	-	-	-	-	-	-	-
Stage 1	370	389	-	188	244	-	-	-	-	-	-	-
Stage 2	300	240	-	263	376	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	$ 1559.83	$ 2525.05	0.46	0.18
HCM LOS	F	F		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	830	-	-	38	3	90	637	-	-
HCM Lane V/C Ratio	0.066	-	-	3.984	12.484	0.938	0.021	-	-
HCM Ctrl Dly (s/v)	9.6	-	-	$ 1559.8	$ 7189.5	161.7	10.8	-	-
HCM Lane LOS	A	-	-	F	F	F	B	-	-
HCM 95th %tile Q(veh)	0.2	-	-	17.3	7.1	5.3	0.1	-	-

Notes	
~: Volume exceeds capacity	$: Delay exceeds 300s
+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	0.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	46	58	77	51	56	46	62	1162	83	15	867	32
Future Vol, veh/h	46	58	77	51	56	46	62	1162	83	15	867	32
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	-	-	120	-	-	85	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	89	89	89	89	89	89	89	89	89	89	89	89
Heavy Vehicles, %	0	0	0	4	4	4	1	1	1	1	1	1
Mvmt Flow	52	65	87	57	63	52	70	1306	93	17	974	36

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1849	2564	992	2532	2535	699	1010	0	0	1399	0	0
Stage 1	1026	1026	-	1492	1492	-	-	-	-	-	-	-
Stage 2	824	1538	-	1040	1044	-	-	-	-	-	-	-
Critical Hdwy	7.3	6.5	6.2	7.36	6.56	6.96	4.115	-	-	4.115	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.56	5.56	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.5	5.5	-	6.16	5.56	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.538	4.038	3.338	2.2095	-	-	2.2095	-	-
Pot Cap-1 Maneuver	52	~ 27	301	~ 16	~ 27	379	689	-	-	491	-	-
Stage 1	286	315	-	128	183	-	-	-	-	-	-	-
Stage 2	338	179	-	274	302	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	-	~ 23	301	-	~ 23	379	689	-	-	491	-	-
Mov Cap-2 Maneuver	-	~ 23	-	-	~ 23	-	-	-	-	-	-	-
Stage 1	276	304	-	115	165	-	-	-	-	-	-	-
Stage 2	162	161	-	148	291	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v			0.51	0.21
HCM LOS	-	-		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	689	-	-	-	-	40	491	-	-
HCM Lane V/C Ratio	0.101	-	-	-	-	2.869	0.034	-	-
HCM Ctrl Dly (s/v)	10.8	-	-	-	-	$ 1057.3	12.6	-	-
HCM Lane LOS	B	-	-	-	-	F	B	-	-
HCM 95th %tile Q(veh)	0.3	-	-	-	-	12.7	0.1	-	-

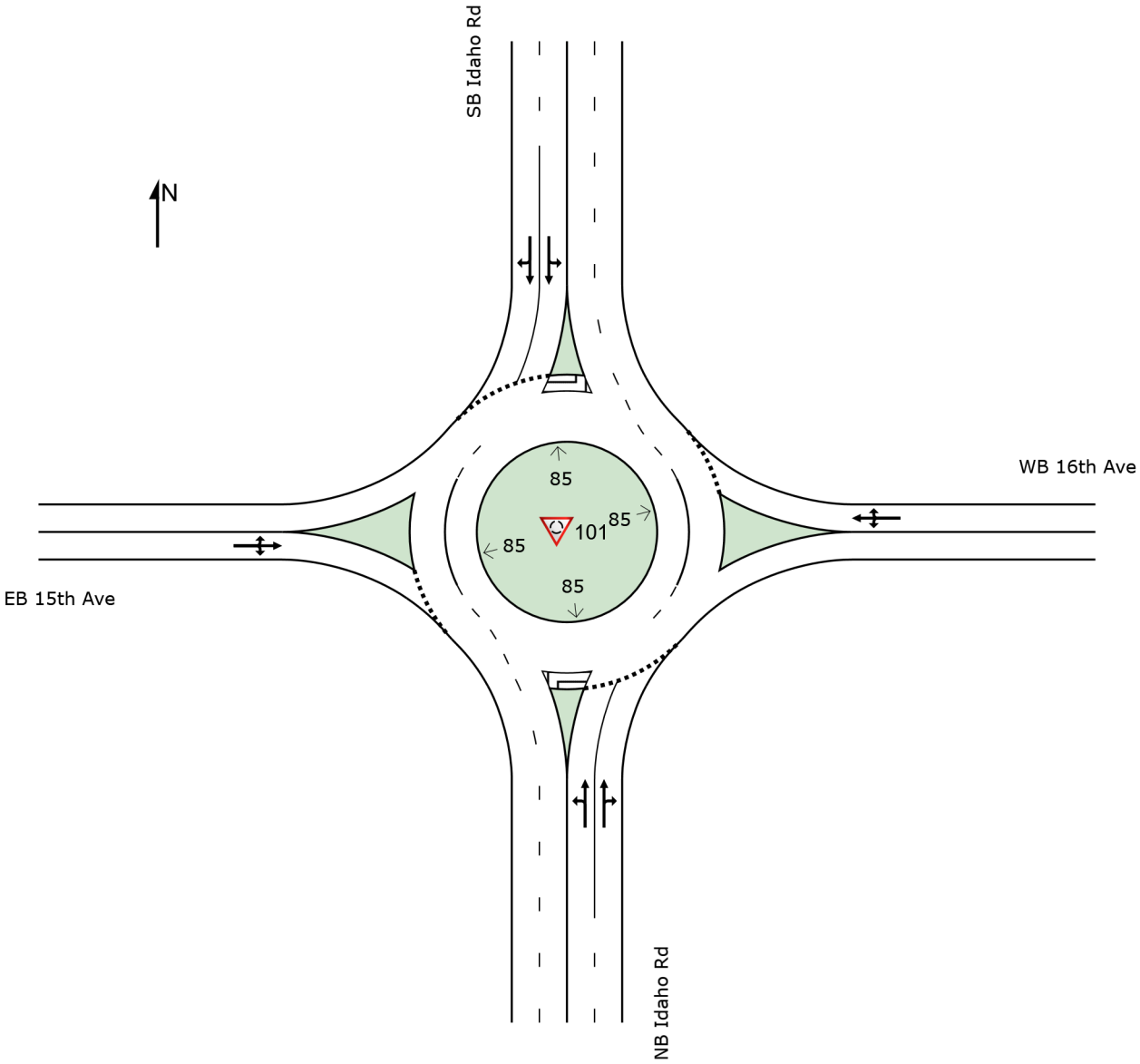
Notes	
~: Volume exceeds capacity	$: Delay exceeds 300s
+: Computation Not Defined	*: All major volume in platoon

SITE LAYOUT

Site: 101 [Idaho_15th_2045_PM (Site Folder: General)]

New Site
Site Category: (None)
Roundabout

Layout pictures are schematic functional drawings reflecting input data. They are not design drawings.



SIDRA INTERSECTION 9.1 | Copyright © 2000-2024 Akcelik and Associates Pty Ltd | sidrasolutions.com
Organisation: J.U.B ENGINEERS, INC. | Licence: PLUS / 1PC | Created: Thursday, July 3, 2025 11:15:05 AM
Project: \\jub.com\Central\Clients\ID\PostFallsCity\Projects\07-23-040_TMP\Planning\Traffic\Sidra\2045Build\Idaho_15th.sip9

MOVEMENT SUMMARY

Site: 101 [Idaho_15th_2045_PM (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

New Site
Site Category: (None)
Roundabout

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] ft	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed mph
South: NB Idaho Rd															
3	L2	All MCs	67	3.0	67	3.0	0.560	9.2	LOS A	5.2	132.4	0.53	0.28	0.53	17.2
8	T1	All MCs	1263	3.0	1263	3.0	0.560	8.9	LOS A	5.3	134.5	0.52	0.27	0.52	17.2
18	R2	All MCs	90	3.0	90	3.0	0.560	8.6	LOS A	5.3	134.5	0.51	0.26	0.51	18.9
Approach			1421	3.0	1421	3.0	0.560	8.9	LOS A	5.3	134.5	0.52	0.27	0.52	17.3
East: WB 16th Ave															
1	L2	All MCs	55	3.0	55	3.0	0.350	13.3	LOS B	1.6	41.7	0.76	0.83	0.88	16.7
6	T1	All MCs	61	3.0	61	3.0	0.350	13.3	LOS B	1.6	41.7	0.76	0.83	0.88	16.7
16	R2	All MCs	50	3.0	50	3.0	0.350	13.3	LOS B	1.6	41.7	0.76	0.83	0.88	16.7
Approach			166	3.0	166	3.0	0.350	13.3	LOS B	1.6	41.7	0.76	0.83	0.88	16.7
North: SB Idaho Rd															
7	L2	All MCs	16	3.0	16	3.0	0.410	7.2	LOS A	3.0	75.8	0.50	0.28	0.50	17.4
4	T1	All MCs	942	3.0	942	3.0	0.410	7.0	LOS A	3.0	77.2	0.49	0.28	0.49	17.5
14	R2	All MCs	35	3.0	35	3.0	0.410	6.7	LOS A	3.0	77.2	0.49	0.27	0.49	17.5
Approach			993	3.0	993	3.0	0.410	7.0	LOS A	3.0	77.2	0.49	0.28	0.49	17.5
West: EB 15th Ave															
5	L2	All MCs	50	3.0	50	3.0	0.334	10.8	LOS B	1.5	38.6	0.70	0.71	0.77	17.0
2	T1	All MCs	63	3.0	63	3.0	0.334	10.8	LOS B	1.5	38.6	0.70	0.71	0.77	17.0
12	R2	All MCs	84	3.0	84	3.0	0.334	10.8	LOS B	1.5	38.6	0.70	0.71	0.77	17.0
Approach			197	3.0	197	3.0	0.334	10.8	LOS B	1.5	38.6	0.70	0.71	0.77	17.0
All Vehicles			2777	3.0	2777	3.0	0.560	8.6	LOS A	5.3	134.5	0.54	0.34	0.55	17.3

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Options tab).
Roundabout LOS Method: Same as Signalised Intersections.
Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.
LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).
Roundabout Capacity Model: SIDRA HCM.
Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

SIDRA INTERSECTION 9.1 | Copyright © 2000-2024 Akcelik and Associates Pty Ltd | sidrasolutions.com

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	46	58	77	51	56	46	62	1162	83	15	867	32
Future Volume (veh/h)	46	58	77	51	56	46	62	1162	83	15	867	32
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
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	1900	1900	1900	1841	1841	1841	1885	1885	1885	1885	1885	1885
Adj Flow Rate, veh/h	52	65	87	57	63	52	70	1306	93	17	974	36
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	0	0	0	4	4	4	1	1	1	1	1	1
Cap, veh/h	132	108	116	334	165	136	207	2030	144	269	1081	40
Arrive On Green	0.18	0.18	0.18	0.18	0.18	0.18	0.60	0.60	0.60	0.60	0.60	0.60
Sat Flow, veh/h	269	610	653	1216	932	770	562	3392	241	389	1806	67
Grp Volume(v), veh/h	204	0	0	57	0	115	70	688	711	17	0	1010
Grp Sat Flow(s),veh/h/ln	1532	0	0	1216	0	1702	562	1791	1842	389	0	1873
Q Serve(g_s), s	3.7	0.0	0.0	0.0	0.0	3.2	6.6	13.4	13.5	1.6	0.0	25.1
Cycle Q Clear(g_c), s	6.9	0.0	0.0	2.4	0.0	3.2	31.8	13.4	13.5	15.1	0.0	25.1
Prop In Lane	0.25		0.43	1.00		0.45	1.00		0.13	1.00		0.04
Lane Grp Cap(c), veh/h	356	0	0	334	0	302	207	1072	1102	269	0	1121
V/C Ratio(X)	0.57	0.00	0.00	0.17	0.00	0.38	0.34	0.64	0.65	0.06	0.00	0.90
Avail Cap(c_a), veh/h	550	0	0	482	0	509	207	1072	1102	269	0	1121
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	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	20.9	0.0	0.0	19.1	0.0	19.4	23.2	7.0	7.0	12.0	0.0	9.4
Incr Delay (d2), s/veh	1.5	0.0	0.0	0.2	0.0	0.8	1.0	1.3	1.3	0.1	0.0	10.1
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	2.4	0.0	0.0	0.6	0.0	1.2	0.9	4.1	4.2	0.1	0.0	10.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	22.3	0.0	0.0	19.3	0.0	20.2	24.2	8.3	8.3	12.1	0.0	19.4
LnGrp LOS	C			B		C	C	A	A	B		B
Approach Vol, veh/h		204			172			1469			1027	
Approach Delay, s/veh		22.3			19.9			9.1			19.3	
Approach LOS		C			B			A			B	

Timer - Assigned Phs	2	4	6	8
Phs Duration (G+Y+Rc), s	38.0	15.5	38.0	15.5
Change Period (Y+Rc), s	6.0	6.0	6.0	6.0
Max Green Setting (Gmax), s	32.0	16.0	32.0	16.0
Max Q Clear Time (g_c+I1), s	33.8	8.9	27.1	5.2
Green Ext Time (p_c), s	0.0	0.6	3.2	0.6

Intersection Summary	
HCM 7th Control Delay, s/veh	14.3
HCM 7th LOS	B

MOVEMENT SUMMARY

Site: 101 [Idaho_Prairie_Existing_PM (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.3.210

New Site
Site Category: (None)
Roundabout

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] ft	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed mph
South: Idaho NB Aproach															
3	L2	All MCs	124	0.0	124	0.0	0.312	6.7	LOS A	2.0	50.2	0.59	0.39	0.59	30.1
8	T1	All MCs	99	0.0	99	0.0	0.312	6.7	LOS A	2.0	50.2	0.59	0.39	0.59	29.3
18	R2	All MCs	88	0.0	88	0.0	0.312	6.7	LOS A	2.0	50.2	0.59	0.39	0.59	31.5
Approach			312	0.0	312	0.0	0.312	6.7	LOS A	2.0	50.2	0.59	0.39	0.59	30.2
East: Prairie WB Approach															
1	L2	All MCs	115	2.5	115	2.5	0.445	8.2	LOS A	3.3	84.3	0.58	0.35	0.58	30.8
6	T1	All MCs	351	2.5	351	2.5	0.445	8.2	LOS A	3.3	84.3	0.58	0.35	0.58	32.9
16	R2	All MCs	6	2.5	6	2.5	0.445	8.2	LOS A	3.3	84.3	0.58	0.35	0.58	31.2
Approach			472	2.5	472	2.5	0.445	8.2	LOS A	3.3	84.3	0.58	0.35	0.58	32.3
North: Idaho SB Approach															
7	L2	All MCs	2	1.0	2	1.0	0.128	5.9	LOS A	0.8	19.1	0.67	0.50	0.67	32.3
4	T1	All MCs	80	1.0	80	1.0	0.128	5.9	LOS A	0.8	19.1	0.67	0.50	0.67	30.5
14	R2	All MCs	19	1.0	19	1.0	0.128	5.9	LOS A	0.8	19.1	0.67	0.50	0.67	31.7
Approach			101	1.0	101	1.0	0.128	5.9	LOS A	0.8	19.1	0.67	0.50	0.67	30.8
West: Prairie EB Approach															
5	L2	All MCs	9	1.4	9	1.4	0.404	7.3	LOS A	2.8	70.7	0.50	0.29	0.50	30.7
2	T1	All MCs	325	1.4	325	1.4	0.404	7.3	LOS A	2.8	70.7	0.50	0.29	0.50	33.8
12	R2	All MCs	117	1.4	117	1.4	0.404	7.3	LOS A	2.8	70.7	0.50	0.29	0.50	31.0
Approach			452	1.4	452	1.4	0.404	7.3	LOS A	2.8	70.7	0.50	0.29	0.50	33.0
All Vehicles			1336	1.4	1336	1.4	0.445	7.4	LOS A	3.3	84.3	0.56	0.35	0.56	31.9

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Options tab).
Roundabout LOS Method: Same as Signalised Intersections.
Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.
LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).
Roundabout Capacity Model: SIDRA HCM.
Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

SIDRA INTERSECTION 9.1 | Copyright © 2000-2023 Akcelik and Associates Pty Ltd | sidrasolutions.com

MOVEMENT SUMMARY

Site: 101 [Idaho_Poleline_Existing_PM (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.2.202

New Site
Site Category: (None)
Roundabout

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] ft	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed mph
South: Idaho NB Approach															
3	L2	All MCs	119	1.1	119	1.1	0.887	33.6	LOS C	19.3	487.8	1.00	1.42	2.16	21.8
8	T1	All MCs	371	1.1	371	1.1	0.887	33.6	LOS C	19.3	487.8	1.00	1.42	2.16	22.0
18	R2	All MCs	156	1.1	156	1.1	0.887	33.6	LOS C	19.3	487.8	1.00	1.42	2.16	21.9
Approach			647	1.1	647	1.1	0.887	33.6	LOS C	19.3	487.8	1.00	1.42	2.16	21.9
East: Poleline WB Approach															
1	L2	All MCs	141	2.4	141	2.4	0.803	26.6	LOS C	12.8	325.6	1.00	1.21	1.81	23.3
6	T1	All MCs	367	2.4	367	2.4	0.803	26.6	LOS C	12.8	325.6	1.00	1.21	1.81	23.6
16	R2	All MCs	32	2.4	32	2.4	0.803	26.6	LOS C	12.8	325.6	1.00	1.21	1.81	23.4
Approach			540	2.4	540	2.4	0.803	26.6	LOS C	12.8	325.6	1.00	1.21	1.81	23.5
North: Idaho SB Approach															
7u	U	All MCs	1	0.3	1	0.3	0.664	17.5	LOS B	8.0	199.3	0.97	0.96	1.39	25.9
7	L2	All MCs	31	0.3	31	0.3	0.664	17.5	LOS B	8.0	199.3	0.97	0.96	1.39	25.9
4	T1	All MCs	330	0.3	330	0.3	0.664	17.5	LOS B	8.0	199.3	0.97	0.96	1.39	26.3
14	R2	All MCs	106	0.3	106	0.3	0.664	17.5	LOS B	8.0	199.3	0.97	0.96	1.39	26.1
Approach			468	0.3	468	0.3	0.664	17.5	LOS B	8.0	199.3	0.97	0.96	1.39	26.2
West: Poleline EB Approach															
5	L2	All MCs	154	2.7	154	2.7	0.827	25.2	LOS C	16.1	411.0	1.00	1.24	1.89	23.6
2	T1	All MCs	378	2.7	378	2.7	0.827	25.2	LOS C	16.1	411.0	1.00	1.24	1.89	23.9
12	R2	All MCs	129	2.7	129	2.7	0.827	25.2	LOS C	16.1	411.0	1.00	1.24	1.89	23.8
Approach			661	2.7	661	2.7	0.827	25.2	LOS C	16.1	411.0	1.00	1.24	1.89	23.8
All Vehicles			2316	1.7	2316	1.7	0.887	26.3	LOS C	19.3	487.8	0.99	1.23	1.84	23.6

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Options tab).
Roundabout LOS Method: Same as Signalised Intersections.
Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.
LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).
Roundabout Capacity Model: SIDRA HCM.
Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

SIDRA INTERSECTION 9.1 | Copyright © 2000-2022 Akcelik and Associates Pty Ltd | sidrasolutions.com
Organisation: J.U.B ENGINEERS, INC. | Licence: PLUS / 1PC | Processed: Monday, April 7, 2025 2:12:49 PM
Project: \\jub.com\central\Clients\ID\PostFallsCity\Projects\07-23-040_TMP\Planning\Traffic\Sidra\2030\Idaho_Poleline.sip9

MOVEMENT SUMMARY

Site: 101 [Idaho_Poleline_Existing_PM (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.2.202

New Site
Site Category: (None)
Roundabout

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] ft	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed mph
South: Idaho NB Approach															
3	L2	All MCs	129	1.1	129	1.1	1.062	73.7	LOS F	36.9	929.6	1.00	2.18	3.67	15.7
8	T1	All MCs	400	1.1	400	1.1	1.062	73.7	LOS F	36.9	929.6	1.00	2.18	3.67	15.8
18	R2	All MCs	168	1.1	168	1.1	1.062	73.7	LOS F	36.9	929.6	1.00	2.18	3.67	15.8
Approach			697	1.1	697	1.1	1.062	73.7	LOS E	36.9	929.6	1.00	2.18	3.67	15.8
East: Poleline WB Approach															
1	L2	All MCs	160	2.4	160	2.4	0.938	44.5	LOS D	21.6	551.5	1.00	1.63	2.54	19.7
6	T1	All MCs	414	2.4	414	2.4	0.938	44.5	LOS D	21.6	551.5	1.00	1.63	2.54	19.9
16	R2	All MCs	36	2.4	36	2.4	0.938	44.5	LOS D	21.6	551.5	1.00	1.63	2.54	19.8
Approach			610	2.4	610	2.4	0.938	44.5	LOS D	21.6	551.5	1.00	1.63	2.54	19.8
North: Idaho SB Approach															
7u	U	All MCs	1	0.3	1	0.3	0.818	28.8	LOS C	13.2	330.3	1.00	1.25	1.84	22.9
7	L2	All MCs	35	0.3	35	0.3	0.818	28.8	LOS C	13.2	330.3	1.00	1.25	1.84	22.9
4	T1	All MCs	372	0.3	372	0.3	0.818	28.8	LOS C	13.2	330.3	1.00	1.25	1.84	23.2
14	R2	All MCs	119	0.3	119	0.3	0.818	28.8	LOS C	13.2	330.3	1.00	1.25	1.84	23.1
Approach			528	0.3	528	0.3	0.818	28.8	LOS C	13.2	330.3	1.00	1.25	1.84	23.2
West: Poleline EB Approach															
5	L2	All MCs	186	2.7	186	2.7	1.077	74.9	LOS F	43.9	1120.9	1.00	2.37	4.03	15.6
2	T1	All MCs	457	2.7	457	2.7	1.077	74.9	LOS F	43.9	1120.9	1.00	2.37	4.03	15.7
12	R2	All MCs	155	2.7	155	2.7	1.077	74.9	LOS F	43.9	1120.9	1.00	2.37	4.03	15.6
Approach			799	2.7	799	2.7	1.077	74.9	LOS E	43.9	1120.9	1.00	2.37	4.03	15.7
All Vehicles			2633	1.7	2633	1.7	1.077	58.3	LOS E	43.9	1120.9	1.00	1.92	3.15	17.7

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Options tab).
Roundabout LOS Method: Same as Signalised Intersections.
Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.
LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).
Roundabout Capacity Model: SIDRA HCM.
Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

SIDRA INTERSECTION 9.1 | Copyright © 2000-2022 Akcelik and Associates Pty Ltd | sidrasolutions.com
Organisation: J.U.B ENGINEERS, INC. | Licence: PLUS / 1PC | Processed: Tuesday, April 8, 2025 10:22:48 AM
Project: \\jub.com\central\Clients\ID\PostFallsCity\Projects\07-23-040_TMP\Planning\Traffic\Sidra\2035\Idaho_Poleline.sip9

MOVEMENT SUMMARY

Site: 101 [Idaho_Poleline_Existing_PM (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.2.202

New Site
Site Category: (None)
Roundabout

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] ft	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed mph
South: Idaho NB Approach															
3	L2	All MCs	147	1.1	147	1.1	1.146	99.9	LOS F	52.7	1329.9	1.00	2.68	4.75	13.3
8	T1	All MCs	457	1.1	457	1.1	1.146	99.9	LOS F	52.7	1329.9	1.00	2.68	4.75	13.4
18	R2	All MCs	193	1.1	193	1.1	1.146	99.9	LOS F	52.7	1329.9	1.00	2.68	4.75	13.4
Approach			797	1.1	797	1.1	1.146	99.9	LOS F	52.7	1329.9	1.00	2.68	4.75	13.4
East: Poleline WB Approach															
1	L2	All MCs	196	2.4	196	2.4	1.167	109.7	LOS F	52.2	1329.7	1.00	2.75	5.03	12.6
6	T1	All MCs	507	2.4	507	2.4	1.167	109.7	LOS F	52.2	1329.7	1.00	2.75	5.03	12.7
16	R2	All MCs	45	2.4	45	2.4	1.167	109.7	LOS F	52.2	1329.7	1.00	2.75	5.03	12.6
Approach			748	2.4	748	2.4	1.167	109.7	LOS F	52.2	1329.7	1.00	2.75	5.03	12.6
North: Idaho SB Approach															
7u	U	All MCs	2	0.3	2	0.3	1.071	78.9	LOS F	35.2	882.6	1.00	2.17	3.73	15.2
7	L2	All MCs	43	0.3	43	0.3	1.071	78.9	LOS F	35.2	882.6	1.00	2.17	3.73	15.2
4	T1	All MCs	455	0.3	455	0.3	1.071	78.9	LOS F	35.2	882.6	1.00	2.17	3.73	15.3
14	R2	All MCs	147	0.3	147	0.3	1.071	78.9	LOS F	35.2	882.6	1.00	2.17	3.73	15.3
Approach			647	0.3	647	0.3	1.071	78.9	LOS E	35.2	882.6	1.00	2.17	3.73	15.3
West: Poleline EB Approach															
5	L2	All MCs	252	2.7	252	2.7	1.579	280.1	LOS F	136.9	3496.4	1.00	4.83	9.65	6.5
2	T1	All MCs	617	2.7	617	2.7	1.579	280.1	LOS F	136.9	3496.4	1.00	4.83	9.65	6.5
12	R2	All MCs	210	2.7	210	2.7	1.579	280.1	LOS F	136.9	3496.4	1.00	4.83	9.65	6.5
Approach			1079	2.7	1079	2.7	1.579	280.1	LOS F	136.9	3496.4	1.00	4.83	9.65	6.5
All Vehicles			3270	1.8	3270	1.8	1.579	157.4	LOS F	136.9	3496.4	1.00	3.31	6.23	10.0

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Options tab).
Roundabout LOS Method: Same as Signalised Intersections.
Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.
LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).
Roundabout Capacity Model: SIDRA HCM.
Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

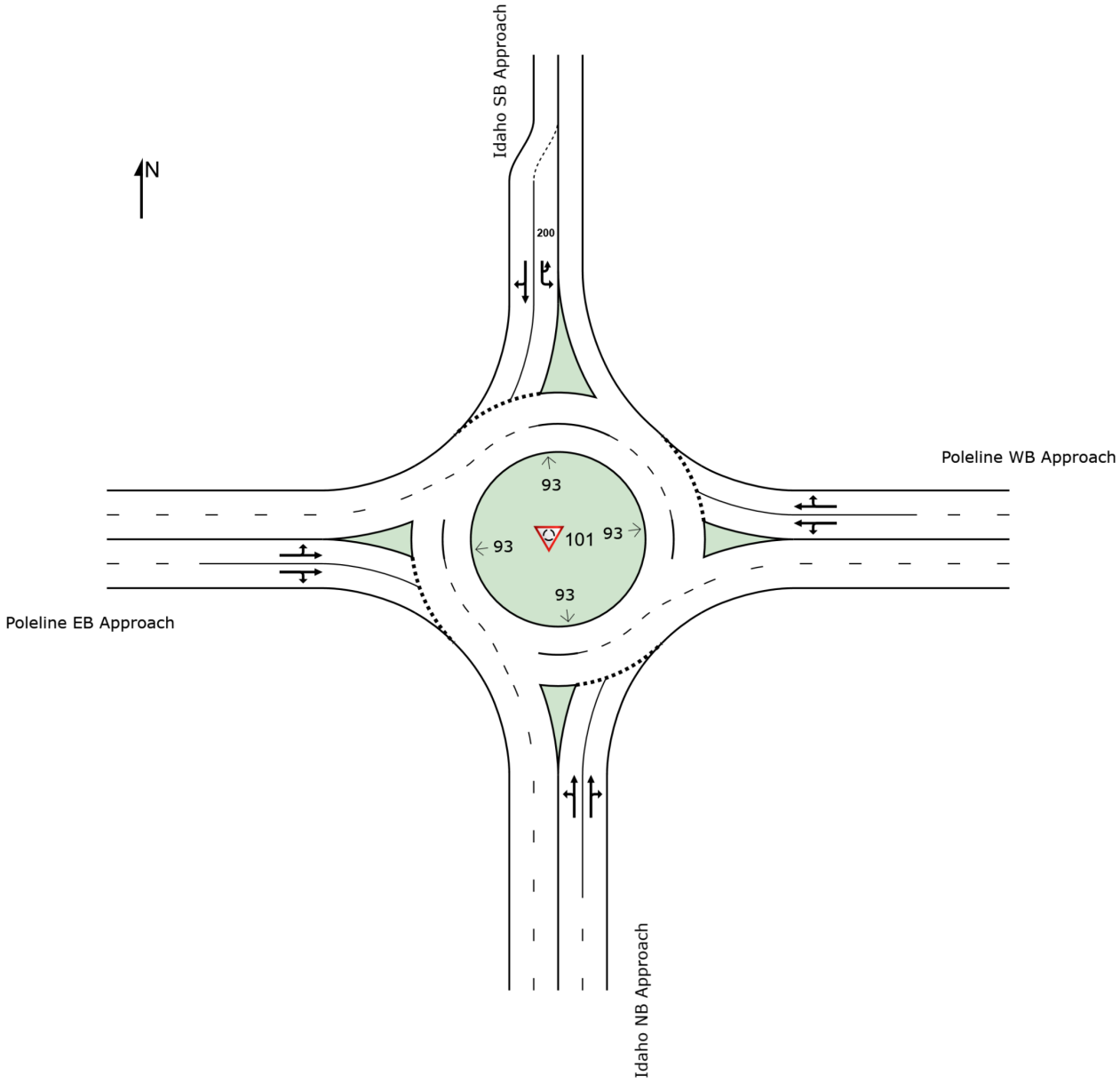
SIDRA INTERSECTION 9.1 | Copyright © 2000-2022 Akcelik and Associates Pty Ltd | sidrasolutions.com

SITE LAYOUT

Site: 101 [Idaho_Poleline_2045_PM (Site Folder: General)]

New Site
Site Category: (None)
Roundabout

Layout pictures are schematic functional drawings reflecting input data. They are not design drawings.



MOVEMENT SUMMARY

Site: 101 [Idaho_Poleline_2045_PM (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

New Site
Site Category: (None)
Roundabout

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] ft	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed mph
South: Idaho NB Approach															
3	L2	All MCs	147	1.1	147	1.1	0.787	23.2	LOS C	9.4	237.1	0.92	1.17	1.75	24.2
8	T1	All MCs	457	1.1	457	1.1	0.787	23.2	LOS C	9.4	237.1	0.92	1.17	1.75	24.5
18	R2	All MCs	193	1.1	193	1.1	0.389	13.7	LOS B	2.0	50.5	0.75	0.75	0.89	27.2
Approach			797	1.1	797	1.1	0.787	20.9	LOS C	9.4	237.1	0.88	1.07	1.54	25.0
East: Poleline WB Approach															
1	L2	All MCs	196	2.4	196	2.4	0.546	14.9	LOS B	4.0	101.7	0.82	0.85	1.13	26.0
6	T1	All MCs	507	2.4	507	2.4	0.546	13.7	LOS B	4.2	107.7	0.83	0.84	1.11	27.3
16	R2	All MCs	45	2.4	45	2.4	0.546	13.2	LOS B	4.2	107.7	0.83	0.83	1.11	27.5
Approach			748	2.4	748	2.4	0.546	14.0	LOS B	4.2	107.7	0.83	0.84	1.12	26.9
North: Idaho SB Approach															
7u	U	All MCs	2	0.3	2	0.3	0.094	8.8	LOS A	0.4	9.4	0.64	0.60	0.64	27.2
7	L2	All MCs	43	0.3	43	0.3	0.094	8.8	LOS A	0.4	9.4	0.64	0.60	0.64	27.2
4	T1	All MCs	455	0.3	455	0.3	0.729	18.5	LOS B	7.9	197.5	0.87	1.04	1.52	26.0
14	R2	All MCs	147	0.3	147	0.3	0.729	18.5	LOS B	7.9	197.5	0.87	1.04	1.52	25.9
Approach			647	0.3	647	0.3	0.729	17.8	LOS B	7.9	197.5	0.85	1.01	1.46	26.1
West: Poleline EB Approach															
5	L2	All MCs	252	2.7	252	2.7	0.657	16.2	LOS B	6.2	159.0	0.81	0.91	1.31	25.7
2	T1	All MCs	617	2.7	617	2.7	0.657	15.4	LOS B	6.5	166.7	0.81	0.90	1.29	26.7
12	R2	All MCs	210	2.7	210	2.7	0.657	14.8	LOS B	6.5	166.7	0.80	0.89	1.28	27.0
Approach			1079	2.7	1079	2.7	0.657	15.5	LOS B	6.5	166.7	0.81	0.90	1.29	26.5
All Vehicles			3270	1.8	3270	1.8	0.787	16.9	LOS B	9.4	237.1	0.84	0.95	1.35	26.1

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Options tab).
Roundabout LOS Method: Same as Signalised Intersections.
Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.
LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).
Roundabout Capacity Model: SIDRA HCM.
Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

SIDRA INTERSECTION 9.1 | Copyright © 2000-2024 Akcelik and Associates Pty Ltd | sidrasolutions.com

Intersection	
Int Delay, s/veh	7.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	2	0	6	106	2	116	5	713	82	53	519	14
Future Vol, veh/h	2	0	6	106	2	116	5	713	82	53	519	14
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	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	98	98	98	98	98	98	98	98	98	98	98	98
Heavy Vehicles, %	0	0	0	1	1	1	0	0	0	1	1	1
Mvmt Flow	2	0	6	108	2	118	5	728	84	54	530	14

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1020	1466	272	1153	1432	406	544	0	0	811	0	0
Stage 1	645	645	-	780	780	-	-	-	-	-	-	-
Stage 2	375	821	-	373	652	-	-	-	-	-	-	-
Critical Hdwy	7.5	6.5	6.9	7.52	6.52	6.92	4.1	-	-	4.12	-	-
Critical Hdwy Stg 1	6.5	5.5	-	6.52	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.5	5.5	-	6.52	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.51	4.01	3.31	2.2	-	-	2.21	-	-
Pot Cap-1 Maneuver	194	129	732	154	134	597	1035	-	-	817	-	-
Stage 1	432	471	-	357	406	-	-	-	-	-	-	-
Stage 2	624	391	-	623	465	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	142	120	732	141	125	597	1035	-	-	817	-	-
Mov Cap-2 Maneuver	142	120	-	141	125	-	-	-	-	-	-	-
Stage 1	404	440	-	355	404	-	-	-	-	-	-	-
Stage 2	494	389	-	577	434	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	15.26	48.89	0.1	0.88
HCM LOS	C	E		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	20	-	-	359	141	597	817	-	-
HCM Lane V/C Ratio	0.005	-	-	0.023	0.781	0.198	0.066	-	-
HCM Ctrl Dly (s/v)	8.5	0.1	-	15.3	88	12.5	9.7	-	-
HCM Lane LOS	A	A	-	C	F	B	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.1	4.8	0.7	0.2	-	-

Intersection	
Int Delay, s/veh	29.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	2	0	7	137	3	150	6	913	105	57	562	15
Future Vol, veh/h	2	0	7	137	3	150	6	913	105	57	562	15
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	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	98	98	98	98	98	98	98	98	98	98	98	98
Heavy Vehicles, %	0	0	0	1	1	1	0	0	0	1	1	1
Mvmt Flow	2	0	7	140	3	153	6	932	107	58	573	15

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1177	1748	294	1401	1703	519	589	0	0	1039	0	0
Stage 1	697	697	-	997	997	-	-	-	-	-	-	-
Stage 2	480	1051	-	403	705	-	-	-	-	-	-	-
Critical Hdwy	7.5	6.5	6.9	7.52	6.52	6.92	4.1	-	-	4.12	-	-
Critical Hdwy Stg 1	6.5	5.5	-	6.52	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.5	5.5	-	6.52	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.51	4.01	3.31	2.2	-	-	2.21	-	-
Pot Cap-1 Maneuver	149	87	708	~ 101	92	504	996	-	-	671	-	-
Stage 1	402	446	-	263	322	-	-	-	-	-	-	-
Stage 2	541	306	-	598	440	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	91	79	708	~ 90	83	504	996	-	-	671	-	-
Mov Cap-2 Maneuver	91	79	-	~ 90	83	-	-	-	-	-	-	-
Stage 1	367	407	-	261	319	-	-	-	-	-	-	-
Stage 2	370	304	-	540	402	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	18.21	196.05	0.12	0.98
HCM LOS	C	F		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	18	-	-	282	90	504	671	-	-
HCM Lane V/C Ratio	0.006	-	-	0.033	1.583	0.304	0.087	-	-
HCM Ctrl Dly (s/v)	8.6	0.1	-	18.2	$ 389.8	15.2	10.9	-	-
HCM Lane LOS	A	A	-	C	F	C	B	-	-
HCM 95th %tile Q(veh)	0	-	-	0.1	11.3	1.3	0.3	-	-

Notes	
~: Volume exceeds capacity	$: Delay exceeds 300s
+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	63.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	3	0	8	159	3	174	7	1055	121	60	592	16
Future Vol, veh/h	3	0	8	159	3	174	7	1055	121	60	592	16
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	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	98	98	98	98	98	98	98	98	98	98	98	98
Heavy Vehicles, %	0	0	0	1	1	1	0	0	0	1	1	1
Mvmt Flow	3	0	8	162	3	178	7	1077	123	61	604	16

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1289	1949	310	1577	1895	600	620	0	0	1200	0	0
Stage 1	735	735	-	1153	1153	-	-	-	-	-	-	-
Stage 2	554	1214	-	424	743	-	-	-	-	-	-	-
Critical Hdwy	7.5	6.5	6.9	7.52	6.52	6.92	4.1	-	-	4.12	-	-
Critical Hdwy Stg 1	6.5	5.5	-	6.52	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.5	5.5	-	6.52	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.51	4.01	3.31	2.2	-	-	2.21	-	-
Pot Cap-1 Maneuver	123	65	692	~ 75	70	447	970	-	-	583	-	-
Stage 1	382	429	-	212	272	-	-	-	-	-	-	-
Stage 2	489	256	-	581	423	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	63	58	692	~ 65	62	447	970	-	-	583	-	-
Mov Cap-2 Maneuver	63	58	-	~ 65	62	-	-	-	-	-	-	-
Stage 1	342	384	-	209	269	-	-	-	-	-	-	-
Stage 2	288	254	-	514	378	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	25.69	$ 411.89	0.14	1.07
HCM LOS	D	F		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	19	-	-	185	65	447	583	-	-
HCM Lane V/C Ratio	0.007	-	-	0.061	2.539	0.398	0.105	-	-
HCM Ctrl Dly (s/v)	8.7	0.1	-	25.7	$ 834.6	18.3	11.9	-	-
HCM Lane LOS	A	A	-	D	F	C	B	-	-
HCM 95th %tile Q(veh)	0	-	-	0.2	16.3	1.9	0.4	-	-

Notes	
~: Volume exceeds capacity	$: Delay exceeds 300s
+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	210.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	3	0	9	203	4	222	9	1340	154	67	653	18
Future Vol, veh/h	3	0	9	203	4	222	9	1340	154	67	653	18
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	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	98	98	98	98	98	98	98	98	98	98	98	98
Heavy Vehicles, %	0	0	0	1	1	1	0	0	0	1	1	1
Mvmt Flow	3	0	9	207	4	227	9	1367	157	68	666	18

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1516	2355	342	1934	2286	762	685	0	0	1524	0	0
Stage 1	812	812	-	1464	1464	-	-	-	-	-	-	-
Stage 2	704	1543	-	470	821	-	-	-	-	-	-	-
Critical Hdwy	7.5	6.5	6.9	7.52	6.52	6.92	4.1	-	-	4.12	-	-
Critical Hdwy Stg 1	6.5	5.5	-	6.52	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.5	5.5	-	6.52	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.51	4.01	3.31	2.2	-	-	2.21	-	-
Pot Cap-1 Maneuver	84	36	659	~ 40	40	350	918	-	-	438	-	-
Stage 1	343	395	-	~ 136	193	-	-	-	-	-	-	-
Stage 2	398	178	-	546	389	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	22	30	659	~ 33	33	350	918	-	-	438	-	-
Mov Cap-2 Maneuver	22	30	-	~ 33	33	-	-	-	-	-	-	-
Stage 1	290	333	-	~ 133	189	-	-	-	-	-	-	-
Stage 2	135	175	-	454	328	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	58.5	$ 1313.28	0.19	1.34
HCM LOS	F	F		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	19	-	-	79	33	350	438	-	-
HCM Lane V/C Ratio	0.01	-	-	0.154	6.441	0.648	0.156	-	-
HCM Ctrl Dly (s/v)	9	0.2	-	58.5	$ 2687	32.4	14.7	-	-
HCM Lane LOS	A	A	-	F	F	D	B	-	-
HCM 95th %tile Q(veh)	0	-	-	0.5	25.4	4.3	0.5	-	-

Notes	
~: Volume exceeds capacity	$: Delay exceeds 300s
+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	0.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	12	0	0	429	9	1340	154	67	653	18
Future Vol, veh/h	0	0	12	0	0	429	9	1340	154	67	653	18
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	-	-	Free	-	-	None	-	-	None
Storage Length	-	-	0	-	-	-	-	-	100	100	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	98	98	98	98	98	98	98	98	98	98	98	98
Heavy Vehicles, %	0	0	0	1	1	1	0	0	0	1	1	1
Mvmt Flow	0	0	12	0	0	438	9	1367	157	68	666	18

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	-	-	342	-	-	-	685	0	0	1524	0	0
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	-	-	6.9	-	-	-	4.1	-	-	4.12	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	3.3	-	-	-	2.2	-	-	2.21	-	-
Pot Cap-1 Maneuver	0	0	659	0	0	0	918	-	-	438	-	-
Stage 1	0	0	-	0	0	0	-	-	-	-	-	-
Stage 2	0	0	-	0	0	0	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	-	-	659	-	-	-	918	-	-	438	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	10.56	0	0.19	1.34
HCM LOS	B	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	24	-	-	659	-	438	-	-
HCM Lane V/C Ratio	0.01	-	-	0.019	-	0.156	-	-
HCM Ctrl Dly (s/v)	9	0.2	-	10.6	0	14.7	-	-
HCM Lane LOS	A	A	-	B	A	B	-	-
HCM 95th %tile Q(veh)	0	-	-	0.1	-	0.5	-	-

MOVEMENT SUMMARY

Site: 101 [Mcguire_Prairie_Existing_PM (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.3.210

New Site
Site Category: (None)
Roundabout

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] ft	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed mph
South: McGuire NB Approach															
3	L2	All MCs	26	2.5	26	2.5	0.261	7.0	LOS A	1.6	41.1	0.66	0.48	0.66	32.0
8	T1	All MCs	139	2.5	139	2.5	0.261	7.0	LOS A	1.6	41.1	0.66	0.48	0.66	33.7
18	R2	All MCs	56	2.5	56	2.5	0.261	7.0	LOS A	1.6	41.1	0.66	0.48	0.66	32.4
Approach			221	2.5	221	2.5	0.261	7.0	LOS A	1.6	41.1	0.66	0.48	0.66	33.2
East: Prairie WB Approach															
1u	U	All MCs	1	6.4	1	6.4	0.253	6.2	LOS A	1.5	39.4	0.52	0.34	0.52	32.1
1	L2	All MCs	46	6.4	46	6.4	0.253	6.2	LOS A	1.5	39.4	0.52	0.34	0.52	32.1
6	T1	All MCs	174	6.4	174	6.4	0.253	6.2	LOS A	1.5	39.4	0.52	0.34	0.52	32.9
16	R2	All MCs	24	6.4	24	6.4	0.253	6.2	LOS A	1.5	39.4	0.52	0.34	0.52	33.1
Approach			245	6.4	245	6.4	0.253	6.2	LOS A	1.5	39.4	0.52	0.34	0.52	32.8
North: McGuire SB Approach															
7	L2	All MCs	13	13.8	13	13.8	0.251	6.5	LOS A	1.5	41.4	0.52	0.33	0.52	33.1
4	T1	All MCs	91	13.8	91	13.8	0.251	6.5	LOS A	1.5	41.4	0.52	0.33	0.52	34.1
14	R2	All MCs	124	13.8	124	13.8	0.251	6.5	LOS A	1.5	41.4	0.52	0.33	0.52	33.7
Approach			228	13.8	228	13.8	0.251	6.5	LOS A	1.5	41.4	0.52	0.33	0.52	33.8
West: Prairie EB Approach															
5	L2	All MCs	115	4.1	115	4.1	0.446	7.9	LOS A	3.3	84.5	0.50	0.28	0.50	32.0
2	T1	All MCs	334	4.1	334	4.1	0.446	7.9	LOS A	3.3	84.5	0.50	0.28	0.50	32.1
12	R2	All MCs	45	4.1	45	4.1	0.446	7.9	LOS A	3.3	84.5	0.50	0.28	0.50	31.7
Approach			493	4.1	493	4.1	0.446	7.9	LOS A	3.3	84.5	0.50	0.28	0.50	32.0
All Vehicles			1188	6.1	1188	6.1	0.446	7.1	LOS A	3.3	84.5	0.54	0.34	0.54	32.7

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Options tab).
Roundabout LOS Method: Same as Signalised Intersections.
Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.
LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).
Roundabout Capacity Model: SIDRA HCM.
Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

SIDRA INTERSECTION 9.1 | Copyright © 2000-2023 Akcelik and Associates Pty Ltd | sidrasolutions.com
Organisation: J.U.B ENGINEERS, INC. | Licence: PLUS / 1PC | Processed: Thursday, September 7, 2023 11:09:14 AM
Project: \\jub.com\Central\Clients\ID\PostFallsCity\Projects\07-23-040_TMP\Planning\Traffic\Sidra\Mcguire_Prairie.sip9

MOVEMENT SUMMARY

Site: 101 [Idaho_Prairie_Existing_PM (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.2.202

New Site
Site Category: (None)
Roundabout

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] ft	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed mph
South: Idaho NB Aproach															
3	L2	All MCs	153	0.0	153	0.0	0.439	9.4	LOS A	3.2	79.9	0.75	0.55	0.75	29.1
8	T1	All MCs	121	0.0	121	0.0	0.439	9.4	LOS A	3.2	79.9	0.75	0.55	0.75	28.3
18	R2	All MCs	108	0.0	108	0.0	0.439	9.4	LOS A	3.2	79.9	0.75	0.55	0.75	30.4
Approach			382	0.0	382	0.0	0.439	9.4	LOS A	3.2	79.9	0.75	0.55	0.75	29.2
East: Prairie WB Approach															
1	L2	All MCs	148	2.5	148	2.5	0.613	12.0	LOS B	6.8	173.6	0.76	0.56	0.88	29.3
6	T1	All MCs	454	2.5	454	2.5	0.613	12.0	LOS B	6.8	173.6	0.76	0.56	0.88	31.2
16	R2	All MCs	8	2.5	8	2.5	0.613	12.0	LOS B	6.8	173.6	0.76	0.56	0.88	29.6
Approach			611	2.5	611	2.5	0.613	12.0	LOS B	6.8	173.6	0.76	0.56	0.88	30.7
North: Idaho SB Approach															
7	L2	All MCs	3	1.0	3	1.0	0.204	8.1	LOS A	1.3	33.8	0.81	0.64	0.81	31.3
4	T1	All MCs	102	1.0	102	1.0	0.204	8.1	LOS A	1.3	33.8	0.81	0.64	0.81	29.6
14	R2	All MCs	24	1.0	24	1.0	0.204	8.1	LOS A	1.3	33.8	0.81	0.64	0.81	30.7
Approach			129	1.0	129	1.0	0.204	8.1	LOS A	1.3	33.8	0.81	0.64	0.81	29.8
West: Prairie EB Approach															
5	L2	All MCs	13	1.4	13	1.4	0.592	11.0	LOS B	5.5	138.4	0.69	0.46	0.73	29.2
2	T1	All MCs	451	1.4	451	1.4	0.592	11.0	LOS B	5.5	138.4	0.69	0.46	0.73	32.1
12	R2	All MCs	162	1.4	162	1.4	0.592	11.0	LOS B	5.5	138.4	0.69	0.46	0.73	29.5
Approach			625	1.4	625	1.4	0.592	11.0	LOS B	5.5	138.4	0.69	0.46	0.73	31.3
All Vehicles			1747	1.4	1747	1.4	0.613	10.8	LOS B	6.8	173.6	0.73	0.53	0.79	30.5

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Options tab).
Roundabout LOS Method: Same as Signalised Intersections.
Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.
LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).
Roundabout Capacity Model: SIDRA HCM.
Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

SIDRA INTERSECTION 9.1 | Copyright © 2000-2022 Akcelik and Associates Pty Ltd | sidrasolutions.com

MOVEMENT SUMMARY

Site: 101 [Idaho_Prairie_Existing_PM (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.2.202

New Site
Site Category: (None)
Roundabout

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] ft	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed mph
South: Idaho NB Aproach															
3	L2	All MCs	173	0.0	173	0.0	0.566	13.3	LOS B	5.7	143.4	0.89	0.79	1.12	27.7
8	T1	All MCs	138	0.0	138	0.0	0.566	13.3	LOS B	5.7	143.4	0.89	0.79	1.12	27.1
18	R2	All MCs	123	0.0	123	0.0	0.566	13.3	LOS B	5.7	143.4	0.89	0.79	1.12	28.9
Approach			434	0.0	434	0.0	0.566	13.3	LOS B	5.7	143.4	0.89	0.79	1.12	27.8
East: Prairie WB Approach															
1	L2	All MCs	173	2.5	173	2.5	0.749	17.3	LOS B	13.5	345.5	0.92	0.86	1.40	27.4
6	T1	All MCs	528	2.5	528	2.5	0.749	17.3	LOS B	13.5	345.5	0.92	0.86	1.40	29.1
16	R2	All MCs	9	2.5	9	2.5	0.749	17.3	LOS B	13.5	345.5	0.92	0.86	1.40	27.7
Approach			711	2.5	711	2.5	0.749	17.3	LOS B	13.5	345.5	0.92	0.86	1.40	28.6
North: Idaho SB Approach															
7	L2	All MCs	3	1.0	3	1.0	0.291	11.2	LOS B	2.1	52.2	0.91	0.74	0.91	30.0
4	T1	All MCs	118	1.0	118	1.0	0.291	11.2	LOS B	2.1	52.2	0.91	0.74	0.91	28.5
14	R2	All MCs	28	1.0	28	1.0	0.291	11.2	LOS B	2.1	52.2	0.91	0.74	0.91	29.5
Approach			149	1.0	149	1.0	0.291	11.2	LOS B	2.1	52.2	0.91	0.74	0.91	28.7
West: Prairie EB Approach															
5	L2	All MCs	16	1.4	16	1.4	0.741	16.2	LOS B	13.2	333.4	0.87	0.81	1.29	27.4
2	T1	All MCs	540	1.4	540	1.4	0.741	16.2	LOS B	13.2	333.4	0.87	0.81	1.29	29.9
12	R2	All MCs	194	1.4	194	1.4	0.741	16.2	LOS B	13.2	333.4	0.87	0.81	1.29	27.6
Approach			749	1.4	749	1.4	0.741	16.2	LOS B	13.2	333.4	0.87	0.81	1.29	29.2
All Vehicles			2043	1.5	2043	1.5	0.749	15.6	LOS B	13.5	345.5	0.90	0.82	1.27	28.7

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Options tab).
Roundabout LOS Method: Same as Signalised Intersections.
Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.
LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).
Roundabout Capacity Model: SIDRA HCM.
Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

SIDRA INTERSECTION 9.1 | Copyright © 2000-2022 Akcelik and Associates Pty Ltd | sidrasolutions.com

MOVEMENT SUMMARY

Site: 101 [Idaho_Prairie_Existing_PM (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.2.202

New Site
Site Category: (None)
Roundabout

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] ft	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed mph
South: Idaho NB Aproach															
3	L2	All MCs	213	0.0	213	0.0	0.875	36.3	LOS D	15.9	396.6	1.00	1.37	2.04	21.7
8	T1	All MCs	169	0.0	169	0.0	0.875	36.3	LOS D	15.9	396.6	1.00	1.37	2.04	21.3
18	R2	All MCs	152	0.0	152	0.0	0.875	36.3	LOS D	15.9	396.6	1.00	1.37	2.04	22.4
Approach			534	0.0	534	0.0	0.875	36.3	LOS D	15.9	396.6	1.00	1.37	2.04	21.7
East: Prairie WB Approach															
1	L2	All MCs	221	2.5	221	2.5	1.045	61.0	LOS F	47.2	1202.7	1.00	2.00	3.44	18.0
6	T1	All MCs	676	2.5	676	2.5	1.045	61.0	LOS F	47.2	1202.7	1.00	2.00	3.44	18.7
16	R2	All MCs	13	2.5	13	2.5	1.045	61.0	LOS F	47.2	1202.7	1.00	2.00	3.44	18.1
Approach			909	2.5	909	2.5	1.045	61.0	LOS E	47.2	1202.7	1.00	2.00	3.44	18.5
North: Idaho SB Approach															
7	L2	All MCs	4	1.0	4	1.0	0.526	22.7	LOS C	4.6	114.7	1.00	0.96	1.21	26.1
4	T1	All MCs	151	1.0	151	1.0	0.526	22.7	LOS C	4.6	114.7	1.00	0.96	1.21	24.9
14	R2	All MCs	36	1.0	36	1.0	0.526	22.7	LOS C	4.6	114.7	1.00	0.96	1.21	25.7
Approach			191	1.0	191	1.0	0.526	22.7	LOS C	4.6	114.7	1.00	0.96	1.21	25.0
West: Prairie EB Approach															
5	L2	All MCs	21	1.4	21	1.4	1.059	63.1	LOS F	53.4	1350.6	1.00	2.21	3.63	17.4
2	T1	All MCs	719	1.4	719	1.4	1.059	63.1	LOS F	53.4	1350.6	1.00	2.21	3.63	18.4
12	R2	All MCs	258	1.4	258	1.4	1.059	63.1	LOS F	53.4	1350.6	1.00	2.21	3.63	17.5
Approach			998	1.4	998	1.4	1.059	63.1	LOS E	53.4	1350.6	1.00	2.21	3.63	18.2
All Vehicles			2632	1.5	2632	1.5	1.059	54.0	LOS D	53.4	1350.6	1.00	1.87	3.07	19.3

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Options tab).
Roundabout LOS Method: Same as Signalised Intersections.
Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.
LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).
Roundabout Capacity Model: SIDRA HCM.
Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

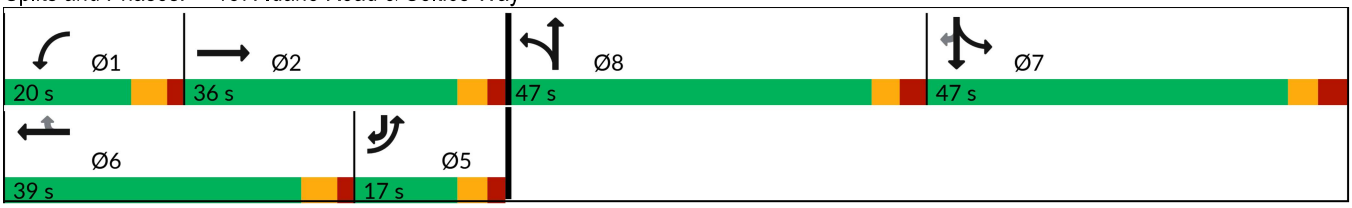
SIDRA INTERSECTION 9.1 | Copyright © 2000-2022 Akcelik and Associates Pty Ltd | sidrasolutions.com

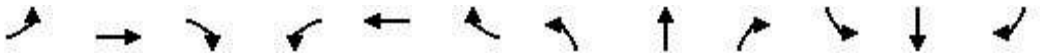
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	294	423	18	103	626	424	14	172	27	360	150	312
Future Volume (vph)	294	423	18	103	626	424	14	172	27	360	150	312
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	214		0	132		132	113		0	135		0
Storage Lanes	2		0	1		1	1		0	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.97	0.95	0.95	1.00	0.95	1.00	1.00	1.00	1.00	0.95	0.95	1.00
Frt		0.994				0.850		0.979				0.850
Flt Protected	0.950			0.950			0.950			0.950	0.980	
Satd. Flow (prot)	3467	3553	0	1787	3574	1599	1805	1860	0	1698	1751	1599
Flt Permitted	0.950			0.950			0.950			0.950	0.980	
Satd. Flow (perm)	3467	3553	0	1787	3574	1599	1805	1860	0	1698	1751	1599
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		3				249		5				332
Link Speed (mph)		35			35			35			35	
Link Distance (ft)		1604			1358			483			334	
Travel Time (s)		31.2			26.5			9.4			6.5	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	1%	1%	1%	1%	1%	1%	0%	0%	0%	1%	1%	1%
Adj. Flow (vph)	313	450	19	110	666	451	15	183	29	383	160	332
Shared Lane Traffic (%)										30%		
Lane Group Flow (vph)	313	469	0	110	666	451	15	212	0	268	275	332
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane											Yes	
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2	1	1	2		1	2	1
Detector Template	Left	Thru		Left	Thru	Right	Left	Thru		Left	Thru	Right
Leading Detector (ft)	20	100		20	100	20	20	100		20	100	20
Trailing Detector (ft)	0	0		0	0	0	0	0		0	0	0
Detector 1 Position(ft)	0	0		0	0	0	0	0		0	0	0
Detector 1 Size(ft)	20	6		20	6	20	20	6		20	6	20
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Prot	NA		Prot	NA	Perm	Split	NA		Split	NA	pm+ov
Protected Phases	5	2		1	6		8	8		7	7	5

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Permitted Phases						6						7
Detector Phase	5	2		1	6	6	8	8		7	7	5
Switch Phase												
Minimum Initial (s)	7.0	10.0		4.0	10.0	10.0	4.0	4.0		7.0	7.0	7.0
Minimum Split (s)	12.4	34.4		9.8	38.8	38.8	46.2	46.2		46.7	46.7	12.4
Total Split (s)	17.0	36.0		20.0	39.0	39.0	47.0	47.0		47.0	47.0	17.0
Total Split (%)	11.3%	24.0%		13.3%	26.0%	26.0%	31.3%	31.3%		31.3%	31.3%	11.3%
Maximum Green (s)	11.6	30.6		14.2	33.2	33.2	40.8	40.8		40.3	40.3	11.6
Yellow Time (s)	3.5	3.5		4.0	4.0	4.0	3.2	3.2		3.3	3.3	3.5
All-Red Time (s)	1.9	1.9		1.8	1.8	1.8	3.0	3.0		3.4	3.4	1.9
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)	5.4	5.4		5.8	5.8	5.8	6.2	6.2		6.7	6.7	5.4
Lead/Lag	Lag	Lag		Lead	Lead	Lead	Lead	Lead		Lag	Lag	Lag
Lead-Lag Optimize?	Yes	Yes		Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
Recall Mode	None	Min		None	Min	Min	None	None		None	None	None
Walk Time (s)		7.0			7.0	7.0	7.0	7.0		7.0	7.0	
Flash Don't Walk (s)		22.0			26.0	26.0	33.0	33.0		33.0	33.0	
Pedestrian Calls (#/hr)		0			0	0	0	0		0	0	
Act Effct Green (s)	11.9	28.4		11.7	28.2	28.2	17.9	17.9		23.2	23.2	36.5
Actuated g/C Ratio	0.11	0.27		0.11	0.27	0.27	0.17	0.17		0.22	0.22	0.34
v/c Ratio	0.80	0.49		0.56	0.70	0.74	0.05	0.67		0.72	0.72	0.43
Control Delay (s/veh)	65.0	36.8		60.1	40.9	24.9	40.9	53.1		51.4	50.8	3.3
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Delay (s/veh)	65.0	36.8		60.1	40.9	24.9	40.9	53.1		51.4	50.8	3.3
LOS	E	D		E	D	C	D	D		D	D	A
Approach Delay (s/veh)		48.1			36.8			52.3			33.0	
Approach LOS		D			D			D			C	

Intersection Summary			
Area Type:	Other		
Cycle Length: 150			
Actuated Cycle Length: 106			
Natural Cycle: 145			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.80			
Intersection Signal Delay (s/veh): 39.7		Intersection LOS: D	
Intersection Capacity Utilization 70.4%		ICU Level of Service C	
Analysis Period (min) 15			

Splits and Phases: 187: Idaho Road & Seltice Way



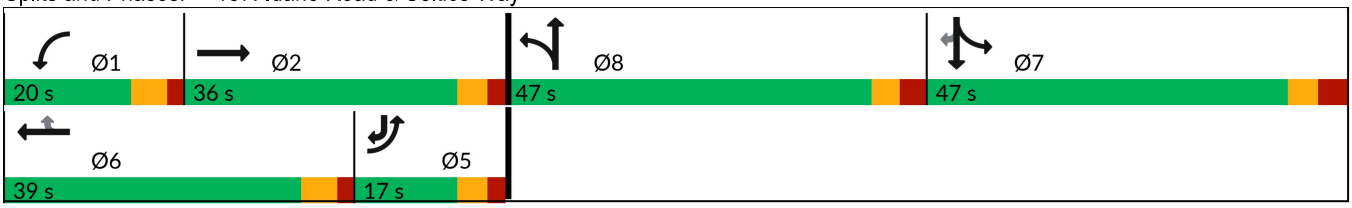


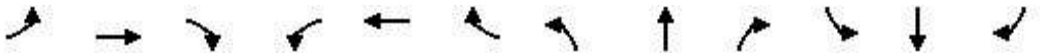
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	325	467	19	118	718	487	15	189	29	416	173	361
Future Volume (vph)	325	467	19	118	718	487	15	189	29	416	173	361
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	214		0	132		132	113		0	135		0
Storage Lanes	2		0	1		1	1		0	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.97	0.95	0.95	1.00	0.95	1.00	1.00	1.00	1.00	0.95	0.95	1.00
Frt		0.994				0.850		0.980				0.850
Flt Protected	0.950			0.950			0.950			0.950	0.979	
Satd. Flow (prot)	3467	3553	0	1787	3574	1599	1805	1862	0	1698	1750	1599
Flt Permitted	0.950			0.950			0.950			0.950	0.979	
Satd. Flow (perm)	3467	3553	0	1787	3574	1599	1805	1862	0	1698	1750	1599
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		2				249		5				384
Link Speed (mph)		35			35			35			35	
Link Distance (ft)		1604			1358			483			334	
Travel Time (s)		31.2			26.5			9.4			6.5	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	1%	1%	1%	1%	1%	1%	0%	0%	0%	1%	1%	1%
Adj. Flow (vph)	346	497	20	126	764	518	16	201	31	443	184	384
Shared Lane Traffic (%)										30%		
Lane Group Flow (vph)	346	517	0	126	764	518	16	232	0	310	317	384
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane											Yes	
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2	1	1	2		1	2	1
Detector Template	Left	Thru		Left	Thru	Right	Left	Thru		Left	Thru	Right
Leading Detector (ft)	20	100		20	100	20	20	100		20	100	20
Trailing Detector (ft)	0	0		0	0	0	0	0		0	0	0
Detector 1 Position(ft)	0	0		0	0	0	0	0		0	0	0
Detector 1 Size(ft)	20	6		20	6	20	20	6		20	6	20
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Prot	NA		Prot	NA	Perm	Split	NA		Split	NA	pm+ov
Protected Phases	5	2		1	6		8	8		7	7	5

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Permitted Phases						6						7
Detector Phase	5	2		1	6	6	8	8		7	7	5
Switch Phase												
Minimum Initial (s)	7.0	10.0		4.0	10.0	10.0	4.0	4.0		7.0	7.0	7.0
Minimum Split (s)	12.4	34.4		9.8	38.8	38.8	46.2	46.2		46.7	46.7	12.4
Total Split (s)	17.0	36.0		20.0	39.0	39.0	47.0	47.0		47.0	47.0	17.0
Total Split (%)	11.3%	24.0%		13.3%	26.0%	26.0%	31.3%	31.3%		31.3%	31.3%	11.3%
Maximum Green (s)	11.6	30.6		14.2	33.2	33.2	40.8	40.8		40.3	40.3	11.6
Yellow Time (s)	3.5	3.5		4.0	4.0	4.0	3.2	3.2		3.3	3.3	3.5
All-Red Time (s)	1.9	1.9		1.8	1.8	1.8	3.0	3.0		3.4	3.4	1.9
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)	5.4	5.4		5.8	5.8	5.8	6.2	6.2		6.7	6.7	5.4
Lead/Lag	Lag	Lag		Lead	Lead	Lead	Lead	Lead		Lag	Lag	Lag
Lead-Lag Optimize?	Yes	Yes		Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
Recall Mode	None	Min		None	Min	Min	None	None		None	None	None
Walk Time (s)		7.0			7.0	7.0	7.0	7.0		7.0	7.0	
Flash Don't Walk (s)		22.0			26.0	26.0	33.0	33.0		33.0	33.0	
Pedestrian Calls (#/hr)		0			0	0	0	0		0	0	
Act Effct Green (s)	11.8	31.4		12.7	32.2	32.2	19.9	19.9		27.4	27.4	40.5
Actuated g/C Ratio	0.10	0.27		0.11	0.28	0.28	0.17	0.17		0.24	0.24	0.35
v/c Ratio	0.98	0.54		0.65	0.77	0.83	0.05	0.72		0.77	0.77	0.47
Control Delay (s/veh)	96.4	41.0		68.3	46.2	34.0	42.8	58.7		55.7	54.8	3.4
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Delay (s/veh)	96.4	41.0		68.3	46.2	34.0	42.8	58.7		55.7	54.8	3.4
LOS	F	D		E	D	C	D	E		E	D	A
Approach Delay (s/veh)		63.2			43.7			57.7			35.5	
Approach LOS		E			D			E			D	

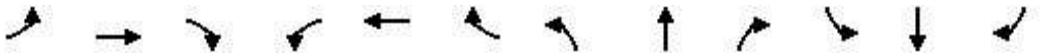
Intersection Summary			
Area Type:	Other		
Cycle Length: 150			
Actuated Cycle Length: 115.9			
Natural Cycle: 145			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.98			
Intersection Signal Delay (s/veh): 47.1		Intersection LOS: D	
Intersection Capacity Utilization 77.0%		ICU Level of Service D	
Analysis Period (min) 15			

Splits and Phases: 187: Idaho Road & Seltice Way





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	387	557	23	149	901	611	18	221	34	528	220	459
Future Volume (vph)	387	557	23	149	901	611	18	221	34	528	220	459
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	214		0	132		132	113		0	135		0
Storage Lanes	2		0	1		1	1		0	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.97	0.95	0.95	1.00	0.95	1.00	1.00	1.00	1.00	0.95	0.95	1.00
Frt		0.994				0.850		0.980				0.850
Flt Protected	0.950			0.950			0.950			0.950	0.979	
Satd. Flow (prot)	3467	3553	0	1787	3574	1599	1805	1862	0	1698	1750	1599
Flt Permitted	0.950			0.950			0.950			0.950	0.979	
Satd. Flow (perm)	3467	3553	0	1787	3574	1599	1805	1862	0	1698	1750	1599
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		2				253		5				485
Link Speed (mph)		35			35			35			35	
Link Distance (ft)		1604			1358			483			334	
Travel Time (s)		31.2			26.5			9.4			6.5	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	1%	1%	1%	1%	1%	1%	0%	0%	0%	1%	1%	1%
Adj. Flow (vph)	412	593	24	159	959	650	19	235	36	562	234	488
Shared Lane Traffic (%)										30%		
Lane Group Flow (vph)	412	617	0	159	959	650	19	271	0	393	403	488
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane											Yes	
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2	1	1	2		1	2	1
Detector Template	Left	Thru		Left	Thru	Right	Left	Thru		Left	Thru	Right
Leading Detector (ft)	20	100		20	100	20	20	100		20	100	20
Trailing Detector (ft)	0	0		0	0	0	0	0		0	0	0
Detector 1 Position(ft)	0	0		0	0	0	0	0		0	0	0
Detector 1 Size(ft)	20	6		20	6	20	20	6		20	6	20
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Prot	NA		Prot	NA	Perm	Split	NA		Split	NA	pm+ov
Protected Phases	5	2		1	6		8	8		7	7	5



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Permitted Phases						6						7
Detector Phase	5	2		1	6	6	8	8		7	7	5
Switch Phase												
Minimum Initial (s)	7.0	10.0		4.0	10.0	10.0	4.0	4.0		7.0	7.0	7.0
Minimum Split (s)	12.4	34.4		9.8	38.8	38.8	46.2	46.2		46.7	46.7	12.4
Total Split (s)	15.0	37.0		19.0	41.0	41.0	47.0	47.0		47.0	47.0	15.0
Total Split (%)	10.0%	24.7%		12.7%	27.3%	27.3%	31.3%	31.3%		31.3%	31.3%	10.0%
Maximum Green (s)	9.6	31.6		13.2	35.2	35.2	40.8	40.8		40.3	40.3	9.6
Yellow Time (s)	3.5	3.5		4.0	4.0	4.0	3.2	3.2		3.3	3.3	3.5
All-Red Time (s)	1.9	1.9		1.8	1.8	1.8	3.0	3.0		3.4	3.4	1.9
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)	5.4	5.4		5.8	5.8	5.8	6.2	6.2		6.7	6.7	5.4
Lead/Lag	Lag	Lag		Lead	Lead	Lead	Lead	Lead		Lag	Lag	Lag
Lead-Lag Optimize?	Yes	Yes		Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
Recall Mode	None	Min		None	Min	Min	None	None		None	None	None
Walk Time (s)		7.0			7.0	7.0	7.0	7.0		7.0	7.0	
Flash Don't Walk (s)		22.0			26.0	26.0	33.0	33.0		33.0	33.0	
Pedestrian Calls (#/hr)		0			0	0	0	0		0	0	
Act Effct Green (s)	9.7	31.9		13.3	35.5	35.5	23.7	23.7		34.9	34.9	45.9
Actuated g/C Ratio	0.08	0.25		0.10	0.28	0.28	0.19	0.19		0.27	0.27	0.36
v/c Ratio	1.57	0.70		0.86	0.97	1.04	0.06	0.78		0.85	0.85	0.55
Control Delay (s/veh)	314.0	50.2		95.5	68.6	74.9	43.9	65.1		62.7	61.7	3.9
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Delay (s/veh)	314.0	50.2		95.5	68.6	74.9	43.9	65.1		62.7	61.7	3.9
LOS	F	D		F	E	E	D	E		E	E	A
Approach Delay (s/veh)		155.8			73.3			63.7			40.0	
Approach LOS		F			E			E			D	
Queue Length 50th (ft)	~261	256		137	434	~441	13	218		328	335	1
Queue Length 95th (ft)	#404	360		#299	#664	#749	37	322		#531	#538	36
Internal Link Dist (ft)		1524			1278			403			254	
Turn Bay Length (ft)	214			132		132	113			135		
Base Capacity (vph)	262	885		185	990	626	579	601		538	555	883
Starvation Cap Reductn	0	0		0	0	0	0	0		0	0	0
Spillback Cap Reductn	0	0		0	0	0	0	0		0	0	0
Storage Cap Reductn	0	0		0	0	0	0	0		0	0	0
Reduced v/c Ratio	1.57	0.70		0.86	0.97	1.04	0.03	0.45		0.73	0.73	0.55

Intersection Summary			
Area Type:	Other		
Cycle Length: 150			
Actuated Cycle Length: 128.1			
Natural Cycle: 145			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 1.57			
Intersection Signal Delay (s/veh): 82.3		Intersection LOS: F	
Intersection Capacity Utilization 90.1%		ICU Level of Service E	
Analysis Period (min) 15			

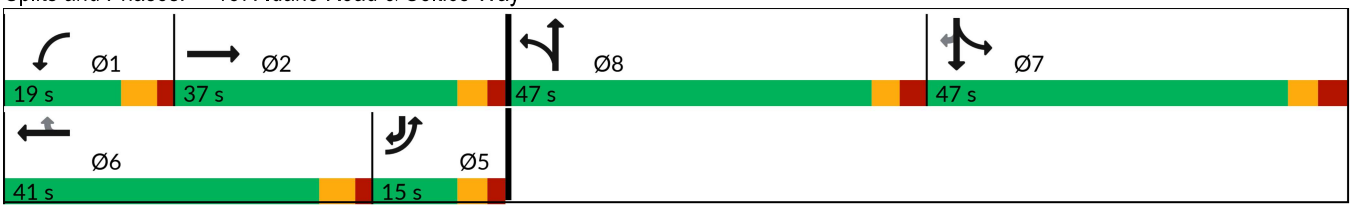
~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 187: Idaho Road & Seltice Way



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	387	557	23	149	901	611	18	221	34	528	220	459
Future Volume (veh/h)	387	557	23	149	901	611	18	221	34	528	220	459
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
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	1885	1885	1885	1885	1885	1885	1900	1900	1900	1885	1885	1885
Adj Flow Rate, veh/h	412	593	24	159	959	0	19	235	36	562	234	488
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	1	1	1	1	1	1	0	0	0	1	1	1
Cap, veh/h	476	1199	535	189	1086		59	274	42	657	622	746
Arrive On Green	0.14	0.33	0.33	0.11	0.30	0.00	0.03	0.17	0.17	0.19	0.33	0.33
Sat Flow, veh/h	3483	3582	1598	1795	3582	1598	1810	1609	247	3483	1885	1598
Grp Volume(v), veh/h	412	593	24	159	959	0	19	0	271	562	234	488
Grp Sat Flow(s),veh/h/ln	1742	1791	1598	1795	1791	1598	1810	0	1856	1742	1885	1598
Q Serve(g_s), s	14.1	16.1	1.2	10.6	31.1	0.0	1.3	0.0	17.3	19.1	11.6	6.6
Cycle Q Clear(g_c), s	14.1	16.1	1.2	10.6	31.1	0.0	1.3	0.0	17.3	19.1	11.6	6.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.13	1.00		1.00
Lane Grp Cap(c), veh/h	476	1199	535	189	1086		59	0	316	657	622	746
V/C Ratio(X)	0.87	0.49	0.04	0.84	0.88		0.32	0.00	0.86	0.86	0.38	0.65
Avail Cap(c_a), veh/h	562	1199	535	326	1208		593	0	608	1141	622	746
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	0.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	51.6	32.4	27.4	53.7	40.5	0.0	57.7	0.0	49.2	47.9	31.3	12.0
Incr Delay (d2), s/veh	11.9	0.3	0.0	9.7	7.4	0.0	3.1	0.0	6.7	3.3	0.4	2.1
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	6.9	7.0	0.5	5.3	14.6	0.0	0.6	0.0	8.5	8.5	5.3	6.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	63.5	32.7	27.5	63.4	47.9	0.0	60.8	0.0	56.0	51.3	31.7	14.1
LnGrp LOS	E	C	C	E	D		E		E	D	C	B
Approach Vol, veh/h		1029			1118			290			1284	
Approach Delay, s/veh		44.9			50.1			56.3			33.6	
Approach LOS		D			D			E			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	18.6	46.3	10.2	47.0	22.1	42.8	29.7	27.5
Change Period (Y+Rc), s	5.8	5.4	6.2	6.7	5.4	5.8	6.7	* 6.7
Max Green Setting (Gmax), s	22.2	38.7	40.0	40.0	19.7	41.2	40.0	* 40
Max Q Clear Time (g_c+I1), s	12.6	18.1	3.3	13.6	16.1	33.1	21.1	19.3
Green Ext Time (p_c), s	0.3	3.9	0.0	3.3	0.5	3.9	2.0	1.5

Intersection Summary	
HCM 7th Control Delay, s/veh	43.4
HCM 7th LOS	D

Notes

* HCM 7th computational engine requires equal clearance times for the phases crossing the barrier.
Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.

Intersection	
Int Delay, s/veh	0.5

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	424	7	17	271	8	10
Future Vol, veh/h	424	7	17	271	8	10
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	89	89	89	89	89	89
Heavy Vehicles, %	4	4	10	10	0	0
Mvmt Flow	476	8	19	304	9	11

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	484	0	823	480
Stage 1	-	-	-	-	480	-
Stage 2	-	-	-	-	343	-
Critical Hdwy	-	-	4.2	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.29	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	1038	-	346	590
Stage 1	-	-	-	-	626	-
Stage 2	-	-	-	-	723	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1038	-	338	590
Mov Cap-2 Maneuver	-	-	-	-	338	-
Stage 1	-	-	-	-	626	-
Stage 2	-	-	-	-	707	-

Approach	EB	WB	NB
HCM Ctrl Dly, s/v	0	0.5	13.51
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	443	-	-	106	-
HCM Lane V/C Ratio	0.046	-	-	0.018	-
HCM Ctrl Dly (s/v)	13.5	-	-	8.5	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0.1	-	-	0.1	-

Intersection	
Int Delay, s/veh	25.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	1	8	3	195	1	156	16	81	251	138	53	2
Future Vol, veh/h	1	8	3	195	1	156	16	81	251	138	53	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	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	9	9	9	16	16	16	5	5	5	8	8	8
Mvmt Flow	1	9	3	217	1	173	18	90	279	153	59	2

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	493	771	60	635	633	229	61	0	0	369	0	0
Stage 1	367	367	-	265	265	-	-	-	-	-	-	-
Stage 2	126	404	-	370	368	-	-	-	-	-	-	-
Critical Hdwy	7.19	6.59	6.29	7.26	6.66	6.36	4.15	-	-	4.18	-	-
Critical Hdwy Stg 1	6.19	5.59	-	6.26	5.66	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.19	5.59	-	6.26	5.66	-	-	-	-	-	-	-
Follow-up Hdwy	3.581	4.081	3.381	3.644	4.144	3.444	2.245	-	-	2.272	-	-
Pot Cap-1 Maneuver	475	323	986	372	379	776	1523	-	-	1157	-	-
Stage 1	639	610	-	710	665	-	-	-	-	-	-	-
Stage 2	861	587	-	622	598	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	313	274	986	306	322	776	1523	-	-	1157	-	-
Mov Cap-2 Maneuver	313	274	-	306	322	-	-	-	-	-	-	-
Stage 1	551	526	-	700	654	-	-	-	-	-	-	-
Stage 2	658	578	-	526	516	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	16.07	60.65	0.34	6.14
HCM LOS	C	F		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	72	-	-	339	419	1118	-	-
HCM Lane V/C Ratio	0.012	-	-	0.039	0.934	0.132	-	-
HCM Ctrl Dly (s/v)	7.4	0	-	16.1	60.6	8.6	0	-
HCM Lane LOS	A	A	-	C	F	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.1	10.5	0.5	-	-

Intersection	
Int Delay, s/veh	79

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	1	9	4	236	2	189	20	88	316	152	58	3
Future Vol, veh/h	1	9	4	236	2	189	20	88	316	152	58	3
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	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	9	9	9	16	16	16	5	5	5	8	8	8
Mvmt Flow	1	10	4	262	2	210	22	98	351	169	64	3

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	547	897	66	725	723	273	68	0	0	449	0	0
Stage 1	404	404	-	318	318	-	-	-	-	-	-	-
Stage 2	143	493	-	407	406	-	-	-	-	-	-	-
Critical Hdwy	7.19	6.59	6.29	7.26	6.66	6.36	4.15	-	-	4.18	-	-
Critical Hdwy Stg 1	6.19	5.59	-	6.26	5.66	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.19	5.59	-	6.26	5.66	-	-	-	-	-	-	-
Follow-up Hdwy	3.581	4.081	3.381	3.644	4.144	3.444	2.245	-	-	2.272	-	-
Pot Cap-1 Maneuver	437	272	978	323	336	733	1515	-	-	1080	-	-
Stage 1	610	587	-	665	629	-	-	-	-	-	-	-
Stage 2	843	535	-	594	575	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	254	223	978	~ 254	275	733	1515	-	-	1080	-	-
Mov Cap-2 Maneuver	254	223	-	~ 254	275	-	-	-	-	-	-	-
Stage 1	511	492	-	651	616	-	-	-	-	-	-	-
Stage 2	587	524	-	485	481	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	18.14	195.39	0.35	6.39
HCM LOS	C	F		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	73	-	-	289	358	1039	-	-
HCM Lane V/C Ratio	0.015	-	-	0.054	1.327	0.156	-	-
HCM Ctrl Dly (s/v)	7.4	0	-	18.1	195.4	8.9	0	-
HCM Lane LOS	A	A	-	C	F	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.2	22.5	0.6	-	-

Notes	
~: Volume exceeds capacity	$: Delay exceeds 300s
+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	291.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	1	10	4	318	2	255	28	104	444	178	68	3
Future Vol, veh/h	1	10	4	318	2	255	28	104	444	178	68	3
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	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	9	9	9	16	16	16	5	5	5	8	8	8
Mvmt Flow	1	11	4	353	2	283	31	116	493	198	76	3

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	652	1144	77	901	899	362	79	0	0	609	0	0
Stage 1	473	473	-	424	424	-	-	-	-	-	-	-
Stage 2	179	671	-	477	474	-	-	-	-	-	-	-
Critical Hdwy	7.19	6.59	6.29	7.26	6.66	6.36	4.15	-	-	4.18	-	-
Critical Hdwy Stg 1	6.19	5.59	-	6.26	5.66	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.19	5.59	-	6.26	5.66	-	-	-	-	-	-	-
Follow-up Hdwy	3.581	4.081	3.381	3.644	4.144	3.444	2.245	-	-	2.272	-	-
Pot Cap-1 Maneuver	372	194	965	~ 245	264	652	1500	-	-	941	-	-
Stage 1	559	547	-	581	563	-	-	-	-	-	-	-
Stage 2	807	444	-	544	535	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	157	146	965	~ 173	199	652	1500	-	-	941	-	-
Mov Cap-2 Maneuver	157	146	-	~ 173	199	-	-	-	-	-	-	-
Stage 1	436	427	-	561	544	-	-	-	-	-	-	-
Stage 2	439	429	-	411	417	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	25.76	$ 712.33	0.36	7.03
HCM LOS	D	F		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	75	-	-	190	257	899	-	-
HCM Lane V/C Ratio	0.021	-	-	0.088	2.49	0.21	-	-
HCM Ctrl Dly (s/v)	7.5	0	-	25.8	$ 712.3	9.8	0	-
HCM Lane LOS	A	A	-	D	F	A	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0.3	52.4	0.8	-	-

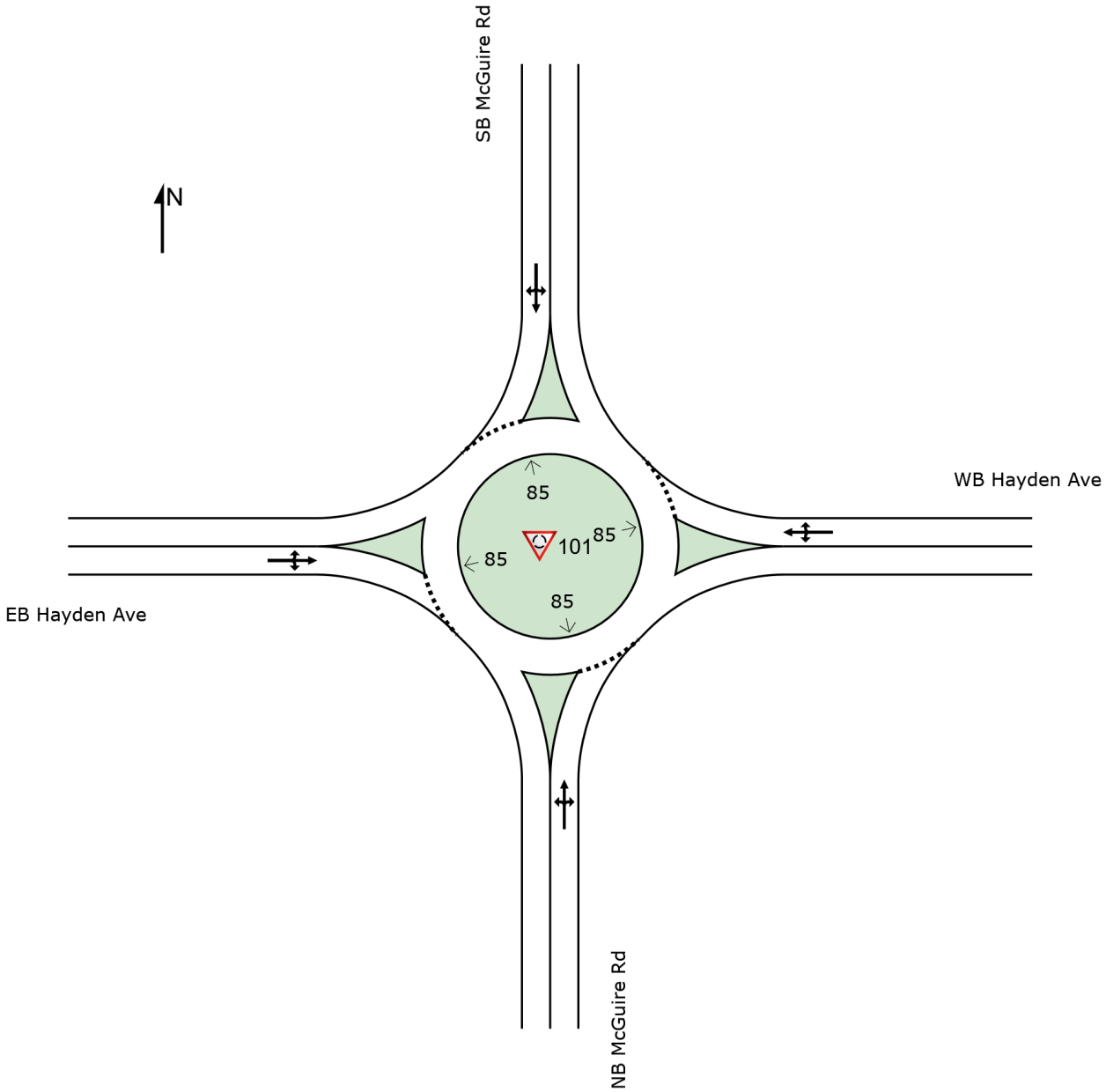
Notes	
~: Volume exceeds capacity	$: Delay exceeds 300s
+: Computation Not Defined	*: All major volume in platoon

SITE LAYOUT

Site: 101 [McGuire_Hayden_2045_PM (Site Folder: General)]

New Site
Site Category: (None)
Roundabout

Layout pictures are schematic functional drawings reflecting input data. They are not design drawings.



SIDRA INTERSECTION 9.1 | Copyright © 2000-2024 Akcelik and Associates Pty Ltd | sidrasolutions.com
Organisation: J.U.B ENGINEERS, INC. | Licence: PLUS / 1PC | Created: Thursday, July 3, 2025 11:18:34 AM
Project: \\jub.com\Central\Clients\ID\PostFallsCity\Projects\07-23-040_TMP\Planning\Traffic\Sidra\2045Build\McGuire_Hayden.sip9

MOVEMENT SUMMARY

Site: 101 [McGuire_Hayden_2045_PM (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

New Site
Site Category: (None)
Roundabout

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] ft	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed mph
South: NB McGuire Rd															
3	L2	All MCs	30	3.0	30	3.0	0.603	11.3	LOS B	5.4	138.9	0.68	0.42	0.68	19.3
8	T1	All MCs	113	3.0	113	3.0	0.603	11.3	LOS B	5.4	138.9	0.68	0.42	0.68	19.3
18	R2	All MCs	483	3.0	483	3.0	0.603	11.3	LOS B	5.4	138.9	0.68	0.42	0.68	19.3
Approach			626	3.0	626	3.0	0.603	11.3	LOS B	5.4	138.9	0.68	0.42	0.68	19.3
East: WB Hayden Ave															
1	L2	All MCs	346	3.0	346	3.0	0.568	10.0	LOS B	5.2	133.9	0.58	0.32	0.58	19.4
6	T1	All MCs	2	3.0	2	3.0	0.568	10.0	LOS B	5.2	133.9	0.58	0.32	0.58	19.4
16	R2	All MCs	277	3.0	277	3.0	0.568	10.0	LOS B	5.2	133.9	0.58	0.32	0.58	19.4
Approach			625	3.0	625	3.0	0.568	10.0	LOS B	5.2	133.9	0.58	0.32	0.58	19.4
North: SB McGuire Rd															
7	L2	All MCs	193	3.0	193	3.0	0.306	7.3	LOS A	1.9	49.5	0.63	0.44	0.63	19.7
4	T1	All MCs	74	3.0	74	3.0	0.306	7.3	LOS A	1.9	49.5	0.63	0.44	0.63	19.8
14	R2	All MCs	3	3.0	3	3.0	0.306	7.3	LOS A	1.9	49.5	0.63	0.44	0.63	19.8
Approach			271	3.0	271	3.0	0.306	7.3	LOS A	1.9	49.5	0.63	0.44	0.63	19.8
West: EB Hayden Ave															
5	L2	All MCs	1	3.0	1	3.0	0.022	5.2	LOS A	0.1	3.1	0.64	0.45	0.64	20.3
2	T1	All MCs	11	3.0	11	3.0	0.022	5.2	LOS A	0.1	3.1	0.64	0.45	0.64	20.3
12	R2	All MCs	4	3.0	4	3.0	0.022	5.2	LOS A	0.1	3.1	0.64	0.45	0.64	20.3
Approach			16	3.0	16	3.0	0.022	5.2	LOS A	0.1	3.1	0.64	0.45	0.64	20.3
All Vehicles			1538	3.0	1538	3.0	0.603	10.0	LOS B	5.4	138.9	0.63	0.38	0.63	19.4

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Options tab).
Roundabout LOS Method: Same as Signalised Intersections.
Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.
LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).
Roundabout Capacity Model: SIDRA HCM.
Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

SIDRA INTERSECTION 9.1 | Copyright © 2000-2024 Akcelik and Associates Pty Ltd | sidrasolutions.com

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	1	10	4	318	2	255	28	104	444	178	68	3
Future Volume (veh/h)	1	10	4	318	2	255	28	104	444	178	68	3
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
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	1767	1767	1767	1663	1663	1663	1826	1826	1826	1781	1781	1781
Adj Flow Rate, veh/h	1	11	4	353	2	283	31	116	493	198	76	3
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	9	9	9	16	16	16	5	5	5	8	8	8
Cap, veh/h	75	396	135	528	3	453	85	161	607	309	102	3
Arrive On Green	0.32	0.32	0.32	0.32	0.32	0.32	0.47	0.47	0.47	0.47	0.47	0.47
Sat Flow, veh/h	28	1226	418	1243	10	1401	42	343	1291	432	217	7
Grp Volume(v), veh/h	16	0	0	353	0	285	640	0	0	277	0	0
Grp Sat Flow(s),veh/h/ln	1672	0	0	1243	0	1411	1676	0	0	656	0	0
Q Serve(g_s), s	0.0	0.0	0.0	15.1	0.0	9.9	0.0	0.0	0.0	5.1	0.0	0.0
Cycle Q Clear(g_c), s	0.4	0.0	0.0	15.4	0.0	9.9	19.3	0.0	0.0	24.5	0.0	0.0
Prop In Lane	0.06		0.25	1.00		0.99	0.05		0.77	0.71		0.01
Lane Grp Cap(c), veh/h	606	0	0	528	0	456	853	0	0	415	0	0
V/C Ratio(X)	0.03	0.00	0.00	0.67	0.00	0.62	0.75	0.00	0.00	0.67	0.00	0.00
Avail Cap(c_a), veh/h	697	0	0	598	0	535	954	0	0	474	0	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)	1.00	0.00	0.00	1.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	13.4	0.0	0.0	18.5	0.0	16.7	13.5	0.0	0.0	15.2	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	2.4	0.0	1.7	3.0	0.0	0.0	3.0	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	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	0.0	0.0	4.0	0.0	2.8	6.0	0.0	0.0	3.1	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	13.4	0.0	0.0	20.9	0.0	18.4	16.5	0.0	0.0	18.2	0.0	0.0
LnGrp LOS	B			C		B	B			B		
Approach Vol, veh/h		16			638			640			277	
Approach Delay, s/veh		13.4			19.8			16.5			18.2	
Approach LOS		B			B			B			B	

Timer - Assigned Phs	2	4	6	8
Phs Duration (G+Y+Rc), s	33.3	24.8	33.3	24.8
Change Period (Y+Rc), s	6.0	6.0	6.0	6.0
Max Green Setting (Gmax), s	31.0	22.0	31.0	22.0
Max Q Clear Time (g_c+I1), s	21.3	2.4	26.5	17.4
Green Ext Time (p_c), s	3.0	0.0	0.8	1.3

Intersection Summary	
HCM 7th Control Delay, s/veh	18.1
HCM 7th LOS	B

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	1	2	1	11	2	3	0	375	8	5	319	0
Future Vol, veh/h	1	2	1	11	2	3	0	375	8	5	319	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	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	97	97	97	97	97	97	97	97	97	97	97	97
Heavy Vehicles, %	0	0	0	25	25	25	9	9	9	8	8	8
Mvmt Flow	1	2	1	11	2	3	0	387	8	5	329	0

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	727	734	329	731	730	391	329	0	0	395	0	0
Stage 1	339	339	-	391	391	-	-	-	-	-	-	-
Stage 2	388	395	-	340	339	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.35	6.75	6.45	4.19	-	-	4.18	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.35	5.75	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.35	5.75	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.725	4.225	3.525	2.281	-	-	2.272	-	-
Pot Cap-1 Maneuver	342	350	717	310	323	610	1192	-	-	1132	-	-
Stage 1	680	643	-	590	569	-	-	-	-	-	-	-
Stage 2	640	608	-	629	601	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	336	348	717	306	321	610	1192	-	-	1132	-	-
Mov Cap-2 Maneuver	336	348	-	306	321	-	-	-	-	-	-	-
Stage 1	676	640	-	590	569	-	-	-	-	-	-	-
Stage 2	635	608	-	623	598	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	14.2	16.14	0	0.13
HCM LOS	B	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1192	-	-	395	340	28	-	-
HCM Lane V/C Ratio	-	-	-	0.01	0.049	0.005	-	-
HCM Ctrl Dly (s/v)	0	-	-	14.2	16.1	8.2	0	-
HCM Lane LOS	A	-	-	B	C	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0	0.2	0	-	-

Intersection	
Int Delay, s/veh	1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	9	14	0	3	9	3	4	348	4	6	217	10
Future Vol, veh/h	9	14	0	3	9	3	4	348	4	6	217	10
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	91	91	91	91	91	91	91	91	91	91	91	91
Heavy Vehicles, %	0	0	0	0	0	0	5	5	5	6	6	6
Mvmt Flow	10	15	0	3	10	3	4	382	4	7	238	11

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	653	653	244	653	656	385	249	0	0	387	0	0
Stage 1	257	257	-	393	393	-	-	-	-	-	-	-
Stage 2	396	396	-	259	263	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.15	-	-	4.16	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.245	-	-	2.254	-	-
Pot Cap-1 Maneuver	383	389	800	383	388	667	1299	-	-	1150	-	-
Stage 1	752	699	-	636	609	-	-	-	-	-	-	-
Stage 2	633	608	-	750	695	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	367	385	800	364	383	667	1299	-	-	1150	-	-
Mov Cap-2 Maneuver	367	385	-	364	383	-	-	-	-	-	-	-
Stage 1	747	694	-	633	606	-	-	-	-	-	-	-
Stage 2	617	605	-	728	690	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	15.2	14.05	0.09	0.21
HCM LOS	C	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	20	-	-	378	414	46	-	-
HCM Lane V/C Ratio	0.003	-	-	0.067	0.04	0.006	-	-
HCM Ctrl Dly (s/v)	7.8	0	-	15.2	14	8.1	0	-
HCM Lane LOS	A	A	-	C	B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.2	0.1	0	-	-

Intersection	
Int Delay, s/veh	1.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	11	18	0	4	11	4	5	413	5	7	248	11
Future Vol, veh/h	11	18	0	4	11	4	5	413	5	7	248	11
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	91	91	91	91	91	91	91	91	91	91	91	91
Heavy Vehicles, %	0	0	0	0	0	0	5	5	5	6	6	6
Mvmt Flow	12	20	0	4	12	4	5	454	5	8	273	12

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	765	764	279	765	768	457	285	0	0	459	0	0
Stage 1	294	294	-	468	468	-	-	-	-	-	-	-
Stage 2	471	470	-	298	300	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.15	-	-	4.16	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.245	-	-	2.254	-	-
Pot Cap-1 Maneuver	323	336	765	322	335	608	1261	-	-	1081	-	-
Stage 1	719	673	-	580	565	-	-	-	-	-	-	-
Stage 2	577	563	-	715	669	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	304	331	765	299	330	608	1261	-	-	1081	-	-
Mov Cap-2 Maneuver	304	331	-	299	330	-	-	-	-	-	-	-
Stage 1	713	668	-	576	562	-	-	-	-	-	-	-
Stage 2	557	560	-	688	664	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	17.47	15.73	0.09	0.22
HCM LOS	C	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	21	-	-	320	356	47	-	-
HCM Lane V/C Ratio	0.004	-	-	0.099	0.059	0.007	-	-
HCM Ctrl Dly (s/v)	7.9	0	-	17.5	15.7	8.4	0	-
HCM Lane LOS	A	A	-	C	C	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.3	0.2	0	-	-

Intersection	
Int Delay, s/veh	1.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	16	26	0	6	16	6	6	542	6	9	311	14
Future Vol, veh/h	16	26	0	6	16	6	6	542	6	9	311	14
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	91	91	91	91	91	91	91	91	91	91	91	91
Heavy Vehicles, %	0	0	0	0	0	0	5	5	5	6	6	6
Mvmt Flow	18	29	0	7	18	7	7	596	7	10	342	15

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	987	985	349	988	989	599	357	0	0	602	0	0
Stage 1	369	369	-	612	612	-	-	-	-	-	-	-
Stage 2	618	615	-	376	377	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.15	-	-	4.16	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.245	-	-	2.254	-	-
Pot Cap-1 Maneuver	228	250	698	228	249	505	1185	-	-	956	-	-
Stage 1	655	624	-	484	487	-	-	-	-	-	-	-
Stage 2	480	485	-	650	619	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	205	245	698	198	243	505	1185	-	-	956	-	-
Mov Cap-2 Maneuver	205	245	-	198	243	-	-	-	-	-	-	-
Stage 1	646	616	-	480	483	-	-	-	-	-	-	-
Stage 2	453	481	-	611	611	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	24.75	20.74	0.09	0.24
HCM LOS	C	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	19	-	-	228	259	48	-	-
HCM Lane V/C Ratio	0.006	-	-	0.202	0.119	0.01	-	-
HCM Ctrl Dly (s/v)	8.1	0	-	24.8	20.7	8.8	0	-
HCM Lane LOS	A	A	-	C	C	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.7	0.4	0	-	-

MOVEMENT SUMMARY

Site: 101 [Pleasant View_Prairie_Existing_PM (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.3.210

New Site
Site Category: (None)
Roundabout

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] ft	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed mph
South: Pleasant View NB Approach															
3	L2	All MCs	51	6.7	51	6.7	0.417	8.3	LOS A	2.9	75.8	0.62	0.41	0.62	31.9
8	T1	All MCs	177	6.7	177	6.7	0.417	8.3	LOS A	2.9	75.8	0.62	0.41	0.62	34.9
18	R2	All MCs	182	6.7	182	6.7	0.417	8.3	LOS A	2.9	75.8	0.62	0.41	0.62	32.3
Approach			409	6.7	409	6.7	0.417	8.3	LOS A	2.9	75.8	0.62	0.41	0.62	33.3
East: Prairie WB Approach															
1u	U	All MCs	1	6.7	1	6.7	0.307	6.5	LOS A	2.0	52.4	0.53	0.33	0.53	29.2
1	L2	All MCs	112	6.7	112	6.7	0.307	6.5	LOS A	2.0	52.4	0.53	0.33	0.53	31.5
6	T1	All MCs	154	6.7	154	6.7	0.307	6.5	LOS A	2.0	52.4	0.53	0.33	0.53	29.7
16	R2	All MCs	47	6.7	47	6.7	0.307	6.5	LOS A	2.0	52.4	0.53	0.33	0.53	31.2
Approach			314	6.7	314	6.7	0.307	6.5	LOS A	2.0	52.4	0.53	0.33	0.53	30.6
North: Pleasant View SB Approach															
7	L2	All MCs	35	6.0	35	6.0	0.165	5.3	LOS A	0.9	24.4	0.53	0.35	0.53	32.3
4	T1	All MCs	120	6.0	120	6.0	0.165	5.3	LOS A	0.9	24.4	0.53	0.35	0.53	36.5
14	R2	All MCs	4	6.0	4	6.0	0.165	5.3	LOS A	0.9	24.4	0.53	0.35	0.53	32.7
Approach			159	6.0	159	6.0	0.165	5.3	LOS A	0.9	24.4	0.53	0.35	0.53	35.4
West: Prairie EB Approach															
5	L2	All MCs	8	3.2	8	3.2	0.310	6.4	LOS A	1.9	49.2	0.53	0.33	0.53	32.1
2	T1	All MCs	252	3.2	252	3.2	0.310	6.4	LOS A	1.9	49.2	0.53	0.33	0.53	30.5
12	R2	All MCs	67	3.2	67	3.2	0.310	6.4	LOS A	1.9	49.2	0.53	0.33	0.53	33.4
Approach			327	3.2	327	3.2	0.310	6.4	LOS A	1.9	49.2	0.53	0.33	0.53	31.1
All Vehicles			1209	5.7	1209	5.7	0.417	6.9	LOS A	2.9	75.8	0.56	0.36	0.56	32.2

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Options tab).
Roundabout LOS Method: Same as Signalised Intersections.
Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.
LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).
Roundabout Capacity Model: SIDRA HCM.
Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

SIDRA INTERSECTION 9.1 | Copyright © 2000-2023 Akcelik and Associates Pty Ltd | sidrasolutions.com
Organisation: J.U.B ENGINEERS, INC. | Licence: PLUS / 1PC | Processed: Thursday, September 7, 2023 11:17:02 AM
Project: \\jub.com\Central\Clients\ID\PostFallsCity\Projects\07-23-040_TMP\Planning\Traffic\Sidra\Pleasant View_Prairie.sip9

MOVEMENT SUMMARY

Site: 101 [Mcguire_Prairie_Existing_PM (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.2.202

New Site
Site Category: (None)
Roundabout

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] ft	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed mph
South: McGuire NB Approach															
3	L2	All MCs	37	2.5	37	2.5	0.535	15.4	LOS B	4.8	123.4	0.94	0.85	1.17	28.6
8	T1	All MCs	198	2.5	198	2.5	0.535	15.4	LOS B	4.8	123.4	0.94	0.85	1.17	30.0
18	R2	All MCs	80	2.5	80	2.5	0.535	15.4	LOS B	4.8	123.4	0.94	0.85	1.17	28.9
Approach			315	2.5	315	2.5	0.535	15.4	LOS B	4.8	123.4	0.94	0.85	1.17	29.5
East: Prairie WB Approach															
1u	U	All MCs	1	6.4	1	6.4	0.420	9.4	LOS A	2.8	74.7	0.71	0.51	0.71	30.7
1	L2	All MCs	66	6.4	66	6.4	0.420	9.4	LOS A	2.8	74.7	0.71	0.51	0.71	30.7
6	T1	All MCs	251	6.4	251	6.4	0.420	9.4	LOS A	2.8	74.7	0.71	0.51	0.71	31.4
16	R2	All MCs	34	6.4	34	6.4	0.420	9.4	LOS A	2.8	74.7	0.71	0.51	0.71	31.6
Approach			352	6.4	352	6.4	0.420	9.4	LOS A	2.8	74.7	0.71	0.51	0.71	31.3
North: McGuire SB Approach															
7	L2	All MCs	18	13.8	18	13.8	0.389	9.3	LOS A	2.6	71.0	0.68	0.49	0.68	31.8
4	T1	All MCs	122	13.8	122	13.8	0.389	9.3	LOS A	2.6	71.0	0.68	0.49	0.68	32.7
14	R2	All MCs	167	13.8	167	13.8	0.389	9.3	LOS A	2.6	71.0	0.68	0.49	0.68	32.3
Approach			308	13.8	308	13.8	0.389	9.3	LOS A	2.6	71.0	0.68	0.49	0.68	32.5
West: Prairie EB Approach															
5	L2	All MCs	179	4.1	179	4.1	0.740	15.7	LOS B	13.1	339.1	0.82	0.70	1.14	28.9
2	T1	All MCs	520	4.1	520	4.1	0.740	15.7	LOS B	13.1	339.1	0.82	0.70	1.14	28.9
12	R2	All MCs	70	4.1	70	4.1	0.740	15.7	LOS B	13.1	339.1	0.82	0.70	1.14	28.6
Approach			769	4.1	769	4.1	0.740	15.7	LOS B	13.1	339.1	0.82	0.70	1.14	28.9
All Vehicles			1743	6.0	1743	6.0	0.740	13.2	LOS B	13.1	339.1	0.80	0.65	0.98	30.0

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Options tab).
Roundabout LOS Method: Same as Signalised Intersections.
Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.
LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).
Roundabout Capacity Model: SIDRA HCM.
Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

SIDRA INTERSECTION 9.1 | Copyright © 2000-2022 Akcelik and Associates Pty Ltd | sidrasolutions.com
Organisation: J.U.B ENGINEERS, INC. | Licence: PLUS / 1PC | Processed: Monday, April 7, 2025 2:36:08 PM
Project: \\jub.com\central\Clients\ID\PostFallsCity\Projects\07-23-040_TMP\Planning\Traffic\Sidra\2030\Mcguire_Prairie.sip9

MOVEMENT SUMMARY

Site: 101 [Mcguire_Prairie_Existing_PM (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.2.202

New Site
Site Category: (None)
Roundabout

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] ft	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed mph
South: McGuire NB Approach															
3	L2	All MCs	45	2.5	45	2.5	0.935	58.6	LOS E	15.6	398.0	1.00	1.43	2.22	18.5
8	T1	All MCs	239	2.5	239	2.5	0.935	58.6	LOS E	15.6	398.0	1.00	1.43	2.22	19.1
18	R2	All MCs	97	2.5	97	2.5	0.935	58.6	LOS E	15.6	398.0	1.00	1.43	2.22	18.6
Approach			381	2.5	381	2.5	0.935	58.6	LOS E	15.6	398.0	1.00	1.43	2.22	18.9
East: Prairie WB Approach															
1u	U	All MCs	2	6.4	2	6.4	0.569	13.5	LOS B	5.5	145.3	0.84	0.76	1.10	29.1
1	L2	All MCs	81	6.4	81	6.4	0.569	13.5	LOS B	5.5	145.3	0.84	0.76	1.10	29.1
6	T1	All MCs	304	6.4	304	6.4	0.569	13.5	LOS B	5.5	145.3	0.84	0.76	1.10	29.7
16	R2	All MCs	42	6.4	42	6.4	0.569	13.5	LOS B	5.5	145.3	0.84	0.76	1.10	29.9
Approach			429	6.4	429	6.4	0.569	13.5	LOS B	5.5	145.3	0.84	0.76	1.10	29.6
North: McGuire SB Approach															
7	L2	All MCs	21	13.8	21	13.8	0.513	12.7	LOS B	4.4	121.7	0.80	0.67	0.96	30.4
4	T1	All MCs	146	13.8	146	13.8	0.513	12.7	LOS B	4.4	121.7	0.80	0.67	0.96	31.2
14	R2	All MCs	198	13.8	198	13.8	0.513	12.7	LOS B	4.4	121.7	0.80	0.67	0.96	30.8
Approach			365	13.8	365	13.8	0.513	12.7	LOS B	4.4	121.7	0.80	0.67	0.96	30.9
West: Prairie EB Approach															
5	L2	All MCs	225	4.1	225	4.1	0.978	40.9	LOS D	43.1	1113.7	1.00	1.73	2.57	21.9
2	T1	All MCs	654	4.1	654	4.1	0.978	40.9	LOS D	43.1	1113.7	1.00	1.73	2.57	21.9
12	R2	All MCs	88	4.1	88	4.1	0.978	40.9	LOS D	43.1	1113.7	1.00	1.73	2.57	21.7
Approach			966	4.1	966	4.1	0.978	40.9	LOS D	43.1	1113.7	1.00	1.73	2.57	21.9
All Vehicles			2142	5.9	2142	5.9	0.978	33.7	LOS C	43.1	1113.7	0.93	1.30	1.94	23.6

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Options tab).
Roundabout LOS Method: Same as Signalised Intersections.
Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.
LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).
Roundabout Capacity Model: SIDRA HCM.
Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

SIDRA INTERSECTION 9.1 | Copyright © 2000-2022 Akcelik and Associates Pty Ltd | sidrasolutions.com
Organisation: J.U.B ENGINEERS, INC. | Licence: PLUS / 1PC | Processed: Tuesday, April 8, 2025 10:42:08 AM
Project: \\jub.com\central\Clients\ID\PostFallsCity\Projects\07-23-040_TMP\Planning\Traffic\Sidra\2035\Mcguire_Prairie.sip9

MOVEMENT SUMMARY

Site: 101 [Mcguire_Prairie_Existing_PM (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.2.202

New Site
Site Category: (None)
Roundabout

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] ft	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed mph
South: McGuire NB Approach															
3	L2	All MCs	60	2.5	60	2.5	1.160	118.5	LOS F	37.0	944.2	1.00	2.19	4.18	12.4
8	T1	All MCs	324	2.5	324	2.5	1.160	118.5	LOS F	37.0	944.2	1.00	2.19	4.18	12.7
18	R2	All MCs	130	2.5	130	2.5	1.160	118.5	LOS F	37.0	944.2	1.00	2.19	4.18	12.5
Approach			513	2.5	513	2.5	1.160	118.5	LOS F	37.0	944.2	1.00	2.19	4.18	12.6
East: Prairie WB Approach															
1u	U	All MCs	2	6.4	2	6.4	0.797	24.5	LOS C	13.3	348.5	1.00	1.15	1.81	25.5
1	L2	All MCs	109	6.4	109	6.4	0.797	24.5	LOS C	13.3	348.5	1.00	1.15	1.81	25.5
6	T1	All MCs	413	6.4	413	6.4	0.797	24.5	LOS C	13.3	348.5	1.00	1.15	1.81	26.0
16	R2	All MCs	56	6.4	56	6.4	0.797	24.5	LOS C	13.3	348.5	1.00	1.15	1.81	26.1
Approach			581	6.4	581	6.4	0.797	24.5	LOS C	13.3	348.5	1.00	1.15	1.81	25.9
North: McGuire SB Approach															
7	L2	All MCs	28	13.8	28	13.8	0.837	33.4	LOS C	13.4	373.2	1.00	1.23	1.95	23.7
4	T1	All MCs	191	13.8	191	13.8	0.837	33.4	LOS C	13.4	373.2	1.00	1.23	1.95	24.2
14	R2	All MCs	260	13.8	260	13.8	0.837	33.4	LOS C	13.4	373.2	1.00	1.23	1.95	24.0
Approach			479	13.8	479	13.8	0.837	33.4	LOS C	13.4	373.2	1.00	1.23	1.95	24.0
West: Prairie EB Approach															
5	L2	All MCs	317	4.1	317	4.1	1.516	248.3	LOS F	163.6	4225.1	1.00	4.50	8.64	7.3
2	T1	All MCs	921	4.1	921	4.1	1.516	248.3	LOS F	163.6	4225.1	1.00	4.50	8.64	7.3
12	R2	All MCs	124	4.1	124	4.1	1.516	248.3	LOS F	163.6	4225.1	1.00	4.50	8.64	7.3
Approach			1362	4.1	1362	4.1	1.516	248.3	LOS F	163.6	4225.1	1.00	4.50	8.64	7.3
All Vehicles			2935	5.9	2935	5.9	1.516	146.3	LOS F	163.6	4225.1	1.00	2.90	5.42	10.9

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Options tab).
Roundabout LOS Method: Same as Signalised Intersections.
Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.
LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).
Roundabout Capacity Model: SIDRA HCM.
Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

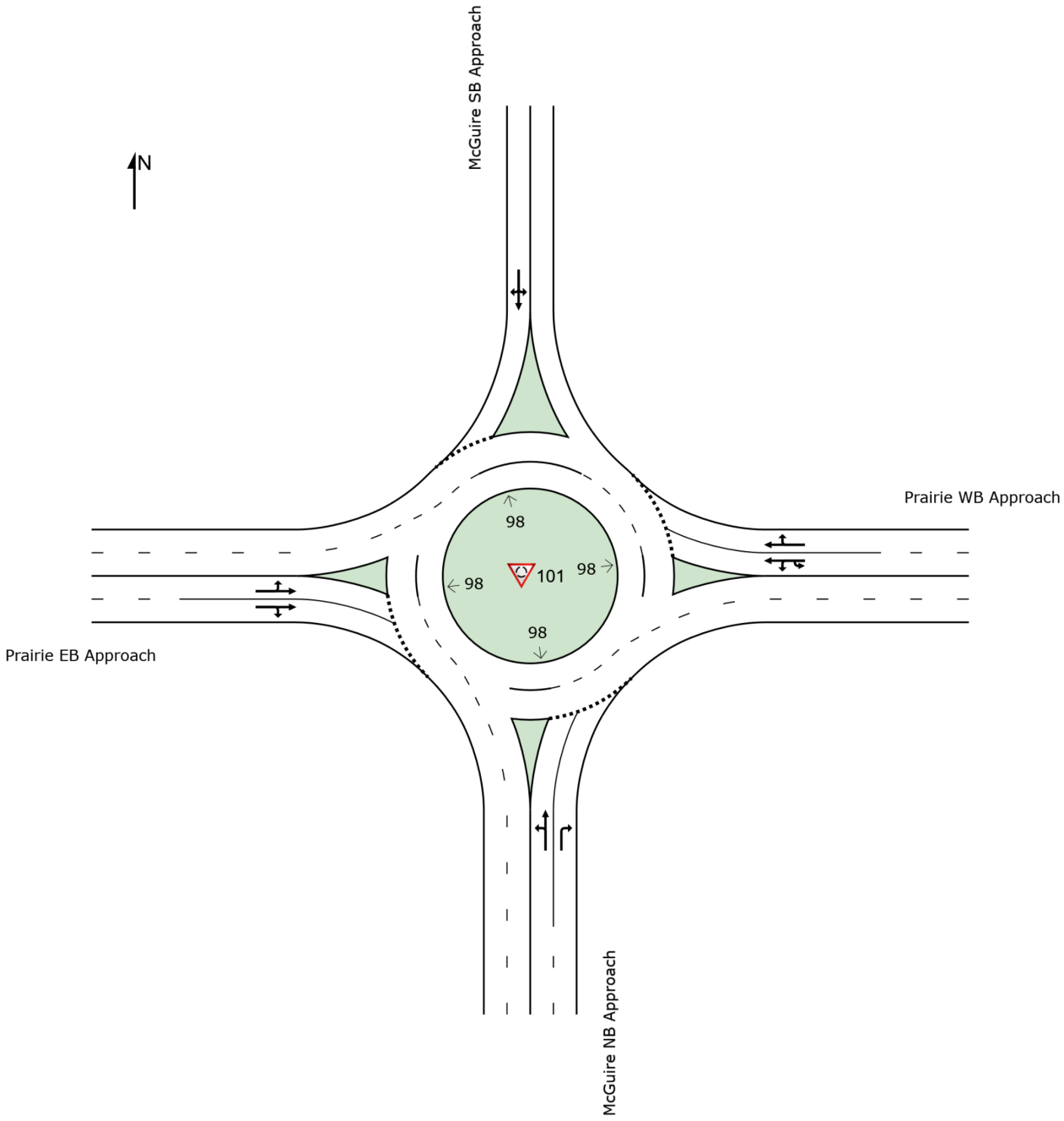
SIDRA INTERSECTION 9.1 | Copyright © 2000-2022 Akcelik and Associates Pty Ltd | sidrasolutions.com
Organisation: J.U.B ENGINEERS, INC. | Licence: PLUS / 1PC | Processed: Tuesday, April 8, 2025 11:49:42 AM
Project: \\jub.com\central\Clients\ID\PostFallsCity\Projects\07-23-040_TMP\Planning\Traffic\Sidra\2045\Mcguire_Prairie.sip9

SITE LAYOUT

Site: 101 [Mcguire_Prairie_2045_PM (Site Folder: General)]

New Site
Site Category: (None)
Roundabout

Layout pictures are schematic functional drawings reflecting input data. They are not design drawings.



SIDRA INTERSECTION 9.1 | Copyright © 2000-2024 Akcelik and Associates Pty Ltd | sidrasolutions.com
Organisation: J.U.B ENGINEERS, INC. | Licence: PLUS / 1PC | Created: Thursday, July 3, 2025 11:19:08 AM
Project: \\jub.com\Central\Clients\ID\PostFallsCity\Projects\07-23-040_TMP\Planning\Traffic\Sidra\2045Build\Mcguire_Prairie.sip9

MOVEMENT SUMMARY

Site: 101 [Mcguire_Prairie_2045_PM (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

New Site
Site Category: (None)
Roundabout

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] ft	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed mph
South: McGuire NB Approach															
3	L2	All MCs	60	2.5	60	2.5	0.630	18.4	LOS B	4.7	120.3	0.88	0.97	1.30	27.5
8	T1	All MCs	324	2.5	324	2.5	0.630	18.4	LOS B	4.7	120.3	0.88	0.97	1.30	28.7
18	R2	All MCs	130	2.5	130	2.5	0.328	15.0	LOS B	1.5	38.8	0.78	0.80	0.87	29.1
Approach			513	2.5	513	2.5	0.630	17.6	LOS B	4.7	120.3	0.86	0.93	1.19	28.6
East: Prairie WB Approach															
1u	U	All MCs	2	6.4	2	6.4	0.417	11.4	LOS B	2.7	72.0	0.79	0.68	0.88	29.5
1	L2	All MCs	109	6.4	109	6.4	0.417	11.4	LOS B	2.7	72.0	0.79	0.68	0.88	29.5
6	T1	All MCs	413	6.4	413	6.4	0.417	10.7	LOS B	2.8	74.4	0.79	0.66	0.86	30.8
16	R2	All MCs	56	6.4	56	6.4	0.417	10.3	LOS B	2.8	74.4	0.79	0.65	0.85	31.5
Approach			581	6.4	581	6.4	0.417	10.8	LOS B	2.8	74.4	0.79	0.66	0.86	30.6
North: McGuire SB Approach															
7	L2	All MCs	28	13.8	28	13.8	0.775	26.3	LOS C	8.9	247.5	0.88	1.08	1.74	25.7
4	T1	All MCs	191	13.8	191	13.8	0.775	26.3	LOS C	8.9	247.5	0.88	1.08	1.74	26.2
14	R2	All MCs	260	13.8	260	13.8	0.775	26.3	LOS C	8.9	247.5	0.88	1.08	1.74	26.0
Approach			479	13.8	479	13.8	0.775	26.3	LOS C	8.9	247.5	0.88	1.08	1.74	26.0
West: Prairie EB Approach															
5	L2	All MCs	317	4.1	317	4.1	0.689	14.8	LOS B	9.5	244.3	0.79	0.76	1.19	28.7
2	T1	All MCs	921	4.1	921	4.1	0.689	14.3	LOS B	9.6	247.6	0.79	0.75	1.16	29.4
12	R2	All MCs	124	4.1	124	4.1	0.689	14.0	LOS B	9.6	247.6	0.79	0.74	1.15	29.6
Approach			1362	4.1	1362	4.1	0.689	14.4	LOS B	9.6	247.6	0.79	0.75	1.17	29.2
All Vehicles			2935	5.9	2935	5.9	0.775	16.2	LOS B	9.6	247.6	0.82	0.82	1.21	28.8

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Options tab).
Roundabout LOS Method: Same as Signalised Intersections.
Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.
LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).
Roundabout Capacity Model: SIDRA HCM.
Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

SIDRA INTERSECTION 9.1 | Copyright © 2000-2024 Akcelik and Associates Pty Ltd | sidrasolutions.com

Intersection	
Int Delay, s/veh	2.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	5	1	86	23	1	14	35	1076	38	13	801	16
Future Vol, veh/h	5	1	86	23	1	14	35	1076	38	13	801	16
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	50	-	-	70	-	-	50	-	-	50	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	98	98	98	98	98	98	98	98	98	98	98	98
Heavy Vehicles, %	0	0	0	3	3	3	1	1	1	1	1	1
Mvmt Flow	5	1	88	23	1	14	36	1098	39	13	817	16

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1473	2060	417	1624	2049	568	834	0	0	1137	0	0
Stage 1	852	852	-	1189	1189	-	-	-	-	-	-	-
Stage 2	621	1208	-	436	860	-	-	-	-	-	-	-
Critical Hdwy	7.5	6.5	6.9	7.56	6.56	6.96	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.5	5.5	-	6.56	5.56	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.5	5.5	-	6.56	5.56	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.53	4.03	3.33	2.21	-	-	2.21	-	-
Pot Cap-1 Maneuver	90	56	590	67	54	463	802	-	-	616	-	-
Stage 1	325	379	-	198	258	-	-	-	-	-	-	-
Stage 2	447	258	-	566	369	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	80	52	590	53	51	463	802	-	-	616	-	-
Mov Cap-2 Maneuver	80	52	-	53	51	-	-	-	-	-	-	-
Stage 1	318	371	-	189	246	-	-	-	-	-	-	-
Stage 2	412	247	-	471	361	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	15.37	79.6	0.3	0.17
HCM LOS	C	F		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	802	-	-	80	528	53	301	616	-	-
HCM Lane V/C Ratio	0.045	-	-	0.064	0.168	0.446	0.051	0.022	-	-
HCM Ctrl Dly (s/v)	9.7	-	-	53.1	13.2	120	17.6	11	-	-
HCM Lane LOS	A	-	-	F	B	F	C	B	-	-
HCM 95th %tile Q(veh)	0.1	-	-	0.2	0.6	1.7	0.2	0.1	-	-

Intersection	
Int Delay, s/veh	1.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	7	490	3	30	413	6	10	9	45	6	6	3
Future Vol, veh/h	7	490	3	30	413	6	10	9	45	6	6	3
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	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	1	1	1	1	1	1	2	2	2	0	0	0
Mvmt Flow	8	544	3	33	459	7	11	10	50	7	7	3

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	466	0	0	548	0	0	1091	1094	546	1094	1092	462
Stage 1	-	-	-	-	-	-	562	562	-	529	529	-
Stage 2	-	-	-	-	-	-	529	532	-	565	563	-
Critical Hdwy	4.11	-	-	4.11	-	-	7.12	6.52	6.22	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.1	5.5	-
Follow-up Hdwy	2.209	-	-	2.209	-	-	3.518	4.018	3.318	3.5	4	3.3
Pot Cap-1 Maneuver	1101	-	-	1027	-	-	192	214	537	193	216	604
Stage 1	-	-	-	-	-	-	512	510	-	537	531	-
Stage 2	-	-	-	-	-	-	533	525	-	513	512	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1101	-	-	1027	-	-	176	203	537	158	205	604
Mov Cap-2 Maneuver	-	-	-	-	-	-	176	203	-	158	205	-
Stage 1	-	-	-	-	-	-	507	505	-	513	507	-
Stage 2	-	-	-	-	-	-	500	502	-	452	507	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	0.12	0.58	18.09	23.85
HCM LOS			C	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	346	25	-	-	120	-	-	208
HCM Lane V/C Ratio	0.206	0.007	-	-	0.032	-	-	0.08
HCM Ctrl Dly (s/v)	18.1	8.3	0	-	8.6	0	-	23.8
HCM Lane LOS	C	A	A	-	A	A	-	C
HCM 95th %tile Q(veh)	0.8	0	-	-	0.1	-	-	0.3

Intersection	
Int Delay, s/veh	2.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	9	593	3	36	501	7	12	10	52	8	8	4
Future Vol, veh/h	9	593	3	36	501	7	12	10	52	8	8	4
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	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	1	1	1	1	1	1	2	2	2	0	0	0
Mvmt Flow	10	659	3	40	557	8	13	11	58	9	9	4

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	564	0	0	662	0	0	1322	1325	661	1325	1323	561
Stage 1	-	-	-	-	-	-	681	681	-	641	641	-
Stage 2	-	-	-	-	-	-	641	644	-	684	682	-
Critical Hdwy	4.11	-	-	4.11	-	-	7.12	6.52	6.22	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.1	5.5	-
Follow-up Hdwy	2.209	-	-	2.209	-	-	3.518	4.018	3.318	3.5	4	3.3
Pot Cap-1 Maneuver	1012	-	-	931	-	-	133	156	463	134	158	531
Stage 1	-	-	-	-	-	-	441	450	-	467	473	-
Stage 2	-	-	-	-	-	-	463	468	-	442	453	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1012	-	-	931	-	-	115	144	463	101	145	531
Mov Cap-2 Maneuver	-	-	-	-	-	-	115	144	-	101	145	-
Stage 1	-	-	-	-	-	-	434	443	-	438	443	-
Stage 2	-	-	-	-	-	-	422	438	-	371	446	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	0.13	0.6	25.28	35.32
HCM LOS			D	E

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	259	27	-	-	119	-	-	141
HCM Lane V/C Ratio	0.318	0.01	-	-	0.043	-	-	0.158
HCM Ctrl Dly (s/v)	25.3	8.6	0	-	9	0	-	35.3
HCM Lane LOS	D	A	A	-	A	A	-	E
HCM 95th %tile Q(veh)	1.3	0	-	-	0.1	-	-	0.5

Intersection	
Int Delay, s/veh	7.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	12	800	5	49	675	9	15	13	66	11	11	6
Future Vol, veh/h	12	800	5	49	675	9	15	13	66	11	11	6
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	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	1	1	1	1	1	1	2	2	2	0	0	0
Mvmt Flow	13	889	6	54	750	10	17	14	73	12	12	7

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	760	0	0	894	0	0	1783	1787	892	1787	1785	755
Stage 1	-	-	-	-	-	-	918	918	-	864	864	-
Stage 2	-	-	-	-	-	-	865	869	-	923	921	-
Critical Hdwy	4.11	-	-	4.11	-	-	7.12	6.52	6.22	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.1	5.5	-
Follow-up Hdwy	2.209	-	-	2.209	-	-	3.518	4.018	3.318	3.5	4	3.3
Pot Cap-1 Maneuver	856	-	-	763	-	-	64	81	341	64	82	412
Stage 1	-	-	-	-	-	-	325	350	-	352	374	-
Stage 2	-	-	-	-	-	-	348	369	-	326	352	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	856	-	-	763	-	-	45	69	341	35	70	412
Mov Cap-2 Maneuver	-	-	-	-	-	-	45	69	-	35	70	-
Stage 1	-	-	-	-	-	-	315	339	-	308	328	-
Stage 2	-	-	-	-	-	-	289	324	-	238	341	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	0.14	0.67	95.46	125.66
HCM LOS			F	F

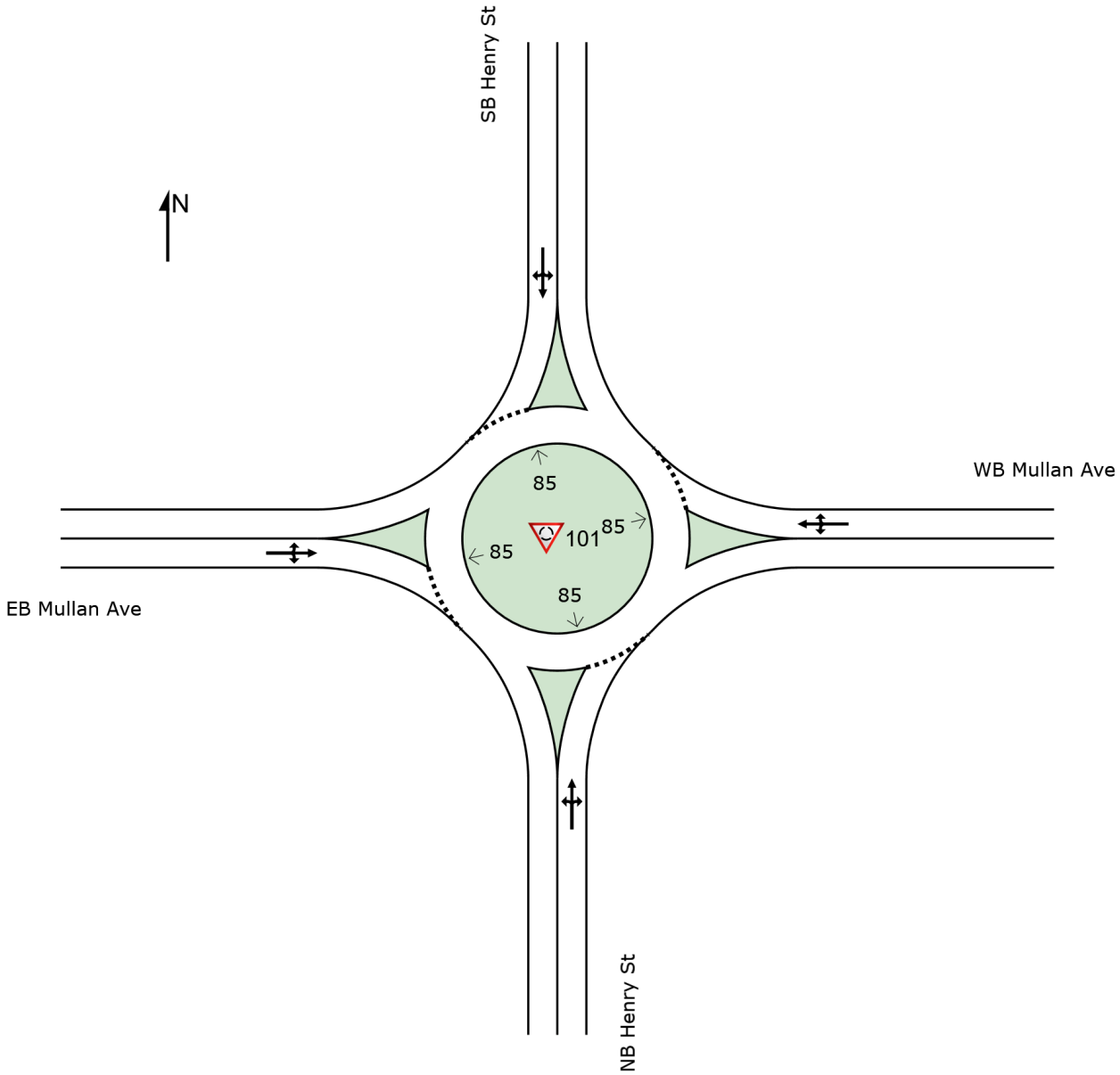
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	131	26	-	-	120	-	-	57
HCM Lane V/C Ratio	0.795	0.016	-	-	0.071	-	-	0.542
HCM Ctrl Dly (s/v)	95.5	9.3	0	-	10.1	0	-	125.7
HCM Lane LOS	F	A	A	-	B	A	-	F
HCM 95th %tile Q(veh)	4.8	0	-	-	0.2	-	-	2.1

SITE LAYOUT

Site: 101 [Henry_Mullan_2045_PM (Site Folder: General)]

New Site
Site Category: (None)
Roundabout

Layout pictures are schematic functional drawings reflecting input data. They are not design drawings.



SIDRA INTERSECTION 9.1 | Copyright © 2000-2024 Akcelik and Associates Pty Ltd | sidrasolutions.com
Organisation: J.U.B ENGINEERS, INC. | Licence: PLUS / 1PC | Created: Thursday, July 3, 2025 11:11:15 AM
Project: \\jub.com\Central\Clients\ID\PostFallsCity\Projects\07-23-040_TMP\Planning\Traffic\Sidra\2045Build\Henry_Mullan.sip9

MOVEMENT SUMMARY

Site: 101 [Henry_Mullan_2045_PM (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

New Site
Site Category: (None)
Roundabout

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] ft	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed mph
South: NB Henry St															
3	L2	All MCs	16	3.0	16	3.0	0.212	10.5	LOS B	1.4	35.2	0.87	0.72	0.87	17.0
8	T1	All MCs	14	3.0	14	3.0	0.212	10.5	LOS B	1.4	35.2	0.87	0.72	0.87	17.0
18	R2	All MCs	72	3.0	72	3.0	0.212	10.5	LOS B	1.4	35.2	0.87	0.72	0.87	17.0
Approach			102	3.0	102	3.0	0.212	10.5	LOS B	1.4	35.2	0.87	0.72	0.87	17.0
East: WB Mullan Ave															
1	L2	All MCs	53	3.0	53	3.0	0.649	10.2	LOS B	7.9	202.4	0.40	0.15	0.40	17.0
6	T1	All MCs	734	3.0	734	3.0	0.649	10.2	LOS B	7.9	202.4	0.40	0.15	0.40	17.1
16	R2	All MCs	10	3.0	10	3.0	0.649	10.2	LOS B	7.9	202.4	0.40	0.15	0.40	17.1
Approach			797	3.0	797	3.0	0.649	10.2	LOS B	7.9	202.4	0.40	0.15	0.40	17.1
North: SB Henry St															
7	L2	All MCs	12	3.0	12	3.0	0.052	6.8	LOS A	0.3	7.7	0.76	0.61	0.76	17.5
4	T1	All MCs	12	3.0	12	3.0	0.052	6.8	LOS A	0.3	7.7	0.76	0.61	0.76	17.5
14	R2	All MCs	7	3.0	7	3.0	0.052	6.8	LOS A	0.3	7.7	0.76	0.61	0.76	17.5
Approach			30	3.0	30	3.0	0.052	6.8	LOS A	0.3	7.7	0.76	0.61	0.76	17.5
West: EB Mullan Ave															
5	L2	All MCs	13	3.0	13	3.0	0.745	13.6	LOS B	9.8	252.0	0.59	0.28	0.59	16.6
2	T1	All MCs	870	3.0	870	3.0	0.745	13.6	LOS B	9.8	252.0	0.59	0.28	0.59	16.6
12	R2	All MCs	5	3.0	5	3.0	0.745	13.6	LOS B	9.8	252.0	0.59	0.28	0.59	16.6
Approach			888	3.0	888	3.0	0.745	13.6	LOS B	9.8	252.0	0.59	0.28	0.59	16.6
All Vehicles			1817	3.0	1817	3.0	0.745	11.8	LOS B	9.8	252.0	0.53	0.25	0.53	16.8

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Options tab).
Roundabout LOS Method: Same as Signalised Intersections.
Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.
LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).
Roundabout Capacity Model: SIDRA HCM.
Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

SIDRA INTERSECTION 9.1 | Copyright © 2000-2024 Akcelik and Associates Pty Ltd | sidrasolutions.com

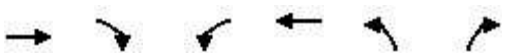
Intersection	
Int Delay, s/veh	1.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕				↱			↱
Traffic Vol, veh/h	12	800	5	49	675	9	0	0	94	0	0	28
Future Vol, veh/h	12	800	5	49	675	9	0	0	94	0	0	28
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	-	-	-	-	-	-	-	-	0	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	1	1	1	1	1	1	2	2	2	0	0	0
Mvmt Flow	13	889	6	54	750	10	0	0	104	0	0	31

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	760	0	0	894	0	0	-	-	892	-	-	755
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	4.11	-	-	4.11	-	-	-	-	6.22	-	-	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	2.209	-	-	2.209	-	-	-	-	3.318	-	-	3.3
Pot Cap-1 Maneuver	856	-	-	763	-	-	0	0	341	0	0	412
Stage 1	-	-	-	-	-	-	0	0	-	0	0	-
Stage 2	-	-	-	-	-	-	0	0	-	0	0	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	856	-	-	763	-	-	-	-	341	-	-	412
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	0.14	0.67	20.16	14.45
HCM LOS			C	B

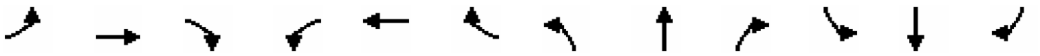
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	341	26	-	-	120	-	-	412
HCM Lane V/C Ratio	0.306	0.016	-	-	0.071	-	-	0.076
HCM Ctrl Dly (s/v)	20.2	9.3	0	-	10.1	0	-	14.5
HCM Lane LOS	C	A	A	-	B	A	-	B
HCM 95th %tile Q(veh)	1.3	0	-	-	0.2	-	-	0.2



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	684	48	11	673	32	24
Future Volume (veh/h)	684	48	11	673	32	24
Initial Q (Qb), veh	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00
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	1885	1885	1900	1900
Adj Flow Rate, veh/h	698	49	11	687	33	24
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	1	1	0	0
Cap, veh/h	1364	96	454	2120	115	102
Arrive On Green	0.41	0.41	0.01	0.59	0.06	0.06
Sat Flow, veh/h	3462	236	1795	3676	1810	1610
Grp Volume(v), veh/h	368	379	11	687	33	24
Grp Sat Flow(s),veh/h/ln	1777	1828	1795	1791	1810	1610
Q Serve(g_s), s	4.5	4.5	0.1	2.8	0.5	0.4
Cycle Q Clear(g_c), s	4.5	4.5	0.1	2.8	0.5	0.4
Prop In Lane		0.13	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	720	740	454	2120	115	102
V/C Ratio(X)	0.51	0.51	0.02	0.32	0.29	0.23
Avail Cap(c_a), veh/h	4836	4975	984	11477	1683	1498
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	6.5	6.5	4.6	3.0	13.0	12.9
Incr Delay (d2), s/veh	0.6	0.5	0.0	0.1	1.4	1.2
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	0.9	0.0	0.1	0.2	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	7.0	7.0	4.6	3.1	14.3	14.1
LnGrp LOS	A	A	A	A	B	B
Approach Vol, veh/h	747			698	57	
Approach Delay, s/veh	7.0			3.1	14.2	
Approach LOS	A			A	B	

Timer - Assigned Phs	4	6	7	8
Phs Duration (G+Y+Rc), s	22.2	6.8	5.4	16.8
Change Period (Y+Rc), s	5.0	5.0	5.0	5.0
Max Green Setting (Gmax), s	93.0	27.0	9.0	79.0
Max Q Clear Time (g_c+I1), s	4.8	2.5	2.1	6.5
Green Ext Time (p_c), s	5.4	0.1	0.0	5.2

Intersection Summary	
HCM 7th Control Delay, s/veh	5.5
HCM 7th LOS	A



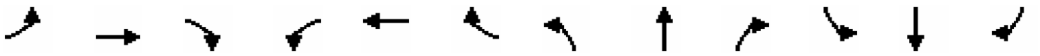
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	97	336	63	209	280	173	102	774	187	97	474	37
Future Volume (veh/h)	97	336	63	209	280	173	102	774	187	97	474	37
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
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	1885	1885	1885	1900	1900	1900	1900	1900	1900	1885	1885	1885
Adj Flow Rate, veh/h	101	350	66	218	292	180	106	806	195	101	494	39
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	1	1	1	0	0	0	0	0	0	1	1	1
Cap, veh/h	308	436	369	288	488	414	396	986	239	241	1144	90
Arrive On Green	0.06	0.23	0.23	0.08	0.26	0.26	0.06	0.34	0.34	0.06	0.34	0.34
Sat Flow, veh/h	1795	1885	1598	1810	1900	1610	1810	2882	697	1795	3364	265
Grp Volume(v), veh/h	101	350	66	218	292	180	106	505	496	101	262	271
Grp Sat Flow(s),veh/h/ln	1795	1885	1598	1810	1900	1610	1810	1805	1774	1795	1791	1838
Q Serve(g_s), s	3.3	13.6	2.6	6.0	10.5	7.2	2.9	19.8	19.8	2.8	8.8	8.8
Cycle Q Clear(g_c), s	3.3	13.6	2.6	6.0	10.5	7.2	2.9	19.8	19.8	2.8	8.8	8.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.39	1.00		0.14
Lane Grp Cap(c), veh/h	308	436	369	288	488	414	396	618	607	241	609	625
V/C Ratio(X)	0.33	0.80	0.18	0.76	0.60	0.44	0.27	0.82	0.82	0.42	0.43	0.43
Avail Cap(c_a), veh/h	308	837	709	288	883	748	424	736	724	272	730	749
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	21.3	28.1	23.9	24.8	25.3	24.1	15.5	23.3	23.3	18.0	19.8	19.8
Incr Delay (d2), s/veh	0.6	3.5	0.2	11.0	1.2	0.7	0.4	6.1	6.2	1.2	0.5	0.5
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	1.4	6.4	1.0	3.8	4.6	2.8	1.2	9.1	9.0	1.2	3.6	3.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	22.0	31.6	24.1	35.7	26.5	24.8	15.9	29.4	29.5	19.2	20.2	20.2
LnGrp LOS	C	C	C	D	C	C	B	C	C	B	C	C
Approach Vol, veh/h		517			690			1107			634	
Approach Delay, s/veh		28.8			29.0			28.2			20.1	
Approach LOS		C			C			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.0	23.9	9.8	31.8	10.0	25.9	9.7	31.9
Change Period (Y+Rc), s	6.0	* 6	* 5.4	5.4	* 5.6	6.0	5.4	* 5.4
Max Green Setting (Gmax), s	6.0	* 34	* 5.6	31.6	* 4.4	36.0	5.6	* 32
Max Q Clear Time (g_c+I1), s	8.0	15.6	4.9	10.8	5.3	12.5	4.8	21.8
Green Ext Time (p_c), s	0.0	2.3	0.0	3.4	0.0	2.3	0.0	4.7

Intersection Summary	
HCM 7th Control Delay, s/veh	26.7
HCM 7th LOS	C

Notes

* HCM 7th computational engine requires equal clearance times for the phases crossing the barrier.



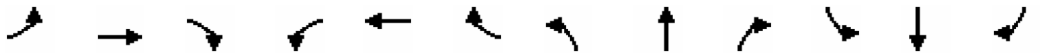
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	112	388	72	241	324	200	118	895	216	106	517	40
Future Volume (veh/h)	112	388	72	241	324	200	118	895	216	106	517	40
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
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	1885	1885	1885	1900	1900	1900	1900	1900	1900	1885	1885	1885
Adj Flow Rate, veh/h	117	404	75	251	338	208	123	932	225	110	539	42
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	1	1	1	0	0	0	0	0	0	1	1	1
Cap, veh/h	318	471	400	311	560	475	369	991	239	194	1140	89
Arrive On Green	0.07	0.25	0.25	0.11	0.29	0.29	0.06	0.34	0.34	0.06	0.34	0.34
Sat Flow, veh/h	1795	1885	1598	1810	1900	1610	1810	2885	695	1795	3367	262
Grp Volume(v), veh/h	117	404	75	251	338	208	123	583	574	110	286	295
Grp Sat Flow(s),veh/h/ln	1795	1885	1598	1810	1900	1610	1810	1805	1775	1795	1791	1838
Q Serve(g_s), s	4.5	19.2	3.5	9.7	14.3	9.8	4.1	29.4	29.5	3.7	11.8	11.9
Cycle Q Clear(g_c), s	4.5	19.2	3.5	9.7	14.3	9.8	4.1	29.4	29.5	3.7	11.8	11.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.39	1.00		0.14
Lane Grp Cap(c), veh/h	318	471	400	311	560	475	369	620	610	194	606	622
V/C Ratio(X)	0.37	0.86	0.19	0.81	0.60	0.44	0.33	0.94	0.94	0.57	0.47	0.47
Avail Cap(c_a), veh/h	322	670	568	311	748	634	383	626	615	217	621	637
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	24.2	33.6	27.7	25.1	28.4	26.8	19.0	29.9	29.9	23.5	24.5	24.5
Incr Delay (d2), s/veh	0.7	7.7	0.2	14.4	1.0	0.6	0.5	22.2	22.8	2.7	0.6	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	2.0	9.7	1.4	5.2	6.5	3.8	1.8	16.3	16.2	1.7	5.1	5.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	24.9	41.4	28.0	39.4	29.5	27.5	19.5	52.1	52.8	26.2	25.0	25.1
LnGrp LOS	C	D	C	D	C	C	B	D	D	C	C	C
Approach Vol, veh/h		596			797			1280			691	
Approach Delay, s/veh		36.4			32.1			49.3			25.2	
Approach LOS		D			C			D			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	16.0	29.5	11.3	37.2	11.8	33.7	10.8	37.7
Change Period (Y+Rc), s	6.0	* 6	* 5.4	5.4	* 5.6	6.0	5.4	* 5.4
Max Green Setting (Gmax), s	10.0	* 33	* 6.6	32.6	* 6.4	37.0	6.6	* 33
Max Q Clear Time (g_c+I1), s	11.7	21.2	6.1	13.9	6.5	16.3	5.7	31.5
Green Ext Time (p_c), s	0.0	2.3	0.0	3.6	0.0	2.6	0.0	0.8

Intersection Summary	
HCM 7th Control Delay, s/veh	38.0
HCM 7th LOS	D

Notes

* HCM 7th computational engine requires equal clearance times for the phases crossing the barrier.



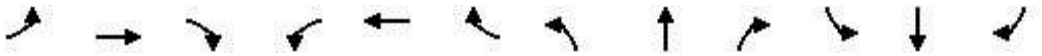
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	142	492	92	306	412	254	150	1137	274	124	603	47
Future Volume (veh/h)	142	492	92	306	412	254	150	1137	274	124	603	47
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
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	1885	1885	1885	1900	1900	1900	1900	1900	1900	1885	1885	1885
Adj Flow Rate, veh/h	148	512	96	319	429	265	156	1184	285	129	628	49
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	1	1	1	0	0	0	0	0	0	1	1	1
Cap, veh/h	279	521	441	286	651	552	344	1102	263	141	1213	95
Arrive On Green	0.06	0.28	0.28	0.13	0.34	0.34	0.07	0.38	0.38	0.05	0.36	0.36
Sat Flow, veh/h	1795	1885	1598	1810	1900	1610	1810	2892	689	1795	3367	262
Grp Volume(v), veh/h	148	512	96	319	429	265	156	734	735	129	334	343
Grp Sat Flow(s),veh/h/ln	1795	1885	1598	1810	1900	1610	1810	1805	1776	1795	1791	1838
Q Serve(g_s), s	8.0	36.5	6.3	17.0	26.0	17.5	7.3	51.6	51.6	6.2	19.8	19.9
Cycle Q Clear(g_c), s	8.0	36.5	6.3	17.0	26.0	17.5	7.3	51.6	51.6	6.2	19.8	19.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.39	1.00		0.14
Lane Grp Cap(c), veh/h	279	521	441	286	651	552	344	688	677	141	645	662
V/C Ratio(X)	0.53	0.98	0.22	1.12	0.66	0.48	0.45	1.07	1.09	0.92	0.52	0.52
Avail Cap(c_a), veh/h	279	521	441	286	651	552	400	688	677	141	645	662
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	33.6	48.7	37.7	41.3	37.8	35.0	25.9	41.9	41.9	34.3	34.0	34.1
Incr Delay (d2), s/veh	1.9	35.0	0.2	88.4	2.4	0.6	0.9	53.7	60.2	51.6	0.7	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	3.7	22.3	2.5	13.4	12.4	7.1	3.3	33.2	33.8	4.7	8.9	9.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	35.5	83.7	38.0	129.7	40.2	35.7	26.8	95.6	102.1	85.8	34.8	34.8
LnGrp LOS	D	F	D	F	D	D	C	F	F	F	C	C
Approach Vol, veh/h		756			1013			1625			806	
Approach Delay, s/veh		68.5			67.2			91.9			42.9	
Approach LOS		E			E			F			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	23.0	43.4	14.8	54.2	14.0	52.4	12.0	57.0
Change Period (Y+Rc), s	6.0	* 6	* 5.4	5.4	* 5.6	6.0	5.4	* 5.4
Max Green Setting (Gmax), s	17.0	* 37	* 14	44.6	* 8.4	46.0	6.6	* 52
Max Q Clear Time (g_c+I1), s	19.0	38.5	9.3	21.9	10.0	28.0	8.2	53.6
Green Ext Time (p_c), s	0.0	0.0	0.1	4.6	0.0	3.3	0.0	0.0

Intersection Summary	
HCM 7th Control Delay, s/veh	72.3
HCM 7th LOS	E

Notes

* HCM 7th 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)	142	492	92	306	412	254	150	1137	274	124	603	47
Future Volume (veh/h)	142	492	92	306	412	254	150	1137	274	124	603	47
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
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	1885	1885	1885	1900	1900	1900	1900	1900	1900	1885	1885	1885
Adj Flow Rate, veh/h	148	512	96	319	429	265	156	1184	285	129	628	49
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	1	1	1	0	0	0	0	0	0	1	1	1
Cap, veh/h	252	580	491	397	576	488	340	1248	557	174	1074	84
Arrive On Green	0.05	0.31	0.31	0.04	0.30	0.30	0.07	0.35	0.35	0.05	0.32	0.32
Sat Flow, veh/h	1795	1885	1598	3510	1900	1610	1810	3610	1610	1795	3367	262
Grp Volume(v), veh/h	148	512	96	319	429	265	156	1184	285	129	334	343
Grp Sat Flow(s),veh/h/ln	1795	1885	1598	1755	1900	1610	1810	1805	1610	1795	1791	1838
Q Serve(g_s), s	4.8	23.1	4.0	4.0	18.2	12.3	5.1	28.6	12.6	4.2	13.9	14.0
Cycle Q Clear(g_c), s	4.8	23.1	4.0	4.0	18.2	12.3	5.1	28.6	12.6	4.2	13.9	14.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.14
Lane Grp Cap(c), veh/h	252	580	491	397	576	488	340	1248	557	174	571	586
V/C Ratio(X)	0.59	0.88	0.20	0.80	0.74	0.54	0.46	0.95	0.51	0.74	0.58	0.59
Avail Cap(c_a), veh/h	252	704	597	397	693	587	340	1251	558	174	573	588
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	23.5	29.4	22.8	29.8	28.0	26.0	19.4	28.5	23.3	24.6	25.5	25.5
Incr Delay (d2), s/veh	3.5	11.1	0.2	11.3	3.6	0.9	1.0	14.8	0.8	15.3	1.5	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	2.4	12.0	1.5	2.1	8.4	4.8	2.2	14.6	4.8	2.6	6.1	6.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	27.0	40.5	23.0	41.2	31.6	26.9	20.4	43.3	24.0	39.9	27.0	27.0
LnGrp LOS	C	D	C	D	C	C	C	D	C	D	C	C
Approach Vol, veh/h		756			1013			1625			806	
Approach Delay, s/veh		35.6			33.4			37.7			29.1	
Approach LOS		D			C			D			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.0	33.5	12.0	33.9	10.4	33.1	9.6	36.3
Change Period (Y+Rc), s	6.0	* 6	* 5.4	5.4	* 5.6	6.0	5.4	* 5.4
Max Green Setting (Gmax), s	4.0	* 33	* 6.6	28.6	* 4.8	32.6	4.2	* 31
Max Q Clear Time (g_c+I1), s	6.0	25.1	7.1	16.0	6.8	20.2	6.2	30.6
Green Ext Time (p_c), s	0.0	2.4	0.0	3.6	0.0	2.9	0.0	0.4

Intersection Summary	
HCM 7th Control Delay, s/veh	34.7
HCM 7th LOS	C

Notes

* HCM 7th computational engine requires equal clearance times for the phases crossing the barrier.

Intersection	
Int Delay, s/veh	3.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	48	580	8	14	443	18	19	16	50	18	6	36
Future Vol, veh/h	48	580	8	14	443	18	19	16	50	18	6	36
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	80	-	-	200	-	113	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	51	611	8	15	466	19	20	17	53	19	6	38

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	485	0	0	619	0	0	1215	1231	615	1216	1216	466
Stage 1	-	-	-	-	-	-	716	716	-	496	496	-
Stage 2	-	-	-	-	-	-	499	515	-	720	720	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1088	-	-	971	-	-	160	179	495	159	183	601
Stage 1	-	-	-	-	-	-	425	437	-	560	549	-
Stage 2	-	-	-	-	-	-	557	538	-	422	435	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1088	-	-	971	-	-	136	168	495	121	172	601
Mov Cap-2 Maneuver	-	-	-	-	-	-	136	168	-	121	172	-
Stage 1	-	-	-	-	-	-	405	417	-	551	540	-
Stage 2	-	-	-	-	-	-	508	530	-	345	415	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	0.64	0.26	26.85	24.57
HCM LOS			D	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	253	1088	-	-	971	-	-	246
HCM Lane V/C Ratio	0.354	0.046	-	-	0.015	-	-	0.256
HCM Ctrl Dly (s/v)	26.8	8.5	-	-	8.8	-	-	24.6
HCM Lane LOS	D	A	-	-	A	-	-	C
HCM 95th %tile Q(veh)	1.5	0.1	-	-	0	-	-	1

Intersection	
Int Delay, s/veh	6.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	59	710	10	16	493	20	24	20	64	23	8	46
Future Vol, veh/h	59	710	10	16	493	20	24	20	64	23	8	46
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	80	-	-	200	-	113	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	62	747	11	17	519	21	25	21	67	24	8	48

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	540	0	0	758	0	0	1434	1451	753	1435	1435	519
Stage 1	-	-	-	-	-	-	877	877	-	553	553	-
Stage 2	-	-	-	-	-	-	557	574	-	882	882	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1039	-	-	862	-	-	113	132	413	113	135	561
Stage 1	-	-	-	-	-	-	346	369	-	521	518	-
Stage 2	-	-	-	-	-	-	518	507	-	344	367	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1039	-	-	862	-	-	89	122	413	73	124	561
Mov Cap-2 Maneuver	-	-	-	-	-	-	89	122	-	73	124	-
Stage 1	-	-	-	-	-	-	325	347	-	511	508	-
Stage 2	-	-	-	-	-	-	457	497	-	254	345	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	0.66	0.28	52.17	45.51
HCM LOS			F	E

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	183	1039	-	-	862	-	-	167
HCM Lane V/C Ratio	0.62	0.06	-	-	0.02	-	-	0.486
HCM Ctrl Dly (s/v)	52.2	8.7	-	-	9.3	-	-	45.5
HCM Lane LOS	F	A	-	-	A	-	-	E
HCM 95th %tile Q(veh)	3.5	0.2	-	-	0.1	-	-	2.3

Intersection	
Int Delay, s/veh	14.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	66	803	11	17	528	21	28	24	74	27	9	53
Future Vol, veh/h	66	803	11	17	528	21	28	24	74	27	9	53
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	80	-	-	200	-	113	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	69	845	12	18	556	22	29	25	78	28	9	56

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	578	0	0	857	0	0	1586	1604	851	1588	1587	556
Stage 1	-	-	-	-	-	-	990	990	-	592	592	-
Stage 2	-	-	-	-	-	-	596	614	-	997	996	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1006	-	-	792	-	-	88	107	363	88	109	535
Stage 1	-	-	-	-	-	-	299	327	-	496	497	-
Stage 2	-	-	-	-	-	-	493	486	-	297	325	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1006	-	-	792	-	-	66	97	363	48	99	535
Mov Cap-2 Maneuver	-	-	-	-	-	-	66	97	-	48	99	-
Stage 1	-	-	-	-	-	-	279	304	-	485	486	-
Stage 2	-	-	-	-	-	-	424	475	-	199	303	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	0.66	0.29	116.49	104.1
HCM LOS			F	F

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	144	1006	-	-	792	-	-	118
HCM Lane V/C Ratio	0.924	0.069	-	-	0.023	-	-	0.796
HCM Ctrl Dly (s/v)	116.5	8.8	-	-	9.6	-	-	104.1
HCM Lane LOS	F	A	-	-	A	-	-	F
HCM 95th %tile Q(veh)	6.4	0.2	-	-	0.1	-	-	4.6

Intersection	
Int Delay, s/veh	100.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	82	989	14	19	599	24	36	30	94	34	11	68
Future Vol, veh/h	82	989	14	19	599	24	36	30	94	34	11	68
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	80	-	-	200	-	113	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	86	1041	15	20	631	25	38	32	99	36	12	72

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	656	0	0	1056	0	0	1897	1917	1048	1900	1899	631
Stage 1	-	-	-	-	-	-	1221	1221	-	671	671	-
Stage 2	-	-	-	-	-	-	676	696	-	1229	1228	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	941	-	-	667	-	-	53	68	279	53	70	485
Stage 1	-	-	-	-	-	-	222	255	-	449	458	-
Stage 2	-	-	-	-	-	-	446	446	-	220	253	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	941	-	-	667	-	-	~ 33	60	279	~ 15	62	485
Mov Cap-2 Maneuver	-	-	-	-	-	-	~ 33	60	-	~ 15	62	-
Stage 1	-	-	-	-	-	-	202	231	-	436	445	-
Stage 2	-	-	-	-	-	-	359	433	-	111	229	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	0.7	0.31	$ 578.86	$ 949.21
HCM LOS			F	F

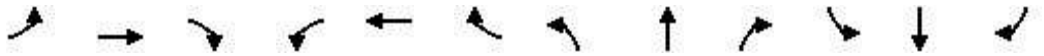
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	84	941	-	-	667	-	-	45
HCM Lane V/C Ratio	2.016	0.092	-	-	0.03	-	-	2.669
HCM Ctrl Dly (s/v)	$ 578.9	9.2	-	-	10.6	-	-	$ 949.2
HCM Lane LOS	F	A	-	-	B	-	-	F
HCM 95th %tile Q(veh)	14.9	0.3	-	-	0.1	-	-	12.8

Notes	
~: Volume exceeds capacity	$: Delay exceeds 300s
+: Computation Not Defined	*: All major volume in platoon

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	82	989	14	19	599	24	36	30	94	34	11	68
Future Volume (veh/h)	82	989	14	19	599	24	36	30	94	34	11	68
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
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	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	86	1041	15	20	631	25	38	32	99	36	12	72
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	494	1192	17	231	1212	1027	118	60	138	137	46	145
Arrive On Green	0.64	0.64	0.64	0.64	0.64	0.64	0.14	0.14	0.14	0.14	0.14	0.14
Sat Flow, veh/h	790	1868	27	543	1900	1610	265	426	977	359	323	1023
Grp Volume(v), veh/h	86	0	1056	20	631	25	169	0	0	120	0	0
Grp Sat Flow(s),veh/h/ln	790	0	1895	543	1900	1610	1668	0	0	1706	0	0
Q Serve(g_s), s	3.6	0.0	24.8	1.7	9.8	0.3	1.7	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	13.4	0.0	24.8	26.5	9.8	0.3	5.1	0.0	0.0	3.4	0.0	0.0
Prop In Lane	1.00		0.01	1.00		1.00	0.22		0.59	0.30		0.60
Lane Grp Cap(c), veh/h	494	0	1209	231	1212	1027	317	0	0	328	0	0
V/C Ratio(X)	0.17	0.00	0.87	0.09	0.52	0.02	0.53	0.00	0.00	0.37	0.00	0.00
Avail Cap(c_a), veh/h	599	0	1461	303	1465	1241	558	0	0	558	0	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)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	9.0	0.0	8.1	18.9	5.3	3.6	22.2	0.0	0.0	21.6	0.0	0.0
Incr Delay (d2), s/veh	0.2	0.0	5.3	0.2	0.3	0.0	1.4	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	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	0.0	7.5	0.2	2.4	0.1	2.1	0.0	0.0	1.4	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	9.1	0.0	13.4	19.1	5.7	3.6	23.6	0.0	0.0	22.2	0.0	0.0
LnGrp LOS	A		B	B	A	A	C			C		
Approach Vol, veh/h		1142			676			169			120	
Approach Delay, s/veh		13.0			6.0			23.6			22.2	
Approach LOS		B			A			C			C	

Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		13.7		40.8		13.7		40.8				
Change Period (Y+Rc), s		6.0		6.0		6.0		6.0				
Max Green Setting (Gmax), s		16.0		42.0		16.0		42.0				
Max Q Clear Time (g_c+I1), s		7.1		26.8		5.4		28.5				
Green Ext Time (p_c), s		0.6		7.9		0.4		3.7				

Intersection Summary	
HCM 7th Control Delay, s/veh	12.2
HCM 7th LOS	B



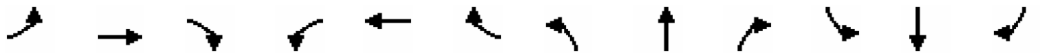
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	132	0	246	55	347	0	0	277	305
Future Volume (veh/h)	0	0	0	132	0	246	55	347	0	0	277	305
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Lane Width Adj.				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)				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
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1767	1767	1767	1722	1722	0	0	1752	1752
Adj Flow Rate, veh/h				138	0	0	57	361	0	0	289	0
Peak Hour Factor				0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %				9	9	9	12	12	0	0	10	10
Cap, veh/h				189	0		107	677	0	0	563	
Arrive On Green				0.11	0.00	0.00	0.23	0.23	0.00	0.00	0.17	0.00
Sat Flow, veh/h				1682	0	1497	454	2968	0	0	3504	0
Grp Volume(v), veh/h				138	0	0	213	205	0	0	289	0
Grp Sat Flow(s),veh/h/ln				1682	0	1497	1699	1636	0	0	1664	0
Q Serve(g_s), s				2.5	0.0	0.0	3.4	3.4	0.0	0.0	2.4	0.0
Cycle Q Clear(g_c), s				2.5	0.0	0.0	3.4	3.4	0.0	0.0	2.4	0.0
Prop In Lane				1.00		1.00	0.27		0.00	0.00		0.00
Lane Grp Cap(c), veh/h				189	0		399	384	0	0	563	
V/C Ratio(X)				0.73	0.00		0.53	0.53	0.00	0.00	0.51	
Avail Cap(c_a), veh/h				923	0		987	950	0	0	1074	
HCM Platoon Ratio				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	1.00	0.00	0.00	1.00	0.00
Uniform Delay (d), s/veh				13.3	0.0	0.0	10.4	10.4	0.0	0.0	11.7	0.0
Incr Delay (d2), s/veh				5.4	0.0	0.0	1.1	1.1	0.0	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
%ile BackOfQ(50%),veh/ln				0.9	0.0	0.0	1.1	1.0	0.0	0.0	0.7	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh				18.7	0.0	0.0	11.5	11.5	0.0	0.0	12.4	0.0
LnGrp LOS				B			B	B			B	
Approach Vol, veh/h					138			418			289	
Approach Delay, s/veh					18.7			11.5			12.4	
Approach LOS					B			B			B	

Timer - Assigned Phs	2	4	6
Phs Duration (G+Y+Rc), s	10.2	8.5	12.3
Change Period (Y+Rc), s	5.0	5.0	5.0
Max Green Setting (Gmax), s	10.0	17.0	18.0
Max Q Clear Time (g_c+I1), s	4.4	4.5	5.4
Green Ext Time (p_c), s	0.8	0.5	2.1

Intersection Summary	
HCM 7th Control Delay, s/veh	13.0
HCM 7th LOS	B

Notes

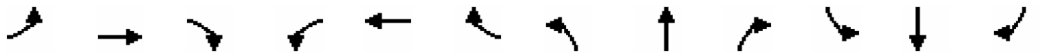
Unsignalized Delay for [WBR, SBR] is excluded from calculations of the approach delay and intersection delay.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	353	3	125	0	0	0	0	167	324	223	235	0
Future Volume (veh/h)	353	3	125	0	0	0	0	167	324	223	235	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	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
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1722	1722	1722				0	1870	1870	1796	1796	0
Adj Flow Rate, veh/h	368	3	130				0	174	338	232	245	0
Peak Hour Factor	0.96	0.96	0.96				0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	12	12	12				0	2	2	7	7	0
Cap, veh/h	409	3	367				0	405	361	678	725	0
Arrive On Green	0.25	0.25	0.25				0.00	0.08	0.08	0.41	0.41	0.00
Sat Flow, veh/h	1628	13	1459				0	1870	1585	1653	1856	0
Grp Volume(v), veh/h	371	0	130				0	174	338	240	237	0
Grp Sat Flow(s),veh/h/ln	1641	0	1459				0	1777	1585	1714	1706	0
Q Serve(g_s), s	29.7	0.0	10.0				0.0	12.7	28.8	13.1	12.9	0.0
Cycle Q Clear(g_c), s	29.7	0.0	10.0				0.0	12.7	28.8	13.1	12.9	0.0
Prop In Lane	0.99		1.00				0.00		1.00	0.96		0.00
Lane Grp Cap(c), veh/h	413	0	367				0	405	361	703	700	0
V/C Ratio(X)	0.90	0.00	0.35				0.00	0.43	0.94	0.34	0.34	0.00
Avail Cap(c_a), veh/h	639	0	569				0	405	361	703	700	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	0.33	0.33	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	0.90	0.90	0.79	0.79	0.00
Uniform Delay (d), s/veh	49.2	0.0	41.8				0.0	54.4	61.9	27.5	27.5	0.0
Incr Delay (d2), s/veh	10.7	0.0	0.6				0.0	3.0	31.3	1.0	1.0	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
%ile BackOfQ(50%),veh/ln	13.1	0.0	3.6				0.0	6.5	15.5	5.6	5.5	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	59.9	0.0	42.4				0.0	57.4	93.2	28.6	28.5	0.0
LnGrp LOS	E		D					E	F	C	C	
Approach Vol, veh/h		501						512			477	
Approach Delay, s/veh		55.4						81.0			28.5	
Approach LOS		E						F			C	

Timer - Assigned Phs		2				6		8				
Phs Duration (G+Y+Rc), s		60.8				36.0		39.2				
Change Period (Y+Rc), s		5.0				5.0		5.0				
Max Green Setting (Gmax), s		37.0				31.0		53.0				
Max Q Clear Time (g_c+I1), s		15.1				30.8		31.7				
Green Ext Time (p_c), s		2.7				0.1		2.5				

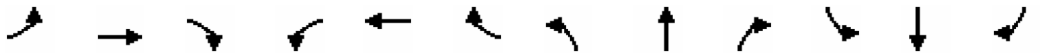
Intersection Summary		
HCM 7th Control Delay, s/veh		55.6
HCM 7th LOS		E



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	408	3	145	0	0	0	0	193	376	243	255	0
Future Volume (veh/h)	408	3	145	0	0	0	0	193	376	243	255	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	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
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1722	1722	1722				0	1870	1870	1796	1796	0
Adj Flow Rate, veh/h	425	3	151				0	201	392	253	266	0
Peak Hour Factor	0.96	0.96	0.96				0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	12	12	12				0	2	2	7	7	0
Cap, veh/h	468	3	420				0	418	373	609	646	0
Arrive On Green	0.29	0.29	0.29				0.00	0.08	0.08	0.37	0.37	0.00
Sat Flow, veh/h	1629	12	1459				0	1870	1585	1659	1851	0
Grp Volume(v), veh/h	428	0	151				0	201	392	261	258	0
Grp Sat Flow(s),veh/h/ln	1641	0	1459				0	1777	1585	1713	1706	0
Q Serve(g_s), s	34.2	0.0	11.2				0.0	14.7	32.0	15.5	15.3	0.0
Cycle Q Clear(g_c), s	34.2	0.0	11.2				0.0	14.7	32.0	15.5	15.3	0.0
Prop In Lane	0.99		1.00				0.00		1.00	0.97		0.00
Lane Grp Cap(c), veh/h	472	0	420				0	418	373	629	626	0
V/C Ratio(X)	0.91	0.00	0.36				0.00	0.48	1.05	0.42	0.41	0.00
Avail Cap(c_a), veh/h	676	0	601				0	418	373	629	626	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	0.33	0.33	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	0.84	0.84	0.67	0.67	0.00
Uniform Delay (d), s/veh	46.7	0.0	38.5				0.0	54.8	62.7	32.2	32.1	0.0
Incr Delay (d2), s/veh	12.3	0.0	0.5				0.0	3.3	56.8	1.4	1.3	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
%ile BackOfQ(50%),veh/ln	15.1	0.0	4.0				0.0	7.5	19.6	6.6	6.5	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	59.0	0.0	39.0				0.0	58.1	119.5	33.5	33.4	0.0
LnGrp LOS	E		D					E	F	C	C	
Approach Vol, veh/h		579						593			519	
Approach Delay, s/veh		53.8						98.7			33.5	
Approach LOS		D						F			C	

Timer - Assigned Phs		2				6		8				
Phs Duration (G+Y+Rc), s		54.9				37.0		44.1				
Change Period (Y+Rc), s		5.0				5.0		5.0				
Max Green Setting (Gmax), s		33.0				32.0		56.0				
Max Q Clear Time (g_c+I1), s		17.5				34.0		36.2				
Green Ext Time (p_c), s		2.7				0.0		2.9				

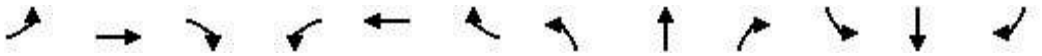
Intersection Summary												
HCM 7th Control Delay, s/veh			63.3									
HCM 7th LOS			E									



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	519	4	184	0	0	0	0	247	480	282	297	0
Future Volume (veh/h)	519	4	184	0	0	0	0	247	480	282	297	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	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
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1722	1722	1722				0	1870	1870	1796	1796	0
Adj Flow Rate, veh/h	541	4	192				0	257	500	294	309	0
Peak Hour Factor	0.96	0.96	0.96				0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	12	12	12				0	2	2	7	7	0
Cap, veh/h	582	4	522				0	420	374	502	532	0
Arrive On Green	0.36	0.36	0.36				0.00	0.08	0.08	0.30	0.30	0.00
Sat Flow, veh/h	1629	12	1459				0	1870	1585	1662	1848	0
Grp Volume(v), veh/h	545	0	192				0	257	500	303	300	0
Grp Sat Flow(s),veh/h/ln	1641	0	1459				0	1777	1585	1713	1706	0
Q Serve(g_s), s	46.0	0.0	14.0				0.0	20.2	34.0	21.6	21.4	0.0
Cycle Q Clear(g_c), s	46.0	0.0	14.0				0.0	20.2	34.0	21.6	21.4	0.0
Prop In Lane	0.99		1.00				0.00		1.00	0.97		0.00
Lane Grp Cap(c), veh/h	586	0	522				0	420	374	518	516	0
V/C Ratio(X)	0.93	0.00	0.37				0.00	0.61	1.34	0.59	0.58	0.00
Avail Cap(c_a), veh/h	706	0	628				0	420	374	518	516	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	0.33	0.33	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	0.64	0.64	0.44	0.44	0.00
Uniform Delay (d), s/veh	44.5	0.0	34.2				0.0	60.0	66.4	42.6	42.5	0.0
Incr Delay (d2), s/veh	16.9	0.0	0.4				0.0	4.2	162.6	2.1	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
%ile BackOfQ(50%),veh/ln	20.8	0.0	5.0				0.0	10.2	31.5	9.4	9.3	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	61.5	0.0	34.7				0.0	64.3	229.0	44.7	44.6	0.0
LnGrp LOS	E		C					E	F	D	D	
Approach Vol, veh/h		737						757			603	
Approach Delay, s/veh		54.5						173.1			44.7	
Approach LOS		D						F			D	

Timer - Assigned Phs		2				6		8				
Phs Duration (G+Y+Rc), s		48.5				39.0		56.5				
Change Period (Y+Rc), s		5.0				5.0		5.0				
Max Green Setting (Gmax), s		33.0				34.0		62.0				
Max Q Clear Time (g_c+I1), s		23.6				36.0		48.0				
Green Ext Time (p_c), s		2.5				0.0		3.4				

Intersection Summary												
HCM 7th Control Delay, s/veh			94.5									
HCM 7th LOS			F									



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	519	4	184	0	0	0	0	247	480	282	297	0
Future Volume (veh/h)	519	4	184	0	0	0	0	247	480	282	297	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	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
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1722	1722	1722				0	1870	1870	1796	1796	0
Adj Flow Rate, veh/h	541	4	192				0	257	500	294	309	0
Peak Hour Factor	0.96	0.96	0.96				0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	12	12	12				0	2	2	7	7	0
Cap, veh/h	587	11	513				0	355	602	502	532	0
Arrive On Green	0.36	0.36	0.36				0.00	0.19	0.19	0.30	0.30	0.00
Sat Flow, veh/h	1640	30	1434				0	1870	3170	1662	1848	0
Grp Volume(v), veh/h	541	0	196				0	257	500	303	300	0
Grp Sat Flow(s),veh/h/ln	1640	0	1464				0	1870	1585	1713	1706	0
Q Serve(g_s), s	31.6	0.0	9.9				0.0	12.9	15.2	15.0	14.9	0.0
Cycle Q Clear(g_c), s	31.6	0.0	9.9				0.0	12.9	15.2	15.0	14.9	0.0
Prop In Lane	1.00		0.98				0.00		1.00	0.97		0.00
Lane Grp Cap(c), veh/h	587	0	524				0	355	602	518	516	0
V/C Ratio(X)	0.92	0.00	0.37				0.00	0.72	0.83	0.59	0.58	0.00
Avail Cap(c_a), veh/h	705	0	630				0	355	602	518	516	0
HCM Platoon Ratio	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				0.00	0.46	0.46	0.33	0.33	0.00
Uniform Delay (d), s/veh	30.8	0.0	23.8				0.0	38.0	38.9	29.6	29.5	0.0
Incr Delay (d2), s/veh	15.9	0.0	0.4				0.0	5.8	6.2	1.6	1.6	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
%ile BackOfQ(50%),veh/ln	14.1	0.0	3.3				0.0	6.5	6.4	6.2	6.1	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	46.7	0.0	24.3				0.0	43.8	45.2	31.2	31.1	0.0
LnGrp LOS	D		C					D	D	C	C	
Approach Vol, veh/h		737						757			603	
Approach Delay, s/veh		40.7						44.7			31.1	
Approach LOS		D						D			C	

Timer - Assigned Phs		2				6		8				
Phs Duration (G+Y+Rc), s		35.2				24.0		40.8				
Change Period (Y+Rc), s		5.0				5.0		5.0				
Max Green Setting (Gmax), s		23.0				19.0		43.0				
Max Q Clear Time (g_c+I1), s		17.0				17.2		33.6				
Green Ext Time (p_c), s		1.8				0.8		2.1				

Intersection Summary												
HCM 7th Control Delay, s/veh			39.4									
HCM 7th LOS			D									

Notes
User approved volume balancing among the lanes for turning movement.

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	53	567	47	48	465	50	12	3	29	32	3	34
Future Vol, veh/h	53	567	47	48	465	50	12	3	29	32	3	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	250	-	-	320	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	97	97	97	97	97	97	97	97	97	97	97	97
Heavy Vehicles, %	4	4	4	2	2	2	0	0	0	3	3	3
Mvmt Flow	55	585	48	49	479	52	12	3	30	33	3	35

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	531	0	0	633	0	0	1058	1348	316	1007	1346	265
Stage 1	-	-	-	-	-	-	718	718	-	604	604	-
Stage 2	-	-	-	-	-	-	340	630	-	403	742	-
Critical Hdwy	4.18	-	-	4.14	-	-	7.5	6.5	6.9	7.56	6.56	6.96
Critical Hdwy Stg 1	-	-	-	-	-	-	6.5	5.5	-	6.56	5.56	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.5	5.5	-	6.56	5.56	-
Follow-up Hdwy	2.24	-	-	2.22	-	-	3.5	4	3.3	3.53	4.03	3.33
Pot Cap-1 Maneuver	1019	-	-	946	-	-	182	152	685	194	149	730
Stage 1	-	-	-	-	-	-	391	436	-	450	483	-
Stage 2	-	-	-	-	-	-	654	478	-	592	418	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1019	-	-	946	-	-	152	137	685	163	133	730
Mov Cap-2 Maneuver	-	-	-	-	-	-	152	137	-	163	133	-
Stage 1	-	-	-	-	-	-	370	413	-	426	458	-
Stage 2	-	-	-	-	-	-	586	453	-	532	396	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	0.69	0.77	18.75	24.02
HCM LOS			C	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	307	1019	-	-	946	-	-	260
HCM Lane V/C Ratio	0.148	0.054	-	-	0.052	-	-	0.274
HCM Ctrl Dly (s/v)	18.7	8.7	-	-	9	-	-	24
HCM Lane LOS	C	A	-	-	A	-	-	C
HCM 95th %tile Q(veh)	0.5	0.2	-	-	0.2	-	-	1.1

Intersection	
Int Delay, s/veh	0.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	2	3	2	19	3	5	0	482	10	7	453	0
Future Vol, veh/h	2	3	2	19	3	5	0	482	10	7	453	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	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	97	97	97	97	97	97	97	97	97	97	97	97
Heavy Vehicles, %	0	0	0	25	25	25	9	9	9	8	8	8
Mvmt Flow	2	3	2	20	3	5	0	497	10	7	467	0

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	980	989	467	985	984	502	467	0	0	507	0	0
Stage 1	481	481	-	502	502	-	-	-	-	-	-	-
Stage 2	498	507	-	483	481	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.35	6.75	6.45	4.19	-	-	4.18	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.35	5.75	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.35	5.75	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.725	4.225	3.525	2.281	-	-	2.272	-	-
Pot Cap-1 Maneuver	231	249	600	206	227	526	1059	-	-	1027	-	-
Stage 1	570	557	-	511	506	-	-	-	-	-	-	-
Stage 2	558	542	-	524	517	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	223	246	600	201	225	526	1059	-	-	1027	-	-
Mov Cap-2 Maneuver	223	246	-	201	225	-	-	-	-	-	-	-
Stage 1	564	552	-	511	506	-	-	-	-	-	-	-
Stage 2	549	542	-	514	512	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	17.9	22.78	0	0.13
HCM LOS	C	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1059	-	-	286	230	27	-	-
HCM Lane V/C Ratio	-	-	-	0.025	0.121	0.007	-	-
HCM Ctrl Dly (s/v)	0	-	-	17.9	22.8	8.5	0	-
HCM Lane LOS	A	-	-	C	C	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.1	0.4	0	-	-

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	2	4	2	24	4	7	0	558	12	9	549	0
Future Vol, veh/h	2	4	2	24	4	7	0	558	12	9	549	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	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	97	97	97	97	97	97	97	97	97	97	97	97
Heavy Vehicles, %	0	0	0	25	25	25	9	9	9	8	8	8
Mvmt Flow	2	4	2	25	4	7	0	575	12	9	566	0

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1162	1172	566	1168	1166	581	566	0	0	588	0	0
Stage 1	585	585	-	581	581	-	-	-	-	-	-	-
Stage 2	577	588	-	587	585	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.35	6.75	6.45	4.19	-	-	4.18	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.35	5.75	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.35	5.75	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.725	4.225	3.525	2.281	-	-	2.272	-	-
Pot Cap-1 Maneuver	174	194	528	153	176	473	972	-	-	959	-	-
Stage 1	501	501	-	461	464	-	-	-	-	-	-	-
Stage 2	505	499	-	458	463	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	165	191	528	147	173	473	972	-	-	959	-	-
Mov Cap-2 Maneuver	165	191	-	147	173	-	-	-	-	-	-	-
Stage 1	494	494	-	461	464	-	-	-	-	-	-	-
Stage 2	493	499	-	446	456	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	22.24	30.95	0	0.14
HCM LOS	C	D		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	972	-	-	217	174	29	-	-
HCM Lane V/C Ratio	-	-	-	0.038	0.207	0.01	-	-
HCM Ctrl Dly (s/v)	0	-	-	22.2	30.9	8.8	0	-
HCM Lane LOS	A	-	-	C	D	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.1	0.8	0	-	-

Intersection	
Int Delay, s/veh	3.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	3	6	3	35	6	10	0	711	15	12	740	0
Future Vol, veh/h	3	6	3	35	6	10	0	711	15	12	740	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	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	97	97	97	97	97	97	97	97	97	97	97	97
Heavy Vehicles, %	0	0	0	25	25	25	9	9	9	8	8	8
Mvmt Flow	3	6	3	36	6	10	0	733	15	12	763	0

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1524	1536	763	1531	1528	741	763	0	0	748	0	0
Stage 1	788	788	-	741	741	-	-	-	-	-	-	-
Stage 2	736	748	-	791	788	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.35	6.75	6.45	4.19	-	-	4.18	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.35	5.75	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.35	5.75	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.725	4.225	3.525	2.281	-	-	2.272	-	-
Pot Cap-1 Maneuver	98	117	408	84	104	381	819	-	-	834	-	-
Stage 1	388	405	-	375	391	-	-	-	-	-	-	-
Stage 2	414	422	-	351	371	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	87	114	408	77	102	381	819	-	-	834	-	-
Mov Cap-2 Maneuver	87	114	-	77	102	-	-	-	-	-	-	-
Stage 1	378	395	-	375	391	-	-	-	-	-	-	-
Stage 2	396	422	-	334	362	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	36.34	82.37	0	0.15
HCM LOS	E	F		

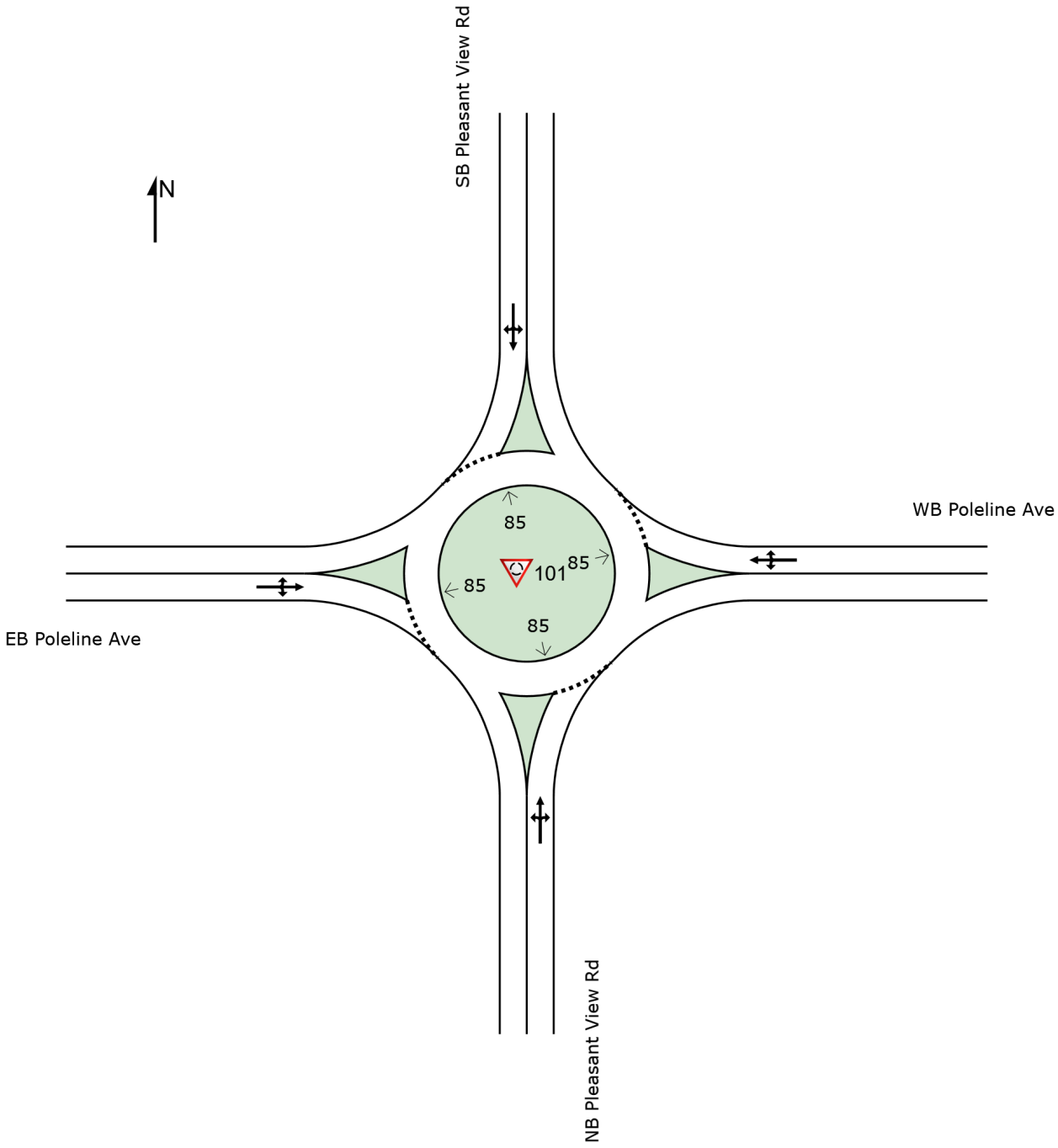
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	819	-	-	127	95	29	-	-
HCM Lane V/C Ratio	-	-	-	0.097	0.554	0.015	-	-
HCM Ctrl Dly (s/v)	0	-	-	36.3	82.4	9.4	0	-
HCM Lane LOS	A	-	-	E	F	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.3	2.5	0	-	-

SITE LAYOUT

Site: 101 [PleasantView_Poleline_2045_PM (Site Folder: General)]

New Site
Site Category: (None)
Roundabout

Layout pictures are schematic functional drawings reflecting input data. They are not design drawings.



MOVEMENT SUMMARY

Site: 101 [PleasantView_Poleline_2045_PM (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

New Site
Site Category: (None)
Roundabout

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] ft	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed mph
South: NB Pleasant View Rd															
3	L2	All MCs	1	3.0	1	3.0	0.627	8.8	LOS A	7.1	181.2	0.26	0.07	0.26	18.8
8	T1	All MCs	773	3.0	773	3.0	0.627	8.8	LOS A	7.1	181.2	0.26	0.07	0.26	20.0
18	R2	All MCs	16	3.0	16	3.0	0.627	8.8	LOS A	7.1	181.2	0.26	0.07	0.26	18.9
Approach			790	3.0	790	3.0	0.627	8.8	LOS A	7.1	181.2	0.26	0.07	0.26	20.0
East: WB Poleline Ave															
1	L2	All MCs	38	3.0	38	3.0	0.089	6.8	LOS A	0.5	12.8	0.73	0.59	0.73	20.2
6	T1	All MCs	7	3.0	7	3.0	0.089	6.8	LOS A	0.5	12.8	0.73	0.59	0.73	19.1
16	R2	All MCs	11	3.0	11	3.0	0.089	6.8	LOS A	0.5	12.8	0.73	0.59	0.73	20.2
Approach			55	3.0	55	3.0	0.089	6.8	LOS A	0.5	12.8	0.73	0.59	0.73	20.1
North: SB Pleasant View Rd															
7	L2	All MCs	13	3.0	13	3.0	0.669	10.7	LOS B	8.7	222.5	0.44	0.17	0.44	18.5
4	T1	All MCs	804	3.0	804	3.0	0.669	10.7	LOS B	8.7	222.5	0.44	0.17	0.44	19.7
14	R2	All MCs	1	3.0	1	3.0	0.669	10.7	LOS B	8.7	222.5	0.44	0.17	0.44	18.6
Approach			818	3.0	818	3.0	0.669	10.7	LOS B	8.7	222.5	0.44	0.17	0.44	19.6
West: EB Poleline Ave															
5	L2	All MCs	3	3.0	3	3.0	0.024	7.0	LOS A	0.1	3.6	0.78	0.58	0.78	20.3
2	T1	All MCs	7	3.0	7	3.0	0.024	7.0	LOS A	0.1	3.6	0.78	0.58	0.78	19.1
12	R2	All MCs	3	3.0	3	3.0	0.024	7.0	LOS A	0.1	3.6	0.78	0.58	0.78	20.3
Approach			13	3.0	13	3.0	0.024	7.0	LOS A	0.1	3.6	0.78	0.58	0.78	19.7
All Vehicles			1677	3.0	1677	3.0	0.669	9.6	LOS A	8.7	222.5	0.36	0.14	0.36	19.8

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Options tab).
Roundabout LOS Method: Same as Signalised Intersections.
Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.
LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).
Roundabout Capacity Model: SIDRA HCM.
Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

SIDRA INTERSECTION 9.1 | Copyright © 2000-2024 Akcelik and Associates Pty Ltd | sidrasolutions.com
Organisation: J.U.B ENGINEERS, INC. | Licence: PLUS / 1PC | Processed: Wednesday, July 2, 2025 7:45:21 PM
Project: \\jub.com\Central\Clients\ID\PostFallsCity\Projects\07-23-040_TMP\Planning\Traffic\Sidra\2045Build\PleasantView_Poleline.sip9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	3	6	3	35	6	10	0	711	15	12	740	0
Future Volume (veh/h)	3	6	3	35	6	10	0	711	15	12	740	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
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	1900	1900	1900	1530	1530	1530	1767	1767	1767	1781	1781	1781
Adj Flow Rate, veh/h	3	6	3	36	6	10	0	733	15	12	763	0
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	25	25	25	9	9	9	8	8	8
Cap, veh/h	171	61	30	249	10	16	0	960	20	119	979	0
Arrive On Green	0.07	0.07	0.07	0.07	0.07	0.07	0.00	0.56	0.56	0.56	0.56	0.00
Sat Flow, veh/h	449	899	449	855	142	237	0	1725	35	8	1760	0
Grp Volume(v), veh/h	12	0	0	52	0	0	0	0	748	775	0	0
Grp Sat Flow(s),veh/h/ln	1798	0	0	1234	0	0	0	0	1760	1768	0	0
Q Serve(g_s), s	0.0	0.0	0.0	1.1	0.0	0.0	0.0	0.0	10.5	0.0	0.0	0.0
Cycle Q Clear(g_c), s	0.2	0.0	0.0	1.3	0.0	0.0	0.0	0.0	10.5	10.9	0.0	0.0
Prop In Lane	0.25		0.25	0.69		0.19	0.00		0.02	0.02		0.00
Lane Grp Cap(c), veh/h	263	0	0	275	0	0	0	0	979	1098	0	0
V/C Ratio(X)	0.05	0.00	0.00	0.19	0.00	0.00	0.00	0.00	0.76	0.71	0.00	0.00
Avail Cap(c_a), veh/h	992	0	0	799	0	0	0	0	1764	1873	0	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)	1.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	14.0	0.0	0.0	14.5	0.0	0.0	0.0	0.0	5.5	5.6	0.0	0.0
Incr Delay (d2), s/veh	0.1	0.0	0.0	0.3	0.0	0.0	0.0	0.0	1.3	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	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.5	0.5	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	14.0	0.0	0.0	14.8	0.0	0.0	0.0	0.0	6.7	6.4	0.0	0.0
LnGrp LOS	B			B					A	A		
Approach Vol, veh/h		12			52			748			775	
Approach Delay, s/veh		14.0			14.8			6.7			6.4	
Approach LOS		B			B			A			A	

Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		23.8		8.2		23.8		8.2				
Change Period (Y+Rc), s		6.0		6.0		6.0		6.0				
Max Green Setting (Gmax), s		32.0		16.0		32.0		16.0				
Max Q Clear Time (g_c+I1), s		12.5		2.2		12.9		3.3				
Green Ext Time (p_c), s		4.6		0.0		4.9		0.1				

Intersection Summary	
HCM 7th Control Delay, s/veh	6.9
HCM 7th LOS	A

MOVEMENT SUMMARY

Site: 101 [Spokane_Poleline_Existing_PM (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.3.210

New Site
Site Category: (None)
Roundabout

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] ft	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed mph
South: Spokane NB Approach															
3u	U	All MCs	1	0.9	1	0.9	0.595	10.6	LOS B	5.2	131.8	0.63	0.38	0.63	27.8
3	L2	All MCs	137	0.9	137	0.9	0.595	10.6	LOS B	5.2	131.8	0.63	0.38	0.63	27.8
8	T1	All MCs	247	0.9	247	0.9	0.595	10.6	LOS B	5.2	131.8	0.63	0.38	0.63	24.6
18	R2	All MCs	273	0.9	273	0.9	0.595	10.6	LOS B	5.2	131.8	0.63	0.38	0.63	28.1
Approach			658	0.9	658	0.9	0.595	10.6	LOS B	5.2	131.8	0.63	0.38	0.63	26.6
East: Poleline WB Approach															
1	L2	All MCs	158	1.1	158	1.1	0.546	11.1	LOS B	5.1	128.8	0.76	0.60	0.88	27.5
6	T1	All MCs	253	1.1	253	1.1	0.546	11.1	LOS B	5.1	128.8	0.76	0.60	0.88	28.0
16	R2	All MCs	91	1.1	91	1.1	0.546	11.1	LOS B	5.1	128.8	0.76	0.60	0.88	24.4
Approach			502	1.1	502	1.1	0.546	11.1	LOS B	5.1	128.8	0.76	0.60	0.88	27.1
North: Spokane SB Approach															
7	L2	All MCs	55	1.0	55	1.0	0.271	7.5	LOS A	1.7	43.9	0.71	0.53	0.71	25.4
4	T1	All MCs	149	1.0	149	1.0	0.271	7.5	LOS A	1.7	43.9	0.71	0.53	0.71	25.8
14	R2	All MCs	11	1.0	11	1.0	0.271	7.5	LOS A	1.7	43.9	0.71	0.53	0.71	25.6
Approach			216	1.0	216	1.0	0.271	7.5	LOS A	1.7	43.9	0.71	0.53	0.71	25.7
West: Poleline EB Approach															
5	L2	All MCs	1	0.5	1	0.5	0.247	6.1	LOS A	1.5	37.1	0.57	0.39	0.57	26.0
2	T1	All MCs	144	0.5	144	0.5	0.247	6.1	LOS A	1.5	37.1	0.57	0.39	0.57	30.4
12	R2	All MCs	93	0.5	93	0.5	0.247	6.1	LOS A	1.5	37.1	0.57	0.39	0.57	30.2
Approach			238	0.5	238	0.5	0.247	6.1	LOS A	1.5	37.1	0.57	0.39	0.57	30.3
All Vehicles			1615	0.9	1615	0.9	0.595	9.7	LOS A	5.2	131.8	0.68	0.47	0.71	27.1

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Options tab).
Roundabout LOS Method: Same as Signalised Intersections.
Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.
LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).
Roundabout Capacity Model: SIDRA HCM.
Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

SIDRA INTERSECTION 9.1 | Copyright © 2000-2023 Akcelik and Associates Pty Ltd | sidrasolutions.com
Organisation: J.U.B ENGINEERS, INC. | Licence: PLUS / 1PC | Processed: Thursday, September 7, 2023 9:43:12 AM
Project: \\jub.com\Central\Clients\ID\PostFallsCity\Projects\07-23-040_TMP\Planning\Traffic\Sidra\Spokane_Poleline.sip9

MOVEMENT SUMMARY

Site: 101 [Pleasant View_Prairie_Existing_PM (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.2.202

New Site
Site Category: (None)
Roundabout

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] ft	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed mph
South: Pleasant View NB Approach															
3	L2	All MCs	72	6.7	72	6.7	0.749	18.5	LOS B	12.6	331.3	0.94	0.92	1.51	28.0
8	T1	All MCs	325	6.7	325	6.7	0.749	18.5	LOS B	12.6	331.3	0.94	0.92	1.51	30.2
18	R2	All MCs	259	6.7	259	6.7	0.749	18.5	LOS B	12.6	331.3	0.94	0.92	1.51	28.3
Approach			656	6.7	656	6.7	0.749	18.5	LOS B	12.6	331.3	0.94	0.92	1.51	29.1
East: Prairie WB Approach															
1u	U	All MCs	1	6.7	1	6.7	0.645	14.8	LOS B	8.0	210.7	0.89	0.82	1.22	26.4
1	L2	All MCs	189	6.7	189	6.7	0.645	14.8	LOS B	8.0	210.7	0.89	0.82	1.22	28.3
6	T1	All MCs	261	6.7	261	6.7	0.645	14.8	LOS B	8.0	210.7	0.89	0.82	1.22	26.8
16	R2	All MCs	81	6.7	81	6.7	0.645	14.8	LOS B	8.0	210.7	0.89	0.82	1.22	28.0
Approach			533	6.7	533	6.7	0.645	14.8	LOS B	8.0	210.7	0.89	0.82	1.22	27.5
North: Pleasant View SB Approach															
7	L2	All MCs	59	6.0	59	6.0	0.387	9.7	LOS A	2.7	70.2	0.79	0.60	0.79	30.5
4	T1	All MCs	221	6.0	221	6.0	0.387	9.7	LOS A	2.7	70.2	0.79	0.60	0.79	34.1
14	R2	All MCs	7	6.0	7	6.0	0.387	9.7	LOS A	2.7	70.2	0.79	0.60	0.79	30.8
Approach			287	6.0	287	6.0	0.387	9.7	LOS A	2.7	70.2	0.79	0.60	0.79	33.2
West: Prairie EB Approach															
5	L2	All MCs	11	3.2	11	3.2	0.486	10.4	LOS B	3.9	99.5	0.77	0.61	0.85	30.4
2	T1	All MCs	322	3.2	322	3.2	0.486	10.4	LOS B	3.9	99.5	0.77	0.61	0.85	29.0
12	R2	All MCs	86	3.2	86	3.2	0.486	10.4	LOS B	3.9	99.5	0.77	0.61	0.85	31.6
Approach			419	3.2	419	3.2	0.486	10.4	LOS B	3.9	99.5	0.77	0.61	0.85	29.5
All Vehicles			1895	5.8	1895	5.8	0.749	14.3	LOS B	12.6	331.3	0.86	0.77	1.17	29.3

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Options tab).
Roundabout LOS Method: Same as Signalised Intersections.
Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.
LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).
Roundabout Capacity Model: SIDRA HCM.
Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

SIDRA INTERSECTION 9.1 | Copyright © 2000-2022 Akcelik and Associates Pty Ltd | sidrasolutions.com
Organisation: J.U.B ENGINEERS, INC. | Licence: PLUS / 1PC | Processed: Monday, April 7, 2025 2:59:01 PM
Project: \\jub.com\central\Clients\ID\PostFallsCity\Projects\07-23-040_TMP\Planning\Traffic\Sidra\2030\Pleasant View_Prairie.sip9

MOVEMENT SUMMARY

Site: 101 [Pleasant View_Prairie_Existing_PM (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.2.202

New Site
Site Category: (None)
Roundabout

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] ft	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed mph
South: Pleasant View NB Approach															
3	L2	All MCs	87	6.7	87	6.7	1.044	62.9	LOS F	42.2	1111.2	1.00	1.93	3.56	18.1
8	T1	All MCs	432	6.7	432	6.7	1.044	62.9	LOS F	42.2	1111.2	1.00	1.93	3.56	19.0
18	R2	All MCs	314	6.7	314	6.7	1.044	62.9	LOS F	42.2	1111.2	1.00	1.93	3.56	18.2
Approach			833	6.7	833	6.7	1.044	62.9	LOS E	42.2	1111.2	1.00	1.93	3.56	18.6
East: Prairie WB Approach															
1u	U	All MCs	2	6.7	2	6.7	0.967	47.5	LOS D	27.5	723.9	1.00	1.78	2.74	19.2
1	L2	All MCs	245	6.7	245	6.7	0.967	47.5	LOS D	27.5	723.9	1.00	1.78	2.74	20.2
6	T1	All MCs	338	6.7	338	6.7	0.967	47.5	LOS D	27.5	723.9	1.00	1.78	2.74	19.4
16	R2	All MCs	104	6.7	104	6.7	0.967	47.5	LOS D	27.5	723.9	1.00	1.78	2.74	20.1
Approach			689	6.7	689	6.7	0.967	47.5	LOS D	27.5	723.9	1.00	1.78	2.74	19.8
North: Pleasant View SB Approach															
7	L2	All MCs	77	6.0	77	6.0	0.637	18.9	LOS B	6.8	177.4	0.99	0.93	1.37	27.2
4	T1	All MCs	293	6.0	293	6.0	0.637	18.9	LOS B	6.8	177.4	0.99	0.93	1.37	30.0
14	R2	All MCs	9	6.0	9	6.0	0.637	18.9	LOS B	6.8	177.4	0.99	0.93	1.37	27.5
Approach			379	6.0	379	6.0	0.637	18.9	LOS B	6.8	177.4	0.99	0.93	1.37	29.3
West: Prairie EB Approach															
5	L2	All MCs	13	3.2	13	3.2	0.670	17.5	LOS B	8.0	205.9	0.95	0.97	1.41	27.8
2	T1	All MCs	373	3.2	373	3.2	0.670	17.5	LOS B	8.0	205.9	0.95	0.97	1.41	26.6
12	R2	All MCs	100	3.2	100	3.2	0.670	17.5	LOS B	8.0	205.9	0.95	0.97	1.41	28.8
Approach			485	3.2	485	3.2	0.670	17.5	LOS B	8.0	205.9	0.95	0.97	1.41	27.0
All Vehicles			2386	5.9	2386	5.9	1.044	42.2	LOS D	42.2	1111.2	0.99	1.53	2.54	21.6

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Options tab).
Roundabout LOS Method: Same as Signalised Intersections.
Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.
LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).
Roundabout Capacity Model: SIDRA HCM.
Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

SIDRA INTERSECTION 9.1 | Copyright © 2000-2022 Akcelik and Associates Pty Ltd | sidrasolutions.com
Organisation: J.U.B ENGINEERS, INC. | Licence: PLUS / 1PC | Processed: Tuesday, April 8, 2025 10:55:16 AM
Project: \\jub.com\central\Clients\ID\PostFallsCity\Projects\07-23-040_TMP\Planning\Traffic\Sidra\2035\Pleasant View_Prairie.sip9

MOVEMENT SUMMARY

Site: 101 [Pleasant View_Prairie_Existing_PM (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.2.202

New Site
Site Category: (None)
Roundabout

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] ft	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed mph
South: Pleasant View NB Approach															
3	L2	All MCs	117	6.7	117	6.7	1.649	310.2	LOS F	158.9	4185.9	1.00	4.22	10.26	6.1
8	T1	All MCs	644	6.7	644	6.7	1.649	310.2	LOS F	158.9	4185.9	1.00	4.22	10.26	6.2
18	R2	All MCs	422	6.7	422	6.7	1.649	310.2	LOS F	158.9	4185.9	1.00	4.22	10.26	6.1
Approach			1183	6.7	1183	6.7	1.649	310.2	LOS F	158.9	4185.9	1.00	4.22	10.26	6.1
East: Prairie WB Approach															
1u	U	All MCs	3	6.7	3	6.7	1.340	175.3	LOS F	97.3	2562.5	1.00	3.89	7.10	9.3
1	L2	All MCs	357	6.7	357	6.7	1.340	175.3	LOS F	97.3	2562.5	1.00	3.89	7.10	9.5
6	T1	All MCs	492	6.7	492	6.7	1.340	175.3	LOS F	97.3	2562.5	1.00	3.89	7.10	9.3
16	R2	All MCs	152	6.7	152	6.7	1.340	175.3	LOS F	97.3	2562.5	1.00	3.89	7.10	9.5
Approach			1003	6.7	1003	6.7	1.340	175.3	LOS F	97.3	2562.5	1.00	3.89	7.10	9.4
North: Pleasant View SB Approach															
7	L2	All MCs	112	6.0	112	6.0	1.004	63.0	LOS F	25.8	674.9	1.00	1.71	2.99	17.8
4	T1	All MCs	437	6.0	437	6.0	1.004	63.0	LOS F	25.8	674.9	1.00	1.71	2.99	19.0
14	R2	All MCs	14	6.0	14	6.0	1.004	63.0	LOS F	25.8	674.9	1.00	1.71	2.99	18.0
Approach			562	6.0	562	6.0	1.004	63.0	LOS E	25.8	674.9	1.00	1.71	2.99	18.8
West: Prairie EB Approach															
5	L2	All MCs	16	3.2	16	3.2	1.128	100.7	LOS F	39.5	1014.0	1.00	2.41	4.35	13.8
2	T1	All MCs	473	3.2	473	3.2	1.128	100.7	LOS F	39.5	1014.0	1.00	2.41	4.35	13.5
12	R2	All MCs	126	3.2	126	3.2	1.128	100.7	LOS F	39.5	1014.0	1.00	2.41	4.35	14.0
Approach			615	3.2	615	3.2	1.128	100.7	LOS F	39.5	1014.0	1.00	2.41	4.35	13.6
All Vehicles			3363	5.9	3363	5.9	1.649	190.3	LOS F	158.9	4185.9	1.00	3.37	7.02	9.0

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Options tab).
Roundabout LOS Method: Same as Signalised Intersections.
Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.
LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).
Roundabout Capacity Model: SIDRA HCM.
Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

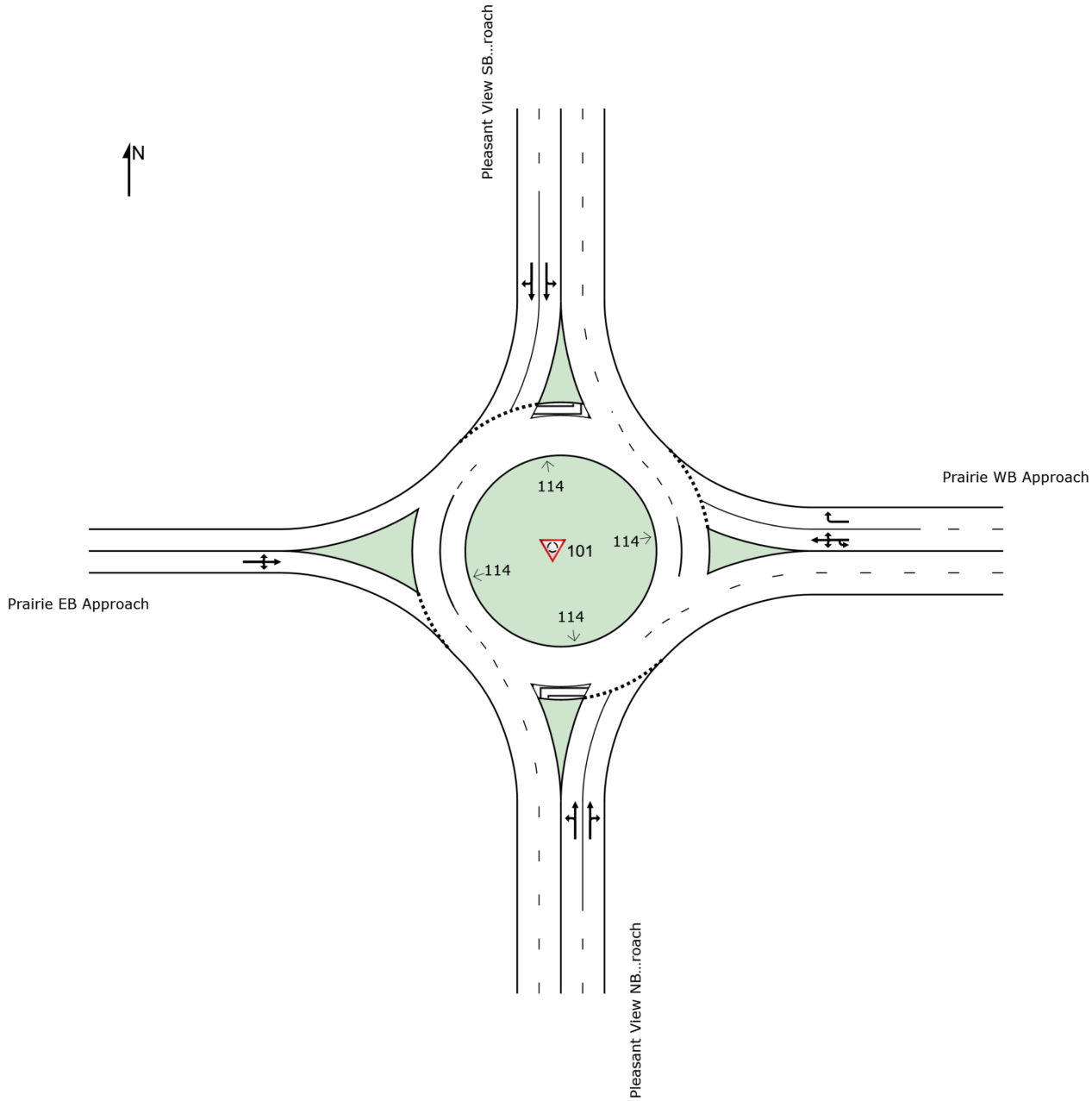
SIDRA INTERSECTION 9.1 | Copyright © 2000-2022 Akcelik and Associates Pty Ltd | sidrasolutions.com
Organisation: J.U.B ENGINEERS, INC. | Licence: PLUS / 1PC | Processed: Tuesday, April 8, 2025 11:54:38 AM
Project: \\jub.com\central\Clients\ID\PostFallsCity\Projects\07-23-040_TMP\Planning\Traffic\Sidra\2045\Pleasant View_Prairie.sip9

SITE LAYOUT

Site: 101 [Pleasant View_Prairie_2045_PM (Site Folder: General)]

New Site
Site Category: (None)
Roundabout

Layout pictures are schematic functional drawings reflecting input data. They are not design drawings.



MOVEMENT SUMMARY

Site: 101 [Pleasant View_Prairie_2045_PM (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

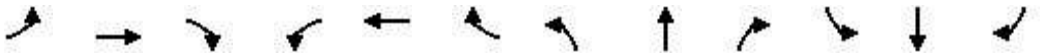
New Site
Site Category: (None)
Roundabout

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] ft	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed mph
South: Pleasant View NB Approach															
3	L2	All MCs	117	6.7	117	6.7	0.698	22.1	LOS C	7.9	209.1	1.00	1.01	1.55	26.6
8	T1	All MCs	411	6.7	411	6.7	0.698	20.8	LOS C	9.1	239.1	1.00	1.00	1.53	29.0
18	R2	All MCs	422	6.7	422	6.7	0.698	17.7	LOS B	9.1	239.1	1.00	0.98	1.49	28.6
Approach			949	6.7	949	6.7	0.698	19.6	LOS B	9.1	239.1	1.00	0.99	1.52	28.5
East: Prairie WB Approach															
1u	U	All MCs	3	6.7	3	6.7	0.867	34.0	LOS C	13.4	353.4	0.99	1.39	2.22	21.3
1	L2	All MCs	357	6.7	357	6.7	0.867	34.0	LOS C	13.4	353.4	0.99	1.39	2.22	22.6
6	T1	All MCs	51	6.7	51	6.7	0.867	34.0	LOS C	13.4	353.4	0.99	1.39	2.22	21.6
16	R2	All MCs	828	6.7	828	6.7	0.867	31.0	LOS C	14.8	388.7	1.00	1.39	2.20	23.5
Approach			1239	6.7	1239	6.7	0.867	32.0	LOS C	14.8	388.7	1.00	1.39	2.21	23.1
North: Pleasant View SB Approach															
7	L2	All MCs	444	6.0	444	6.0	0.588	14.0	LOS B	6.1	159.3	0.89	0.79	1.17	27.3
4	T1	All MCs	444	6.0	444	6.0	0.579	11.6	LOS B	6.3	164.2	0.89	0.74	1.09	33.6
14	R2	All MCs	105	6.0	105	6.0	0.579	11.6	LOS B	6.3	164.2	0.89	0.74	1.09	30.4
Approach			994	6.0	994	6.0	0.588	12.7	LOS B	6.3	164.2	0.89	0.76	1.12	30.1
West: Prairie EB Approach															
5	L2	All MCs	206	3.2	206	3.2	0.698	26.6	LOS C	5.3	137.0	0.90	1.08	1.48	24.2
2	T1	All MCs	114	3.2	114	3.2	0.698	26.6	LOS C	5.3	137.0	0.90	1.08	1.48	23.3
12	R2	All MCs	7	3.2	7	3.2	0.698	26.6	LOS C	5.3	137.0	0.90	1.08	1.48	24.9
Approach			327	3.2	327	3.2	0.698	26.6	LOS C	5.3	137.0	0.90	1.08	1.48	23.9
All Vehicles			3509	6.2	3509	6.2	0.867	22.7	LOS C	14.8	388.7	0.96	1.08	1.65	26.3

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Options tab).
Roundabout LOS Method: Same as Signalised Intersections.
Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.
LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).
Roundabout Capacity Model: SIDRA HCM.
Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

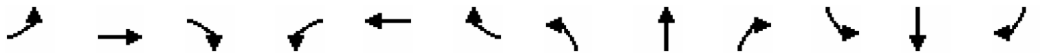
SIDRA INTERSECTION 9.1 | Copyright © 2000-2024 Akcelik and Associates Pty Ltd | sidrasolutions.com
Organisation: J.U.B ENGINEERS, INC. | Licence: PLUS / 1PC | Processed: Tuesday, August 5, 2025 3:16:09 PM
Project: \\jub.com\Central\Clients\ID\PostFallsCity\Projects\07-23-040_TMP\Planning\Traffic\Sidra\2045Build\Pleasant View_Prairie_8-5-25.sip9



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	276	2	98	0	0	0	0	129	251	196	206	0
Future Volume (veh/h)	276	2	98	0	0	0	0	129	251	196	206	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	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
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1722	1722	1722				0	1870	1870	1796	1796	0
Adj Flow Rate, veh/h	288	2	102				0	134	261	204	215	0
Peak Hour Factor	0.96	0.96	0.96				0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	12	12	12				0	2	2	7	7	0
Cap, veh/h	400	3	358				0	373	333	310	332	0
Arrive On Green	0.25	0.25	0.25				0.00	0.21	0.21	0.19	0.19	0.00
Sat Flow, veh/h	1629	11	1459				0	1870	1585	1653	1857	0
Grp Volume(v), veh/h	290	0	102				0	134	261	212	207	0
Grp Sat Flow(s),veh/h/ln	1641	0	1459				0	1777	1585	1714	1706	0
Q Serve(g_s), s	6.8	0.0	2.4				0.0	2.7	6.5	4.8	4.7	0.0
Cycle Q Clear(g_c), s	6.8	0.0	2.4				0.0	2.7	6.5	4.8	4.7	0.0
Prop In Lane	0.99		1.00				0.00		1.00	0.96		0.00
Lane Grp Cap(c), veh/h	403	0	358				0	373	333	322	320	0
V/C Ratio(X)	0.72	0.00	0.28				0.00	0.36	0.78	0.66	0.65	0.00
Avail Cap(c_a), veh/h	898	0	798				0	423	377	489	487	0
HCM Platoon Ratio	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				0.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	14.5	0.0	12.9				0.0	14.2	15.7	15.8	15.8	0.0
Incr Delay (d2), s/veh	2.4	0.0	0.4				0.0	0.6	9.2	2.3	2.2	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
%ile BackOfQ(50%),veh/ln	2.1	0.0	0.6				0.0	1.0	2.9	1.7	1.7	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	17.0	0.0	13.3				0.0	14.8	24.9	18.1	18.0	0.0
LnGrp LOS	B		B					B	C	B	B	
Approach Vol, veh/h		392						395			419	
Approach Delay, s/veh		16.0						21.5			18.1	
Approach LOS		B						C			B	

Timer - Assigned Phs		2				6		8				
Phs Duration (G+Y+Rc), s		12.9				13.8		15.3				
Change Period (Y+Rc), s		5.0				5.0		5.0				
Max Green Setting (Gmax), s		12.0				10.0		23.0				
Max Q Clear Time (g_c+I1), s		6.8				8.5		8.8				
Green Ext Time (p_c), s		1.1				0.4		1.6				

Intersection Summary												
HCM 7th Control Delay, s/veh			18.5									
HCM 7th LOS			B									



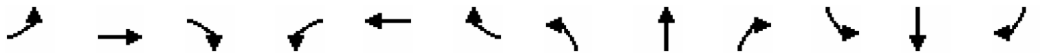
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	281	139	9	23	55	70	12	220	90	132	63	182
Future Volume (veh/h)	281	139	9	23	55	70	12	220	90	132	63	182
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
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	1885	1885	1885	1870	1870	1870	1870	1870	1870	1856	1856	1856
Adj Flow Rate, veh/h	226	256	10	25	59	75	13	237	97	142	68	196
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	1	1	1	2	2	2	2	2	2	3	3	3
Cap, veh/h	280	294	249	38	90	104	29	522	208	496	238	643
Arrive On Green	0.16	0.16	0.16	0.07	0.07	0.07	0.21	0.21	0.21	0.41	0.41	0.41
Sat Flow, veh/h	1795	1885	1598	566	1330	1539	136	2447	975	1214	581	1572
Grp Volume(v), veh/h	226	256	10	81	0	78	178	0	169	210	0	196
Grp Sat Flow(s),veh/h/ln	1795	1885	1598	1842	0	1593	1864	0	1695	1795	0	1572
Q Serve(g_s), s	16.5	18.0	0.7	5.9	0.0	6.5	11.3	0.0	11.8	10.7	0.0	11.4
Cycle Q Clear(g_c), s	16.5	18.0	0.7	5.9	0.0	6.5	11.3	0.0	11.8	10.7	0.0	11.4
Prop In Lane	1.00		1.00	0.31		0.97	0.07		0.58	0.68		1.00
Lane Grp Cap(c), veh/h	280	294	249	125	0	108	397	0	361	734	0	643
V/C Ratio(X)	0.81	0.87	0.04	0.65	0.00	0.72	0.45	0.00	0.47	0.29	0.00	0.30
Avail Cap(c_a), veh/h	343	360	305	379	0	328	397	0	361	734	0	643
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	0.00	1.00	1.00	0.00	1.00	0.94	0.00	0.94
Uniform Delay (d), s/veh	55.4	56.1	48.8	61.8	0.0	62.1	46.5	0.0	46.7	26.9	0.0	27.2
Incr Delay (d2), s/veh	11.2	17.5	0.1	5.6	0.0	8.6	3.6	0.0	4.3	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	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.3	10.0	0.3	2.9	0.0	2.9	5.7	0.0	5.5	4.6	0.0	4.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	66.6	73.6	48.8	67.4	0.0	70.7	50.2	0.0	51.0	27.1	0.0	27.4
LnGrp LOS	E	E	D	E		E	D		D	C		C
Approach Vol, veh/h		492			159			347			406	
Approach Delay, s/veh		69.9			69.0			50.6			27.3	
Approach LOS		E			E			D			C	

Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		61.6		26.2		34.0		14.2				
Change Period (Y+Rc), s		6.0		5.0		5.0		5.0				
Max Green Setting (Gmax), s		32.0		26.0		29.0		28.0				
Max Q Clear Time (g_c+I1), s		13.4		20.0		13.8		8.5				
Green Ext Time (p_c), s		1.7		1.1		1.9		0.8				

Intersection Summary												
HCM 7th Control Delay, s/veh			52.7									
HCM 7th LOS			D									

Notes

User approved volume balancing among the lanes for turning movement.

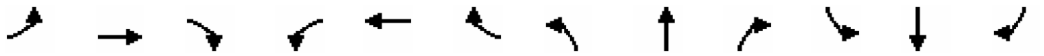


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	353	174	12	25	61	78	16	276	114	152	73	210
Future Volume (veh/h)	353	174	12	25	61	78	16	276	114	152	73	210
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
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	1885	1885	1885	1870	1870	1870	1870	1870	1870	1856	1856	1856
Adj Flow Rate, veh/h	284	322	13	27	66	84	17	297	123	163	78	226
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	1	1	1	2	2	2	2	2	2	3	3	3
Cap, veh/h	336	353	299	41	99	115	29	500	203	460	220	595
Arrive On Green	0.19	0.19	0.19	0.07	0.07	0.07	0.21	0.21	0.21	0.38	0.38	0.38
Sat Flow, veh/h	1795	1885	1598	548	1336	1550	140	2430	986	1214	581	1572
Grp Volume(v), veh/h	284	322	13	91	0	86	226	0	211	241	0	226
Grp Sat Flow(s),veh/h/ln	1795	1885	1598	1843	0	1591	1863	0	1693	1795	0	1572
Q Serve(g_s), s	20.8	22.8	0.9	6.5	0.0	7.2	14.9	0.0	15.4	13.1	0.0	14.2
Cycle Q Clear(g_c), s	20.8	22.8	0.9	6.5	0.0	7.2	14.9	0.0	15.4	13.1	0.0	14.2
Prop In Lane	1.00		1.00	0.30		0.97	0.08		0.58	0.68		1.00
Lane Grp Cap(c), veh/h	336	353	299	136	0	118	384	0	349	680	0	595
V/C Ratio(X)	0.85	0.91	0.04	0.67	0.00	0.73	0.59	0.00	0.61	0.35	0.00	0.38
Avail Cap(c_a), veh/h	356	374	317	379	0	328	384	0	349	680	0	595
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	0.00	1.00	1.00	0.00	1.00	0.91	0.00	0.91
Uniform Delay (d), s/veh	53.4	54.2	45.3	61.3	0.0	61.7	48.8	0.0	49.0	30.3	0.0	30.7
Incr Delay (d2), s/veh	16.2	25.3	0.1	5.5	0.0	8.5	6.5	0.0	7.6	0.3	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	10.8	13.2	0.4	3.3	0.0	3.2	7.7	0.0	7.3	5.7	0.0	5.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	69.5	79.5	45.4	66.8	0.0	70.1	55.3	0.0	56.6	30.6	0.0	31.0
LnGrp LOS	E	E	D	E		E	E		E	C		C
Approach Vol, veh/h		619			177			437			467	
Approach Delay, s/veh		74.2			68.4			55.9			30.8	
Approach LOS		E			E			E			C	

Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		57.5		30.5		33.0		15.1				
Change Period (Y+Rc), s		6.0		5.0		5.0		5.0				
Max Green Setting (Gmax), s		32.0		27.0		28.0		28.0				
Max Q Clear Time (g_c+I1), s		16.2		24.8		17.4		9.2				
Green Ext Time (p_c), s		1.9		0.7		2.0		0.9				

Intersection Summary												
HCM 7th Control Delay, s/veh			57.0									
HCM 7th LOS			E									

Notes
User approved volume balancing among the lanes for turning movement.



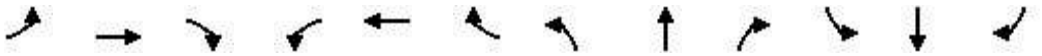
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	497	246	17	30	73	93	22	389	160	194	92	267
Future Volume (veh/h)	497	246	17	30	73	93	22	389	160	194	92	267
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
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	1885	1885	1885	1870	1870	1870	1870	1870	1870	1856	1856	1856
Adj Flow Rate, veh/h	400	453	18	32	78	100	24	418	172	209	99	287
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	1	1	1	2	2	2	2	2	2	3	3	3
Cap, veh/h	436	458	388	46	111	130	27	472	192	406	192	524
Arrive On Green	0.24	0.24	0.24	0.08	0.08	0.08	0.19	0.19	0.19	0.33	0.33	0.33
Sat Flow, veh/h	1795	1885	1598	545	1327	1561	140	2426	990	1218	577	1572
Grp Volume(v), veh/h	400	453	18	108	0	102	320	0	294	308	0	287
Grp Sat Flow(s),veh/h/ln	1795	1885	1598	1843	0	1589	1863	0	1692	1795	0	1572
Q Serve(g_s), s	31.2	34.5	1.2	8.2	0.0	9.0	24.0	0.0	24.4	19.9	0.0	21.4
Cycle Q Clear(g_c), s	31.2	34.5	1.2	8.2	0.0	9.0	24.0	0.0	24.4	19.9	0.0	21.4
Prop In Lane	1.00		1.00	0.30		0.98	0.08		0.58	0.68		1.00
Lane Grp Cap(c), veh/h	436	458	388	154	0	133	362	0	329	598	0	524
V/C Ratio(X)	0.92	0.99	0.05	0.70	0.00	0.77	0.88	0.00	0.89	0.52	0.00	0.55
Avail Cap(c_a), veh/h	436	458	388	358	0	309	362	0	329	598	0	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	0.00	1.00	1.00	0.00	1.00	0.81	0.00	0.81
Uniform Delay (d), s/veh	53.1	54.3	41.7	64.2	0.0	64.6	56.4	0.0	56.6	38.7	0.0	39.2
Incr Delay (d2), s/veh	24.0	39.0	0.0	5.7	0.0	8.9	25.3	0.0	28.8	0.6	0.0	1.0
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	16.9	21.2	0.5	4.1	0.0	4.0	14.0	0.0	13.1	8.9	0.0	8.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	77.1	93.3	41.8	69.9	0.0	73.5	81.7	0.0	85.3	39.3	0.0	40.2
LnGrp LOS	E	F	D	E		E	F		F	D		D
Approach Vol, veh/h		871			210			614			595	
Approach Delay, s/veh		84.8			71.7			83.4			39.7	
Approach LOS		F			E			F			D	

Timer - Assigned Phs	2	4	6	8
Phs Duration (G+Y+Rc), s	54.0	40.0	33.0	17.0
Change Period (Y+Rc), s	6.0	5.0	5.0	5.0
Max Green Setting (Gmax), s	32.0	35.0	28.0	28.0
Max Q Clear Time (g_c+I1), s	23.4	36.5	26.4	11.0
Green Ext Time (p_c), s	1.9	0.0	0.7	1.0

Intersection Summary	
HCM 7th Control Delay, s/veh	71.5
HCM 7th LOS	E

Notes

User approved volume balancing among the lanes for turning movement.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	497	246	17	30	73	93	22	389	160	194	92	267
Future Volume (veh/h)	497	246	17	30	73	93	22	389	160	194	92	267
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
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	1885	1885	1885	1870	1870	1870	1870	1870	1870	1856	1856	1856
Adj Flow Rate, veh/h	400	453	18	32	78	100	24	418	172	209	99	287
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	1	1	1	2	2	2	2	2	2	3	3	3
Cap, veh/h	466	489	414	51	123	145	30	523	213	266	126	344
Arrive On Green	0.26	0.26	0.26	0.09	0.09	0.09	0.22	0.22	0.22	0.22	0.22	0.22
Sat Flow, veh/h	1795	1885	1598	545	1327	1561	140	2426	990	1218	577	1572
Grp Volume(v), veh/h	400	453	18	108	0	102	320	0	294	308	0	287
Grp Sat Flow(s),veh/h/ln	1795	1885	1598	1843	0	1589	1863	0	1692	1795	0	1572
Q Serve(g_s), s	20.9	23.0	0.8	5.6	0.0	6.1	16.0	0.0	16.2	15.9	0.0	17.1
Cycle Q Clear(g_c), s	20.9	23.0	0.8	5.6	0.0	6.1	16.0	0.0	16.2	15.9	0.0	17.1
Prop In Lane	1.00		1.00	0.30		0.98	0.08		0.58	0.68		1.00
Lane Grp Cap(c), veh/h	466	489	414	171	0	148	402	0	365	392	0	344
V/C Ratio(X)	0.86	0.93	0.04	0.63	0.00	0.69	0.80	0.00	0.81	0.78	0.00	0.83
Avail Cap(c_a), veh/h	475	499	423	512	0	441	544	0	494	584	0	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	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	34.7	35.5	27.3	43.0	0.0	43.2	36.5	0.0	36.6	36.2	0.0	36.7
Incr Delay (d2), s/veh	14.5	23.3	0.0	3.8	0.0	5.6	5.8	0.0	7.0	4.2	0.0	7.5
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	10.7	13.4	0.3	2.7	0.0	2.6	7.9	0.0	7.4	7.2	0.0	7.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	49.1	58.8	27.3	46.8	0.0	48.8	42.4	0.0	43.6	40.4	0.0	44.2
LnGrp LOS	D	E	C	D		D	D		D	D		D
Approach Vol, veh/h		871			210			614			595	
Approach Delay, s/veh		53.7			47.8			42.9			42.2	
Approach LOS		D			D			D			D	

Timer - Assigned Phs	2	4	6	8
Phs Duration (G+Y+Rc), s	27.5	30.5	26.2	14.1
Change Period (Y+Rc), s	6.0	5.0	5.0	5.0
Max Green Setting (Gmax), s	32.0	26.0	28.7	27.3
Max Q Clear Time (g_c+I1), s	19.1	25.0	18.2	8.1
Green Ext Time (p_c), s	2.3	0.5	3.0	1.1

Intersection Summary	
HCM 7th Control Delay, s/veh	47.3
HCM 7th LOS	D

Notes

User approved volume balancing among the lanes for turning movement.

Intersection	
Int Delay, s/veh	2.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations												
Traffic Vol, veh/h	0	7	130	0	0	0	235	547	30	4	630	83
Future Vol, veh/h	0	7	130	0	0	0	235	547	30	4	630	83
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Free	Free	Free	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	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	0	0	0	1	1	1	1	1	1
Mvmt Flow	0	7	137	0	0	0	247	576	32	4	663	87

Major/Minor	Minor1			Major1			Major2		
Conflicting Flow All	1426	1845	304	751	0	0	607	0	0
Stage 1	1086	1086	-	-	-	-	-	-	-
Stage 2	340	759	-	-	-	-	-	-	-
Critical Hdwy	6.84	6.54	6.94	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	5.84	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.84	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	2.21	-	-	2.21	-	-
Pot Cap-1 Maneuver	126	74	692	861	-	-	974	-	-
Stage 1	285	291	-	-	-	-	-	-	-
Stage 2	692	413	-	-	-	-	-	-	-
Platoon blocked, %					-	-		-	-
Mov Cap-1 Maneuver	82	0	692	861	-	-	974	-	-
Mov Cap-2 Maneuver	82	0	-	-	-	-	-	-	-
Stage 1	186	0	-	-	-	-	-	-	-
Stage 2	689	0	-	-	-	-	-	-	-

Approach	EB	SE	NW
HCM Ctrl Dly, s/v		4.5	0.09
HCM LOS	-		

Minor Lane/Major Mvmt	NWL	NWT	NWR	EBLn1	EBLn2	SEL	SET	SER
Capacity (veh/h)	17	-	-	-	-	714	-	-
HCM Lane V/C Ratio	0.004	-	-	-	-	0.287	-	-
HCM Ctrl Dly (s/v)	8.7	0	-	0	-	10.9	2	-
HCM Lane LOS	A	A	-	A	-	B	A	-
HCM 95th %tile Q(veh)	0	-	-	-	-	1.2	-	-

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	37	172	5	32	248	11	5	29	24	13	44	52
Future Vol, veh/h	37	172	5	32	248	11	5	29	24	13	44	52
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	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	86	86	86	86	86	86	86	86	86	86	86	86
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	4	4	4
Mvmt Flow	43	200	6	37	288	13	6	34	28	15	51	60

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	301	0	0	206	0	0	677	665	203	672	661	295
Stage 1	-	-	-	-	-	-	289	289	-	369	369	-
Stage 2	-	-	-	-	-	-	388	376	-	303	292	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.14	6.54	6.24
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.14	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.14	5.54	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.536	4.036	3.336
Pot Cap-1 Maneuver	1271	-	-	1378	-	-	369	383	843	367	380	740
Stage 1	-	-	-	-	-	-	723	677	-	647	617	-
Stage 2	-	-	-	-	-	-	640	620	-	702	667	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1271	-	-	1378	-	-	273	357	843	301	354	740
Mov Cap-2 Maneuver	-	-	-	-	-	-	273	357	-	301	354	-
Stage 1	-	-	-	-	-	-	695	651	-	626	597	-
Stage 2	-	-	-	-	-	-	519	600	-	619	642	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	1.37	0.85	14.34	15.84
HCM LOS			B	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	453	309	-	-	196	-	-	458
HCM Lane V/C Ratio	0.149	0.034	-	-	0.027	-	-	0.277
HCM Ctrl Dly (s/v)	14.3	7.9	0	-	7.7	0	-	15.8
HCM Lane LOS	B	A	A	-	A	A	-	C
HCM 95th %tile Q(veh)	0.5	0.1	-	-	0.1	-	-	1.1

Intersection	
Int Delay, s/veh	6.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		⇕			⇕			⇕			⇕	
Traffic Vol, veh/h	47	216	6	40	309	13	7	37	31	17	56	67
Future Vol, veh/h	47	216	6	40	309	13	7	37	31	17	56	67
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	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	86	86	86	86	86	86	86	86	86	86	86	86
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	4	4	4
Mvmt Flow	55	251	7	47	359	15	8	43	36	20	65	78

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	374	0	0	258	0	0	849	831	255	842	827	367
Stage 1	-	-	-	-	-	-	364	364	-	460	460	-
Stage 2	-	-	-	-	-	-	485	467	-	382	367	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.14	6.54	6.24
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.14	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.14	5.54	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.536	4.036	3.336
Pot Cap-1 Maneuver	1195	-	-	1318	-	-	283	307	789	282	304	674
Stage 1	-	-	-	-	-	-	659	628	-	577	563	-
Stage 2	-	-	-	-	-	-	567	565	-	636	618	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1195	-	-	1318	-	-	177	278	789	209	275	674
Mov Cap-2 Maneuver	-	-	-	-	-	-	177	278	-	209	275	-
Stage 1	-	-	-	-	-	-	624	594	-	552	537	-
Stage 2	-	-	-	-	-	-	421	540	-	533	585	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	1.43	0.87	18.47	22.62
HCM LOS			C	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	354	313	-	-	197	-	-	364
HCM Lane V/C Ratio	0.247	0.046	-	-	0.035	-	-	0.447
HCM Ctrl Dly (s/v)	18.5	8.2	0	-	7.8	0	-	22.6
HCM Lane LOS	C	A	A	-	A	A	-	C
HCM 95th %tile Q(veh)	1	0.1	-	-	0.1	-	-	2.2

Intersection	
Int Delay, s/veh	29.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		⇕			⇕			⇕			⇕	
Traffic Vol, veh/h	66	304	8	55	430	18	10	54	45	24	81	95
Future Vol, veh/h	66	304	8	55	430	18	10	54	45	24	81	95
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	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	86	86	86	86	86	86	86	86	86	86	86	86
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	4	4	4
Mvmt Flow	77	353	9	64	500	21	12	63	52	28	94	110

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	521	0	0	363	0	0	1187	1160	358	1177	1155	510
Stage 1	-	-	-	-	-	-	512	512	-	638	638	-
Stage 2	-	-	-	-	-	-	675	649	-	538	516	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.14	6.54	6.24
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.14	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.14	5.54	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.536	4.036	3.336
Pot Cap-1 Maneuver	1056	-	-	1207	-	-	167	197	691	166	195	559
Stage 1	-	-	-	-	-	-	549	540	-	461	468	-
Stage 2	-	-	-	-	-	-	447	469	-	523	531	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1056	-	-	1207	-	-	53	166	691	85	164	559
Mov Cap-2 Maneuver	-	-	-	-	-	-	53	166	-	85	164	-
Stage 1	-	-	-	-	-	-	499	491	-	427	433	-
Stage 2	-	-	-	-	-	-	260	434	-	383	482	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	1.52	0.89	56.71	138.22
HCM LOS			F	F

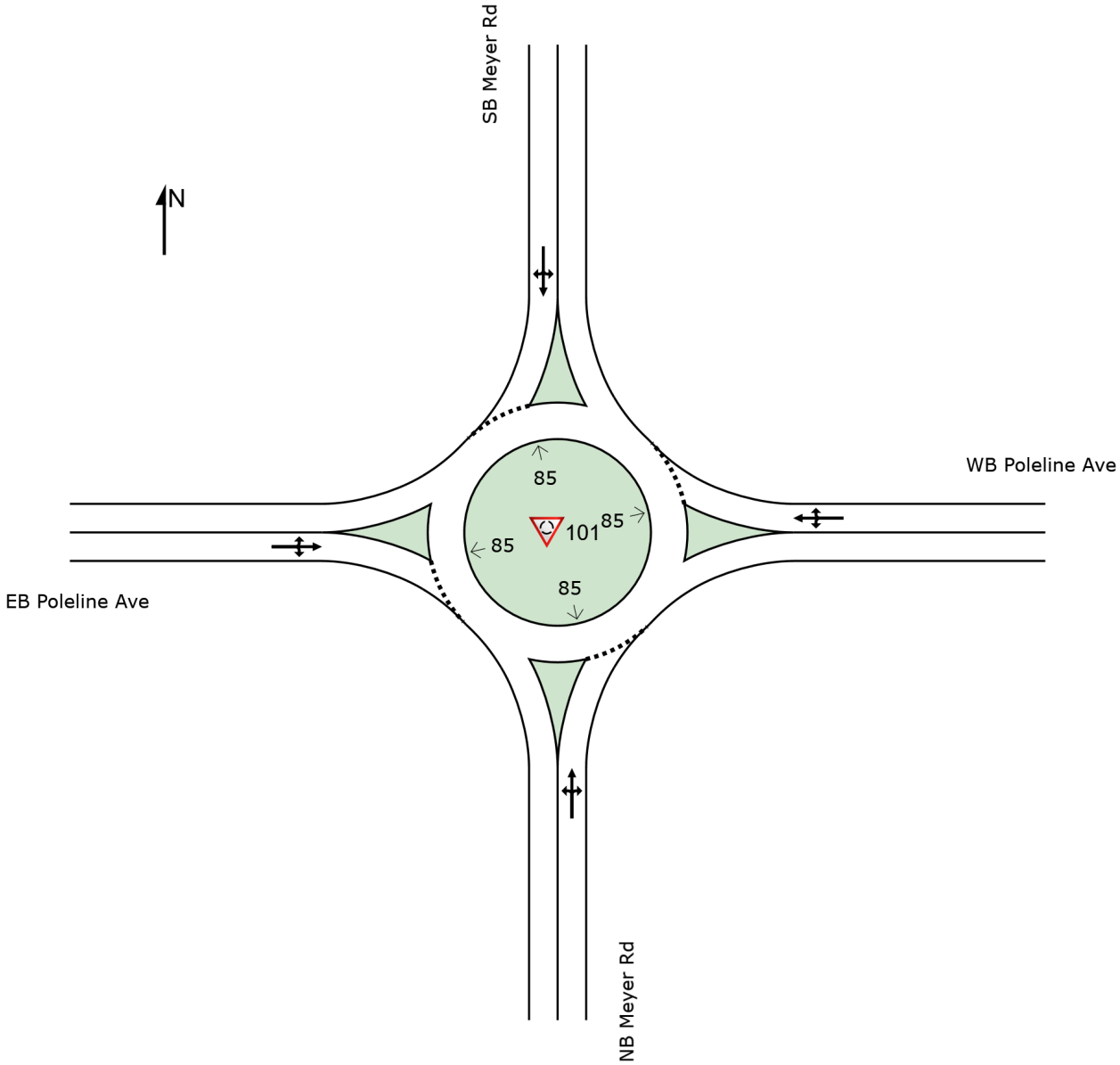
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	188	313	-	-	195	-	-	212
HCM Lane V/C Ratio	0.675	0.073	-	-	0.053	-	-	1.098
HCM Ctrl Dly (s/v)	56.7	8.7	0	-	8.1	0	-	138.2
HCM Lane LOS	F	A	A	-	A	A	-	F
HCM 95th %tile Q(veh)	4.1	0.2	-	-	0.2	-	-	10.7

SITE LAYOUT

Site: 101 [Meyer_Poleline_2045_PM (Site Folder: General)]

New Site
Site Category: (None)
Roundabout

Layout pictures are schematic functional drawings reflecting input data. They are not design drawings.



SIDRA INTERSECTION 9.1 | Copyright © 2000-2024 Akcelik and Associates Pty Ltd | sidrasolutions.com
Organisation: J.U.B ENGINEERS, INC. | Licence: PLUS / 1PC | Created: Thursday, July 3, 2025 11:19:53 AM
Project: \\jub.com\Central\Clients\ID\PostFallsCity\Projects\07-23-040_TMP\Planning\Traffic\Sidra\2045Build\Meyer_Poleline.sip9

MOVEMENT SUMMARY

Site: 101 [Meyer_Poleline_2045_PM (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

New Site
Site Category: (None)
Roundabout

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] ft	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed mph
South: NB Meyer Rd															
3	L2	All MCs	11	3.0	11	3.0	0.140	5.6	LOS A	0.8	20.0	0.59	0.42	0.59	19.9
8	T1	All MCs	59	3.0	59	3.0	0.140	5.6	LOS A	0.8	20.0	0.59	0.42	0.59	19.4
18	R2	All MCs	49	3.0	49	3.0	0.140	5.6	LOS A	0.8	20.0	0.59	0.42	0.59	19.9
Approach			118	3.0	118	3.0	0.140	5.6	LOS A	0.8	20.0	0.59	0.42	0.59	19.7
East: WB Poleline Ave															
1	L2	All MCs	60	3.0	60	3.0	0.489	8.5	LOS A	3.8	96.6	0.49	0.26	0.49	18.9
6	T1	All MCs	467	3.0	467	3.0	0.489	8.5	LOS A	3.8	96.6	0.49	0.26	0.49	19.4
16	R2	All MCs	20	3.0	20	3.0	0.489	8.5	LOS A	3.8	96.6	0.49	0.26	0.49	18.9
Approach			547	3.0	547	3.0	0.489	8.5	LOS A	3.8	96.6	0.49	0.26	0.49	19.3
North: SB Meyer Rd															
7	L2	All MCs	26	3.0	26	3.0	0.286	8.0	LOS A	1.8	45.5	0.71	0.54	0.71	19.5
4	T1	All MCs	88	3.0	88	3.0	0.286	8.0	LOS A	1.8	45.5	0.71	0.54	0.71	19.0
14	R2	All MCs	103	3.0	103	3.0	0.286	8.0	LOS A	1.8	45.5	0.71	0.54	0.71	19.5
Approach			217	3.0	217	3.0	0.286	8.0	LOS A	1.8	45.5	0.71	0.54	0.71	19.3
West: EB Poleline Ave															
5	L2	All MCs	72	3.0	72	3.0	0.382	7.2	LOS A	2.7	67.8	0.49	0.28	0.49	19.1
2	T1	All MCs	330	3.0	330	3.0	0.382	7.2	LOS A	2.7	67.8	0.49	0.28	0.49	19.6
12	R2	All MCs	9	3.0	9	3.0	0.382	7.2	LOS A	2.7	67.8	0.49	0.28	0.49	19.1
Approach			411	3.0	411	3.0	0.382	7.2	LOS A	2.7	67.8	0.49	0.28	0.49	19.5
All Vehicles			1293	3.0	1293	3.0	0.489	7.7	LOS A	3.8	96.6	0.53	0.33	0.53	19.4

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Options tab).
Roundabout LOS Method: Same as Signalised Intersections.
Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.
LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).
Roundabout Capacity Model: SIDRA HCM.
Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

SIDRA INTERSECTION 9.1 | Copyright © 2000-2024 Akcelik and Associates Pty Ltd | sidrasolutions.com
Organisation: J.U.B ENGINEERS, INC. | Licence: PLUS / 1PC | Processed: Wednesday, July 2, 2025 7:24:32 PM
Project: \\jub.com\Central\Clients\ID\PostFallsCity\Projects\07-23-040_TMP\Planning\Traffic\Sidra\2045Build\Meyer_Poleline.sip9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		✣			✣			✣			✣	
Traffic Volume (veh/h)	66	304	8	55	430	18	10	54	45	24	81	95
Future Volume (veh/h)	66	304	8	55	430	18	10	54	45	24	81	95
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
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	1900	1900	1900	1900	1900	1900	1900	1900	1900	1841	1841	1841
Adj Flow Rate, veh/h	77	353	9	64	500	21	12	63	52	28	94	110
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	4	4	4
Cap, veh/h	209	663	16	168	693	28	134	203	152	145	160	166
Arrive On Green	0.43	0.43	0.43	0.43	0.43	0.43	0.21	0.21	0.21	0.21	0.21	0.21
Sat Flow, veh/h	192	1545	36	114	1616	64	77	953	714	115	751	781
Grp Volume(v), veh/h	439	0	0	585	0	0	127	0	0	232	0	0
Grp Sat Flow(s),veh/h/ln	1773	0	0	1794	0	0	1743	0	0	1647	0	0
Q Serve(g_s), s	0.0	0.0	0.0	3.2	0.0	0.0	0.0	0.0	0.0	1.3	0.0	0.0
Cycle Q Clear(g_c), s	5.8	0.0	0.0	9.0	0.0	0.0	2.0	0.0	0.0	4.3	0.0	0.0
Prop In Lane	0.18		0.02	0.11		0.04	0.09		0.41	0.12		0.47
Lane Grp Cap(c), veh/h	887	0	0	889	0	0	489	0	0	471	0	0
V/C Ratio(X)	0.49	0.00	0.00	0.66	0.00	0.00	0.26	0.00	0.00	0.49	0.00	0.00
Avail Cap(c_a), veh/h	1484	0	0	1542	0	0	935	0	0	898	0	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)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	7.1	0.0	0.0	7.9	0.0	0.0	11.2	0.0	0.0	12.0	0.0	0.0
Incr Delay (d2), s/veh	0.4	0.0	0.0	0.8	0.0	0.0	0.3	0.0	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	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.2	0.0	0.0	1.9	0.0	0.0	0.6	0.0	0.0	1.2	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	7.5	0.0	0.0	8.8	0.0	0.0	11.5	0.0	0.0	12.8	0.0	0.0
LnGrp LOS	A			A			B			B		
Approach Vol, veh/h		439			585			127			232	
Approach Delay, s/veh		7.5			8.8			11.5			12.8	
Approach LOS		A			A			B			B	

Timer - Assigned Phs	2	4	6	8
Phs Duration (G+Y+Rc), s	13.1	20.4	13.1	20.4
Change Period (Y+Rc), s	6.0	6.0	6.0	6.0
Max Green Setting (Gmax), s	16.0	27.0	16.0	27.0
Max Q Clear Time (g_c+I1), s	4.0	7.8	6.3	11.0
Green Ext Time (p_c), s	0.4	2.7	0.9	3.4

Intersection Summary	
HCM 7th Control Delay, s/veh	9.3
HCM 7th LOS	A

MOVEMENT SUMMARY

Site: 101 [Chase_Prairie_Existing_PM (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.3.210

New Site
Site Category: (None)
Roundabout

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] ft	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed mph
South: Chase NB Approach															
3	L2	All MCs	41	2.6	41	2.6	0.215	5.9	LOS A	1.3	32.3	0.57	0.38	0.57	32.2
8	T1	All MCs	81	2.6	81	2.6	0.215	5.9	LOS A	1.3	32.3	0.57	0.38	0.57	32.9
18	R2	All MCs	80	2.6	80	2.6	0.215	5.9	LOS A	1.3	32.3	0.57	0.38	0.57	32.6
Approach			202	2.6	202	2.6	0.215	5.9	LOS A	1.3	32.3	0.57	0.38	0.57	32.7
East: Prairie WB Approach															
1u	U	All MCs	3	4.5	3	4.5	0.267	5.6	LOS A	1.7	43.4	0.40	0.21	0.40	32.2
1	L2	All MCs	68	4.5	68	4.5	0.267	5.6	LOS A	1.7	43.4	0.40	0.21	0.40	32.2
6	T1	All MCs	213	4.5	213	4.5	0.267	5.6	LOS A	1.7	43.4	0.40	0.21	0.40	32.9
16	R2	All MCs	16	4.5	16	4.5	0.267	5.6	LOS A	1.7	43.4	0.40	0.21	0.40	32.7
Approach			299	4.5	299	4.5	0.267	5.6	LOS A	1.7	43.4	0.40	0.21	0.40	32.8
North: Chase SB Approach															
7	L2	All MCs	19	0.0	19	0.0	0.151	4.9	LOS A	0.8	21.0	0.51	0.33	0.51	33.0
4	T1	All MCs	104	0.0	104	0.0	0.151	4.9	LOS A	0.8	21.0	0.51	0.33	0.51	33.7
14	R2	All MCs	29	0.0	29	0.0	0.151	4.9	LOS A	0.8	21.0	0.51	0.33	0.51	33.4
Approach			152	0.0	152	0.0	0.151	4.9	LOS A	0.8	21.0	0.51	0.33	0.51	33.5
West: Prairie EB Approach															
5u	U	All MCs	1	0.7	1	0.7	0.378	6.9	LOS A	2.5	63.9	0.48	0.28	0.48	32.2
5	L2	All MCs	22	0.7	22	0.7	0.378	6.9	LOS A	2.5	63.9	0.48	0.28	0.48	32.2
2	T1	All MCs	321	0.7	321	0.7	0.378	6.9	LOS A	2.5	63.9	0.48	0.28	0.48	32.9
12	R2	All MCs	81	0.7	81	0.7	0.378	6.9	LOS A	2.5	63.9	0.48	0.28	0.48	32.6
Approach			425	0.7	425	0.7	0.378	6.9	LOS A	2.5	63.9	0.48	0.28	0.48	32.8
All Vehicles			1078	2.0	1078	2.0	0.378	6.1	LOS A	2.5	63.9	0.48	0.29	0.48	32.9

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Options tab).
Roundabout LOS Method: Same as Signalised Intersections.
Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.
LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).
Roundabout Capacity Model: SIDRA HCM.
Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

MOVEMENT SUMMARY

Site: 101 [Chase_Prairie_Existing_PM (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.2.202

New Site
Site Category: (None)
Roundabout

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] ft	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed mph
South: Chase NB Approach															
3	L2	All MCs	55	2.6	55	2.6	0.339	8.3	LOS A	2.2	57.4	0.72	0.53	0.72	31.2
8	T1	All MCs	110	2.6	110	2.6	0.339	8.3	LOS A	2.2	57.4	0.72	0.53	0.72	31.8
18	R2	All MCs	109	2.6	109	2.6	0.339	8.3	LOS A	2.2	57.4	0.72	0.53	0.72	31.5
Approach			275	2.6	275	2.6	0.339	8.3	LOS A	2.2	57.4	0.72	0.53	0.72	31.6
East: Prairie WB Approach															
1u	U	All MCs	4	4.5	4	4.5	0.392	7.4	LOS A	2.8	72.6	0.53	0.31	0.53	31.4
1	L2	All MCs	94	4.5	94	4.5	0.392	7.4	LOS A	2.8	72.6	0.53	0.31	0.53	31.4
6	T1	All MCs	295	4.5	295	4.5	0.392	7.4	LOS A	2.8	72.6	0.53	0.31	0.53	32.1
16	R2	All MCs	22	4.5	22	4.5	0.392	7.4	LOS A	2.8	72.6	0.53	0.31	0.53	31.8
Approach			415	4.5	415	4.5	0.392	7.4	LOS A	2.8	72.6	0.53	0.31	0.53	31.9
North: Chase SB Approach															
7	L2	All MCs	24	0.0	24	0.0	0.219	6.2	LOS A	1.3	33.1	0.63	0.45	0.63	32.4
4	T1	All MCs	134	0.0	134	0.0	0.219	6.2	LOS A	1.3	33.1	0.63	0.45	0.63	33.0
14	R2	All MCs	38	0.0	38	0.0	0.219	6.2	LOS A	1.3	33.1	0.63	0.45	0.63	32.8
Approach			196	0.0	196	0.0	0.219	6.2	LOS A	1.3	33.1	0.63	0.45	0.63	32.9
West: Prairie EB Approach															
5u	U	All MCs	1	0.7	1	0.7	0.555	10.1	LOS B	4.5	112.1	0.65	0.42	0.65	30.8
5	L2	All MCs	30	0.7	30	0.7	0.555	10.1	LOS B	4.5	112.1	0.65	0.42	0.65	30.8
2	T1	All MCs	445	0.7	445	0.7	0.555	10.1	LOS B	4.5	112.1	0.65	0.42	0.65	31.4
12	R2	All MCs	113	0.7	113	0.7	0.555	10.1	LOS B	4.5	112.1	0.65	0.42	0.65	31.2
Approach			589	0.7	589	0.7	0.555	10.1	LOS B	4.5	112.1	0.65	0.42	0.65	31.4
All Vehicles			1474	2.0	1474	2.0	0.555	8.5	LOS A	4.5	112.1	0.63	0.41	0.63	31.8

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Options tab).
Roundabout LOS Method: Same as Signalised Intersections.
Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.
LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).
Roundabout Capacity Model: SIDRA HCM.
Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

SIDRA INTERSECTION 9.1 | Copyright © 2000-2022 Akcelik and Associates Pty Ltd | sidrasolutions.com
Organisation: J.U.B ENGINEERS, INC. | Licence: PLUS / 1PC | Processed: Monday, April 7, 2025 2:00:27 PM
Project: \\jub.com\central\Clients\ID\PostFallsCity\Projects\07-23-040_TMP\Planning\Traffic\Sidra\2030\Chase_Prairie.sip9

MOVEMENT SUMMARY

Site: 101 [Chase_Prairie_Existing_PM (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.2.202

New Site
Site Category: (None)
Roundabout

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] ft	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed mph
South: Chase NB Approach															
3	L2	All MCs	66	2.6	66	2.6	0.461	11.5	LOS B	3.7	93.9	0.85	0.70	0.94	29.8
8	T1	All MCs	131	2.6	131	2.6	0.461	11.5	LOS B	3.7	93.9	0.85	0.70	0.94	30.4
18	R2	All MCs	129	2.6	129	2.6	0.461	11.5	LOS B	3.7	93.9	0.85	0.70	0.94	30.2
Approach			326	2.6	326	2.6	0.461	11.5	LOS B	3.7	93.9	0.85	0.70	0.94	30.2
East: Prairie WB Approach															
1u	U	All MCs	5	4.5	5	4.5	0.493	9.3	LOS A	3.9	100.9	0.63	0.40	0.63	30.7
1	L2	All MCs	113	4.5	113	4.5	0.493	9.3	LOS A	3.9	100.9	0.63	0.40	0.63	30.7
6	T1	All MCs	354	4.5	354	4.5	0.493	9.3	LOS A	3.9	100.9	0.63	0.40	0.63	31.3
16	R2	All MCs	26	4.5	26	4.5	0.493	9.3	LOS A	3.9	100.9	0.63	0.40	0.63	31.0
Approach			498	4.5	498	4.5	0.493	9.3	LOS A	3.9	100.9	0.63	0.40	0.63	31.1
North: Chase SB Approach															
7	L2	All MCs	28	0.0	28	0.0	0.283	7.6	LOS A	1.8	45.8	0.72	0.54	0.72	31.8
4	T1	All MCs	156	0.0	156	0.0	0.283	7.6	LOS A	1.8	45.8	0.72	0.54	0.72	32.4
14	R2	All MCs	44	0.0	44	0.0	0.283	7.6	LOS A	1.8	45.8	0.72	0.54	0.72	32.1
Approach			228	0.0	228	0.0	0.283	7.6	LOS A	1.8	45.8	0.72	0.54	0.72	32.3
West: Prairie EB Approach															
5u	U	All MCs	2	0.7	2	0.7	0.695	14.3	LOS B	10.4	261.1	0.81	0.72	1.13	29.2
5	L2	All MCs	36	0.7	36	0.7	0.695	14.3	LOS B	10.4	261.1	0.81	0.72	1.13	29.2
2	T1	All MCs	532	0.7	532	0.7	0.695	14.3	LOS B	10.4	261.1	0.81	0.72	1.13	29.7
12	R2	All MCs	134	0.7	134	0.7	0.695	14.3	LOS B	10.4	261.1	0.81	0.72	1.13	29.5
Approach			705	0.7	705	0.7	0.695	14.3	LOS B	10.4	261.1	0.81	0.72	1.13	29.7
All Vehicles			1757	2.0	1757	2.0	0.695	11.5	LOS B	10.4	261.1	0.76	0.60	0.90	30.5

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Options tab).
Roundabout LOS Method: Same as Signalised Intersections.
Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.
LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).
Roundabout Capacity Model: SIDRA HCM.
Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

SIDRA INTERSECTION 9.1 | Copyright © 2000-2022 Akcelik and Associates Pty Ltd | sidrasolutions.com

MOVEMENT SUMMARY

Site: 101 [Chase_Prairie_Existing_PM (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.2.202

New Site
Site Category: (None)
Roundabout

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] ft	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed mph
South: Chase NB Approach															
3	L2	All MCs	86	2.6	86	2.6	0.829	35.0	LOS D	12.1	308.6	1.00	1.23	1.83	22.8
8	T1	All MCs	173	2.6	173	2.6	0.829	35.0	LOS D	12.1	308.6	1.00	1.23	1.83	23.1
18	R2	All MCs	170	2.6	170	2.6	0.829	35.0	LOS D	12.1	308.6	1.00	1.23	1.83	23.0
Approach			429	2.6	429	2.6	0.829	35.0	LOS D	12.1	308.6	1.00	1.23	1.83	23.0
East: Prairie WB Approach															
1u	U	All MCs	7	4.5	7	4.5	0.714	16.0	LOS B	11.5	298.2	0.88	0.81	1.27	28.1
1	L2	All MCs	150	4.5	150	4.5	0.714	16.0	LOS B	11.5	298.2	0.88	0.81	1.27	28.1
6	T1	All MCs	472	4.5	472	4.5	0.714	16.0	LOS B	11.5	298.2	0.88	0.81	1.27	28.7
16	R2	All MCs	34	4.5	34	4.5	0.714	16.0	LOS B	11.5	298.2	0.88	0.81	1.27	28.4
Approach			664	4.5	664	4.5	0.714	16.0	LOS B	11.5	298.2	0.88	0.81	1.27	28.5
North: Chase SB Approach															
7	L2	All MCs	36	0.0	36	0.0	0.468	12.9	LOS B	3.9	97.8	0.92	0.78	1.03	29.6
4	T1	All MCs	200	0.0	200	0.0	0.468	12.9	LOS B	3.9	97.8	0.92	0.78	1.03	30.1
14	R2	All MCs	56	0.0	56	0.0	0.468	12.9	LOS B	3.9	97.8	0.92	0.78	1.03	29.9
Approach			293	0.0	293	0.0	0.468	12.9	LOS B	3.9	97.8	0.92	0.78	1.03	30.0
West: Prairie EB Approach															
5u	U	All MCs	2	0.7	2	0.7	1.011	50.4	LOS F	43.3	1089.0	1.00	1.97	3.16	19.9
5	L2	All MCs	48	0.7	48	0.7	1.011	50.4	LOS F	43.3	1089.0	1.00	1.97	3.16	19.9
2	T1	All MCs	709	0.7	709	0.7	1.011	50.4	LOS F	43.3	1089.0	1.00	1.97	3.16	20.1
12	R2	All MCs	179	0.7	179	0.7	1.011	50.4	LOS F	43.3	1089.0	1.00	1.97	3.16	20.0
Approach			939	0.7	939	0.7	1.011	50.4	LOS D	43.3	1089.0	1.00	1.97	3.16	20.1
All Vehicles			2324	2.0	2324	2.0	1.011	33.0	LOS C	43.3	1089.0	0.96	1.35	2.11	23.6

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Options tab).
Roundabout LOS Method: Same as Signalised Intersections.
Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.
LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).
Roundabout Capacity Model: SIDRA HCM.
Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

SIDRA INTERSECTION 9.1 | Copyright © 2000-2022 Akcelik and Associates Pty Ltd | sidrasolutions.com
Organisation: J.U.B ENGINEERS, INC. | Licence: PLUS / 1PC | Processed: Tuesday, April 8, 2025 11:37:02 AM
Project: \\jub.com\central\Clients\ID\PostFallsCity\Projects\07-23-040_TMP\Planning\Traffic\Sidra\2045\Chase_Prairie.sip9

Intersection	
Int Delay, s/veh	4.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	7	16	3	2	9	0	3	23	4	1	18	5
Future Vol, veh/h	7	16	3	2	9	0	3	23	4	1	18	5
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	78	78	78	78	78	78	78	78	78	78	78	78
Heavy Vehicles, %	4	4	4	18	18	18	0	0	0	4	4	4
Mvmt Flow	9	21	4	3	12	0	4	29	5	1	23	6

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	72	71	26	76	72	32	29	0	0	35	0	0
Stage 1	29	29	-	40	40	-	-	-	-	-	-	-
Stage 2	43	42	-	36	32	-	-	-	-	-	-	-
Critical Hdwy	7.14	6.54	6.24	7.28	6.68	6.38	4.1	-	-	4.14	-	-
Critical Hdwy Stg 1	6.14	5.54	-	6.28	5.68	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.14	5.54	-	6.28	5.68	-	-	-	-	-	-	-
Follow-up Hdwy	3.536	4.036	3.336	3.662	4.162	3.462	2.2	-	-	2.236	-	-
Pot Cap-1 Maneuver	914	815	1044	877	789	998	1597	-	-	1564	-	-
Stage 1	983	867	-	936	831	-	-	-	-	-	-	-
Stage 2	966	856	-	940	838	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	898	813	1044	849	786	998	1597	-	-	1564	-	-
Mov Cap-2 Maneuver	898	813	-	849	786	-	-	-	-	-	-	-
Stage 1	982	866	-	934	829	-	-	-	-	-	-	-
Stage 2	950	854	-	914	837	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	9.37	9.6	0.73	0.3
HCM LOS	A	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	175	-	-	857	797	72	-	-
HCM Lane V/C Ratio	0.002	-	-	0.039	0.018	0.001	-	-
HCM Ctrl Dly (s/v)	7.3	0	-	9.4	9.6	7.3	0	-
HCM Lane LOS	A	A	-	A	A	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.1	0.1	0	-	-

Intersection	
Int Delay, s/veh	0.6

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	587	10	24	375	10	13
Future Vol, veh/h	587	10	24	375	10	13
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	89	89	89	89	89	89
Heavy Vehicles, %	4	4	10	10	0	0
Mvmt Flow	660	11	27	421	11	15

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	671	0	1140	665
Stage 1	-	-	-	-	665	-
Stage 2	-	-	-	-	475	-
Critical Hdwy	-	-	4.2	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.29	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	883	-	224	463
Stage 1	-	-	-	-	515	-
Stage 2	-	-	-	-	630	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	883	-	215	463
Mov Cap-2 Maneuver	-	-	-	-	215	-
Stage 1	-	-	-	-	515	-
Stage 2	-	-	-	-	605	-

Approach	EB	WB	NB
HCM Ctrl Dly, s/v	0	0.55	17.73
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	309	-	-	108	-
HCM Lane V/C Ratio	0.084	-	-	0.031	-
HCM Ctrl Dly (s/v)	17.7	-	-	9.2	0
HCM Lane LOS	C	-	-	A	A
HCM 95th %tile Q(veh)	0.3	-	-	0.1	-

Intersection	
Int Delay, s/veh	0.7

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	704	12	28	450	12	15
Future Vol, veh/h	704	12	28	450	12	15
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	89	89	89	89	89	89
Heavy Vehicles, %	4	4	10	10	0	0
Mvmt Flow	791	13	31	506	13	17

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	804	0	1366	798
Stage 1	-	-	-	-	798	-
Stage 2	-	-	-	-	569	-
Critical Hdwy	-	-	4.2	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.29	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	786	-	164	389
Stage 1	-	-	-	-	447	-
Stage 2	-	-	-	-	571	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	786	-	155	389
Mov Cap-2 Maneuver	-	-	-	-	155	-
Stage 1	-	-	-	-	447	-
Stage 2	-	-	-	-	539	-

Approach	EB	WB	NB
HCM Ctrl Dly, s/v	0	0.57	22.79
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	233	-	-	105	-
HCM Lane V/C Ratio	0.13	-	-	0.04	-
HCM Ctrl Dly (s/v)	22.8	-	-	9.8	0
HCM Lane LOS	C	-	-	A	A
HCM 95th %tile Q(veh)	0.4	-	-	0.1	-

Intersection	
Int Delay, s/veh	1.2

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	937	15	38	599	15	19
Future Vol, veh/h	937	15	38	599	15	19
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	89	89	89	89	89	89
Heavy Vehicles, %	4	4	10	10	0	0
Mvmt Flow	1053	17	43	673	17	21

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	1070	0	1820	1061
Stage 1	-	-	-	-	1061	-
Stage 2	-	-	-	-	758	-
Critical Hdwy	-	-	4.2	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.29	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	622	-	86	274
Stage 1	-	-	-	-	336	-
Stage 2	-	-	-	-	466	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	622	-	80	274
Mov Cap-2 Maneuver	-	-	-	-	80	-
Stage 1	-	-	-	-	336	-
Stage 2	-	-	-	-	434	-

Approach	EB	WB	NB
HCM Ctrl Dly, s/v	0	0.67	42.66
HCM LOS			E

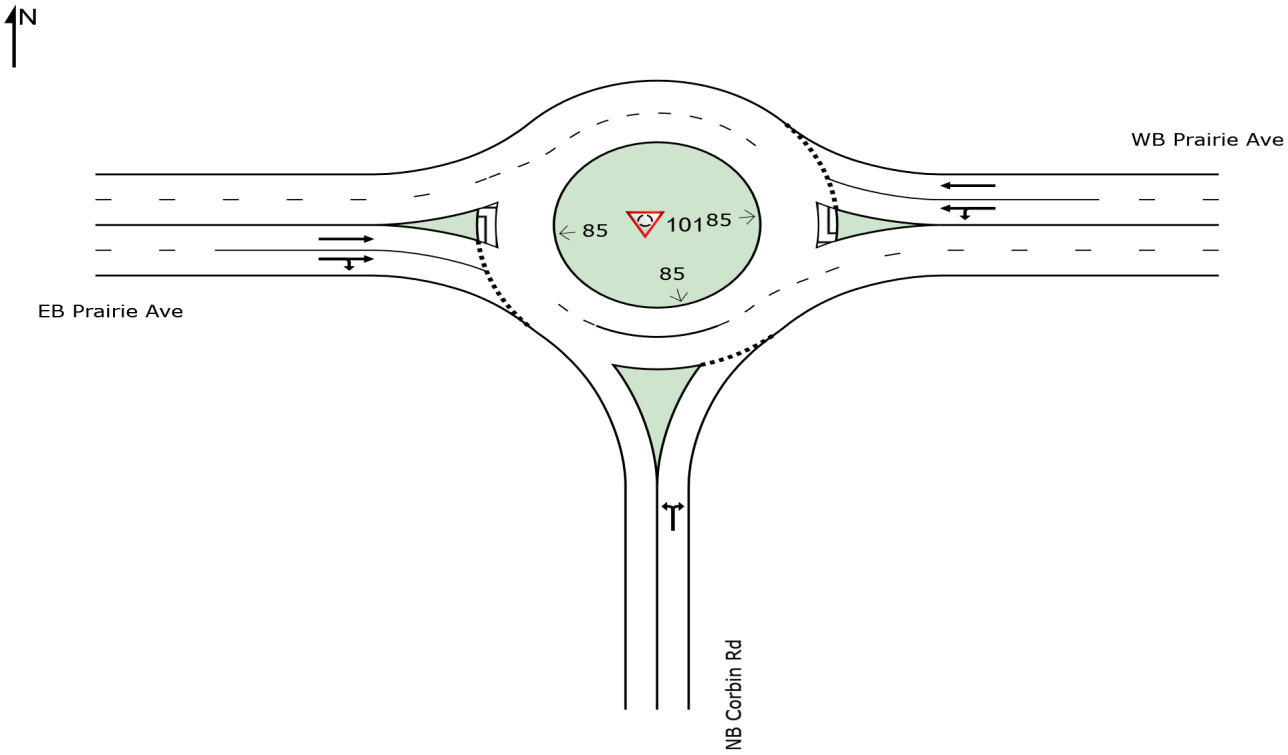
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	133	-	-	622	-
HCM Lane V/C Ratio	0.287	-	-	0.069	-
HCM Ctrl Dly (s/v)	42.7	-	-	11.2	-
HCM Lane LOS	E	-	-	B	-
HCM 95th %tile Q(veh)	1.1	-	-	0.2	-

SITE LAYOUT

Site: 101 [Corbin_Prairie_2045_PM (Site Folder: General)]

New Site
Site Category: (None)
Roundabout

Layout pictures are schematic functional drawings reflecting input data. They are not design drawings.



MOVEMENT SUMMARY

Site: 101 [Corbin_Prairie_2045_PM (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

New Site
Site Category: (None)
Roundabout

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] ft	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed mph
South: NB Corbin Rd															
3	L2	All MCs	16	3.0	16	3.0	0.058	6.3	LOS A	0.2	5.2	0.58	0.54	0.58	19.2
18	R2	All MCs	21	3.0	21	3.0	0.058	6.3	LOS A	0.2	5.2	0.58	0.54	0.58	19.2
Approach			37	3.0	37	3.0	0.058	6.3	LOS A	0.2	5.2	0.58	0.54	0.58	19.2
East: WB Prairie Ave															
1	L2	All MCs	41	3.0	41	3.0	0.243	4.3	LOS A	1.6	41.7	0.12	0.03	0.12	19.6
6	T1	All MCs	651	3.0	651	3.0	0.243	4.2	LOS A	1.6	42.1	0.12	0.03	0.12	19.6
Approach			692	3.0	692	3.0	0.243	4.2	LOS A	1.6	42.1	0.12	0.03	0.12	19.6
West: EB Prairie Ave															
2	T1	All MCs	1018	3.0	1018	3.0	0.370	5.6	LOS A	2.5	64.0	0.20	0.07	0.20	19.3
12	R2	All MCs	16	3.0	16	3.0	0.370	5.5	LOS A	2.5	64.0	0.20	0.06	0.20	19.4
Approach			1035	3.0	1035	3.0	0.370	5.6	LOS A	2.5	64.0	0.20	0.07	0.20	19.3
All Vehicles			1764	3.0	1764	3.0	0.370	5.1	LOS A	2.5	64.0	0.18	0.06	0.18	19.4

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Options tab).
Roundabout LOS Method: Same as Signalised Intersections.
Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.
LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).
Roundabout Capacity Model: SIDRA HCM.
Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

SIDRA INTERSECTION 9.1 | Copyright © 2000-2024 Akcelik and Associates Pty Ltd | sidrasolutions.com

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	57	222	44	66	276	75	51	252	71	37	215	76
Future Volume (veh/h)	57	222	44	66	276	75	51	252	71	37	215	76
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
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	1900	1900	1900	1900	1900	1900	1885	1885	1885
Adj Flow Rate, veh/h	63	244	48	73	303	82	56	277	78	41	236	84
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2	0	0	0	0	0	0	1	1	1
Cap, veh/h	274	765	148	429	374	101	372	363	102	269	403	340
Arrive On Green	0.05	0.26	0.26	0.05	0.26	0.26	0.07	0.25	0.25	0.03	0.21	0.21
Sat Flow, veh/h	1781	2967	574	1810	1440	390	1810	1426	402	1795	1885	1590
Grp Volume(v), veh/h	63	144	148	73	0	385	56	0	355	41	236	84
Grp Sat Flow(s),veh/h/ln	1781	1777	1764	1810	0	1830	1810	0	1828	1795	1885	1590
Q Serve(g_s), s	1.4	3.6	3.7	1.6	0.0	10.8	1.2	0.0	9.9	1.0	6.2	2.4
Cycle Q Clear(g_c), s	1.4	3.6	3.7	1.6	0.0	10.8	1.2	0.0	9.9	1.0	6.2	2.4
Prop In Lane	1.00		0.33	1.00		0.21	1.00		0.22	1.00		1.00
Lane Grp Cap(c), veh/h	274	458	455	429	0	476	372	0	465	269	403	340
V/C Ratio(X)	0.23	0.32	0.32	0.17	0.00	0.81	0.15	0.00	0.76	0.15	0.59	0.25
Avail Cap(c_a), veh/h	421	1102	1094	575	0	1138	570	0	1153	441	1193	1006
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	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	14.9	16.4	16.5	13.9	0.0	19.0	14.8	0.0	18.9	16.4	19.4	17.9
Incr Delay (d2), s/veh	0.2	0.1	0.2	0.1	0.0	1.3	0.1	0.0	2.6	0.1	1.4	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	0.5	1.3	1.3	0.6	0.0	4.1	0.5	0.0	4.0	0.4	2.5	0.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	15.1	16.6	16.6	13.9	0.0	20.3	14.8	0.0	21.5	16.5	20.7	18.3
LnGrp LOS	B	B	B	B		C	B		C	B	C	B
Approach Vol, veh/h		355			458			411			361	
Approach Delay, s/veh		16.3			19.3			20.6			19.7	
Approach LOS		B			B			C			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.6	17.3	8.1	19.8	7.4	19.6	8.2	19.7
Change Period (Y+Rc), s	5.6	* 5.6	5.6	* 5.6	5.5	5.6	5.5	5.6
Max Green Setting (Gmax), s	10.0	* 35	7.0	* 34	7.1	34.6	7.1	34.0
Max Q Clear Time (g_c+I1), s	3.2	8.2	3.4	12.8	3.0	11.9	3.6	5.7
Green Ext Time (p_c), s	0.0	1.6	0.0	1.4	0.0	2.1	0.0	1.0

Intersection Summary	
HCM 7th Control Delay, s/veh	19.1
HCM 7th LOS	B

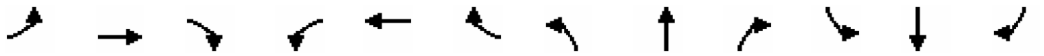
Notes

* HCM 7th 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)	10	444	54	174	501	15	39	194	107	22	150	27
Future Volume (veh/h)	10	444	54	174	501	15	39	194	107	22	150	27
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
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	1885	1885	1885	1870	1870	1870	1900	1900	1900	1885	1885	1885
Adj Flow Rate, veh/h	11	472	57	185	533	16	41	206	114	23	160	29
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	1	1	1	2	2	2	0	0	0	1	1	1
Cap, veh/h	273	545	66	322	722	22	342	261	144	230	330	60
Arrive On Green	0.01	0.33	0.33	0.08	0.40	0.40	0.04	0.23	0.23	0.03	0.21	0.21
Sat Flow, veh/h	1795	1650	199	1781	1806	54	1810	1149	636	1795	1553	281
Grp Volume(v), veh/h	11	0	529	185	0	549	41	0	320	23	0	189
Grp Sat Flow(s),veh/h/ln	1795	0	1849	1781	0	1861	1810	0	1786	1795	0	1835
Q Serve(g_s), s	0.2	0.0	16.1	3.9	0.0	15.1	1.0	0.0	10.1	0.6	0.0	5.4
Cycle Q Clear(g_c), s	0.2	0.0	16.1	3.9	0.0	15.1	1.0	0.0	10.1	0.6	0.0	5.4
Prop In Lane	1.00		0.11	1.00		0.03	1.00		0.36	1.00		0.15
Lane Grp Cap(c), veh/h	273	0	611	322	0	744	342	0	405	230	0	389
V/C Ratio(X)	0.04	0.00	0.87	0.57	0.00	0.74	0.12	0.00	0.79	0.10	0.00	0.49
Avail Cap(c_a), veh/h	398	0	769	322	0	774	418	0	743	331	0	763
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	14.0	0.0	18.9	13.9	0.0	15.4	17.4	0.0	21.9	18.4	0.0	20.8
Incr Delay (d2), s/veh	0.1	0.0	8.5	2.5	0.0	3.6	0.2	0.0	3.5	0.2	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	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	0.0	7.1	1.4	0.0	5.8	0.4	0.0	4.2	0.2	0.0	2.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	14.1	0.0	27.4	16.4	0.0	19.0	17.5	0.0	25.3	18.6	0.0	21.7
LnGrp LOS	B		C	B		B	B		C	B		C
Approach Vol, veh/h		540			734			361			212	
Approach Delay, s/veh		27.1			18.3			24.5			21.4	
Approach LOS		C			B			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	5.8	29.0	7.5	17.8	10.0	24.9	6.6	18.6
Change Period (Y+Rc), s	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Max Green Setting (Gmax), s	5.0	25.0	5.0	25.0	5.0	25.0	5.0	25.0
Max Q Clear Time (g_c+I1), s	2.2	17.1	3.0	7.4	5.9	18.1	2.6	12.1
Green Ext Time (p_c), s	0.0	2.0	0.0	0.8	0.0	1.7	0.0	1.5

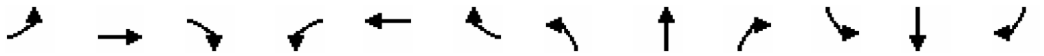
Intersection Summary	
HCM 7th Control Delay, s/veh	22.4
HCM 7th LOS	C



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	12	538	65	206	593	18	43	212	118	25	173	31
Future Volume (veh/h)	12	538	65	206	593	18	43	212	118	25	173	31
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
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	1885	1885	1885	1870	1870	1870	1900	1900	1900	1885	1885	1885
Adj Flow Rate, veh/h	13	572	69	219	631	19	46	226	126	27	184	33
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	1	1	1	2	2	2	0	0	0	1	1	1
Cap, veh/h	224	604	73	259	765	23	326	273	152	211	350	63
Arrive On Green	0.02	0.37	0.37	0.07	0.42	0.42	0.04	0.24	0.24	0.03	0.22	0.22
Sat Flow, veh/h	1795	1650	199	1781	1806	54	1810	1146	639	1795	1556	279
Grp Volume(v), veh/h	13	0	641	219	0	650	46	0	352	27	0	217
Grp Sat Flow(s),veh/h/ln	1795	0	1849	1781	0	1861	1810	0	1785	1795	0	1835
Q Serve(g_s), s	0.3	0.0	22.9	5.0	0.0	21.1	1.3	0.0	12.8	0.8	0.0	7.1
Cycle Q Clear(g_c), s	0.3	0.0	22.9	5.0	0.0	21.1	1.3	0.0	12.8	0.8	0.0	7.1
Prop In Lane	1.00		0.11	1.00		0.03	1.00		0.36	1.00		0.15
Lane Grp Cap(c), veh/h	224	0	677	259	0	788	326	0	425	211	0	413
V/C Ratio(X)	0.06	0.00	0.95	0.84	0.00	0.83	0.14	0.00	0.83	0.13	0.00	0.53
Avail Cap(c_a), veh/h	327	0	678	259	0	788	381	0	654	290	0	672
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	15.3	0.0	21.0	17.1	0.0	17.4	19.2	0.0	24.7	20.3	0.0	23.2
Incr Delay (d2), s/veh	0.1	0.0	22.4	21.7	0.0	7.2	0.2	0.0	5.3	0.3	0.0	1.0
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	0.1	0.0	12.5	3.3	0.0	8.9	0.5	0.0	5.6	0.3	0.0	2.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	15.4	0.0	43.4	38.8	0.0	24.6	19.4	0.0	29.9	20.6	0.0	24.3
LnGrp LOS	B		D	D		C	B		C	C		C
Approach Vol, veh/h		654			869			398			244	
Approach Delay, s/veh		42.8			28.2			28.7			23.9	
Approach LOS		D			C			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.1	33.9	7.9	20.3	10.0	30.0	7.0	21.3
Change Period (Y+Rc), s	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Max Green Setting (Gmax), s	5.0	25.0	5.0	25.0	5.0	25.0	5.0	25.0
Max Q Clear Time (g_c+I1), s	2.3	23.1	3.3	9.1	7.0	24.9	2.8	14.8
Green Ext Time (p_c), s	0.0	0.8	0.0	0.9	0.0	0.0	0.0	1.5

Intersection Summary	
HCM 7th Control Delay, s/veh	32.2
HCM 7th LOS	C



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	16	726	88	269	777	23	50	249	138	32	220	39
Future Volume (veh/h)	16	726	88	269	777	23	50	249	138	32	220	39
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
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	1885	1885	1885	1870	1870	1870	1900	1900	1900	1885	1885	1885
Adj Flow Rate, veh/h	17	772	94	286	827	24	53	265	147	34	234	41
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	1	1	1	2	2	2	0	0	0	1	1	1
Cap, veh/h	223	752	92	287	1022	30	208	252	140	112	333	58
Arrive On Green	0.02	0.46	0.46	0.13	0.56	0.56	0.03	0.22	0.22	0.03	0.21	0.21
Sat Flow, veh/h	1795	1648	201	1781	1808	52	1810	1148	637	1795	1562	274
Grp Volume(v), veh/h	17	0	866	286	0	851	53	0	412	34	0	275
Grp Sat Flow(s),veh/h/ln	1795	0	1849	1781	0	1861	1810	0	1785	1795	0	1836
Q Serve(g_s), s	0.6	0.0	54.0	15.0	0.0	43.4	2.7	0.0	26.0	1.7	0.0	16.4
Cycle Q Clear(g_c), s	0.6	0.0	54.0	15.0	0.0	43.4	2.7	0.0	26.0	1.7	0.0	16.4
Prop In Lane	1.00		0.11	1.00		0.03	1.00		0.36	1.00		0.15
Lane Grp Cap(c), veh/h	223	0	844	287	0	1051	208	0	392	112	0	391
V/C Ratio(X)	0.08	0.00	1.03	1.00	0.00	0.81	0.26	0.00	1.05	0.30	0.00	0.70
Avail Cap(c_a), veh/h	266	0	844	287	0	1051	221	0	392	137	0	403
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	20.6	0.0	32.2	40.0	0.0	20.6	35.7	0.0	46.2	37.4	0.0	43.1
Incr Delay (d2), s/veh	0.1	0.0	37.9	52.6	0.0	4.8	0.6	0.0	59.3	1.5	0.0	5.2
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	0.2	0.0	31.1	8.0	0.0	18.3	1.2	0.0	17.8	0.8	0.0	7.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	20.7	0.0	70.1	92.6	0.0	25.5	36.3	0.0	105.5	38.9	0.0	48.3
LnGrp LOS	C		F	F		C	D		F	D		D
Approach Vol, veh/h		883			1137			465			309	
Approach Delay, s/veh		69.2			42.4			97.6			47.3	
Approach LOS		E			D			F			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.1	71.9	9.1	30.2	20.0	59.0	8.4	31.0
Change Period (Y+Rc), s	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Max Green Setting (Gmax), s	5.0	64.0	5.0	26.0	15.0	54.0	5.0	26.0
Max Q Clear Time (g_c+I1), s	2.6	45.4	4.7	18.4	17.0	56.0	3.7	28.0
Green Ext Time (p_c), s	0.0	5.6	0.0	0.8	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 7th Control Delay, s/veh	60.6
HCM 7th LOS	E

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	16	726	88	269	777	23	50	249	138	32	220	39
Future Volume (veh/h)	16	726	88	269	777	23	50	249	138	32	220	39
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
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	1885	1885	1885	1870	1870	1870	1900	1900	1900	1885	1885	1885
Adj Flow Rate, veh/h	17	772	94	286	827	24	53	265	147	34	234	41
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	1	1	1	2	2	2	0	0	0	1	1	1
Cap, veh/h	255	972	118	302	1268	37	346	315	175	231	410	72
Arrive On Green	0.02	0.30	0.30	0.08	0.36	0.36	0.05	0.27	0.27	0.04	0.26	0.26
Sat Flow, veh/h	1795	3214	391	1781	3526	102	1810	1148	637	1795	1562	274
Grp Volume(v), veh/h	17	430	436	286	417	434	53	0	412	34	0	275
Grp Sat Flow(s),veh/h/ln	1795	1791	1815	1781	1777	1852	1810	0	1785	1795	0	1836
Q Serve(g_s), s	0.4	14.2	14.2	5.0	12.6	12.7	1.3	0.0	14.0	0.9	0.0	8.4
Cycle Q Clear(g_c), s	0.4	14.2	14.2	5.0	12.6	12.7	1.3	0.0	14.0	0.9	0.0	8.4
Prop In Lane	1.00		0.22	1.00		0.06	1.00		0.36	1.00		0.15
Lane Grp Cap(c), veh/h	255	542	549	302	639	666	346	0	490	231	0	482
V/C Ratio(X)	0.07	0.79	0.79	0.95	0.65	0.65	0.15	0.00	0.84	0.15	0.00	0.57
Avail Cap(c_a), veh/h	358	694	704	302	689	718	400	0	692	307	0	712
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	0.00	1.00
Uniform Delay (d), s/veh	15.6	20.6	20.7	20.8	17.3	17.3	16.4	0.0	22.1	17.6	0.0	20.6
Incr Delay (d2), s/veh	0.1	4.9	4.9	37.7	2.0	1.9	0.2	0.0	6.5	0.3	0.0	1.1
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	0.2	5.8	5.9	4.8	4.7	4.8	0.5	0.0	6.2	0.3	0.0	3.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	15.7	25.6	25.5	58.5	19.3	19.2	16.6	0.0	28.6	17.9	0.0	21.7
LnGrp LOS	B	C	C	E	B	B	B		C	B		C
Approach Vol, veh/h		883			1137			465			309	
Approach Delay, s/veh		25.3			29.1			27.2			21.3	
Approach LOS		C			C			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.3	28.2	8.1	21.9	10.0	24.5	7.3	22.7
Change Period (Y+Rc), s	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Max Green Setting (Gmax), s	5.0	25.0	5.0	25.0	5.0	25.0	5.0	25.0
Max Q Clear Time (g_c+I1), s	2.4	14.7	3.3	10.4	7.0	16.2	2.9	16.0
Green Ext Time (p_c), s	0.0	3.5	0.0	1.2	0.0	3.3	0.0	1.7

Intersection Summary	
HCM 7th Control Delay, s/veh	26.7
HCM 7th LOS	C



Movement	SBR
Lane Configurations	
Traffic Volume (veh/h)	92
Future Volume (veh/h)	92
Initial Q (Qb), veh	0
Lane Width Adj.	1.00
Ped-Bike Adj(A_pbT)	1.00
Parking Bus, Adj	1.00
Work Zone On Approach	
Adj Sat Flow, veh/h/ln	1885
Adj Flow Rate, veh/h	99
Peak Hour Factor	0.93
Percent Heavy Veh, %	1
Cap, veh/h	205
Arrive On Green	0.17
Sat Flow, veh/h	1190
Grp Volume(v), veh/h	139
Grp Sat Flow(s),veh/h/ln	1671
Q Serve(g_s), s	4.0
Cycle Q Clear(g_c), s	4.0
Prop In Lane	0.71
Lane Grp Cap(c), veh/h	288
V/C Ratio(X)	0.48
Avail Cap(c_a), veh/h	551
HCM Platoon Ratio	1.00
Upstream Filter(I)	1.00
Uniform Delay (d), s/veh	19.8
Incr Delay (d2), s/veh	1.3
Initial Q Delay(d3), s/veh	0.0
%ile BackOfQ(50%),veh/ln	1.5
Unsig. Movement Delay, s/veh	
LnGrp Delay(d), s/veh	21.1
LnGrp LOS	C
Approach Vol, veh/h	
Approach Delay, s/veh	
Approach LOS	
Timer - Assigned Phs	

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	748	151	74	823	115	61
Future Volume (veh/h)	748	151	74	823	115	61
Initial Q (Qb), veh	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00
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	1841	1841	1870	1870	1841	1841
Adj Flow Rate, veh/h	831	168	82	914	128	68
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	4	4	2	2	4	4
Cap, veh/h	1037	210	410	2122	218	194
Arrive On Green	0.36	0.36	0.10	0.60	0.12	0.12
Sat Flow, veh/h	2990	586	1781	3647	1753	1560
Grp Volume(v), veh/h	501	498	82	914	128	68
Grp Sat Flow(s),veh/h/ln	1749	1735	1781	1777	1753	1560
Q Serve(g_s), s	10.5	10.5	1.0	5.7	2.8	1.6
Cycle Q Clear(g_c), s	10.5	10.5	1.0	5.7	2.8	1.6
Prop In Lane		0.34	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	626	621	410	2122	218	194
V/C Ratio(X)	0.80	0.80	0.20	0.43	0.59	0.35
Avail Cap(c_a), veh/h	694	689	555	2568	415	369
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	11.7	11.7	7.4	4.4	16.8	16.3
Incr Delay (d2), s/veh	6.1	6.2	0.2	0.1	2.5	1.1
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.0	3.9	0.2	0.9	1.1	0.1
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	17.8	17.9	7.7	4.6	19.3	17.3
LnGrp LOS	B	B	A	A	B	B
Approach Vol, veh/h	999			996	196	
Approach Delay, s/veh	17.9			4.8	18.6	
Approach LOS	B			A	B	

Timer - Assigned Phs		4		6	7	8
Phs Duration (G+Y+Rc), s		30.1		10.4	9.7	20.4
Change Period (Y+Rc), s		* 5.9		5.4	5.7	* 5.9
Max Green Setting (Gmax), s		* 29		9.6	7.3	* 16
Max Q Clear Time (g_c+I1), s		7.7		4.8	3.0	12.5
Green Ext Time (p_c), s		6.5		0.2	0.1	2.0

Intersection Summary	
HCM 7th Control Delay, s/veh	12.0
HCM 7th LOS	B

Notes

* HCM 7th 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)	864	175	86	952	133	71
Future Volume (veh/h)	864	175	86	952	133	71
Initial Q (Qb), veh	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00
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	1841	1841	1870	1870	1841	1841
Adj Flow Rate, veh/h	960	194	96	1058	148	79
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	4	4	2	2	4	4
Cap, veh/h	1080	218	367	2136	233	208
Arrive On Green	0.37	0.37	0.09	0.60	0.13	0.13
Sat Flow, veh/h	2991	585	1781	3647	1753	1560
Grp Volume(v), veh/h	579	575	96	1058	148	79
Grp Sat Flow(s),veh/h/ln	1749	1735	1781	1777	1753	1560
Q Serve(g_s), s	13.2	13.2	1.2	7.2	3.4	2.0
Cycle Q Clear(g_c), s	13.2	13.2	1.2	7.2	3.4	2.0
Prop In Lane		0.34	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	652	647	367	2136	233	208
V/C Ratio(X)	0.89	0.89	0.26	0.50	0.63	0.38
Avail Cap(c_a), veh/h	663	658	505	2451	396	352
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	12.5	12.5	8.6	4.8	17.4	16.8
Incr Delay (d2), s/veh	13.8	14.1	0.4	0.2	2.8	1.1
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.2	6.2	0.3	1.3	1.4	1.8
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	26.3	26.6	9.0	5.0	20.3	18.0
LnGrp LOS	C	C	A	A	C	B
Approach Vol, veh/h	1154			1154	227	
Approach Delay, s/veh	26.4			5.3	19.5	
Approach LOS	C			A	B	

Timer - Assigned Phs				4		6	7	8
Phs Duration (G+Y+Rc), s				31.4		11.1	9.7	21.7
Change Period (Y+Rc), s				* 5.9		5.4	5.7	* 5.9
Max Green Setting (Gmax), s				* 29		9.6	7.3	* 16
Max Q Clear Time (g_c+I1), s				9.2		5.4	3.2	15.2
Green Ext Time (p_c), s				7.5		0.3	0.1	0.6

Intersection Summary	
HCM 7th Control Delay, s/veh	16.2
HCM 7th LOS	B

Notes

* HCM 7th 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)	1098	222	109	1209	169	90
Future Volume (veh/h)	1098	222	109	1209	169	90
Initial Q (Qb), veh	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00
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	1841	1841	1870	1870	1841	1841
Adj Flow Rate, veh/h	1220	247	121	1343	188	100
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	4	4	2	2	4	4
Cap, veh/h	1341	269	292	2286	255	227
Arrive On Green	0.46	0.46	0.07	0.64	0.15	0.15
Sat Flow, veh/h	2994	582	1781	3647	1753	1560
Grp Volume(v), veh/h	731	736	121	1343	188	100
Grp Sat Flow(s),veh/h/ln	1749	1736	1781	1777	1753	1560
Q Serve(g_s), s	20.7	21.2	1.7	11.6	5.5	3.1
Cycle Q Clear(g_c), s	20.7	21.2	1.7	11.6	5.5	3.1
Prop In Lane		0.34	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	808	802	292	2286	255	227
V/C Ratio(X)	0.90	0.92	0.41	0.59	0.74	0.44
Avail Cap(c_a), veh/h	821	815	402	2545	347	309
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	13.3	13.4	11.5	5.5	21.9	20.9
Incr Delay (d2), s/veh	13.3	15.1	0.9	0.3	5.3	1.3
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	9.1	9.6	0.6	2.4	2.5	2.8
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	26.6	28.6	12.5	5.8	27.2	22.2
LnGrp LOS	C	C	B	A	C	C
Approach Vol, veh/h	1467			1464	288	
Approach Delay, s/veh	27.6			6.3	25.5	
Approach LOS	C			A	C	

Timer - Assigned Phs	4	6	7	8
Phs Duration (G+Y+Rc), s	40.3	13.2	9.7	30.6
Change Period (Y+Rc), s	* 5.9	5.4	5.7	* 5.9
Max Green Setting (Gmax), s	* 38	10.6	7.3	* 25
Max Q Clear Time (g_c+I1), s	13.6	7.5	3.7	23.2
Green Ext Time (p_c), s	11.1	0.3	0.1	1.5

Intersection Summary	
HCM 7th Control Delay, s/veh	17.7
HCM 7th LOS	B

Notes

* HCM 7th computational engine requires equal clearance times for the phases crossing the barrier.

Intersection	
Int Delay, s/veh	4.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	38	262	12	82	244	19	7	44	49	7	33	17
Future Vol, veh/h	38	262	12	82	244	19	7	44	49	7	33	17
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	-	-	-	-	-	-	-	-	-	-	-	-
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	285	13	89	265	21	8	48	53	8	36	18

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	286	0	0	298	0	0	835	838	291	845	834	276
Stage 1	-	-	-	-	-	-	374	374	-	454	454	-
Stage 2	-	-	-	-	-	-	461	464	-	391	380	-
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	1276	-	-	1263	-	-	287	302	748	283	304	763
Stage 1	-	-	-	-	-	-	647	618	-	586	569	-
Stage 2	-	-	-	-	-	-	580	563	-	633	614	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1276	-	-	1263	-	-	217	266	748	194	268	763
Mov Cap-2 Maneuver	-	-	-	-	-	-	217	266	-	194	268	-
Stage 1	-	-	-	-	-	-	622	594	-	536	522	-
Stage 2	-	-	-	-	-	-	483	516	-	520	590	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	0.96	1.92	18.22	19.28
HCM LOS			C	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	380	217	-	-	422	-	-	314
HCM Lane V/C Ratio	0.286	0.032	-	-	0.071	-	-	0.198
HCM Ctrl Dly (s/v)	18.2	7.9	0	-	8.1	0	-	19.3
HCM Lane LOS	C	A	A	-	A	A	-	C
HCM 95th %tile Q(veh)	1.2	0.1	-	-	0.2	-	-	0.7

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	68	726	60	58	566	61	19	5	45	37	3	40
Future Vol, veh/h	68	726	60	58	566	61	19	5	45	37	3	40
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	250	-	-	320	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	97	97	97	97	97	97	97	97	97	97	97	97
Heavy Vehicles, %	4	4	4	2	2	2	0	0	0	3	3	3
Mvmt Flow	70	748	62	60	584	63	20	5	46	38	3	41

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	646	0	0	810	0	0	1332	1686	405	1252	1685	323
Stage 1	-	-	-	-	-	-	920	920	-	735	735	-
Stage 2	-	-	-	-	-	-	413	766	-	517	951	-
Critical Hdwy	4.18	-	-	4.14	-	-	7.5	6.5	6.9	7.56	6.56	6.96
Critical Hdwy Stg 1	-	-	-	-	-	-	6.5	5.5	-	6.56	5.56	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.5	5.5	-	6.56	5.56	-
Follow-up Hdwy	2.24	-	-	2.22	-	-	3.5	4	3.3	3.53	4.03	3.33
Pot Cap-1 Maneuver	922	-	-	811	-	-	114	95	601	128	92	670
Stage 1	-	-	-	-	-	-	296	353	-	375	421	-
Stage 2	-	-	-	-	-	-	593	415	-	507	334	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	922	-	-	811	-	-	89	81	601	95	79	670
Mov Cap-2 Maneuver	-	-	-	-	-	-	89	81	-	95	79	-
Stage 1	-	-	-	-	-	-	273	326	-	348	390	-
Stage 2	-	-	-	-	-	-	511	384	-	425	309	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	0.73	0.83	33.31	46.94
HCM LOS			D	E

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	197	922	-	-	811	-	-	165
HCM Lane V/C Ratio	0.362	0.076	-	-	0.074	-	-	0.501
HCM Ctrl Dly (s/v)	33.3	9.2	-	-	9.8	-	-	46.9
HCM Lane LOS	D	A	-	-	A	-	-	E
HCM 95th %tile Q(veh)	1.5	0.2	-	-	0.2	-	-	2.4

Intersection	
Int Delay, s/veh	9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	78	839	70	66	638	69	24	6	57	41	4	44
Future Vol, veh/h	78	839	70	66	638	69	24	6	57	41	4	44
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	250	-	-	320	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	97	97	97	97	97	97	97	97	97	97	97	97
Heavy Vehicles, %	4	4	4	2	2	2	0	0	0	3	3	3
Mvmt Flow	80	865	72	68	658	71	25	6	59	42	4	45

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	729	0	0	937	0	0	1529	1927	469	1426	1927	364
Stage 1	-	-	-	-	-	-	1062	1062	-	829	829	-
Stage 2	-	-	-	-	-	-	467	865	-	596	1098	-
Critical Hdwy	4.18	-	-	4.14	-	-	7.5	6.5	6.9	7.56	6.56	6.96
Critical Hdwy Stg 1	-	-	-	-	-	-	6.5	5.5	-	6.56	5.56	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.5	5.5	-	6.56	5.56	-
Follow-up Hdwy	2.24	-	-	2.22	-	-	3.5	4	3.3	3.53	4.03	3.33
Pot Cap-1 Maneuver	858	-	-	727	-	-	82	67	547	95	65	630
Stage 1	-	-	-	-	-	-	242	303	-	329	381	-
Stage 2	-	-	-	-	-	-	551	374	-	454	285	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	858	-	-	727	-	-	58	55	547	63	53	630
Mov Cap-2 Maneuver	-	-	-	-	-	-	58	55	-	63	53	-
Stage 1	-	-	-	-	-	-	220	274	-	298	345	-
Stage 2	-	-	-	-	-	-	458	339	-	359	258	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	0.76	0.89	68.62	112.95
HCM LOS			F	F

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	139	858	-	-	727	-	-	112
HCM Lane V/C Ratio	0.644	0.094	-	-	0.094	-	-	0.82
HCM Ctrl Dly (s/v)	68.6	9.6	-	-	10.5	-	-	113
HCM Lane LOS	F	A	-	-	B	-	-	F
HCM 95th %tile Q(veh)	3.5	0.3	-	-	0.3	-	-	4.7

Intersection	
Int Delay, s/veh	70.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	100	1066	88	81	783	84	33	8	80	49	5	52
Future Vol, veh/h	100	1066	88	81	783	84	33	8	80	49	5	52
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	250	-	-	320	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	97	97	97	97	97	97	97	97	97	97	97	97
Heavy Vehicles, %	4	4	4	2	2	2	0	0	0	3	3	3
Mvmt Flow	103	1099	91	84	807	87	34	8	82	51	5	54

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	894	0	0	1190	0	0	1924	2411	595	1777	2413	447
Stage 1	-	-	-	-	-	-	1351	1351	-	1018	1018	-
Stage 2	-	-	-	-	-	-	573	1061	-	760	1396	-
Critical Hdwy	4.18	-	-	4.14	-	-	7.5	6.5	6.9	7.56	6.56	6.96
Critical Hdwy Stg 1	-	-	-	-	-	-	6.5	5.5	-	6.56	5.56	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.5	5.5	-	6.56	5.56	-
Follow-up Hdwy	2.24	-	-	2.22	-	-	3.5	4	3.3	3.53	4.03	3.33
Pot Cap-1 Maneuver	742	-	-	583	-	-	41	33	453	52	32	556
Stage 1	-	-	-	-	-	-	161	221	-	252	311	-
Stage 2	-	-	-	-	-	-	477	303	-	362	205	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	742	-	-	583	-	-	~ 23	25	453	~ 23	23	556
Mov Cap-2 Maneuver	-	-	-	-	-	-	~ 23	25	-	~ 23	23	-
Stage 1	-	-	-	-	-	-	139	190	-	216	266	-
Stage 2	-	-	-	-	-	-	362	260	-	244	176	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	0.85	1.04	$ 612.49	$ 902.41
HCM LOS			F	F

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	62	742	-	-	583	-	-	43
HCM Lane V/C Ratio	2.009	0.139	-	-	0.143	-	-	2.546
HCM Ctrl Dly (s/v)	$ 612.5	10.6	-	-	12.2	-	-	$ 902.4
HCM Lane LOS	F	B	-	-	B	-	-	F
HCM 95th %tile Q(veh)	11.8	0.5	-	-	0.5	-	-	11.8

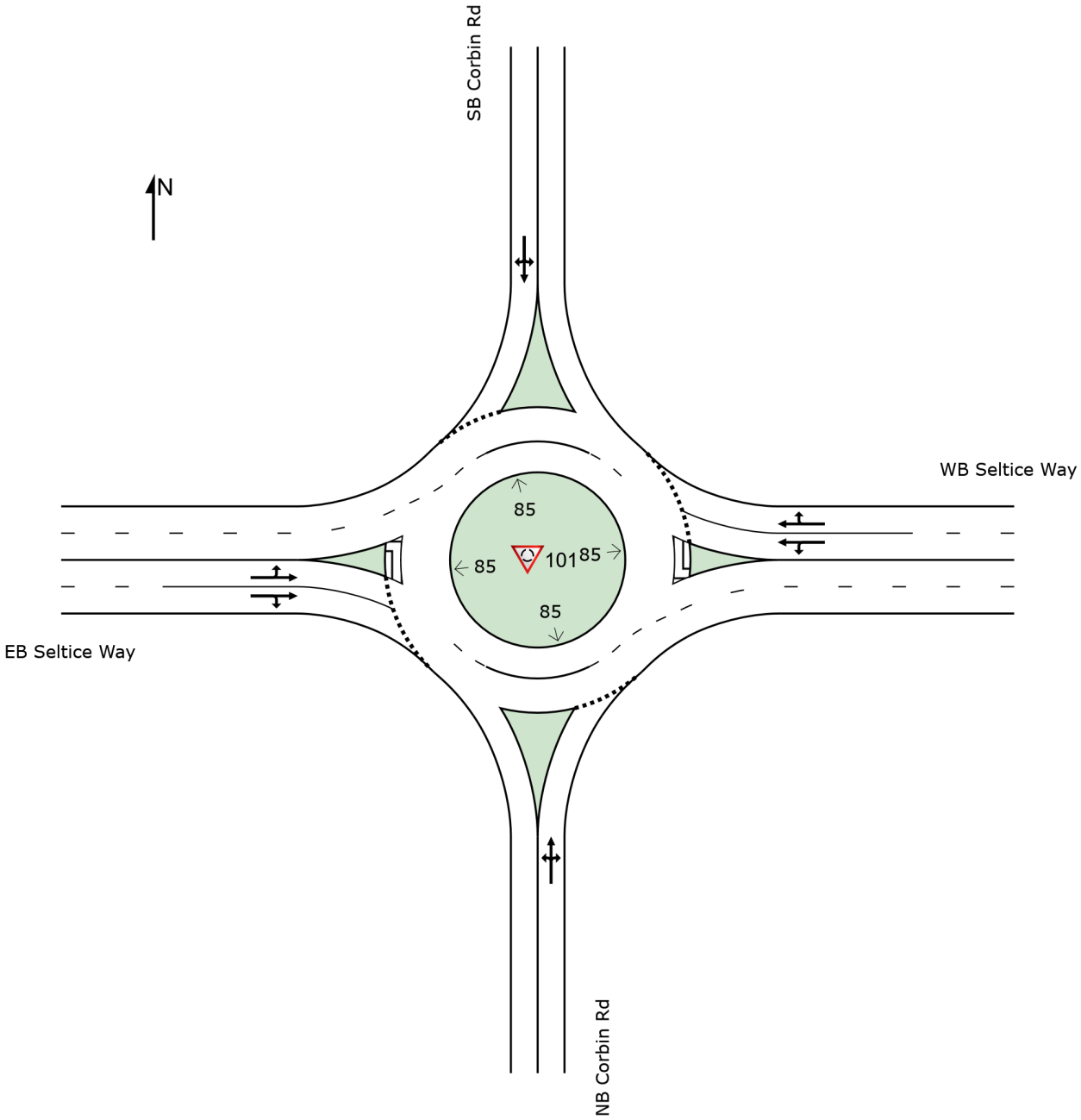
Notes	
~: Volume exceeds capacity	$: Delay exceeds 300s
+: Computation Not Defined	*: All major volume in platoon

SITE LAYOUT

Site: 101 [Corbin_Seltice_2045_PM (Site Folder: General)]

New Site
Site Category: (None)
Roundabout

Layout pictures are schematic functional drawings reflecting input data. They are not design drawings.



SIDRA INTERSECTION 9.1 | Copyright © 2000-2024 Akcelik and Associates Pty Ltd | sidrasolutions.com
Organisation: J.U.B ENGINEERS, INC. | Licence: PLUS / 1PC | Created: Thursday, July 3, 2025 11:08:13 AM
Project: \\jub.com\Central\Clients\ID\PostFallsCity\Projects\07-23-040_TMP\Planning\Traffic\Sidra\2045Build\Corbin_Seltice.sip9

MOVEMENT SUMMARY

Site: 101 [Corbin_Seltice_2045_PM (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

New Site
Site Category: (None)
Roundabout

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] ft	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed mph
South: NB Corbin Rd															
3	L2	All MCs	36	3.0	36	3.0	0.266	11.2	LOS B	1.1	28.6	0.73	0.71	0.73	19.3
8	T1	All MCs	9	3.0	9	3.0	0.266	11.2	LOS B	1.1	28.6	0.73	0.71	0.73	16.9
18	R2	All MCs	87	3.0	87	3.0	0.266	11.2	LOS B	1.1	28.6	0.73	0.71	0.73	19.3
Approach			132	3.0	132	3.0	0.266	11.2	LOS B	1.1	28.6	0.73	0.71	0.73	19.1
East: WB Seltice Way															
1	L2	All MCs	88	3.0	88	3.0	0.411	7.0	LOS A	2.9	75.2	0.45	0.24	0.45	18.4
6	T1	All MCs	851	3.0	851	3.0	0.411	6.8	LOS A	3.0	76.3	0.44	0.23	0.44	20.0
16	R2	All MCs	91	3.0	91	3.0	0.411	6.6	LOS A	3.0	76.3	0.44	0.23	0.44	18.5
Approach			1030	3.0	1030	3.0	0.411	6.8	LOS A	3.0	76.3	0.44	0.23	0.44	19.7
North: SB Corbin Rd															
7	L2	All MCs	53	3.0	53	3.0	0.239	11.0	LOS B	0.9	24.1	0.67	0.65	0.67	19.3
4	T1	All MCs	5	3.0	5	3.0	0.239	11.0	LOS B	0.9	24.1	0.67	0.65	0.67	16.9
14	R2	All MCs	57	3.0	57	3.0	0.239	11.0	LOS B	0.9	24.1	0.67	0.65	0.67	19.3
Approach			115	3.0	115	3.0	0.239	11.0	LOS B	0.9	24.1	0.67	0.65	0.67	19.1
West: EB Seltice Way															
5	L2	All MCs	109	3.0	109	3.0	0.539	8.9	LOS A	4.4	113.8	0.51	0.28	0.51	18.1
2	T1	All MCs	1159	3.0	1159	3.0	0.539	8.6	LOS A	4.5	115.1	0.50	0.27	0.50	19.7
12	R2	All MCs	96	3.0	96	3.0	0.539	8.3	LOS A	4.5	115.1	0.49	0.26	0.49	18.2
Approach			1363	3.0	1363	3.0	0.539	8.6	LOS A	4.5	115.1	0.50	0.27	0.50	19.4
All Vehicles			2640	3.0	2640	3.0	0.539	8.1	LOS A	4.5	115.1	0.50	0.29	0.50	19.5

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Options tab).
Roundabout LOS Method: Same as Signalised Intersections.
Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.
LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).
Roundabout Capacity Model: SIDRA HCM.
Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

SIDRA INTERSECTION 9.1 | Copyright © 2000-2024 Akcelik and Associates Pty Ltd | sidrasolutions.com

Intersection	
Int Delay, s/veh	7.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	2	0	6	106	2	116	5	713	82	53	519	14
Future Vol, veh/h	2	0	6	106	2	116	5	713	82	53	519	14
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	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	98	98	98	98	98	98	98	98	98	98	98	98
Heavy Vehicles, %	0	0	0	1	1	1	0	0	0	1	1	1
Mvmt Flow	2	0	6	108	2	118	5	728	84	54	530	14

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1020	1466	272	1153	1432	406	544	0	0	811	0	0
Stage 1	645	645	-	780	780	-	-	-	-	-	-	-
Stage 2	375	821	-	373	652	-	-	-	-	-	-	-
Critical Hdwy	7.5	6.5	6.9	7.52	6.52	6.92	4.1	-	-	4.12	-	-
Critical Hdwy Stg 1	6.5	5.5	-	6.52	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.5	5.5	-	6.52	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.51	4.01	3.31	2.2	-	-	2.21	-	-
Pot Cap-1 Maneuver	194	129	732	154	134	597	1035	-	-	817	-	-
Stage 1	432	471	-	357	406	-	-	-	-	-	-	-
Stage 2	624	391	-	623	465	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	142	120	732	141	125	597	1035	-	-	817	-	-
Mov Cap-2 Maneuver	142	120	-	141	125	-	-	-	-	-	-	-
Stage 1	404	440	-	355	404	-	-	-	-	-	-	-
Stage 2	494	389	-	577	434	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	15.26	48.89	0.1	0.88
HCM LOS	C	E		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	20	-	-	359	141	597	817	-	-
HCM Lane V/C Ratio	0.005	-	-	0.023	0.781	0.198	0.066	-	-
HCM Ctrl Dly (s/v)	8.5	0.1	-	15.3	88	12.5	9.7	-	-
HCM Lane LOS	A	A	-	C	F	B	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.1	4.8	0.7	0.2	-	-

Intersection	
Int Delay, s/veh	4.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations												
Traffic Vol, veh/h	0	10	185	0	0	0	298	694	38	5	806	106
Future Vol, veh/h	0	10	185	0	0	0	298	694	38	5	806	106
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Free	Free	Free	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	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	0	0	0	1	1	1	1	1	1
Mvmt Flow	0	11	195	0	0	0	314	731	40	5	848	112

Major/Minor	Minor1					Major1			Major2		
Conflicting Flow All	1813	2348	385			960	0	0	771	0	0
Stage 1	1378	1378	-			-	-	-	-	-	-
Stage 2	435	971	-			-	-	-	-	-	-
Critical Hdwy	6.84	6.54	6.94			4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	5.84	5.54	-			-	-	-	-	-	-
Critical Hdwy Stg 2	5.84	5.54	-			-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32			2.21	-	-	2.21	-	-
Pot Cap-1 Maneuver	70	36	613			719	-	-	846	-	-
Stage 1	199	211	-			-	-	-	-	-	-
Stage 2	620	329	-			-	-	-	-	-	-
Platoon blocked, %							-	-		-	-
Mov Cap-1 Maneuver	31	0	613			719	-	-	846	-	-
Mov Cap-2 Maneuver	31	0	-			-	-	-	-	-	-
Stage 1	88	0	-			-	-	-	-	-	-
Stage 2	615	0	-			-	-	-	-	-	-

Approach	EB	SE	NW
HCM Ctrl Dly, s/v	13.8	6.8	0.12
HCM LOS	B		

Minor Lane/Major Mvmt	NWL	NWT	NWR	EBLn1	EBLn2	SEL	SET	SER
Capacity (veh/h)	17	-	-	-	613	563	-	-
HCM Lane V/C Ratio	0.006	-	-	-	0.335	0.437	-	-
HCM Ctrl Dly (s/v)	9.3	0.1	-	0	13.8	13.8	4.1	-
HCM Lane LOS	A	A	-	A	B	B	A	-
HCM 95th %tile Q(veh)	0	-	-	-	1.5	2.2	-	-

Intersection	
Int Delay, s/veh	6.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations												
Traffic Vol, veh/h	0	12	224	0	0	0	343	799	44	6	932	123
Future Vol, veh/h	0	12	224	0	0	0	343	799	44	6	932	123
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Free	Free	Free	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	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	0	0	0	1	1	1	1	1	1
Mvmt Flow	0	13	236	0	0	0	361	841	46	6	981	129

Major/Minor	Minor1					Major1			Major2		
Conflicting Flow All	2089	2709	444			1111	0	0	887	0	0
Stage 1	1586	1586	-			-	-	-	-	-	-
Stage 2	503	1123	-			-	-	-	-	-	-
Critical Hdwy	6.84	6.54	6.94			4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	5.84	5.54	-			-	-	-	-	-	-
Critical Hdwy Stg 2	5.84	5.54	-			-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32			2.21	-	-	2.21	-	-
Pot Cap-1 Maneuver	45	21	562			630	-	-	765	-	-
Stage 1	154	166	-			-	-	-	-	-	-
Stage 2	572	279	-			-	-	-	-	-	-
Platoon blocked, %							-	-		-	-
Mov Cap-1 Maneuver	11	0	562			630	-	-	765	-	-
Mov Cap-2 Maneuver	11	0	-			-	-	-	-	-	-
Stage 1	36	0	-			-	-	-	-	-	-
Stage 2	566	0	-			-	-	-	-	-	-

Approach	EB	SE	NW
HCM Ctrl Dly, s/v	16.39	10.23	0.16
HCM LOS	C		

Minor Lane/Major Mvmt	NWL	NWT	NWR	EBLn1	EBLn2	SEL	SET	SER
Capacity (veh/h)	18	-	-	-	562	473	-	-
HCM Lane V/C Ratio	0.008	-	-	-	0.442	0.573	-	-
HCM Ctrl Dly (s/v)	9.7	0.1	-	0	16.4	18.1	7.4	-
HCM Lane LOS	A	A	-	A	C	C	A	-
HCM 95th %tile Q(veh)	0	-	-	-	2.2	3.6	-	-

Intersection	
Int Delay, s/veh	20.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations												
Traffic Vol, veh/h	0	16	302	0	0	0	434	1009	55	8	1184	156
Future Vol, veh/h	0	16	302	0	0	0	434	1009	55	8	1184	156
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Free	Free	Free	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	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	0	0	0	1	1	1	1	1	1
Mvmt Flow	0	17	318	0	0	0	457	1062	58	8	1246	164

Major/Minor	Minor1			Major1			Major2		
Conflicting Flow All	2645	3432	560	1411	0	0	1120	0	0
Stage 1	2005	2005	-	-	-	-	-	-	-
Stage 2	640	1427	-	-	-	-	-	-	-
Critical Hdwy	6.84	6.54	6.94	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	5.84	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.84	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	2.21	-	-	2.21	-	-
Pot Cap-1 Maneuver	19	~ 7	472	485	-	-	625	-	-
Stage 1	90	103	-	-	-	-	-	-	-
Stage 2	487	199	-	-	-	-	-	-	-
Platoon blocked, %					-	-		-	-
Mov Cap-1 Maneuver	0	0	472	485	-	-	625	-	-
Mov Cap-2 Maneuver	0	0	-	-	-	-	-	-	-
Stage 1	90	0	-	-	-	-	-	-	-
Stage 2	476	0	-	-	-	-	-	-	-

Approach	EB	SE	NW
HCM Ctrl Dly, s/v	29.19	37.24	0.28
HCM LOS	D		

Minor Lane/Major Mvmt	NWL	NWT	NWR	EBLn1	EBLn2	SEL	SET	SER
Capacity (veh/h)	18	-	-	-	472	~ 332	-	-
HCM Lane V/C Ratio	0.013	-	-	-	0.71	0.943	-	-
HCM Ctrl Dly (s/v)	10.8	0.2	-	0	29.2	57.1	30.7	-
HCM Lane LOS	B	A	-	A	D	F	D	-
HCM 95th %tile Q(veh)	0	-	-	-	5.5	11.5	-	-

Notes	
~: Volume exceeds capacity	$: Delay exceeds 300s
+: Computation Not Defined	*: All major volume in platoon

Movement	EBL	EBT	EBR	WBL	WBT	WBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations												
Traffic Volume (veh/h)	0	16	302	0	0	0	434	1009	55	8	1184	156
Future Volume (veh/h)	0	16	302	0	0	0	434	1009	55	8	1184	156
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	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
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870				1885	1885	1885	1885	1885	1885
Adj Flow Rate, veh/h	0	17	318				457	1062	58	8	1246	164
Peak Hour Factor	0.95	0.95	0.95				0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2				1	1	1	1	1	1
Cap, veh/h	0	374	333				460	2107	115	298	1305	171
Arrive On Green	0.00	0.20	0.20				0.21	0.61	0.61	0.01	0.41	0.41
Sat Flow, veh/h	0	1870	1585				1795	3454	189	1795	3184	417
Grp Volume(v), veh/h	0	17	318				457	551	569	8	698	712
Grp Sat Flow(s),veh/h/ln	0	1870	1585				1795	1791	1851	1795	1791	1810
Q Serve(g_s), s	0.0	0.7	19.8				20.8	17.3	17.3	0.3	37.7	38.2
Cycle Q Clear(g_c), s	0.0	0.7	19.8				20.8	17.3	17.3	0.3	37.7	38.2
Prop In Lane	0.00		1.00				1.00		0.10	1.00		0.23
Lane Grp Cap(c), veh/h	0	374	333				460	1093	1129	298	734	742
V/C Ratio(X)	0.00	0.05	0.96				0.99	0.50	0.50	0.03	0.95	0.96
Avail Cap(c_a), veh/h	0	374	333				460	1093	1129	585	734	742
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	32.3	39.0				31.0	11.0	11.0	16.9	28.5	28.7
Incr Delay (d2), s/veh	0.0	0.0	37.6				40.3	1.7	1.6	0.0	23.2	24.4
Initial Q Delay(d3), s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.3	19.3				10.9	6.6	6.8	0.1	19.9	20.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	0.0	32.3	76.6				71.3	12.6	12.6	16.9	51.7	53.1
LnGrp LOS		C	E				E	B	B	B	D	D
Approach Vol, veh/h		335						1577			1418	
Approach Delay, s/veh		74.4						29.6			52.2	
Approach LOS		E						C			D	

Timer - Assigned Phs	1	2		4	5	6
Phs Duration (G+Y+Rc), s	27.0	47.0		26.0	7.0	67.0
Change Period (Y+Rc), s	6.0	6.0		6.0	6.0	6.0
Max Green Setting (Gmax), s	21.0	41.0		20.0	17.0	45.0
Max Q Clear Time (g_c+I1), s	22.8	40.2		21.8	2.3	19.3
Green Ext Time (p_c), s	0.0	0.6		0.0	0.0	8.1

Intersection Summary		
HCM 7th Control Delay, s/veh		43.7
HCM 7th LOS		D

Notes

User approved changes to right turn type.

Intersection	
Int Delay, s/veh	1.3

Movement	EBL	EBT	WBU	WBT	WBR	SBL	SBR
Lane Configurations							
Traffic Vol, veh/h	13	85	1	55	8	2	13
Future Vol, veh/h	13	85	1	55	8	2	13
Conflicting Peds, #/hr	0	0	0	0	0	0	0
Sign Control	Free	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	90	90	90	90	90	90	90
Heavy Vehicles, %	0	0	0	0	0	0	0
Mvmt Flow	14	94	1	61	9	2	14

Major/Minor	Major1		Major2			Minor2	
Conflicting Flow All	70	0	-	-	0	189	66
Stage 1	-	-	-	-	-	66	-
Stage 2	-	-	-	-	-	123	-
Critical Hdwy	4.1	-	-	-	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	-	5.4	-
Follow-up Hdwy	2.2	-	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	1544	-	-	-	-	805	1004
Stage 1	-	-	-	-	-	962	-
Stage 2	-	-	-	-	-	907	-
Platoon blocked, %		-		-	-		
Mov Cap-1 Maneuver	1544	-	-	-	-	797	1004
Mov Cap-2 Maneuver	-	-	-	-	-	797	-
Stage 1	-	-	-	-	-	953	-
Stage 2	-	-	-	-	-	907	-

Approach	EB	WB	SB
HCM Ctrl Dly, s/v	0.98		8.77
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	239	-	-	-	970
HCM Lane V/C Ratio	0.009	-	-	-	0.017
HCM Ctrl Dly (s/v)	7.4	0	-	-	8.8
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0.1

Intersection	
Int Delay, s/veh	12.5

Movement	WBL	WBR	SEL	SET	NWT	NWR
Lane Configurations						
Traffic Vol, veh/h	141	448	0	807	806	0
Future Vol, veh/h	141	448	0	807	806	0
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	96	96	96	96	96	96
Heavy Vehicles, %	0	0	1	1	1	1
Mvmt Flow	147	467	0	841	840	0

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1260	420	-	0	-	0
Stage 1	840	-	-	-	-	-
Stage 2	420	-	-	-	-	-
Critical Hdwy	6.8	6.9	-	-	-	-
Critical Hdwy Stg 1	5.8	-	-	-	-	-
Critical Hdwy Stg 2	5.8	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	-	-
Pot Cap-1 Maneuver	165	588	0	-	-	0
Stage 1	389	-	0	-	-	0
Stage 2	637	-	0	-	-	0
Platoon blocked, %				-	-	
Mov Cap-1 Maneuver	165	588	-	-	-	-
Mov Cap-2 Maneuver	165	-	-	-	-	-
Stage 1	389	-	-	-	-	-
Stage 2	637	-	-	-	-	-

Approach	WB	SE	NW
HCM Ctrl Dly, s/v	46.89	0	0
HCM LOS	E		

Minor Lane/Major Mvmt	NWT	WBLn1	WBLn2	SET
Capacity (veh/h)	-	165	588	-
HCM Lane V/C Ratio	-	0.889	0.794	-
HCM Ctrl Dly (s/v)	-	98.6	30.6	-
HCM Lane LOS	-	F	D	-
HCM 95th %tile Q(veh)	-	6.4	7.7	-

Intersection	
Int Delay, s/veh	25.4

Movement	WBL	WBR	SEL	SET	NWT	NWR
Lane Configurations						
Traffic Vol, veh/h	153	488	0	890	932	0
Future Vol, veh/h	153	488	0	890	932	0
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	96	96	96	96	96	96
Heavy Vehicles, %	0	0	1	1	1	1
Mvmt Flow	159	508	0	927	971	0

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1434	485	-	0	-	0
Stage 1	971	-	-	-	-	-
Stage 2	464	-	-	-	-	-
Critical Hdwy	6.8	6.9	-	-	-	-
Critical Hdwy Stg 1	5.8	-	-	-	-	-
Critical Hdwy Stg 2	5.8	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	-	-
Pot Cap-1 Maneuver	~ 127	533	0	-	-	0
Stage 1	333	-	0	-	-	0
Stage 2	605	-	0	-	-	0
Platoon blocked, %				-	-	
Mov Cap-1 Maneuver	~ 127	533	-	-	-	-
Mov Cap-2 Maneuver	~ 127	-	-	-	-	-
Stage 1	333	-	-	-	-	-
Stage 2	605	-	-	-	-	-

Approach	WB	SE	NW
HCM Ctrl Dly, s/v	97.57	0	0
HCM LOS	F		

Minor Lane/Major Mvmt	NWT	WBLn1	WBLn2	SET
Capacity (veh/h)	-	127	533	-
HCM Lane V/C Ratio	-	1.255	0.954	-
HCM Ctrl Dly (s/v)	-	229.7	56.2	-
HCM Lane LOS	-	F	F	-
HCM 95th %tile Q(veh)	-	10	12.3	-

Notes	
~: Volume exceeds capacity	$: Delay exceeds 300s
+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	85.1

Movement	WBL	WBR	SEL	SET	NWT	NWR
Lane Configurations						
Traffic Vol, veh/h	178	568	0	1057	1184	0
Future Vol, veh/h	178	568	0	1057	1184	0
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	96	96	96	96	96	96
Heavy Vehicles, %	0	0	1	1	1	1
Mvmt Flow	185	592	0	1101	1233	0

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1784	617	-	0	-	0
Stage 1	1233	-	-	-	-	-
Stage 2	551	-	-	-	-	-
Critical Hdwy	6.8	6.9	-	-	-	-
Critical Hdwy Stg 1	5.8	-	-	-	-	-
Critical Hdwy Stg 2	5.8	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	-	-
Pot Cap-1 Maneuver	~ 75	~ 438	0	-	-	0
Stage 1	242	-	0	-	-	0
Stage 2	547	-	0	-	-	0
Platoon blocked, %				-	-	
Mov Cap-1 Maneuver	~ 75	~ 438	-	-	-	-
Mov Cap-2 Maneuver	~ 75	-	-	-	-	-
Stage 1	242	-	-	-	-	-
Stage 2	547	-	-	-	-	-

Approach	WB	SE	NW
HCM Ctrl Dly, s/v	$ 340.7	0	0
HCM LOS	F		

Minor Lane/Major Mvmt	NWT	WBLn1	WBLn2	SET
Capacity (veh/h)	-	75	438	-
HCM Lane V/C Ratio	-	2.488	1.351	-
HCM Ctrl Dly (s/v)	-	$ 795.6	198.1	-
HCM Lane LOS	-	F	F	-
HCM 95th %tile Q(veh)	-	17.8	27.3	-

Notes	
~: Volume exceeds capacity	$: Delay exceeds 300s
+: Computation Not Defined	*: All major volume in platoon



Movement	WBL	WBR	SEL	SET	NWT	NWR
Lane Configurations						
Traffic Volume (veh/h)	178	568	0	1057	1184	0
Future Volume (veh/h)	178	568	0	1057	1184	0
Initial Q (Qb), veh	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00
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	1900	1900	0	1885	1885	0
Adj Flow Rate, veh/h	185	592	0	1101	1233	0
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	1	1	0
Cap, veh/h	684	608	0	1274	1274	0
Arrive On Green	0.38	0.38	0.00	0.36	0.36	0.00
Sat Flow, veh/h	1810	1610	0	3770	3770	0
Grp Volume(v), veh/h	185	592	0	1101	1233	0
Grp Sat Flow(s),veh/h/ln	1810	1610	0	1791	1791	0
Q Serve(g_s), s	3.2	16.3	0.0	12.9	15.2	0.0
Cycle Q Clear(g_c), s	3.2	16.3	0.0	12.9	15.2	0.0
Prop In Lane	1.00	1.00	0.00			0.00
Lane Grp Cap(c), veh/h	684	608	0	1274	1274	0
V/C Ratio(X)	0.27	0.97	0.00	0.86	0.97	0.00
Avail Cap(c_a), veh/h	684	608	0	1274	1274	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	9.7	13.8	0.0	13.5	14.2	0.0
Incr Delay (d2), s/veh	0.2	29.7	0.0	6.4	18.1	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	9.0	0.0	5.1	7.8	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	9.9	43.5	0.0	19.9	32.3	0.0
LnGrp LOS	A	D		B	C	
Approach Vol, veh/h	777			1101	1233	
Approach Delay, s/veh	35.5			19.9	32.3	
Approach LOS	D			B	C	

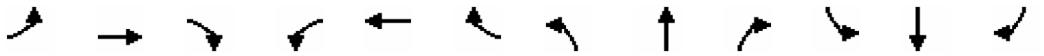
Timer - Assigned Phs	2			6	8
Phs Duration (G+Y+Rc), s	22.0			22.0	23.0
Change Period (Y+Rc), s	6.0			6.0	6.0
Max Green Setting (Gmax), s	16.0			16.0	17.0
Max Q Clear Time (g_c+I1), s	17.2			14.9	18.3
Green Ext Time (p_c), s	0.0			0.8	0.0

Intersection Summary	
HCM 7th Control Delay, s/veh	28.7
HCM 7th LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	7	313	38	129	372	11	34	168	93	17	117	21
Future Volume (veh/h)	7	313	38	129	372	11	34	168	93	17	117	21
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
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	1885	1885	1885	1870	1870	1870	1900	1900	1900	1885	1885	1885
Adj Flow Rate, veh/h	7	333	40	137	396	12	36	179	99	18	124	22
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	1	1	1	2	2	2	0	0	0	1	1	1
Cap, veh/h	320	441	53	382	621	19	384	251	139	268	313	56
Arrive On Green	0.01	0.27	0.27	0.09	0.34	0.34	0.04	0.22	0.22	0.02	0.20	0.20
Sat Flow, veh/h	1795	1651	198	1781	1806	55	1810	1150	636	1795	1559	277
Grp Volume(v), veh/h	7	0	373	137	0	408	36	0	278	18	0	146
Grp Sat Flow(s),veh/h/ln	1795	0	1849	1781	0	1861	1810	0	1786	1795	0	1835
Q Serve(g_s), s	0.1	0.0	9.1	2.6	0.0	9.1	0.8	0.0	7.1	0.4	0.0	3.4
Cycle Q Clear(g_c), s	0.1	0.0	9.1	2.6	0.0	9.1	0.8	0.0	7.1	0.4	0.0	3.4
Prop In Lane	1.00		0.11	1.00		0.03	1.00		0.36	1.00		0.15
Lane Grp Cap(c), veh/h	320	0	494	382	0	640	384	0	390	268	0	369
V/C Ratio(X)	0.02	0.00	0.75	0.36	0.00	0.64	0.09	0.00	0.71	0.07	0.00	0.40
Avail Cap(c_a), veh/h	1580	0	1315	1496	0	1323	1600	0	1270	1505	0	1305
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	13.2	0.0	16.6	11.8	0.0	13.6	14.6	0.0	17.8	15.4	0.0	17.1
Incr Delay (d2), s/veh	0.0	0.0	2.4	0.6	0.0	1.1	0.1	0.0	2.4	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	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	3.3	0.8	0.0	3.0	0.3	0.0	2.8	0.1	0.0	1.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	13.2	0.0	18.9	12.3	0.0	14.6	14.7	0.0	20.2	15.5	0.0	17.8
LnGrp LOS	B		B	B		B	B		C	B		B
Approach Vol, veh/h		380			545			314			164	
Approach Delay, s/veh		18.8			14.1			19.6			17.5	
Approach LOS		B			B			B			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	5.5	21.9	6.9	14.9	9.2	18.1	6.1	15.7
Change Period (Y+Rc), s	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Max Green Setting (Gmax), s	35.0	35.0	35.0	35.0	35.0	35.0	35.0	35.0
Max Q Clear Time (g_c+I1), s	2.1	11.1	2.8	5.4	4.6	11.1	2.4	9.1
Green Ext Time (p_c), s	0.0	2.3	0.1	0.7	0.3	2.0	0.0	1.6

Intersection Summary	
HCM 7th Control Delay, s/veh	17.0
HCM 7th LOS	B



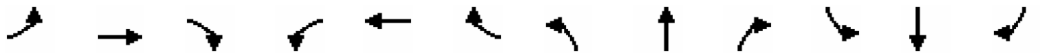
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	163	527	251	336	525	119	305	781	211	73	444	82
Future Volume (veh/h)	163	527	251	336	525	119	305	781	211	73	444	82
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
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	1885	1885	1885	1885	1885	1885	1885	1885	1885	1870	1870	1870
Adj Flow Rate, veh/h	168	543	259	346	541	123	314	805	218	75	458	85
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	1	1	1	1	1	1	1	1	1	2	2	2
Cap, veh/h	352	583	277	373	931	211	397	918	249	190	860	159
Arrive On Green	0.09	0.25	0.25	0.16	0.32	0.32	0.18	0.66	0.66	0.11	0.57	0.57
Sat Flow, veh/h	1795	2354	1120	1795	2901	657	1795	2786	754	1781	2995	552
Grp Volume(v), veh/h	168	413	389	346	333	331	314	517	506	75	271	272
Grp Sat Flow(s),veh/h/ln	1795	1791	1684	1795	1791	1767	1795	1791	1749	1781	1777	1771
Q Serve(g_s), s	7.4	24.3	24.4	15.5	16.8	16.9	2.2	25.2	25.2	0.0	10.1	10.2
Cycle Q Clear(g_c), s	7.4	24.3	24.4	15.5	16.8	16.9	2.2	25.2	25.2	0.0	10.1	10.2
Prop In Lane	1.00		0.67	1.00		0.37	1.00		0.43	1.00		0.31
Lane Grp Cap(c), veh/h	352	443	417	373	575	567	397	590	577	190	510	508
V/C Ratio(X)	0.48	0.93	0.93	0.93	0.58	0.58	0.79	0.88	0.88	0.39	0.53	0.54
Avail Cap(c_a), veh/h	402	448	421	379	575	567	397	590	577	190	510	508
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	2.00	2.00	2.00
Upstream Filter(I)	0.97	0.97	0.97	0.94	0.94	0.94	1.00	1.00	1.00	0.96	0.96	0.96
Uniform Delay (d), s/veh	26.8	39.7	39.8	28.0	30.6	30.6	34.7	16.6	16.6	44.6	18.5	18.6
Incr Delay (d2), s/veh	1.0	25.6	27.3	27.1	1.4	1.4	10.4	16.7	17.0	1.3	3.8	3.9
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	3.2	13.6	13.0	9.2	7.3	7.3	8.1	8.7	8.6	1.9	3.8	3.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	27.8	65.3	67.0	55.1	32.0	32.1	45.2	33.3	33.6	45.9	22.3	22.4
LnGrp LOS	C	E	E	E	C	C	D	C	C	D	C	C
Approach Vol, veh/h		970			1010			1337			618	
Approach Delay, s/veh		59.5			39.9			36.2			25.2	
Approach LOS		E			D			D			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.3	41.6	22.7	32.4	15.5	37.4	14.8	40.3
Change Period (Y+Rc), s	5.6	6.0	5.1	5.7	* 5.6	* 6.4	5.3	* 5.7
Max Green Setting (Gmax), s	5.1	35.6	17.9	27.0	* 9.8	* 31	12.5	* 32
Max Q Clear Time (g_c+I1), s	2.0	27.2	17.5	26.4	4.2	12.2	9.4	18.9
Green Ext Time (p_c), s	0.0	4.3	0.0	0.3	0.5	3.0	0.1	3.4

Intersection Summary	
HCM 7th Control Delay, s/veh	41.2
HCM 7th LOS	D

Notes

* HCM 7th computational engine requires equal clearance times for the phases crossing the barrier.



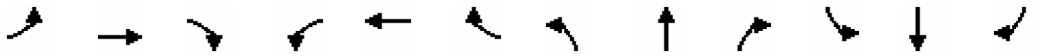
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	194	624	298	398	622	141	352	856	244	78	474	87
Future Volume (veh/h)	194	624	298	398	622	141	352	856	244	78	474	87
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
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	1885	1885	1885	1885	1885	1885	1885	1885	1885	1870	1870	1870
Adj Flow Rate, veh/h	200	643	307	410	641	145	363	882	252	80	489	90
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	1	1	1	1	1	1	1	1	1	2	2	2
Cap, veh/h	395	605	289	404	1017	230	427	903	258	208	711	130
Arrive On Green	0.03	0.08	0.08	0.39	0.70	0.70	0.34	0.66	0.66	0.08	0.24	0.24
Sat Flow, veh/h	1795	2351	1123	1795	2902	656	1795	2750	785	1781	2999	549
Grp Volume(v), veh/h	200	490	460	410	395	391	363	574	560	80	289	290
Grp Sat Flow(s),veh/h/ln	1795	1791	1683	1795	1791	1767	1795	1791	1744	1781	1777	1772
Q Serve(g_s), s	9.9	31.9	31.9	23.9	14.7	14.7	13.9	38.0	38.2	1.1	18.4	18.5
Cycle Q Clear(g_c), s	9.9	31.9	31.9	23.9	14.7	14.7	13.9	38.0	38.2	1.1	18.4	18.5
Prop In Lane	1.00		0.67	1.00		0.37	1.00		0.45	1.00		0.31
Lane Grp Cap(c), veh/h	395	461	433	404	627	619	427	588	572	208	421	420
V/C Ratio(X)	0.51	1.06	1.06	1.01	0.63	0.63	0.85	0.98	0.98	0.39	0.69	0.69
Avail Cap(c_a), veh/h	475	461	433	404	627	619	427	588	572	208	421	420
HCM Platoon Ratio	0.33	0.33	0.33	2.00	2.00	2.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	0.96	0.96	0.96	0.93	0.93	0.93	1.00	1.00	1.00	0.94	0.94	0.94
Uniform Delay (d), s/veh	31.1	56.7	56.7	26.9	14.3	14.3	35.3	20.8	20.9	52.1	43.1	43.2
Incr Delay (d2), s/veh	1.0	58.8	60.1	46.9	1.9	1.9	15.0	31.8	32.7	1.1	8.3	8.5
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	4.8	22.9	21.7	12.6	4.2	4.2	9.9	15.5	15.4	2.4	8.9	9.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	32.1	115.6	116.8	73.8	16.1	16.2	50.3	52.6	53.5	53.2	51.3	51.7
LnGrp LOS	C	F	F	F	B	B	D	D	D	D	D	D
Approach Vol, veh/h		1150			1196			1497			659	
Approach Delay, s/veh		101.6			35.9			52.4			51.7	
Approach LOS		F			D			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	16.0	46.7	29.0	37.6	26.9	35.8	17.5	49.1
Change Period (Y+Rc), s	5.6	6.0	5.1	5.7	* 5.6	* 6.4	5.3	* 5.7
Max Green Setting (Gmax), s	5.1	40.7	23.9	31.9	* 17	* 29	17.7	* 38
Max Q Clear Time (g_c+I1), s	3.1	40.2	25.9	33.9	15.9	20.5	11.9	16.7
Green Ext Time (p_c), s	0.0	0.3	0.0	0.0	0.1	2.3	0.3	4.9

Intersection Summary	
HCM 7th Control Delay, s/veh	60.5
HCM 7th LOS	E

Notes

* HCM 7th computational engine requires equal clearance times for the phases crossing the barrier.



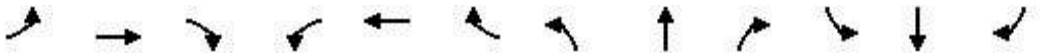
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	254	819	391	523	817	185	447	1005	310	87	533	98
Future Volume (veh/h)	254	819	391	523	817	185	447	1005	310	87	533	98
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
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	1885	1885	1885	1885	1885	1885	1885	1885	1885	1870	1870	1870
Adj Flow Rate, veh/h	262	844	403	539	842	191	461	1036	320	90	549	101
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	1	1	1	1	1	1	1	1	1	2	2	2
Cap, veh/h	316	652	309	361	884	200	680	893	274	475	788	145
Arrive On Green	0.14	0.28	0.28	0.34	0.61	0.61	0.30	0.33	0.33	0.47	0.53	0.53
Sat Flow, veh/h	1795	2357	1118	1795	2900	658	1795	2700	827	1781	2999	550
Grp Volume(v), veh/h	262	640	607	539	520	513	461	684	672	90	325	325
Grp Sat Flow(s),veh/h/ln	1795	1791	1684	1795	1791	1767	1795	1791	1736	1781	1777	1771
Q Serve(g_s), s	13.2	34.3	34.3	20.9	33.5	33.5	16.7	41.0	41.0	0.0	16.9	17.1
Cycle Q Clear(g_c), s	13.2	34.3	34.3	20.9	33.5	33.5	16.7	41.0	41.0	0.0	16.9	17.1
Prop In Lane	1.00		0.66	1.00		0.37	1.00		0.48	1.00		0.31
Lane Grp Cap(c), veh/h	316	495	466	361	546	539	680	592	574	475	467	466
V/C Ratio(X)	0.83	1.29	1.30	1.49	0.95	0.95	0.68	1.16	1.17	0.19	0.69	0.70
Avail Cap(c_a), veh/h	316	495	466	361	570	563	680	592	574	475	467	466
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00	2.00	2.00	2.00
Upstream Filter(I)	0.93	0.93	0.93	0.87	0.87	0.87	1.00	1.00	1.00	0.88	0.88	0.88
Uniform Delay (d), s/veh	49.8	44.8	44.9	39.4	23.4	23.4	32.5	41.5	41.5	25.3	25.7	25.7
Incr Delay (d2), s/veh	15.5	145.0	150.4	234.9	23.5	23.8	2.7	88.0	94.0	0.2	7.3	7.5
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	9.1	34.9	33.5	32.2	12.5	12.4	12.1	32.5	32.5	1.5	6.2	6.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	65.3	189.8	195.2	274.3	46.9	47.2	35.2	129.5	135.5	25.5	33.0	33.2
LnGrp LOS	E	F	F	F	D	D	D	F	F	C	C	C
Approach Vol, veh/h		1509			1572			1817			740	
Approach Delay, s/veh		170.4			125.0			107.8			32.2	
Approach LOS		F			F			F			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	35.3	47.0	26.2	40.0	43.3	39.0	22.9	43.3
Change Period (Y+Rc), s	5.6	6.0	5.3	* 5.7	* 5.6	* 6.4	5.3	5.5
Max Green Setting (Gmax), s	5.4	41.0	20.9	* 34	* 14	* 33	15.7	39.5
Max Q Clear Time (g_c+I1), s	2.0	43.0	22.9	36.3	18.7	19.1	15.2	35.5
Green Ext Time (p_c), s	0.1	0.0	0.0	0.0	0.0	3.3	0.0	2.3

Intersection Summary	
HCM 7th Control Delay, s/veh	119.4
HCM 7th LOS	F

Notes

* HCM 7th 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)	254	819	391	523	817	185	447	1005	310	87	533	98
Future Volume (veh/h)	254	819	391	523	817	185	447	1005	310	87	533	98
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
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	1885	1885	1885	1885	1885	1885	1885	1885	1885	1870	1870	1870
Adj Flow Rate, veh/h	262	844	403	539	842	191	461	1036	320	90	549	101
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	1	1	1	1	1	1	1	1	1	2	2	2
Cap, veh/h	283	1053	470	633	873	198	568	1114	497	164	873	160
Arrive On Green	0.08	0.20	0.20	0.04	0.10	0.10	0.09	0.41	0.41	0.05	0.29	0.29
Sat Flow, veh/h	1795	3582	1598	3483	2900	658	3483	3582	1598	1781	2999	550
Grp Volume(v), veh/h	262	844	403	539	520	513	461	1036	320	90	325	325
Grp Sat Flow(s),veh/h/ln	1795	1791	1598	1742	1791	1767	1742	1791	1598	1781	1777	1771
Q Serve(g_s), s	10.1	22.5	18.3	10.4	28.9	28.9	2.7	27.6	10.6	0.4	15.8	16.0
Cycle Q Clear(g_c), s	10.1	22.5	18.3	10.4	28.9	28.9	2.7	27.6	10.6	0.4	15.8	16.0
Prop In Lane	1.00		1.00	1.00		0.37	1.00		1.00	1.00		0.31
Lane Grp Cap(c), veh/h	283	1053	470	633	539	532	568	1114	497	164	517	515
V/C Ratio(X)	0.93	0.80	0.86	0.85	0.96	0.96	0.81	0.93	0.64	0.55	0.63	0.63
Avail Cap(c_a), veh/h	283	1053	470	633	539	532	592	1114	497	167	517	515
HCM Platoon Ratio	0.67	0.67	0.67	0.33	0.33	0.33	1.33	1.33	1.33	1.00	1.00	1.00
Upstream Filter(I)	0.92	0.92	0.92	0.85	0.85	0.85	1.00	1.00	1.00	0.87	0.87	0.87
Uniform Delay (d), s/veh	26.3	37.4	21.4	26.2	44.5	44.5	40.2	28.3	10.9	45.3	30.8	30.8
Incr Delay (d2), s/veh	32.5	4.2	13.6	9.3	27.0	27.3	8.1	14.7	6.3	3.2	5.0	5.0
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	6.9	10.8	8.9	5.5	17.8	17.6	6.0	13.0	4.0	2.2	7.3	7.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	58.8	41.5	35.1	35.6	71.5	71.8	48.3	42.9	17.2	48.5	35.7	35.8
LnGrp LOS	E	D	D	D	E	E	D	D	B	D	D	D
Approach Vol, veh/h		1509			1572			1817			740	
Approach Delay, s/veh		42.8			59.3			39.8			37.3	
Approach LOS		D			E			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.4	37.1	17.4	35.1	12.0	35.5	16.7	35.8
Change Period (Y+Rc), s	5.6	6.0	5.1	5.7	* 5.6	* 6.4	5.3	* 5.7
Max Green Setting (Gmax), s	5.0	31.1	12.3	29.2	* 7.1	* 29	11.4	* 30
Max Q Clear Time (g_c+I1), s	2.4	29.6	12.4	24.5	4.7	18.0	12.1	30.9
Green Ext Time (p_c), s	0.0	1.2	0.0	2.8	0.5	3.0	0.0	0.0

Intersection Summary	
HCM 7th Control Delay, s/veh	45.7
HCM 7th LOS	D

Notes

* HCM 7th computational engine requires equal clearance times for the phases crossing the barrier.

Intersection	
Int Delay, s/veh	6.1

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	79	26	95	98	74	99
Future Vol, veh/h	79	26	95	98	74	99
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	220	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	71	71	71	71	71	71
Heavy Vehicles, %	3	3	0	0	1	1
Mvmt Flow	111	37	134	138	104	139

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	148	0	466	74
Stage 1	-	-	-	-	130	-
Stage 2	-	-	-	-	337	-
Critical Hdwy	-	-	4.1	-	6.82	6.92
Critical Hdwy Stg 1	-	-	-	-	5.82	-
Critical Hdwy Stg 2	-	-	-	-	5.82	-
Follow-up Hdwy	-	-	2.2	-	3.51	3.31
Pot Cap-1 Maneuver	-	-	1446	-	528	976
Stage 1	-	-	-	-	885	-
Stage 2	-	-	-	-	698	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1446	-	479	976
Mov Cap-2 Maneuver	-	-	-	-	539	-
Stage 1	-	-	-	-	885	-
Stage 2	-	-	-	-	634	-

Approach	EB	WB	NB
HCM Ctrl Dly, s/v	0	3.81	12.46
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	725	-	-	1446	-
HCM Lane V/C Ratio	0.336	-	-	0.093	-
HCM Ctrl Dly (s/v)	12.5	-	-	7.7	-
HCM Lane LOS	B	-	-	A	-
HCM 95th %tile Q(veh)	1.5	-	-	0.3	-

Intersection	
Int Delay, s/veh	1.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	13	3	23	12	9	5	26	826	12	1	562	18
Future Vol, veh/h	13	3	23	12	9	5	26	826	12	1	562	18
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	-	-	-	-	-	-	50	-	-	50	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	96	96	96	96	96	96	96	96	96	96	96	96
Heavy Vehicles, %	9	0	0	0	0	0	0	1	0	0	1	0
Mvmt Flow	14	3	24	13	9	5	27	860	13	1	585	19

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1086	1524	302	1217	1527	436	604	0	0	873	0	0
Stage 1	597	597	-	921	921	-	-	-	-	-	-	-
Stage 2	489	927	-	296	606	-	-	-	-	-	-	-
Critical Hdwy	7.68	6.5	6.9	7.5	6.5	6.9	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.68	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.68	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.59	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	162	119	700	139	119	573	983	-	-	781	-	-
Stage 1	440	495	-	295	352	-	-	-	-	-	-	-
Stage 2	511	350	-	693	490	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	143	116	700	127	115	573	983	-	-	781	-	-
Mov Cap-2 Maneuver	143	116	-	127	115	-	-	-	-	-	-	-
Stage 1	439	494	-	287	342	-	-	-	-	-	-	-
Stage 2	479	340	-	664	489	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	21.31	35.87	0.26	0.02
HCM LOS	C	E		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	983	-	-	261	143	781	-	-
HCM Lane V/C Ratio	0.028	-	-	0.156	0.189	0.001	-	-
HCM Ctrl Dly (s/v)	8.8	-	-	21.3	35.9	9.6	-	-
HCM Lane LOS	A	-	-	C	E	A	-	-
HCM 95th %tile Q(veh)	0.1	-	-	0.5	0.7	0	-	-

Intersection	
Int Delay, s/veh	1.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	14	4	25	13	10	6	28	973	13	1	650	21
Future Vol, veh/h	14	4	25	13	10	6	28	973	13	1	650	21
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	-	-	-	-	-	-	50	-	-	50	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	96	96	96	96	96	96	96	96	96	96	96	96
Heavy Vehicles, %	9	0	0	0	0	0	0	1	0	0	1	0
Mvmt Flow	15	4	26	14	10	6	29	1014	14	1	677	22

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1260	1776	349	1421	1780	514	699	0	0	1027	0	0
Stage 1	690	690	-	1079	1079	-	-	-	-	-	-	-
Stage 2	570	1085	-	343	701	-	-	-	-	-	-	-
Critical Hdwy	7.68	6.5	6.9	7.5	6.5	6.9	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.68	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.68	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.59	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	120	84	653	98	83	511	907	-	-	684	-	-
Stage 1	385	449	-	237	297	-	-	-	-	-	-	-
Stage 2	456	295	-	651	444	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	100	81	653	87	80	511	907	-	-	684	-	-
Mov Cap-2 Maneuver	100	81	-	87	80	-	-	-	-	-	-	-
Stage 1	385	448	-	229	288	-	-	-	-	-	-	-
Stage 2	420	286	-	619	443	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	29.93	55.01	0.25	0.02
HCM LOS	D	F		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	907	-	-	189	101	684	-	-
HCM Lane V/C Ratio	0.032	-	-	0.237	0.298	0.002	-	-
HCM Ctrl Dly (s/v)	9.1	-	-	29.9	55	10.3	-	-
HCM Lane LOS	A	-	-	D	F	B	-	-
HCM 95th %tile Q(veh)	0.1	-	-	0.9	1.1	0	-	-

Intersection	
Int Delay, s/veh	3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	16	4	29	17	13	8	30	966	14	2	824	26
Future Vol, veh/h	16	4	29	17	13	8	30	966	14	2	824	26
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	-	-	-	-	-	-	50	-	-	50	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	96	96	96	96	96	96	96	96	96	96	96	96
Heavy Vehicles, %	9	0	0	0	0	0	0	1	0	0	1	0
Mvmt Flow	17	4	30	18	14	8	31	1006	15	2	858	27

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1448	1959	443	1511	1966	510	885	0	0	1021	0	0
Stage 1	876	876	-	1076	1076	-	-	-	-	-	-	-
Stage 2	572	1083	-	435	890	-	-	-	-	-	-	-
Critical Hdwy	7.68	6.5	6.9	7.5	6.5	6.9	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.68	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.68	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.59	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	86	64	568	84	64	514	773	-	-	688	-	-
Stage 1	296	369	-	238	298	-	-	-	-	-	-	-
Stage 2	455	296	-	575	364	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	64	61	568	71	61	514	773	-	-	688	-	-
Mov Cap-2 Maneuver	64	61	-	71	61	-	-	-	-	-	-	-
Stage 1	295	368	-	228	286	-	-	-	-	-	-	-
Stage 2	409	284	-	536	363	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	47.77	85.56	0.29	0.02
HCM LOS	E	F		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	773	-	-	133	81	688	-	-
HCM Lane V/C Ratio	0.04	-	-	0.382	0.487	0.003	-	-
HCM Ctrl Dly (s/v)	9.9	-	-	47.8	85.6	10.3	-	-
HCM Lane LOS	A	-	-	E	F	B	-	-
HCM 95th %tile Q(veh)	0.1	-	-	1.6	2	0	-	-

Intersection	
Int Delay, s/veh	1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	12	3	20	9	7	4	24	761	11	1	440	14
Future Vol, veh/h	12	3	20	9	7	4	24	761	11	1	440	14
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	-	-	-	-	-	-	50	-	-	50	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	96	96	96	96	96	96	96	96	96	96	96	96
Heavy Vehicles, %	9	0	0	0	0	0	0	1	0	0	1	0
Mvmt Flow	13	3	21	9	7	4	25	793	11	1	458	15

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	918	1322	236	1081	1323	402	473	0	0	804	0	0
Stage 1	468	468	-	848	848	-	-	-	-	-	-	-
Stage 2	450	854	-	233	475	-	-	-	-	-	-	-
Critical Hdwy	7.68	6.5	6.9	7.5	6.5	6.9	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.68	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.68	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.59	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	216	158	771	175	158	603	1100	-	-	829	-	-
Stage 1	527	565	-	326	380	-	-	-	-	-	-	-
Stage 2	540	378	-	755	561	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	200	154	771	163	154	603	1100	-	-	829	-	-
Mov Cap-2 Maneuver	200	154	-	163	154	-	-	-	-	-	-	-
Stage 1	526	564	-	319	372	-	-	-	-	-	-	-
Stage 2	514	369	-	730	560	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	17.18	26.77	0.25	0.02
HCM LOS	C	D		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1100	-	-	332	186	829	-	-
HCM Lane V/C Ratio	0.023	-	-	0.11	0.112	0.001	-	-
HCM Ctrl Dly (s/v)	8.4	-	-	17.2	26.8	9.3	-	-
HCM Lane LOS	A	-	-	C	D	A	-	-
HCM 95th %tile Q(veh)	0.1	-	-	0.4	0.4	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	5	2	65	21	13	13	60	804	69	11	428	8
Future Vol, veh/h	5	2	65	21	13	13	60	804	69	11	428	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	115	-	-	-	-	-	115	-	-	100	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	93	93	93	93	93	93	93	93	93	93	93	93
Heavy Vehicles, %	0	0	0	0	0	0	1	1	1	0	0	0
Mvmt Flow	5	2	70	23	14	14	65	865	74	12	460	9

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1056	1556	234	1285	1523	469	469	0	0	939	0	0
Stage 1	488	488	-	1031	1031	-	-	-	-	-	-	-
Stage 2	568	1068	-	255	492	-	-	-	-	-	-	-
Critical Hdwy	7.5	6.5	6.9	7.5	6.5	6.9	4.12	-	-	4.1	-	-
Critical Hdwy Stg 1	6.5	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.5	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.21	-	-	2.2	-	-
Pot Cap-1 Maneuver	182	114	774	124	119	546	1096	-	-	738	-	-
Stage 1	535	553	-	253	313	-	-	-	-	-	-	-
Stage 2	480	301	-	733	551	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	145	106	774	102	111	546	1096	-	-	738	-	-
Mov Cap-2 Maneuver	145	106	-	102	111	-	-	-	-	-	-	-
Stage 1	527	544	-	238	295	-	-	-	-	-	-	-
Stage 2	419	283	-	653	542	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	12.58	46.55	0.55	0.24
HCM LOS	B	E		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1096	-	-	145	651	136	738	-	-
HCM Lane V/C Ratio	0.059	-	-	0.037	0.111	0.373	0.016	-	-
HCM Ctrl Dly (s/v)	8.5	-	-	30.8	11.2	46.6	10	-	-
HCM Lane LOS	A	-	-	D	B	E	A	-	-
HCM 95th %tile Q(veh)	0.2	-	-	0.1	0.4	1.6	0	-	-

Intersection	
Int Delay, s/veh	4.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	6	2	84	25	16	16	70	929	80	13	467	9
Future Vol, veh/h	6	2	84	25	16	16	70	929	80	13	467	9
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	115	-	-	-	-	-	115	-	-	100	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	93	93	93	93	93	93	93	93	93	93	93	93
Heavy Vehicles, %	0	0	0	0	0	0	1	1	1	0	0	0
Mvmt Flow	6	2	90	27	17	17	75	999	86	14	502	10

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1194	1770	256	1473	1732	542	512	0	0	1085	0	0
Stage 1	535	535	-	1192	1192	-	-	-	-	-	-	-
Stage 2	659	1235	-	280	540	-	-	-	-	-	-	-
Critical Hdwy	7.5	6.5	6.9	7.5	6.5	6.9	4.12	-	-	4.1	-	-
Critical Hdwy Stg 1	6.5	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.5	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.21	-	-	2.2	-	-
Pot Cap-1 Maneuver	145	84	749	90	89	489	1057	-	-	651	-	-
Stage 1	502	527	-	202	263	-	-	-	-	-	-	-
Stage 2	424	251	-	709	525	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	102	77	749	70	81	489	1057	-	-	651	-	-
Mov Cap-2 Maneuver	102	77	-	70	81	-	-	-	-	-	-	-
Stage 1	491	516	-	187	244	-	-	-	-	-	-	-
Stage 2	353	233	-	607	513	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	13.81	91.18	0.56	0.28
HCM LOS	B	F		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1057	-	-	102	622	97	651	-	-
HCM Lane V/C Ratio	0.071	-	-	0.063	0.149	0.632	0.021	-	-
HCM Ctrl Dly (s/v)	8.7	-	-	42.8	11.8	91.2	10.7	-	-
HCM Lane LOS	A	-	-	E	B	F	B	-	-
HCM 95th %tile Q(veh)	0.2	-	-	0.2	0.5	3.1	0.1	-	-

Intersection	
Int Delay, s/veh	22.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	9	3	122	35	22	22	88	1181	102	15	545	10
Future Vol, veh/h	9	3	122	35	22	22	88	1181	102	15	545	10
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	115	-	-	-	-	-	115	-	-	100	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	93	93	93	93	93	93	93	93	93	93	93	93
Heavy Vehicles, %	0	0	0	0	0	0	1	1	1	0	0	0
Mvmt Flow	10	3	131	38	24	24	95	1270	110	16	586	11

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1460	2192	298	1841	2143	690	597	0	0	1380	0	0
Stage 1	624	624	-	1514	1514	-	-	-	-	-	-	-
Stage 2	836	1569	-	327	629	-	-	-	-	-	-	-
Critical Hdwy	7.5	6.5	6.9	7.5	6.5	6.9	4.12	-	-	4.1	-	-
Critical Hdwy Stg 1	6.5	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.5	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.21	-	-	2.2	-	-
Pot Cap-1 Maneuver	92	46	704	48	49	392	983	-	-	503	-	-
Stage 1	445	481	-	128	184	-	-	-	-	-	-	-
Stage 2	332	173	-	665	478	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	37	40	704	~ 32	43	392	983	-	-	503	-	-
Mov Cap-2 Maneuver	37	40	-	~ 32	43	-	-	-	-	-	-	-
Stage 1	431	466	-	115	166	-	-	-	-	-	-	-
Stage 2	242	156	-	520	463	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	22.83	$ 568.98	0.58	0.33
HCM LOS	C	F		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	983	-	-	37	504	47	503	-	-
HCM Lane V/C Ratio	0.096	-	-	0.264	0.267	1.802	0.032	-	-
HCM Ctrl Dly (s/v)	9.1	-	-	135.3	14.7	$ 569	12.4	-	-
HCM Lane LOS	A	-	-	F	B	F	B	-	-
HCM 95th %tile Q(veh)	0.3	-	-	0.9	1.1	8.5	0.1	-	-

Notes	
~: Volume exceeds capacity	$: Delay exceeds 300s
+: Computation Not Defined	*: All major volume in platoon

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	9	3	122	35	22	22	88	1181	102	15	545	10
Future Volume (veh/h)	9	3	122	35	22	22	88	1181	102	15	545	10
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
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	1900	1900	1900	1900	1900	1900	1885	1885	1885	1900	1900	1900
Adj Flow Rate, veh/h	10	3	131	38	24	24	95	1270	110	16	586	11
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	0	0	0	0	0	0	1	1	1	0	0	0
Cap, veh/h	461	5	227	204	68	43	542	1621	140	289	1761	33
Arrive On Green	0.14	0.14	0.14	0.14	0.14	0.14	0.49	0.49	0.49	0.49	0.49	0.49
Sat Flow, veh/h	1379	36	1580	306	475	302	828	3336	288	399	3625	68
Grp Volume(v), veh/h	10	0	134	86	0	0	95	680	700	16	292	305
Grp Sat Flow(s),veh/h/ln	1379	0	1616	1082	0	0	828	1791	1833	399	1805	1888
Q Serve(g_s), s	0.0	0.0	2.5	0.6	0.0	0.0	2.6	10.2	10.3	1.1	3.2	3.2
Cycle Q Clear(g_c), s	0.2	0.0	2.5	3.1	0.0	0.0	5.8	10.2	10.3	11.4	3.2	3.2
Prop In Lane	1.00		0.98	0.44		0.28	1.00		0.16	1.00		0.04
Lane Grp Cap(c), veh/h	461	0	232	316	0	0	542	870	891	289	877	917
V/C Ratio(X)	0.02	0.00	0.58	0.27	0.00	0.00	0.18	0.78	0.79	0.06	0.33	0.33
Avail Cap(c_a), veh/h	944	0	798	841	0	0	575	940	962	305	947	991
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	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	11.9	0.0	12.9	12.9	0.0	0.0	6.9	6.9	6.9	11.7	5.1	5.1
Incr Delay (d2), s/veh	0.0	0.0	2.3	0.5	0.0	0.0	0.2	4.0	4.1	0.1	0.2	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	0.1	0.0	0.9	0.5	0.0	0.0	0.3	2.6	2.7	0.1	0.6	0.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	12.0	0.0	15.2	13.3	0.0	0.0	7.0	10.9	11.0	11.7	5.3	5.3
LnGrp LOS	B		B	B			A	B	B	B	A	A
Approach Vol, veh/h		144			86			1475			613	
Approach Delay, s/veh		15.0			13.3			10.7			5.5	
Approach LOS		B			B			B			A	

Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		21.7		10.7		21.7		10.7				
Change Period (Y+Rc), s		6.0		6.0		6.0		6.0				
Max Green Setting (Gmax), s		17.0		16.0		17.0		16.0				
Max Q Clear Time (g_c+I1), s		12.3		4.5		13.4		5.1				
Green Ext Time (p_c), s		3.5		0.6		1.3		0.3				

Intersection Summary												
HCM 7th Control Delay, s/veh			9.7									
HCM 7th LOS			A									

Intersection	
Int Delay, s/veh	3.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	24	110	3	21	163	7	3	17	14	8	27	32
Future Vol, veh/h	24	110	3	21	163	7	3	17	14	8	27	32
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	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	86	86	86	86	86	86	86	86	86	86	86	86
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	4	4	4
Mvmt Flow	28	128	3	24	190	8	3	20	16	9	31	37

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	198	0	0	131	0	0	440	432	130	436	430	194
Stage 1	-	-	-	-	-	-	185	185	-	242	242	-
Stage 2	-	-	-	-	-	-	254	247	-	194	187	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.14	6.54	6.24
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.14	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.14	5.54	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.536	4.036	3.336
Pot Cap-1 Maneuver	1387	-	-	1466	-	-	531	519	925	527	515	843
Stage 1	-	-	-	-	-	-	821	750	-	757	701	-
Stage 2	-	-	-	-	-	-	755	706	-	804	741	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1387	-	-	1466	-	-	458	499	925	478	494	843
Mov Cap-2 Maneuver	-	-	-	-	-	-	458	499	-	478	494	-
Stage 1	-	-	-	-	-	-	803	734	-	742	688	-
Stage 2	-	-	-	-	-	-	676	693	-	751	725	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	1.34	0.82	11.31	11.73
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	610	314	-	-	196	-	-	613
HCM Lane V/C Ratio	0.065	0.02	-	-	0.017	-	-	0.127
HCM Ctrl Dly (s/v)	11.3	7.6	0	-	7.5	0	-	11.7
HCM Lane LOS	B	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.2	0.1	-	-	0.1	-	-	0.4

Intersection	
Int Delay, s/veh	8.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	8	2	134	29	1	18	45	1377	49	15	953	19
Future Vol, veh/h	8	2	134	29	1	18	45	1377	49	15	953	19
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	50	-	-	70	-	-	50	-	-	50	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	98	98	98	98	98	98	98	98	98	98	98	98
Heavy Vehicles, %	0	0	0	3	3	3	1	1	1	1	1	1
Mvmt Flow	8	2	137	30	1	18	46	1405	50	15	972	19

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1808	2560	496	2040	2544	728	992	0	0	1455	0	0
Stage 1	1013	1013	-	1522	1522	-	-	-	-	-	-	-
Stage 2	795	1547	-	518	1022	-	-	-	-	-	-	-
Critical Hdwy	7.5	6.5	6.9	7.56	6.56	6.96	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.5	5.5	-	6.56	5.56	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.5	5.5	-	6.56	5.56	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.53	4.03	3.33	2.21	-	-	2.21	-	-
Pot Cap-1 Maneuver	51	27	525	33	26	364	699	-	-	466	-	-
Stage 1	260	319	-	123	177	-	-	-	-	-	-	-
Stage 2	352	177	-	506	309	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	42	24	525	~ 20	24	364	699	-	-	466	-	-
Mov Cap-2 Maneuver	42	24	-	~ 20	24	-	-	-	-	-	-	-
Stage 1	251	309	-	115	166	-	-	-	-	-	-	-
Stage 2	310	166	-	360	299	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	23.74	$ 403.69	0.32	0.2
HCM LOS	C	F		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	699	-	-	42	402	20	207	466	-	-
HCM Lane V/C Ratio	0.066	-	-	0.196	0.345	1.475	0.094	0.033	-	-
HCM Ctrl Dly (s/v)	10.5	-	-	111.3	18.6	$ 652.3	24.2	13	-	-
HCM Lane LOS	B	-	-	F	C	F	C	B	-	-
HCM 95th %tile Q(veh)	0.2	-	-	0.6	1.5	4	0.3	0.1	-	-

Notes	
~: Volume exceeds capacity	$: Delay exceeds 300s
+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	25.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	10	2	169	34	1	21	52	1592	56	17	1061	21
Future Vol, veh/h	10	2	169	34	1	21	52	1592	56	17	1061	21
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	50	-	-	70	-	-	50	-	-	50	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	98	98	98	98	98	98	98	98	98	98	98	98
Heavy Vehicles, %	0	0	0	3	3	3	1	1	1	1	1	1
Mvmt Flow	10	2	172	35	1	21	53	1624	57	17	1083	21

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	2047	2916	552	2336	2898	841	1104	0	0	1682	0	0
Stage 1	1128	1128	-	1759	1759	-	-	-	-	-	-	-
Stage 2	919	1788	-	577	1139	-	-	-	-	-	-	-
Critical Hdwy	7.5	6.5	6.9	7.56	6.56	6.96	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.5	5.5	-	6.56	5.56	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.5	5.5	-	6.56	5.56	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.53	4.03	3.33	2.21	-	-	2.21	-	-
Pot Cap-1 Maneuver	33	16	483	~ 19	15	306	634	-	-	381	-	-
Stage 1	221	282	-	87	135	-	-	-	-	-	-	-
Stage 2	296	135	-	467	272	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	25	14	483	~ 9	13	306	634	-	-	381	-	-
Mov Cap-2 Maneuver	25	14	-	~ 9	13	-	-	-	-	-	-	-
Stage 1	211	269	-	80	124	-	-	-	-	-	-	-
Stage 2	250	124	-	284	260	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	36.54	$ 1226.9	0.34	0.23
HCM LOS	E	F		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	634	-	-	25	345	9	154	381	-	-
HCM Lane V/C Ratio	0.084	-	-	0.403	0.506	3.699	0.146	0.046	-	-
HCM Ctrl Dly (s/v)	11.2	-	-	222.5	25.3	$ 1999.8	32.4	14.9	-	-
HCM Lane LOS	B	-	-	F	D	F	D	B	-	-
HCM 95th %tile Q(veh)	0.3	-	-	1.2	2.7	5.5	0.5	0.1	-	-

Notes	
~: Volume exceeds capacity	$: Delay exceeds 300s
+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	463.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	14	3	237	43	2	26	66	2023	71	21	1278	26
Future Vol, veh/h	14	3	237	43	2	26	66	2023	71	21	1278	26
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	50	-	-	70	-	-	50	-	-	50	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	98	98	98	98	98	98	98	98	98	98	98	98
Heavy Vehicles, %	0	0	0	3	3	3	1	1	1	1	1	1
Mvmt Flow	14	3	242	44	2	27	67	2064	72	21	1304	27

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	2528	3632	665	2932	3609	1068	1331	0	0	2137	0	0
Stage 1	1360	1360	-	2235	2235	-	-	-	-	-	-	-
Stage 2	1168	2271	-	696	1373	-	-	-	-	-	-	-
Critical Hdwy	7.5	6.5	6.9	7.56	6.56	6.96	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.5	5.5	-	6.56	5.56	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.5	5.5	-	6.56	5.56	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.53	4.03	3.33	2.21	-	-	2.21	-	-
Pot Cap-1 Maneuver	~ 14	5	407	~ 7	5	216	520	-	-	254	-	-
Stage 1	159	218	-	~ 43	77	-	-	-	-	-	-	-
Stage 2	209	77	-	396	210	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	~ 6	4	407	~ 1	4	216	520	-	-	254	-	-
Mov Cap-2 Maneuver	~ 6	4	-	~ 1	4	-	-	-	-	-	-	-
Stage 1	146	200	-	~ 37	67	-	-	-	-	-	-	-
Stage 2	155	67	-	145	192	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	$ 322.84	$ 23696.31	0.4	0.33
HCM LOS	F	F		

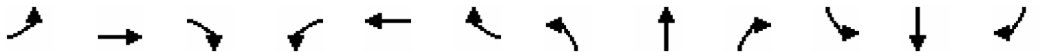
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	520	-	-	6	185	1	46	254	-	-
HCM Lane V/C Ratio	0.13	-	-	2.576	1.326	65.359	0.623	0.085	-	-
HCM Ctrl Dly (s/v)	13	-	-	$ 1945.6	228.3	$ 39016	169.7	20.5	-	-
HCM Lane LOS	B	-	-	F	F	F	F	C	-	-
HCM 95th %tile Q(veh)	0.4	-	-	2.9	14.1	7.6	2.4	0.3	-	-

Notes	
~: Volume exceeds capacity	$: Delay exceeds 300s
+: Computation Not Defined	*: All major volume in platoon

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	22	604	1	9	734	9	5	4	14	15	2	22
Future Volume (veh/h)	22	604	1	9	734	9	5	4	14	15	2	22
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
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	1900	1900	1900	1885	1885	1885	1841	1841	1841	1900	1900	1900
Adj Flow Rate, veh/h	24	649	1	10	789	10	5	4	15	16	2	24
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	0	0	0	1	1	1	4	4	4	0	0	0
Cap, veh/h	387	1430	2	424	1341	17	399	47	176	417	19	228
Arrive On Green	0.03	0.39	0.39	0.01	0.37	0.37	0.01	0.14	0.14	0.02	0.15	0.15
Sat Flow, veh/h	1810	3698	6	1795	3622	46	1753	339	1272	1810	125	1504
Grp Volume(v), veh/h	24	317	333	10	390	409	5	0	19	16	0	26
Grp Sat Flow(s),veh/h/ln	1810	1805	1899	1795	1791	1877	1753	0	1612	1810	0	1629
Q Serve(g_s), s	0.3	4.7	4.7	0.1	6.4	6.4	0.1	0.0	0.4	0.3	0.0	0.5
Cycle Q Clear(g_c), s	0.3	4.7	4.7	0.1	6.4	6.4	0.1	0.0	0.4	0.3	0.0	0.5
Prop In Lane	1.00		0.00	1.00		0.02	1.00		0.79	1.00		0.92
Lane Grp Cap(c), veh/h	387	698	734	424	663	695	399	0	222	417	0	247
V/C Ratio(X)	0.06	0.45	0.45	0.02	0.59	0.59	0.01	0.00	0.09	0.04	0.00	0.11
Avail Cap(c_a), veh/h	833	897	944	747	1582	1658	871	0	801	729	0	810
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	0.00	1.00
Uniform Delay (d), s/veh	7.2	8.3	8.3	7.2	9.2	9.2	13.3	0.0	13.6	12.9	0.0	13.2
Incr Delay (d2), s/veh	0.1	0.5	0.4	0.0	0.8	0.8	0.0	0.0	0.2	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	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	1.3	1.3	0.0	1.8	1.8	0.0	0.0	0.1	0.1	0.0	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	7.3	8.7	8.7	7.2	10.0	10.0	13.3	0.0	13.8	13.0	0.0	13.4
LnGrp LOS	A	A	A	A	B	A	B		B	B		B
Approach Vol, veh/h		674			809			24			42	
Approach Delay, s/veh		8.7			10.0			13.7			13.3	
Approach LOS		A			A			B			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	5.1	17.4	4.2	9.5	4.5	18.0	4.7	9.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	10.0	32.0	10.0	18.0	7.0	18.0	7.0	18.0
Max Q Clear Time (g_c+I1), s	2.3	8.4	2.1	2.5	2.1	6.7	2.3	2.4
Green Ext Time (p_c), s	0.0	5.1	0.0	0.1	0.0	2.9	0.0	0.0

Intersection Summary	
HCM 7th Control Delay, s/veh	9.5
HCM 7th LOS	A



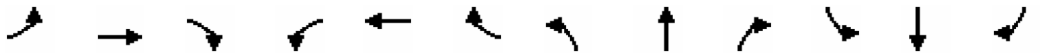
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	640	0	407	0	0	0	0	589	137	292	481	0
Future Volume (veh/h)	640	0	407	0	0	0	0	589	137	292	481	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	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
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870				0	1870	1870	1870	1870	0
Adj Flow Rate, veh/h	653	0	415				0	601	140	298	491	0
Peak Hour Factor	0.98	0.98	0.98				0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	2				0	2	2	2	2	0
Cap, veh/h	699	0	622				0	797	185	415	1824	0
Arrive On Green	0.39	0.00	0.39				0.00	0.10	0.10	0.34	1.00	0.00
Sat Flow, veh/h	1781	0	1585				0	3016	614	1781	3647	0
Grp Volume(v), veh/h	653	0	415				0	340	401	298	491	0
Grp Sat Flow(s),veh/h/ln	1781	0	1585				0	1496	1760	1781	1777	0
Q Serve(g_s), s	38.0	0.0	23.3				0.0	23.9	24.0	7.8	0.0	0.0
Cycle Q Clear(g_c), s	38.0	0.0	23.3				0.0	23.9	24.0	7.8	0.0	0.0
Prop In Lane	1.00		1.00				0.00		0.35	1.00		0.00
Lane Grp Cap(c), veh/h	699	0	622				0	452	531	415	1824	0
V/C Ratio(X)	0.93	0.00	0.67				0.00	0.75	0.76	0.72	0.27	0.00
Avail Cap(c_a), veh/h	737	0	656				0	452	531	415	1824	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	0.33	0.33	2.00	2.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	0.97	0.97	0.62	0.62	0.00
Uniform Delay (d), s/veh	31.5	0.0	27.0				0.0	44.7	44.7	30.1	0.0	0.0
Incr Delay (d2), s/veh	18.5	0.0	2.4				0.0	10.7	9.3	3.7	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
%ile BackOfQ(50%),veh/ln	18.7	0.0	8.7				0.0	10.9	12.7	6.0	0.1	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	50.0	0.0	29.4				0.0	55.4	54.1	33.8	0.2	0.0
LnGrp LOS	D		C					E	D	C	A	
Approach Vol, veh/h		1068						741			789	
Approach Delay, s/veh		42.0						54.7			12.9	
Approach LOS		D						D			B	

Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		60.3			23.3	37.0		47.7				
Change Period (Y+Rc), s		4.9			4.9	* 4.4		5.3				
Max Green Setting (Gmax), s		53.1			16.5	* 33		44.7				
Max Q Clear Time (g_c+I1), s		2.0			9.8	26.0		40.0				
Green Ext Time (p_c), s		4.0			0.5	2.6		2.4				

Intersection Summary												
HCM 7th Control Delay, s/veh			36.8									
HCM 7th LOS			D									

Notes

* HCM 7th computational engine requires equal clearance times for the phases crossing the barrier.



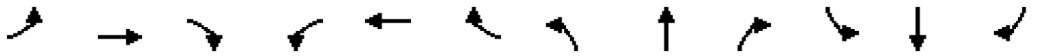
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	716	0	455	0	0	0	0	681	158	337	556	0
Future Volume (veh/h)	716	0	455	0	0	0	0	681	158	337	556	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	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
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870				0	1870	1870	1870	1870	0
Adj Flow Rate, veh/h	731	0	464				0	695	161	344	567	0
Peak Hour Factor	0.98	0.98	0.98				0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	2				0	2	2	2	2	0
Cap, veh/h	743	0	661				0	815	189	384	1829	0
Arrive On Green	0.42	0.00	0.42				0.00	0.10	0.10	0.23	0.68	0.00
Sat Flow, veh/h	1781	0	1585				0	3018	612	1781	3647	0
Grp Volume(v), veh/h	731	0	464				0	393	463	344	567	0
Grp Sat Flow(s),veh/h/ln	1781	0	1585				0	1496	1760	1781	1777	0
Q Serve(g_s), s	50.3	0.0	29.9				0.0	32.0	32.1	17.4	7.9	0.0
Cycle Q Clear(g_c), s	50.3	0.0	29.9				0.0	32.0	32.1	17.4	7.9	0.0
Prop In Lane	1.00		1.00				0.00		0.35	1.00		0.00
Lane Grp Cap(c), veh/h	743	0	661				0	461	542	384	1829	0
V/C Ratio(X)	0.98	0.00	0.70				0.00	0.85	0.85	0.89	0.31	0.00
Avail Cap(c_a), veh/h	743	0	661				0	461	542	384	1829	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	0.33	0.33	1.33	1.33	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	0.94	0.94	0.38	0.38	0.00
Uniform Delay (d), s/veh	35.7	0.0	29.8				0.0	52.9	52.9	44.3	10.7	0.0
Incr Delay (d2), s/veh	29.0	0.0	3.3				0.0	16.9	14.8	10.4	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
%ile BackOfQ(50%),veh/ln	26.5	0.0	11.5				0.0	15.1	17.5	10.8	2.9	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	64.8	0.0	33.1				0.0	69.9	67.8	54.6	10.9	0.0
LnGrp LOS	E		C					E	E	D	B	
Approach Vol, veh/h		1195						856			911	
Approach Delay, s/veh		52.5						68.8			27.4	
Approach LOS		D						E			C	

Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		68.7			26.1	42.6		57.0				
Change Period (Y+Rc), s		4.9			4.9	* 4.4		5.3				
Max Green Setting (Gmax), s		62.1			19.9	* 38		51.7				
Max Q Clear Time (g_c+I1), s		9.9			19.4	34.1		52.3				
Green Ext Time (p_c), s		4.7			0.1	2.1		0.0				

Intersection Summary												
HCM 7th Control Delay, s/veh			49.5									
HCM 7th LOS			D									

Notes

* HCM 7th computational engine requires equal clearance times for the phases crossing the barrier.



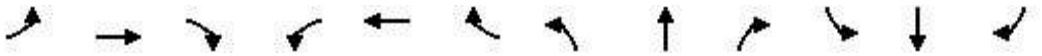
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	869	0	552	0	0	0	0	865	201	429	707	0
Future Volume (veh/h)	869	0	552	0	0	0	0	865	201	429	707	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	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
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870				0	1870	1870	1870	1870	0
Adj Flow Rate, veh/h	887	0	563				0	883	205	438	721	0
Peak Hour Factor	0.98	0.98	0.98				0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	2				0	2	2	2	2	0
Cap, veh/h	728	0	648				0	865	201	513	2198	0
Arrive On Green	0.41	0.00	0.41				0.00	0.44	0.44	0.08	0.20	0.00
Sat Flow, veh/h	1781	0	1585				0	3017	613	1781	3647	0
Grp Volume(v), veh/h	887	0	563				0	500	588	438	721	0
Grp Sat Flow(s),veh/h/ln	1781	0	1585				0	1496	1760	1781	1777	0
Q Serve(g_s), s	50.7	0.0	40.4				0.0	40.6	40.6	26.0	21.5	0.0
Cycle Q Clear(g_c), s	50.7	0.0	40.4				0.0	40.6	40.6	26.0	21.5	0.0
Prop In Lane	1.00		1.00				0.00		0.35	1.00		0.00
Lane Grp Cap(c), veh/h	728	0	648				0	490	576	513	2198	0
V/C Ratio(X)	1.22	0.00	0.87				0.00	1.02	1.02	0.85	0.33	0.00
Avail Cap(c_a), veh/h	728	0	648				0	490	576	513	2198	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.33	1.33	0.33	0.33	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	0.93	0.93	0.09	0.09	0.00
Uniform Delay (d), s/veh	36.7	0.0	33.6				0.0	35.0	35.0	52.4	27.4	0.0
Incr Delay (d2), s/veh	110.3	0.0	12.1				0.0	44.4	41.5	1.4	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	0.0
%ile BackOfQ(50%),veh/ln	43.0	0.0	16.8				0.0	19.8	22.9	14.6	10.3	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	147.0	0.0	45.7				0.0	79.4	76.5	53.8	27.4	0.0
LnGrp LOS	F		D					F	F	D	C	
Approach Vol, veh/h		1450						1088			1159	
Approach Delay, s/veh		107.7						77.8			37.4	
Approach LOS		F						E			D	

Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		82.0			37.0	45.0		56.0				
Change Period (Y+Rc), s		4.9			4.9	* 4.4		5.3				
Max Green Setting (Gmax), s		63.1			18.5	* 41		50.7				
Max Q Clear Time (g_c+I1), s		23.5			28.0	42.6		52.7				
Green Ext Time (p_c), s		6.2			0.0	0.0		0.0				

Intersection Summary		
HCM 7th Control Delay, s/veh		76.8
HCM 7th LOS		E

Notes

* HCM 7th 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)	869	0	552	0	0	0	0	865	201	429	707	0
Future Volume (veh/h)	869	0	552	0	0	0	0	865	201	429	707	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	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
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870				0	1870	1870	1870	1870	0
Adj Flow Rate, veh/h	887	0	563				0	883	205	438	721	0
Peak Hour Factor	0.98	0.98	0.98				0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	2				0	2	2	2	2	0
Cap, veh/h	981	0	873				0	970	225	469	2213	0
Arrive On Green	0.28	0.00	0.28				0.00	0.49	0.49	0.42	1.00	0.00
Sat Flow, veh/h	3563	0	3170				0	3017	613	1781	3647	0
Grp Volume(v), veh/h	887	0	563				0	500	588	438	721	0
Grp Sat Flow(s),veh/h/ln	1781	0	1585				0	1496	1760	1781	1777	0
Q Serve(g_s), s	24.0	0.0	15.7				0.0	30.8	30.8	17.7	0.0	0.0
Cycle Q Clear(g_c), s	24.0	0.0	15.7				0.0	30.8	30.8	17.7	0.0	0.0
Prop In Lane	1.00		1.00				0.00		0.35	1.00		0.00
Lane Grp Cap(c), veh/h	981	0	873				0	549	646	469	2213	0
V/C Ratio(X)	0.90	0.00	0.65				0.00	0.91	0.91	0.93	0.33	0.00
Avail Cap(c_a), veh/h	1015	0	903				0	549	646	469	2213	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.33	1.33	2.00	2.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	0.94	0.94	0.55	0.55	0.00
Uniform Delay (d), s/veh	35.0	0.0	31.9				0.0	24.1	24.1	25.9	0.0	0.0
Incr Delay (d2), s/veh	11.1	0.0	1.5				0.0	20.6	18.4	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
%ile BackOfQ(50%),veh/ln	11.3	0.0	5.9				0.0	12.7	14.6	9.2	0.1	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	46.0	0.0	33.5				0.0	44.7	42.4	42.8	0.2	0.0
LnGrp LOS	D		C					D	D	D	A	
Approach Vol, veh/h		1450						1088			1159	
Approach Delay, s/veh		41.2						43.5			16.3	
Approach LOS		D						D			B	

Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		67.2			26.1	41.1		32.8				
Change Period (Y+Rc), s		4.9			4.9	* 4.4		5.3				
Max Green Setting (Gmax), s		61.3			20.6	* 37		28.5				
Max Q Clear Time (g_c+I1), s		2.0			19.7	32.8		26.0				
Green Ext Time (p_c), s		6.4			0.2	2.5		1.5				

Intersection Summary		
HCM 7th Control Delay, s/veh		34.0
HCM 7th LOS		C

Notes

User approved volume balancing among the lanes for turning movement.

* HCM 7th computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations												
Traffic Volume (veh/h)	181	427	30	4	74	583	267	19	35	53	130	37
Future Volume (veh/h)	181	427	30	4	74	583	267	19	35	53	130	37
Initial Q (Qb), veh	0	0	0		0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	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
Work Zone On Approach		No				No			No			No
Adj Sat Flow, veh/h/ln	1870	1870	1870		1885	1885	1885	1841	1841	1841	1885	1885
Adj Flow Rate, veh/h	195	459	32		80	627	287	20	38	57	140	40
Peak Hour Factor	0.93	0.93	0.93		0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2		1	1	1	4	4	4	1	1
Cap, veh/h	356	1236	86		464	726	332	277	66	98	358	83
Arrive On Green	0.10	0.37	0.37		0.05	0.30	0.30	0.01	0.10	0.10	0.09	0.17
Sat Flow, veh/h	1781	3371	234		1795	2387	1092	1753	665	997	1795	481
Grp Volume(v), veh/h	195	241	250		80	470	444	20	0	95	140	0
Grp Sat Flow(s),veh/h/ln	1781	1777	1828		1795	1791	1689	1753	0	1661	1795	0
Q Serve(g_s), s	3.9	5.3	5.3		1.6	13.2	13.2	0.5	0.0	2.9	3.5	0.0
Cycle Q Clear(g_c), s	3.9	5.3	5.3		1.6	13.2	13.2	0.5	0.0	2.9	3.5	0.0
Prop In Lane	1.00		0.13		1.00		0.65	1.00		0.60	1.00	
Lane Grp Cap(c), veh/h	356	651	670		464	545	514	277	0	164	358	0
V/C Ratio(X)	0.55	0.37	0.37		0.17	0.86	0.86	0.07	0.00	0.58	0.39	0.00
Avail Cap(c_a), veh/h	358	651	670		578	570	538	460	0	538	413	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
Upstream Filter(I)	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	12.6	12.3	12.3		11.7	17.4	17.4	21.2	0.0	22.9	18.1	0.0
Incr Delay (d2), s/veh	1.7	0.4	0.3		0.2	12.6	13.3	0.1	0.0	3.2	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
%ile BackOfQ(50%),veh/ln	1.3	1.7	1.7		0.6	6.5	6.2	0.2	0.0	1.2	1.4	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	14.4	12.7	12.7		11.9	30.0	30.7	21.3	0.0	26.1	18.8	0.0
LnGrp LOS	B	B	B		B	C	C	C		C	B	
Approach Vol, veh/h		686				994			115			279
Approach Delay, s/veh		13.2				28.8			25.3			19.9
Approach LOS		B				C			C			B

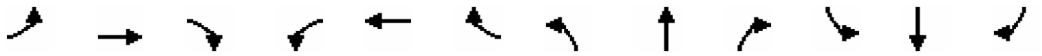
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.2	21.8	5.8	14.2	7.9	25.2	9.7	10.3
Change Period (Y+Rc), s	5.7	* 5.7	5.1	* 5.1	5.4	5.7	4.8	5.1
Max Green Setting (Gmax), s	5.6	* 17	6.2	* 18	5.9	16.6	6.5	17.2
Max Q Clear Time (g_c+I1), s	5.9	15.2	2.5	6.0	3.6	7.3	5.5	4.9
Green Ext Time (p_c), s	0.0	1.0	0.0	0.5	0.0	1.8	0.0	0.3

Intersection Summary	
HCM 7th Control Delay, s/veh	22.3
HCM 7th LOS	C

Notes

User approved ignoring U-Turning movement.

* HCM 7th computational engine requires equal clearance times for the phases crossing the barrier.



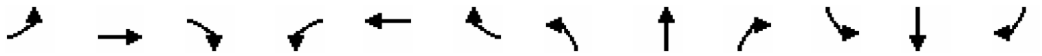
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	136	0	413	214	1048	0	0	667	514
Future Volume (veh/h)	0	0	0	136	0	413	214	1048	0	0	667	514
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Lane Width Adj.				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)				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
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1885	1885	1885	1870	1870	0	0	1885	1885
Adj Flow Rate, veh/h				143	0	435	225	1103	0	0	702	541
Peak Hour Factor				0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %				1	1	1	2	2	0	0	1	1
Cap, veh/h				524	0	466	422	2175	0	0	946	721
Arrive On Green				0.29	0.00	0.29	0.17	1.00	0.00	0.00	0.98	0.98
Sat Flow, veh/h				1795	0	1598	1781	3647	0	0	2029	1476
Grp Volume(v), veh/h				143	0	435	225	1103	0	0	649	594
Grp Sat Flow(s),veh/h/ln				1795	0	1598	1781	1777	0	0	1791	1620
Q Serve(g_s), s				6.6	0.0	28.6	6.8	0.0	0.0	0.0	3.2	3.3
Cycle Q Clear(g_c), s				6.6	0.0	28.6	6.8	0.0	0.0	0.0	3.2	3.3
Prop In Lane				1.00		1.00	1.00		0.00	0.00		0.91
Lane Grp Cap(c), veh/h				524	0	466	422	2175	0	0	875	792
V/C Ratio(X)				0.27	0.00	0.93	0.53	0.51	0.00	0.00	0.74	0.75
Avail Cap(c_a), veh/h				569	0	506	532	2175	0	0	875	792
HCM Platoon Ratio				1.00	1.00	1.00	2.00	2.00	1.00	1.00	2.00	2.00
Upstream Filter(I)				1.00	0.00	1.00	0.51	0.51	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				29.4	0.0	37.2	9.6	0.0	0.0	0.0	0.7	0.7
Incr Delay (d2), s/veh				0.3	0.0	23.7	0.5	0.4	0.0	0.0	5.6	6.5
Initial Q Delay(d3), s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				2.8	0.0	13.6	2.3	0.1	0.0	0.0	1.7	1.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh				29.7	0.0	60.9	10.2	0.4	0.0	0.0	6.3	7.1
LnGrp LOS				C		E	B	A			A	A
Approach Vol, veh/h					578			1328			1243	
Approach Delay, s/veh					53.2			2.1			6.7	
Approach LOS					D			A			A	

Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	13.3	57.4		37.3		70.7						
Change Period (Y+Rc), s	4.2	* 4.6		5.8		* 4.6						
Max Green Setting (Gmax), s	15.8	* 44		34.2		* 63						
Max Q Clear Time (g_c+I1), s	8.8	5.3		30.6		2.0						
Green Ext Time (p_c), s	0.4	12.6		0.9		11.9						

Intersection Summary	
HCM 7th Control Delay, s/veh	13.3
HCM 7th LOS	B

Notes

* HCM 7th computational engine requires equal clearance times for the phases crossing the barrier.



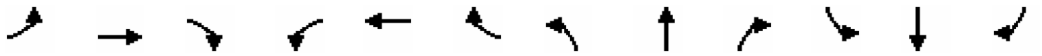
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	149	0	453	247	1212	0	0	783	603
Future Volume (veh/h)	0	0	0	149	0	453	247	1212	0	0	783	603
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Lane Width Adj.				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)				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
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1885	1885	1885	1870	1870	0	0	1885	1885
Adj Flow Rate, veh/h				157	0	477	260	1276	0	0	824	635
Peak Hour Factor				0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %				1	1	1	2	2	0	0	1	1
Cap, veh/h				539	0	479	283	2190	0	0	915	683
Arrive On Green				0.30	0.00	0.30	0.23	1.00	0.00	0.00	0.47	0.47
Sat Flow, veh/h				1795	0	1598	1781	3647	0	0	2049	1459
Grp Volume(v), veh/h				157	0	477	260	1276	0	0	753	706
Grp Sat Flow(s),veh/h/ln				1795	0	1598	1781	1777	0	0	1791	1623
Q Serve(g_s), s				8.3	0.0	36.9	11.9	0.0	0.0	0.0	47.8	50.9
Cycle Q Clear(g_c), s				8.3	0.0	36.9	11.9	0.0	0.0	0.0	47.8	50.9
Prop In Lane				1.00		1.00	1.00		0.00	0.00		0.90
Lane Grp Cap(c), veh/h				539	0	479	283	2190	0	0	838	759
V/C Ratio(X)				0.29	0.00	1.00	0.92	0.58	0.00	0.00	0.90	0.93
Avail Cap(c_a), veh/h				539	0	479	320	2190	0	0	838	759
HCM Platoon Ratio				1.00	1.00	1.00	2.00	2.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	0.21	0.21	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				33.3	0.0	43.3	29.7	0.0	0.0	0.0	30.3	31.1
Incr Delay (d2), s/veh				0.3	0.0	39.8	8.7	0.2	0.0	0.0	14.4	19.5
Initial Q Delay(d3), s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				3.6	0.0	19.3	7.5	0.1	0.0	0.0	23.7	23.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh				33.6	0.0	83.1	38.4	0.2	0.0	0.0	44.6	50.6
LnGrp LOS				C		F	D	A			D	D
Approach Vol, veh/h					634			1536			1459	
Approach Delay, s/veh					70.8			6.7			47.5	
Approach LOS					E			A			D	

Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	18.4	62.6		43.0		81.0						
Change Period (Y+Rc), s	4.2	* 4.6		5.8		* 4.6						
Max Green Setting (Gmax), s	16.8	* 56		37.2		* 76						
Max Q Clear Time (g_c+I1), s	13.9	52.9		38.9		2.0						
Green Ext Time (p_c), s	0.2	2.2		0.0		15.5						

Intersection Summary		
HCM 7th Control Delay, s/veh		34.3
HCM 7th LOS		C

Notes

* HCM 7th 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)	0	0	0	175	0	531	314	1540	0	0	1015	782
Future Volume (veh/h)	0	0	0	175	0	531	314	1540	0	0	1015	782
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Lane Width Adj.				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)				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
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1885	1885	1885	1870	1870	0	0	1885	1885
Adj Flow Rate, veh/h				184	0	559	331	1621	0	0	1068	823
Peak Hour Factor				0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %				1	1	1	2	2	0	0	1	1
Cap, veh/h				524	0	466	285	2413	0	0	1049	724
Arrive On Green				0.29	0.00	0.29	0.13	0.68	0.00	0.00	0.17	0.17
Sat Flow, veh/h				1795	0	1598	1781	3647	0	0	2121	1398
Grp Volume(v), veh/h				184	0	559	331	1621	0	0	929	962
Grp Sat Flow(s),veh/h/ln				1795	0	1598	1781	1777	0	0	1791	1634
Q Serve(g_s), s				10.0	0.0	36.2	15.8	33.4	0.0	0.0	64.2	64.2
Cycle Q Clear(g_c), s				10.0	0.0	36.2	15.8	33.4	0.0	0.0	64.2	64.2
Prop In Lane				1.00		1.00	1.00		0.00	0.00		0.86
Lane Grp Cap(c), veh/h				524	0	466	285	2413	0	0	927	846
V/C Ratio(X)				0.35	0.00	1.20	1.16	0.67	0.00	0.00	1.00	1.14
Avail Cap(c_a), veh/h				524	0	466	285	2413	0	0	927	846
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.33	0.33
Upstream Filter(I)				1.00	0.00	1.00	0.09	0.09	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				34.6	0.0	43.9	43.9	11.7	0.0	0.0	51.4	51.4
Incr Delay (d2), s/veh				0.4	0.0	108.5	75.8	0.1	0.0	0.0	30.1	76.1
Initial Q Delay(d3), s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				4.3	0.0	27.8	14.9	12.6	0.0	0.0	38.7	46.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh				35.0	0.0	152.4	119.6	11.9	0.0	0.0	81.5	127.5
LnGrp LOS				D		F	F	B			F	F
Approach Vol, veh/h					743			1952			1891	
Approach Delay, s/veh					123.4			30.2			104.9	
Approach LOS					F			C			F	

Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	20.0	69.0		42.0		89.0						
Change Period (Y+Rc), s	4.2	* 4.6		5.8		* 4.6						
Max Green Setting (Gmax), s	15.8	* 58		36.2		* 77						
Max Q Clear Time (g_c+I1), s	17.8	66.2		38.2		35.4						
Green Ext Time (p_c), s	0.0	0.0		0.0		20.3						

Intersection Summary		
HCM 7th Control Delay, s/veh		76.1
HCM 7th LOS		E

Notes

* HCM 7th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	WBL	WBR	SEL	SET	NWT	NWR
Lane Configurations						
Traffic Volume (veh/h)	178	568	0	1057	1184	0
Future Volume (veh/h)	178	568	0	1057	1184	0
Initial Q (Qb), veh	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00
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	1900	1900	0	1885	1885	0
Adj Flow Rate, veh/h	185	592	0	1101	1233	0
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	1	1	0
Cap, veh/h	684	608	0	1274	1274	0
Arrive On Green	0.38	0.38	0.00	0.36	0.36	0.00
Sat Flow, veh/h	1810	1610	0	3770	3770	0
Grp Volume(v), veh/h	185	592	0	1101	1233	0
Grp Sat Flow(s),veh/h/ln	1810	1610	0	1791	1791	0
Q Serve(g_s), s	3.2	16.3	0.0	12.9	15.2	0.0
Cycle Q Clear(g_c), s	3.2	16.3	0.0	12.9	15.2	0.0
Prop In Lane	1.00	1.00	0.00			0.00
Lane Grp Cap(c), veh/h	684	608	0	1274	1274	0
V/C Ratio(X)	0.27	0.97	0.00	0.86	0.97	0.00
Avail Cap(c_a), veh/h	684	608	0	1274	1274	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	9.7	13.8	0.0	13.5	14.2	0.0
Incr Delay (d2), s/veh	0.2	29.7	0.0	6.4	18.1	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	9.0	0.0	5.1	7.8	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	9.9	43.5	0.0	19.9	32.3	0.0
LnGrp LOS	A	D		B	C	
Approach Vol, veh/h	777			1101	1233	
Approach Delay, s/veh	35.5			19.9	32.3	
Approach LOS	D			B	C	

Timer - Assigned Phs	2			6	8
Phs Duration (G+Y+Rc), s	22.0			22.0	23.0
Change Period (Y+Rc), s	6.0			6.0	6.0
Max Green Setting (Gmax), s	16.0			16.0	17.0
Max Q Clear Time (g_c+I1), s	17.2			14.9	18.3
Green Ext Time (p_c), s	0.0			0.8	0.0

Intersection Summary	
HCM 7th Control Delay, s/veh	28.7
HCM 7th LOS	C

MOVEMENT SUMMARY

Site: 101 [Spokane_Prairie_Existing_PM (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.3.210

New Site
Site Category: (None)
Roundabout

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] ft	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed mph
South: Spokane NB Approach															
3	L2	All MCs	38	0.0	38	0.0	0.148	4.9	LOS A	0.7	17.2	0.43	0.28	0.43	29.5
8	T1	All MCs	59	0.0	59	0.0	0.148	4.9	LOS A	0.7	17.2	0.43	0.28	0.43	24.9
18	R2	All MCs	51	0.0	51	0.0	0.148	4.9	LOS A	0.7	17.2	0.43	0.28	0.43	29.8
Approach			148	0.0	148	0.0	0.148	4.9	LOS A	0.7	17.2	0.43	0.28	0.43	27.6
East: Prairie WB Approach															
1	L2	All MCs	66	1.6	66	1.6	0.225	4.9	LOS A	1.4	34.2	0.32	0.15	0.32	29.4
6	T1	All MCs	131	1.6	131	1.6	0.225	4.9	LOS A	1.4	34.2	0.32	0.15	0.32	33.4
16	R2	All MCs	77	1.6	77	1.6	0.225	4.9	LOS A	1.4	34.2	0.32	0.15	0.32	27.2
Approach			273	1.6	273	1.6	0.225	4.9	LOS A	1.4	34.2	0.32	0.15	0.32	30.5
North: Spokane SB Approach															
7	L2	All MCs	48	3.8	48	3.8	0.084	4.3	LOS A	0.4	9.3	0.36	0.22	0.36	26.8
4	T1	All MCs	32	3.8	32	3.8	0.084	4.3	LOS A	0.4	9.3	0.36	0.22	0.36	24.9
14	R2	All MCs	4	3.8	4	3.8	0.084	4.3	LOS A	0.4	9.3	0.36	0.22	0.36	27.1
Approach			84	3.8	84	3.8	0.084	4.3	LOS A	0.4	9.3	0.36	0.22	0.36	26.1
West: Prairie EB Approach															
5	L2	All MCs	11	0.3	11	0.3	0.249	5.1	LOS A	1.5	36.5	0.36	0.18	0.36	27.4
2	T1	All MCs	248	0.3	248	0.3	0.249	5.1	LOS A	1.5	36.5	0.36	0.18	0.36	33.9
12	R2	All MCs	49	0.3	49	0.3	0.249	5.1	LOS A	1.5	36.5	0.36	0.18	0.36	30.0
Approach			307	0.3	307	0.3	0.249	5.1	LOS A	1.5	36.5	0.36	0.18	0.36	33.0
All Vehicles			813	1.0	813	1.0	0.249	4.9	LOS A	1.5	36.5	0.36	0.19	0.36	30.2

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Options tab).
Roundabout LOS Method: Same as Signalised Intersections.
Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.
LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).
Roundabout Capacity Model: SIDRA HCM.
Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

SIDRA INTERSECTION 9.1 | Copyright © 2000-2023 Akcelik and Associates Pty Ltd | sidrasolutions.com

MOVEMENT SUMMARY

Site: 101 [Spokane_Poleline_Existing_PM (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.2.202

New Site
Site Category: (None)
Roundabout

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] ft	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed mph
South: Spokane NB Approach															
3u	U	All MCs	1	0.9	1	0.9	0.809	19.3	LOS B	18.9	476.3	0.93	0.96	1.50	25.1
3	L2	All MCs	175	0.9	175	0.9	0.809	19.3	LOS B	18.9	476.3	0.93	0.96	1.50	25.1
8	T1	All MCs	317	0.9	317	0.9	0.809	19.3	LOS B	18.9	476.3	0.93	0.96	1.50	22.5
18	R2	All MCs	349	0.9	349	0.9	0.809	19.3	LOS B	18.9	476.3	0.93	0.96	1.50	25.3
Approach			843	0.9	843	0.9	0.809	19.3	LOS B	18.9	476.3	0.93	0.96	1.50	24.1
East: Poleline WB Approach															
1	L2	All MCs	189	1.1	189	1.1	0.756	20.4	LOS C	12.2	306.7	1.00	1.06	1.61	24.8
6	T1	All MCs	302	1.1	302	1.1	0.756	20.4	LOS C	12.2	306.7	1.00	1.06	1.61	25.1
16	R2	All MCs	109	1.1	109	1.1	0.756	20.4	LOS C	12.2	306.7	1.00	1.06	1.61	22.2
Approach			600	1.1	600	1.1	0.756	20.4	LOS C	12.2	306.7	1.00	1.06	1.61	24.4
North: Spokane SB Approach															
7	L2	All MCs	81	1.0	81	1.0	0.470	12.2	LOS B	3.9	97.7	0.88	0.76	1.00	24.1
4	T1	All MCs	220	1.0	220	1.0	0.470	12.2	LOS B	3.9	97.7	0.88	0.76	1.00	24.5
14	R2	All MCs	17	1.0	17	1.0	0.470	12.2	LOS B	3.9	97.7	0.88	0.76	1.00	24.3
Approach			318	1.0	318	1.0	0.470	12.2	LOS B	3.9	97.7	0.88	0.76	1.00	24.4
West: Poleline EB Approach															
5	L2	All MCs	1	0.5	1	0.5	0.350	8.2	LOS A	2.3	58.5	0.71	0.52	0.71	25.4
2	T1	All MCs	180	0.5	180	0.5	0.350	8.2	LOS A	2.3	58.5	0.71	0.52	0.71	29.6
12	R2	All MCs	117	0.5	117	0.5	0.350	8.2	LOS A	2.3	58.5	0.71	0.52	0.71	29.4
Approach			298	0.5	298	0.5	0.350	8.2	LOS A	2.3	58.5	0.71	0.52	0.71	29.5
All Vehicles			2058	0.9	2058	0.9	0.809	16.9	LOS B	18.9	476.3	0.91	0.89	1.34	24.9

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Options tab).
Roundabout LOS Method: Same as Signalised Intersections.
Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.
LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).
Roundabout Capacity Model: SIDRA HCM.
Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

SIDRA INTERSECTION 9.1 | Copyright © 2000-2022 Akcelik and Associates Pty Ltd | sidrasolutions.com
Organisation: J.U.B ENGINEERS, INC. | Licence: PLUS / 1PC | Processed: Monday, April 7, 2025 3:53:20 PM
Project: \\jub.com\central\Clients\ID\PostFallsCity\Projects\07-23-040_TMP\Planning\Traffic\Sidra\2030\Spokane_Poleline.sip9

MOVEMENT SUMMARY

Site: 101 [Spokane_Poleline_Existing_PM (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.2.202

New Site
Site Category: (None)
Roundabout

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] ft	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed mph
South: Spokane NB Approach															
3u	U	All MCs	1	0.9	1	0.9	0.977	40.6	LOS D	41.9	1053.8	1.00	1.82	2.62	20.3
3	L2	All MCs	203	0.9	203	0.9	0.977	40.6	LOS D	41.9	1053.8	1.00	1.82	2.62	20.3
8	T1	All MCs	366	0.9	366	0.9	0.977	40.6	LOS D	41.9	1053.8	1.00	1.82	2.62	18.6
18	R2	All MCs	404	0.9	404	0.9	0.977	40.6	LOS D	41.9	1053.8	1.00	1.82	2.62	20.5
Approach			975	0.9	975	0.9	0.977	40.6	LOS D	41.9	1053.8	1.00	1.82	2.62	19.7
East: Poleline WB Approach															
1	L2	All MCs	211	1.1	211	1.1	0.937	41.7	LOS D	23.9	602.1	1.00	1.61	2.48	20.1
6	T1	All MCs	337	1.1	337	1.1	0.937	41.7	LOS D	23.9	602.1	1.00	1.61	2.48	20.3
16	R2	All MCs	121	1.1	121	1.1	0.937	41.7	LOS D	23.9	602.1	1.00	1.61	2.48	18.4
Approach			670	1.1	670	1.1	0.937	41.7	LOS D	23.9	602.1	1.00	1.61	2.48	19.9
North: Spokane SB Approach															
7	L2	All MCs	100	1.0	100	1.0	0.644	18.9	LOS B	7.0	176.1	0.99	1.03	1.39	22.6
4	T1	All MCs	271	1.0	271	1.0	0.644	18.9	LOS B	7.0	176.1	0.99	1.03	1.39	22.8
14	R2	All MCs	20	1.0	20	1.0	0.644	18.9	LOS B	7.0	176.1	0.99	1.03	1.39	22.7
Approach			391	1.0	391	1.0	0.644	18.9	LOS B	7.0	176.1	0.99	1.03	1.39	22.8
West: Poleline EB Approach															
5	L2	All MCs	1	0.5	1	0.5	0.442	10.5	LOS B	3.3	83.9	0.81	0.65	0.86	24.8
2	T1	All MCs	204	0.5	204	0.5	0.442	10.5	LOS B	3.3	83.9	0.81	0.65	0.86	28.7
12	R2	All MCs	133	0.5	133	0.5	0.442	10.5	LOS B	3.3	83.9	0.81	0.65	0.86	28.5
Approach			338	0.5	338	0.5	0.442	10.5	LOS B	3.3	83.9	0.81	0.65	0.86	28.6
All Vehicles			2374	0.9	2374	0.9	0.977	33.0	LOS C	41.9	1053.8	0.97	1.46	2.13	21.1

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Options tab).
Roundabout LOS Method: Same as Signalised Intersections.
Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.
LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).
Roundabout Capacity Model: SIDRA HCM.
Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

SIDRA INTERSECTION 9.1 | Copyright © 2000-2022 Akcelik and Associates Pty Ltd | sidrasolutions.com
Organisation: J.U.B ENGINEERS, INC. | Licence: PLUS / 1PC | Processed: Tuesday, April 8, 2025 11:06:24 AM
Project: \\jub.com\central\Clients\ID\PostFallsCity\Projects\07-23-040_TMP\Planning\Traffic\Sidra\2035\Spokane_Poleline.sip9

MOVEMENT SUMMARY

Site: 101 [Spokane_Poleline_Existing_PM (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.2.202

New Site
Site Category: (None)
Roundabout

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] ft	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed mph
South: Spokane NB Approach															
3u	U	All MCs	2	0.9	2	0.9	1.354	177.9	LOS F	122.2	3077.1	1.00	4.14	7.30	9.1
3	L2	All MCs	257	0.9	257	0.9	1.354	177.9	LOS F	122.2	3077.1	1.00	4.14	7.30	9.1
8	T1	All MCs	465	0.9	465	0.9	1.354	177.9	LOS F	122.2	3077.1	1.00	4.14	7.30	8.7
18	R2	All MCs	513	0.9	513	0.9	1.354	177.9	LOS F	122.2	3077.1	1.00	4.14	7.30	9.1
Approach			1238	0.9	1238	0.9	1.354	177.9	LOS F	122.2	3077.1	1.00	4.14	7.30	9.0
East: Poleline WB Approach															
1	L2	All MCs	255	1.1	255	1.1	1.102	83.4	LOS F	48.0	1210.6	1.00	2.47	4.20	14.7
6	T1	All MCs	407	1.1	407	1.1	1.102	83.4	LOS F	48.0	1210.6	1.00	2.47	4.20	14.8
16	R2	All MCs	146	1.1	146	1.1	1.102	83.4	LOS F	48.0	1210.6	1.00	2.47	4.20	13.7
Approach			808	1.1	808	1.1	1.102	83.4	LOS F	48.0	1210.6	1.00	2.47	4.20	14.6
North: Spokane SB Approach															
7	L2	All MCs	137	1.0	137	1.0	0.941	48.5	LOS D	19.8	497.8	1.00	1.79	2.49	17.4
4	T1	All MCs	372	1.0	372	1.0	0.941	48.5	LOS D	19.8	497.8	1.00	1.79	2.49	17.6
14	R2	All MCs	28	1.0	28	1.0	0.941	48.5	LOS D	19.8	497.8	1.00	1.79	2.49	17.5
Approach			537	1.0	537	1.0	0.941	48.5	LOS D	19.8	497.8	1.00	1.79	2.49	17.6
West: Poleline EB Approach															
5	L2	All MCs	2	0.5	2	0.5	0.673	19.5	LOS B	7.8	195.1	0.99	1.01	1.45	22.5
2	T1	All MCs	256	0.5	256	0.5	0.673	19.5	LOS B	7.8	195.1	0.99	1.01	1.45	25.8
12	R2	All MCs	166	0.5	166	0.5	0.673	19.5	LOS B	7.8	195.1	0.99	1.01	1.45	25.6
Approach			425	0.5	425	0.5	0.673	19.5	LOS B	7.8	195.1	0.99	1.01	1.45	25.7
All Vehicles			3008	0.9	3008	0.9	1.354	107.0	LOS F	122.2	3077.1	1.00	2.83	4.78	12.5

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Options tab).
Roundabout LOS Method: Same as Signalised Intersections.
Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.
LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).
Roundabout Capacity Model: SIDRA HCM.
Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

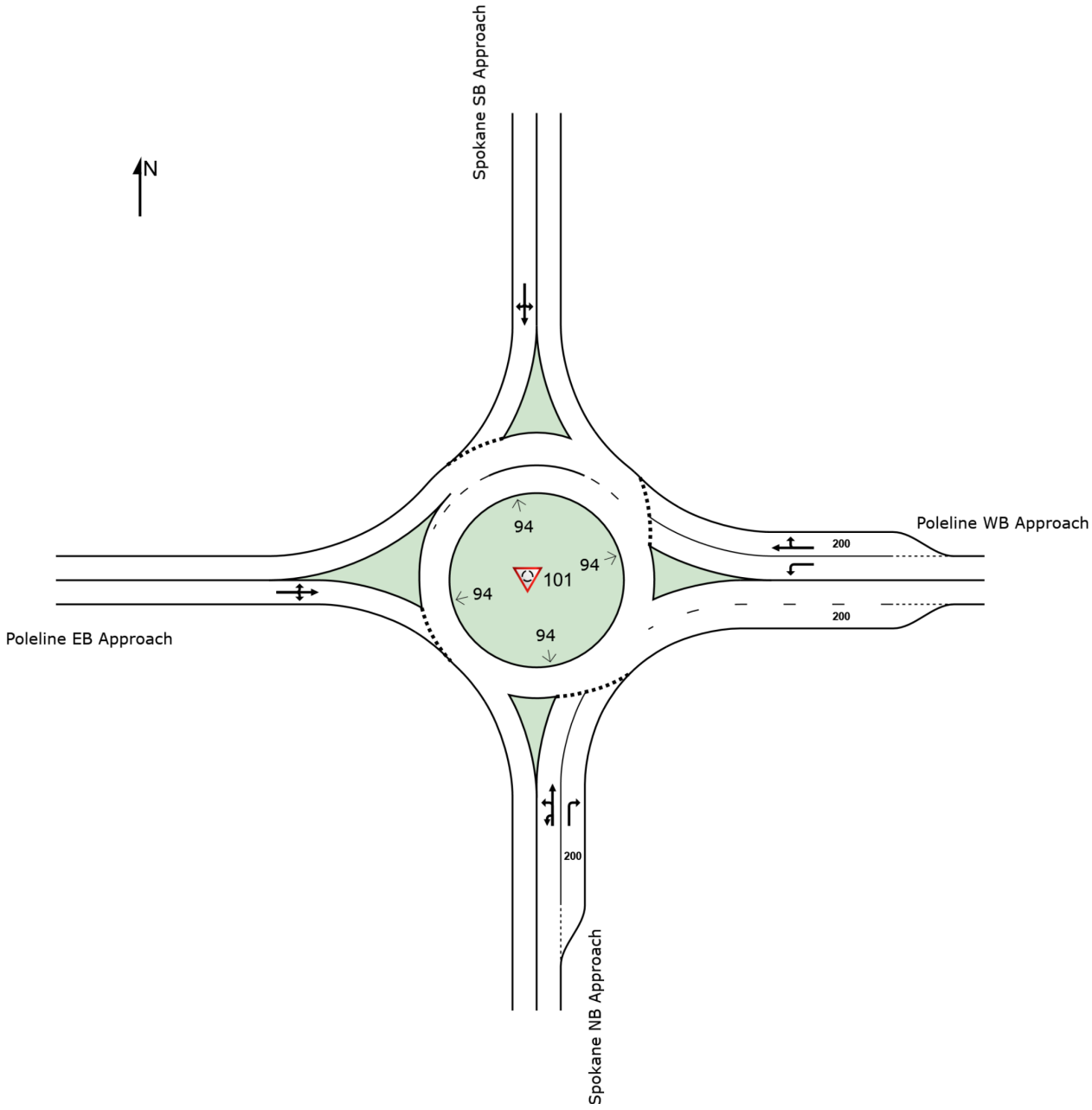
SIDRA INTERSECTION 9.1 | Copyright © 2000-2022 Akcelik and Associates Pty Ltd | sidrasolutions.com
Organisation: J.U.B ENGINEERS, INC. | Licence: PLUS / 1PC | Processed: Tuesday, April 8, 2025 12:08:28 PM
Project: \\jub.com\central\Clients\ID\PostFallsCity\Projects\07-23-040_TMP\Planning\Traffic\Sidra\2045\Spokane_Poleline.sip9

SITE LAYOUT

Site: 101 [Spokane_Poleline_2045_PM (Site Folder: General)]

New Site
Site Category: (None)
Roundabout

Layout pictures are schematic functional drawings reflecting input data. They are not design drawings.



SIDRA INTERSECTION 9.1 | Copyright © 2000-2024 Akcelik and Associates Pty Ltd | sidrasolutions.com
Organisation: J.U.B ENGINEERS, INC. | Licence: PLUS / 1PC | Created: Thursday, July 3, 2025 11:24:52 AM
Project: \\jub.com\Central\Clients\ID\PostFallsCity\Projects\07-23-040_TMP\Planning\Traffic\Sidra\2045Build\Spokane_Poleline.sip9

MOVEMENT SUMMARY

Site: 101 [Spokane_Poleline_2045_PM (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

New Site
Site Category: (None)
Roundabout

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] ft	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed mph
South: Spokane NB Approach															
3u	U	All MCs	2	0.9	2	0.9	0.620	10.9	LOS B	7.3	184.9	0.80	0.65	0.96	27.6
3	L2	All MCs	257	0.9	257	0.9	0.620	10.9	LOS B	7.3	184.9	0.80	0.65	0.96	27.6
8	T1	All MCs	465	0.9	465	0.9	0.620	10.9	LOS B	7.3	184.9	0.80	0.65	0.96	24.5
18	R2	All MCs	513	0.9	513	0.9	0.535	16.8	LOS B	4.8	121.9	0.76	0.58	0.85	28.4
Approach			1238	0.9	1238	0.9	0.620	13.3	LOS B	7.3	184.9	0.78	0.62	0.92	26.6
East: Poleline WB Approach															
1	L2	All MCs	255	1.1	255	1.1	0.437	12.9	LOS B	3.4	85.5	0.90	0.76	0.98	25.9
6	T1	All MCs	407	1.1	407	1.1	0.699	17.5	LOS B	9.5	239.2	1.00	1.01	1.45	26.3
16	R2	All MCs	146	1.1	146	1.1	0.699	17.5	LOS B	9.5	239.2	1.00	1.01	1.45	23.0
Approach			808	1.1	808	1.1	0.699	16.1	LOS B	9.5	239.2	0.97	0.93	1.30	25.5
North: Spokane SB Approach															
7	L2	All MCs	137	1.0	137	1.0	0.927	46.3	LOS D	15.3	385.2	1.00	1.76	2.66	17.7
4	T1	All MCs	372	1.0	372	1.0	0.927	46.3	LOS D	15.3	385.2	1.00	1.76	2.66	17.9
14	R2	All MCs	28	1.0	28	1.0	0.927	46.3	LOS D	15.3	385.2	1.00	1.76	2.66	17.8
Approach			537	1.0	537	1.0	0.927	46.3	LOS D	15.3	385.2	1.00	1.76	2.66	17.8
West: Poleline EB Approach															
5	L2	All MCs	2	0.5	2	0.5	0.688	20.6	LOS C	8.1	203.6	1.00	1.03	1.49	22.3
2	T1	All MCs	256	0.5	256	0.5	0.688	27.0	LOS C	8.1	203.6	1.00	1.03	1.49	25.5
12	R2	All MCs	166	0.5	166	0.5	0.688	20.6	LOS C	8.1	203.6	1.00	1.03	1.49	25.3
Approach			425	0.5	425	0.5	0.688	24.5	LOS C	8.1	203.6	1.00	1.03	1.49	25.4
All Vehicles			3008	0.9	3008	0.9	0.927	21.5	LOS C	15.3	385.2	0.90	0.97	1.41	24.0

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Options tab).
Roundabout LOS Method: Same as Signalised Intersections.
Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.
LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).
Roundabout Capacity Model: SIDRA HCM.
Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

SIDRA INTERSECTION 9.1 | Copyright © 2000-2024 Akcelik and Associates Pty Ltd | sidrasolutions.com
Organisation: J.U.B ENGINEERS, INC. | Licence: PLUS / 1PC | Processed: Wednesday, July 2, 2025 1:34:46 PM
Project: \\jub.com\Central\Clients\ID\PostFallsCity\Projects\07-23-040_TMP\Planning\Traffic\Sidra\2045Build\Spokane_Poleline.sip9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBR	SEL	SER
Lane Configurations										
Traffic Volume (veh/h)	289	2	33	0	0	0	179	14	246	39
Future Volume (veh/h)	289	2	33	0	0	0	179	14	246	39
Initial Q (Qb), veh	0	0	0				0	0	0	0
Lane Width Adj.	1.00	1.00	1.00				1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	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
Work Zone On Approach		No					No		No	
Adj Sat Flow, veh/h/ln	1796	1796	1796				1856	1856	1870	1870
Adj Flow Rate, veh/h	345	0	0				206	0	265	42
Peak Hour Factor	0.93	0.93	0.93				0.93	0.93	0.93	0.93
Percent Heavy Veh, %	7	7	7				3	3	2	2
Cap, veh/h	698	366	0				828	0	0	0
Arrive On Green	0.20	0.00	0.00				0.23	0.00	0.00	0.00
Sat Flow, veh/h	3421	1796	0				3534		0	
Grp Volume(v), veh/h	345	0	0				206		0.0	
Grp Sat Flow(s),veh/h/ln	1711	1796	0				1767			
Q Serve(g_s), s	1.9	0.0	0.0				1.0			
Cycle Q Clear(g_c), s	1.9	0.0	0.0				1.0			
Prop In Lane	1.00		0.00				1.00			
Lane Grp Cap(c), veh/h	698	366	0				828			
V/C Ratio(X)	0.49	0.00	0.00				0.25			
Avail Cap(c_a), veh/h	2564	1346	0				2648			
HCM Platoon Ratio	1.00	1.00	1.00				1.00			
Upstream Filter(I)	1.00	0.00	0.00				1.00			
Uniform Delay (d), s/veh	7.5	0.0	0.0				6.6			
Incr Delay (d2), s/veh	0.5	0.0	0.0				0.2			
Initial Q Delay(d3), s/veh	0.0	0.0	0.0				0.0			
%ile BackOfQ(50%),veh/ln	0.3	0.0	0.0				0.2			
Unsig. Movement Delay, s/veh										
LnGrp Delay(d), s/veh	8.1	0.0	0.0				6.8			
LnGrp LOS	A						A			
Approach Vol, veh/h		345					206			
Approach Delay, s/veh		8.1					6.8			
Approach LOS		A					A			

Timer - Assigned Phs	4	5
Phs Duration (G+Y+Rc), s	10.4	11.0
Change Period (Y+Rc), s	6.0	6.0
Max Green Setting (Gmax), s	16.0	16.0
Max Q Clear Time (g_c+I1), s	3.9	3.0
Green Ext Time (p_c), s	0.9	0.5

Intersection Summary	
HCM 7th Control Delay, s/veh	7.6
HCM 7th LOS	A

Notes

User approved volume balancing among the lanes for turning movement.



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	313	149	131	420	192	160
Future Volume (veh/h)	313	149	131	420	192	160
Initial Q (Qb), veh	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00
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	1841	1841	1856	1856	1885	1885
Adj Flow Rate, veh/h	337	160	141	452	206	172
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	4	4	3	3	1	1
Cap, veh/h	634	295	498	1794	358	318
Arrive On Green	0.27	0.27	0.09	0.51	0.20	0.20
Sat Flow, veh/h	2408	1079	1767	3618	1795	1598
Grp Volume(v), veh/h	253	244	141	452	206	172
Grp Sat Flow(s),veh/h/ln	1749	1647	1767	1763	1795	1598
Q Serve(g_s), s	4.1	4.2	1.7	2.4	3.5	3.2
Cycle Q Clear(g_c), s	4.1	4.2	1.7	2.4	3.5	3.2
Prop In Lane		0.66	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	478	450	498	1794	358	318
V/C Ratio(X)	0.53	0.54	0.28	0.25	0.58	0.54
Avail Cap(c_a), veh/h	1459	1374	1189	5148	1937	1723
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	10.4	6.8	4.6	12.2	12.1
Incr Delay (d2), s/veh	0.9	1.0	0.3	0.1	1.5	1.4
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.2	1.2	0.4	0.4	1.2	3.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	11.3	11.4	7.1	4.7	13.6	13.5
LnGrp LOS	B	B	A	A	B	B
Approach Vol, veh/h	497			593	378	
Approach Delay, s/veh	11.3			5.3	13.6	
Approach LOS	B			A	B	

Timer - Assigned Phs	4	6	7	8
Phs Duration (G+Y+Rc), s	22.1	11.5	7.9	14.2
Change Period (Y+Rc), s	5.0	4.8	5.0	5.0
Max Green Setting (Gmax), s	49.0	36.2	16.0	28.0
Max Q Clear Time (g_c+I1), s	4.4	5.5	3.7	6.2
Green Ext Time (p_c), s	3.2	1.2	0.3	2.9

Intersection Summary	
HCM 7th Control Delay, s/veh	9.5
HCM 7th LOS	A



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	359	171	152	488	222	185
Future Volume (veh/h)	359	171	152	488	222	185
Initial Q (Qb), veh	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00
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	1841	1841	1856	1856	1885	1885
Adj Flow Rate, veh/h	386	184	163	525	239	199
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	4	4	3	3	1	1
Cap, veh/h	671	315	487	1842	382	340
Arrive On Green	0.29	0.29	0.10	0.52	0.21	0.21
Sat Flow, veh/h	2401	1085	1767	3618	1795	1598
Grp Volume(v), veh/h	291	279	163	525	239	199
Grp Sat Flow(s),veh/h/ln	1749	1645	1767	1763	1795	1598
Q Serve(g_s), s	5.2	5.4	2.1	3.1	4.5	4.1
Cycle Q Clear(g_c), s	5.2	5.4	2.1	3.1	4.5	4.1
Prop In Lane		0.66	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	508	478	487	1842	382	340
V/C Ratio(X)	0.57	0.58	0.33	0.29	0.62	0.58
Avail Cap(c_a), veh/h	1322	1244	1079	4664	1755	1562
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	11.2	11.2	7.3	5.0	13.2	13.1
Incr Delay (d2), s/veh	1.0	1.1	0.4	0.1	1.7	1.6
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.6	1.6	0.5	0.6	1.6	0.2
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	12.2	12.4	7.7	5.0	14.9	14.7
LnGrp LOS	B	B	A	A	B	B
Approach Vol, veh/h	570			688	438	
Approach Delay, s/veh	12.3			5.7	14.8	
Approach LOS	B			A	B	

Timer - Assigned Phs	4	6	7	8
Phs Duration (G+Y+Rc), s	24.3	12.7	8.6	15.8
Change Period (Y+Rc), s	5.0	4.8	5.0	5.0
Max Green Setting (Gmax), s	49.0	36.2	16.0	28.0
Max Q Clear Time (g_c+I1), s	5.1	6.5	4.1	7.4
Green Ext Time (p_c), s	3.8	1.4	0.3	3.4

Intersection Summary	
HCM 7th Control Delay, s/veh	10.3
HCM 7th LOS	B

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	451	215	195	626	282	235
Future Volume (veh/h)	451	215	195	626	282	235
Initial Q (Qb), veh	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00
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	1841	1841	1856	1856	1885	1885
Adj Flow Rate, veh/h	485	231	210	673	303	253
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	4	4	3	3	1	1
Cap, veh/h	736	349	462	1921	429	382
Arrive On Green	0.32	0.32	0.11	0.54	0.24	0.24
Sat Flow, veh/h	2395	1091	1767	3618	1795	1598
Grp Volume(v), veh/h	368	348	210	673	303	253
Grp Sat Flow(s),veh/h/ln	1749	1644	1767	1763	1795	1598
Q Serve(g_s), s	8.2	8.3	3.2	4.9	7.0	6.5
Cycle Q Clear(g_c), s	8.2	8.3	3.2	4.9	7.0	6.5
Prop In Lane		0.66	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	559	526	462	1921	429	382
V/C Ratio(X)	0.66	0.66	0.46	0.35	0.71	0.66
Avail Cap(c_a), veh/h	1080	1015	882	3809	1433	1275
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	13.3	13.3	8.6	5.8	15.8	15.6
Incr Delay (d2), s/veh	1.3	1.4	0.7	0.1	2.1	2.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.7	2.6	0.9	1.1	2.7	0.2
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	14.6	14.8	9.3	5.9	17.9	17.6
LnGrp LOS	B	B	A	A	B	B
Approach Vol, veh/h	716			883	556	
Approach Delay, s/veh	14.7			6.7	17.8	
Approach LOS	B			A	B	

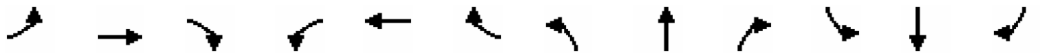
Timer - Assigned Phs	4	6	7	8
Phs Duration (G+Y+Rc), s	29.7	15.6	10.2	19.5
Change Period (Y+Rc), s	5.0	4.8	5.0	5.0
Max Green Setting (Gmax), s	49.0	36.2	16.0	28.0
Max Q Clear Time (g_c+I1), s	6.9	9.0	5.2	10.3
Green Ext Time (p_c), s	5.2	1.8	0.4	4.2

Intersection Summary	
HCM 7th Control Delay, s/veh	12.2
HCM 7th LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	128	505	44	197	424	95	37	288	281	75	234	68
Future Volume (veh/h)	128	505	44	197	424	95	37	288	281	75	234	68
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
Ped-Bike Adj(A_pbT)	1.00		0.97	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	1885	1885	1885	1885	1885	1885	1885	1885	1885	1900	1900	1900
Adj Flow Rate, veh/h	133	526	46	205	442	99	39	300	293	78	244	71
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	1	1	1	1	1	1	1	1	1	0	0	0
Cap, veh/h	316	844	74	413	546	462	400	872	387	389	775	221
Arrive On Green	0.08	0.25	0.25	0.12	0.29	0.29	0.04	0.24	0.24	0.07	0.28	0.28
Sat Flow, veh/h	1795	3325	290	1795	1885	1594	1795	3582	1591	1810	2773	789
Grp Volume(v), veh/h	133	283	289	205	442	99	39	300	293	78	157	158
Grp Sat Flow(s),veh/h/ln	1795	1791	1824	1795	1885	1594	1795	1791	1591	1810	1805	1756
Q Serve(g_s), s	3.6	9.3	9.4	5.4	14.5	3.1	1.1	4.6	11.4	2.1	4.6	4.8
Cycle Q Clear(g_c), s	3.6	9.3	9.4	5.4	14.5	3.1	1.1	4.6	11.4	2.1	4.6	4.8
Prop In Lane	1.00		0.16	1.00		1.00	1.00		1.00	1.00		0.45
Lane Grp Cap(c), veh/h	316	454	463	413	546	462	400	872	387	389	505	491
V/C Ratio(X)	0.42	0.62	0.63	0.50	0.81	0.21	0.10	0.34	0.76	0.20	0.31	0.32
Avail Cap(c_a), veh/h	1105	933	950	1138	982	830	1266	1865	828	1196	940	914
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	17.3	22.1	22.1	15.8	22.0	18.0	17.7	20.9	23.4	16.4	19.0	19.1
Incr Delay (d2), s/veh	0.9	1.4	1.4	0.9	2.9	0.2	0.1	0.2	3.0	0.3	0.3	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	1.4	3.8	3.9	2.1	6.3	1.1	0.4	1.8	4.2	0.8	1.8	1.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	18.2	23.5	23.5	16.7	24.9	18.2	17.8	21.1	26.5	16.7	19.3	19.4
LnGrp LOS	B	C	C	B	C	B	B	C	C	B	B	B
Approach Vol, veh/h		705			746			632			393	
Approach Delay, s/veh		22.5			21.8			23.4			18.8	
Approach LOS		C			C			C			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.6	24.6	7.8	23.9	13.0	22.2	10.2	21.5
Change Period (Y+Rc), s	5.2	5.2	5.2	5.2	5.2	5.2	5.2	5.2
Max Green Setting (Gmax), s	34.8	34.8	34.8	34.8	34.8	34.8	34.8	34.8
Max Q Clear Time (g_c+I1), s	5.6	16.5	3.1	6.8	7.4	11.4	4.1	13.4
Green Ext Time (p_c), s	0.3	2.8	0.1	1.8	0.6	3.4	0.2	2.9

Intersection Summary	
HCM 7th Control Delay, s/veh	21.9
HCM 7th LOS	C



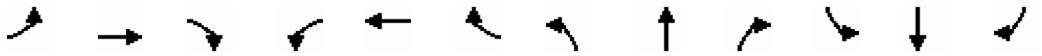
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	113	571	114	138	733	129	100	38	82	88	45	88
Future Volume (veh/h)	113	571	114	138	733	129	100	38	82	88	45	88
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
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	1900	1900	1900	1885	1885	1885	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	115	583	116	141	748	132	102	39	84	90	46	90
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	0	0	0	1	1	1	0	0	0	0	0	0
Cap, veh/h	188	1017	202	215	1085	191	230	75	117	210	87	128
Arrive On Green	0.10	0.34	0.34	0.12	0.36	0.36	0.19	0.19	0.19	0.19	0.19	0.19
Sat Flow, veh/h	1810	3002	596	1795	3043	537	644	394	618	560	458	673
Grp Volume(v), veh/h	115	350	349	141	440	440	225	0	0	226	0	0
Grp Sat Flow(s),veh/h/ln	1810	1805	1793	1795	1791	1789	1656	0	0	1691	0	0
Q Serve(g_s), s	2.9	7.7	7.7	3.6	10.1	10.1	0.1	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	2.9	7.7	7.7	3.6	10.1	10.1	5.7	0.0	0.0	5.6	0.0	0.0
Prop In Lane	1.00		0.33	1.00		0.30	0.45		0.37	0.40		0.40
Lane Grp Cap(c), veh/h	188	611	607	215	639	638	422	0	0	425	0	0
V/C Ratio(X)	0.61	0.57	0.57	0.66	0.69	0.69	0.53	0.00	0.00	0.53	0.00	0.00
Avail Cap(c_a), veh/h	330	964	958	435	1064	1063	1091	0	0	1094	0	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)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	20.7	13.1	13.1	20.3	13.2	13.3	18.2	0.0	0.0	18.2	0.0	0.0
Incr Delay (d2), s/veh	3.2	0.8	0.9	3.4	1.3	1.3	1.0	0.0	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	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.3	2.7	2.6	1.5	3.5	3.5	2.2	0.0	0.0	2.2	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	23.9	13.9	14.0	23.7	14.6	14.6	19.2	0.0	0.0	19.2	0.0	0.0
LnGrp LOS	C	B	B	C	B	B	B			B		
Approach Vol, veh/h		814			1021			225			226	
Approach Delay, s/veh		15.4			15.8			19.2			19.2	
Approach LOS		B			B			B			B	

Timer - Assigned Phs	2	3	4	6	7	8
Phs Duration (G+Y+Rc), s	15.5	10.2	22.5	15.5	11.1	21.7
Change Period (Y+Rc), s	6.4	5.2	5.3	* 6.4	5.3	* 5.3
Max Green Setting (Gmax), s	30.6	8.8	28.7	* 31	11.7	* 26
Max Q Clear Time (g_c+I1), s	7.6	4.9	12.1	7.7	5.6	9.7
Green Ext Time (p_c), s	1.4	0.1	5.1	1.5	0.2	3.8

Intersection Summary	
HCM 7th Control Delay, s/veh	16.3
HCM 7th LOS	B

Notes

* HCM 7th computational engine requires equal clearance times for the phases crossing the barrier.



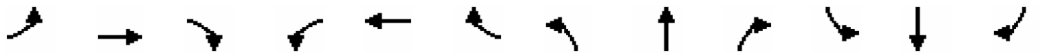
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	127	643	128	161	852	14	115	44	95	102	52	102
Future Volume (veh/h)	127	643	128	161	852	14	115	44	95	102	52	102
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
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	1900	1900	1900	1885	1885	1885	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	130	656	131	164	869	14	117	45	97	104	53	104
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	0	0	0	1	1	1	0	0	0	0	0	0
Cap, veh/h	198	962	192	233	1238	20	235	82	129	215	96	142
Arrive On Green	0.11	0.32	0.32	0.13	0.34	0.34	0.22	0.22	0.22	0.22	0.22	0.22
Sat Flow, veh/h	1810	2999	598	1795	3608	58	606	375	588	535	438	644
Grp Volume(v), veh/h	130	394	393	164	431	452	259	0	0	261	0	0
Grp Sat Flow(s),veh/h/ln	1810	1805	1792	1795	1791	1875	1569	0	0	1617	0	0
Q Serve(g_s), s	3.6	9.8	9.8	4.5	10.7	10.7	0.2	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	3.6	9.8	9.8	4.5	10.7	10.7	7.6	0.0	0.0	7.4	0.0	0.0
Prop In Lane	1.00		0.33	1.00		0.03	0.45		0.37	0.40		0.40
Lane Grp Cap(c), veh/h	198	579	575	233	615	643	446	0	0	453	0	0
V/C Ratio(X)	0.66	0.68	0.68	0.70	0.70	0.70	0.58	0.00	0.00	0.58	0.00	0.00
Avail Cap(c_a), veh/h	309	903	897	407	997	1044	1006	0	0	1012	0	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)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	22.0	15.2	15.2	21.5	14.6	14.6	18.6	0.0	0.0	18.5	0.0	0.0
Incr Delay (d2), s/veh	3.7	1.4	1.4	3.9	1.5	1.4	1.2	0.0	0.0	1.2	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	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.6	3.6	3.6	1.9	3.8	4.0	2.8	0.0	0.0	2.8	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	25.7	16.6	16.7	25.3	16.1	16.1	19.8	0.0	0.0	19.7	0.0	0.0
LnGrp LOS	C	B	B	C	B	B	B			B		
Approach Vol, veh/h		917			1047			259			261	
Approach Delay, s/veh		17.9			17.5			19.8			19.7	
Approach LOS		B			B			B			B	

Timer - Assigned Phs	2	3	4	6	7	8
Phs Duration (G+Y+Rc), s	17.7	10.8	23.0	17.7	12.0	21.8
Change Period (Y+Rc), s	6.4	5.2	5.3	* 6.4	5.3	* 5.3
Max Green Setting (Gmax), s	30.6	8.8	28.7	* 31	11.7	* 26
Max Q Clear Time (g_c+I1), s	9.4	5.6	12.7	9.6	6.5	11.8
Green Ext Time (p_c), s	1.7	0.1	4.9	1.7	0.2	4.1

Intersection Summary	
HCM 7th Control Delay, s/veh	18.1
HCM 7th LOS	B

Notes

* HCM 7th 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)	155	786	157	205	1089	17	147	56	120	130	66	130
Future Volume (veh/h)	155	786	157	205	1089	17	147	56	120	130	66	130
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
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	1900	1900	1900	1885	1885	1885	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	158	802	160	209	1111	17	150	57	122	133	67	133
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	0	0	0	1	1	1	0	0	0	0	0	0
Cap, veh/h	205	993	198	255	1305	20	229	87	143	212	105	164
Arrive On Green	0.11	0.33	0.33	0.14	0.36	0.36	0.29	0.29	0.29	0.29	0.29	0.29
Sat Flow, veh/h	1810	2999	598	1795	3611	55	540	300	495	490	362	567
Grp Volume(v), veh/h	158	483	479	209	551	577	329	0	0	333	0	0
Grp Sat Flow(s),veh/h/ln	1810	1805	1792	1795	1791	1875	1334	0	0	1419	0	0
Q Serve(g_s), s	6.1	17.5	17.5	8.1	20.4	20.4	1.3	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	6.1	17.5	17.5	8.1	20.4	20.4	17.0	0.0	0.0	15.7	0.0	0.0
Prop In Lane	1.00		0.33	1.00		0.03	0.46		0.37	0.40		0.40
Lane Grp Cap(c), veh/h	205	597	593	255	647	678	460	0	0	482	0	0
V/C Ratio(X)	0.77	0.81	0.81	0.82	0.85	0.85	0.72	0.00	0.00	0.69	0.00	0.00
Avail Cap(c_a), veh/h	222	649	645	293	717	750	665	0	0	683	0	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)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	30.9	21.9	21.9	29.9	21.1	21.1	23.9	0.0	0.0	23.4	0.0	0.0
Incr Delay (d2), s/veh	14.3	7.0	7.1	14.8	9.0	8.6	2.1	0.0	0.0	1.8	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	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.3	7.9	7.8	4.4	9.3	9.6	5.3	0.0	0.0	5.2	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	45.2	28.9	29.0	44.7	30.1	29.7	26.0	0.0	0.0	25.2	0.0	0.0
LnGrp LOS	D	C	C	D	C	C	C			C		
Approach Vol, veh/h		1120			1337			329			333	
Approach Delay, s/veh		31.2			32.2			26.0			25.2	
Approach LOS		C			C			C			C	

Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		27.2	13.3	31.2		27.2	15.5	29.0				
Change Period (Y+Rc), s		6.4	5.2	5.3		* 6.4	5.3	* 5.3				
Max Green Setting (Gmax), s		30.6	8.8	28.7		* 31	11.7	* 26				
Max Q Clear Time (g_c+I1), s		17.7	8.1	22.4		19.0	10.1	19.5				
Green Ext Time (p_c), s		1.8	0.0	3.6		1.8	0.1	3.1				

Intersection Summary	
HCM 7th Control Delay, s/veh	30.5
HCM 7th LOS	C

Notes

* HCM 7th computational engine requires equal clearance times for the phases crossing the barrier.

Intersection	
Int Delay, s/veh	3.9

Movement	EBU	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations							
Traffic Vol, veh/h	1	242	78	45	131	96	55
Future Vol, veh/h	1	242	78	45	131	96	55
Conflicting Peds, #/hr	0	0	0	0	0	0	0
Sign Control	Free	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	95	95	95	95	95	95	95
Heavy Vehicles, %	5	5	5	8	8	8	8
Mvmt Flow	1	255	82	47	138	101	58

Major/Minor	Major1			Major2		Minor1	
Conflicting Flow All	-	0	0	337	0	528	296
Stage 1	-	-	-	-	-	296	-
Stage 2	-	-	-	-	-	233	-
Critical Hdwy	-	-	-	4.18	-	6.48	6.28
Critical Hdwy Stg 1	-	-	-	-	-	5.48	-
Critical Hdwy Stg 2	-	-	-	-	-	5.48	-
Follow-up Hdwy	-	-	-	2.272	-	3.572	3.372
Pot Cap-1 Maneuver	-	-	-	1190	-	500	730
Stage 1	-	-	-	-	-	741	-
Stage 2	-	-	-	-	-	792	-
Platoon blocked, %		-	-		-		
Mov Cap-1 Maneuver	-	-	-	1190	-	479	730
Mov Cap-2 Maneuver	-	-	-	-	-	479	-
Stage 1	-	-	-	-	-	741	-
Stage 2	-	-	-	-	-	758	-

Approach	EB	WB	NB
HCM Ctrl Dly, s/v		2.08	14.25
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	547	-	-	460	-
HCM Lane V/C Ratio	0.29	-	-	0.04	-
HCM Ctrl Dly (s/v)	14.2	-	-	8.2	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	1.2	-	-	0.1	-

Intersection	
Int Delay, s/veh	5.1

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	326	105	73	213	115	66
Future Vol, veh/h	326	105	73	213	115	66
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	95	95	95	95	95	95
Heavy Vehicles, %	5	5	8	8	8	8
Mvmt Flow	343	111	77	224	121	69

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	454	0	776	398
Stage 1	-	-	-	-	398	-
Stage 2	-	-	-	-	378	-
Critical Hdwy	-	-	4.18	-	6.48	6.28
Critical Hdwy Stg 1	-	-	-	-	5.48	-
Critical Hdwy Stg 2	-	-	-	-	5.48	-
Follow-up Hdwy	-	-	2.272	-	3.572	3.372
Pot Cap-1 Maneuver	-	-	1076	-	357	638
Stage 1	-	-	-	-	665	-
Stage 2	-	-	-	-	680	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1076	-	328	638
Mov Cap-2 Maneuver	-	-	-	-	328	-
Stage 1	-	-	-	-	665	-
Stage 2	-	-	-	-	624	-

Approach	EB	WB	NB
HCM Ctrl Dly, s/v	0	2.2	22.01
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	399	-	-	459	-
HCM Lane V/C Ratio	0.478	-	-	0.071	-
HCM Ctrl Dly (s/v)	22	-	-	8.6	0
HCM Lane LOS	C	-	-	A	A
HCM 95th %tile Q(veh)	2.5	-	-	0.2	-

Intersection	
Int Delay, s/veh	7.8

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	386	125	93	272	128	73
Future Vol, veh/h	386	125	93	272	128	73
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	95	95	95	95	95	95
Heavy Vehicles, %	5	5	8	8	8	8
Mvmt Flow	406	132	98	286	135	77

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	538	0	954	472
Stage 1	-	-	-	-	472	-
Stage 2	-	-	-	-	482	-
Critical Hdwy	-	-	4.18	-	6.48	6.28
Critical Hdwy Stg 1	-	-	-	-	5.48	-
Critical Hdwy Stg 2	-	-	-	-	5.48	-
Follow-up Hdwy	-	-	2.272	-	3.572	3.372
Pot Cap-1 Maneuver	-	-	1001	-	280	580
Stage 1	-	-	-	-	615	-
Stage 2	-	-	-	-	609	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1001	-	247	580
Mov Cap-2 Maneuver	-	-	-	-	247	-
Stage 1	-	-	-	-	615	-
Stage 2	-	-	-	-	538	-

Approach	EB	WB	NB
HCM Ctrl Dly, s/v	0	2.29	37.65
HCM LOS			E

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	312	-	-	459	-
HCM Lane V/C Ratio	0.677	-	-	0.098	-
HCM Ctrl Dly (s/v)	37.6	-	-	9	0
HCM Lane LOS	E	-	-	A	A
HCM 95th %tile Q(veh)	4.6	-	-	0.3	-

Intersection	
Int Delay, s/veh	44.7

Movement	EBU	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations							
Traffic Vol, veh/h	1	507	163	134	390	154	88
Future Vol, veh/h	1	507	163	134	390	154	88
Conflicting Peds, #/hr	0	0	0	0	0	0	0
Sign Control	Free	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	95	95	95	95	95	95	95
Heavy Vehicles, %	5	5	5	8	8	8	8
Mvmt Flow	1	534	172	141	411	162	93

Major/Minor	Major1			Major2		Minor1	
Conflicting Flow All	-	0	0	705	0	1312	619
Stage 1	-	-	-	-	-	619	-
Stage 2	-	-	-	-	-	693	-
Critical Hdwy	-	-	-	4.18	-	6.48	6.28
Critical Hdwy Stg 1	-	-	-	-	-	5.48	-
Critical Hdwy Stg 2	-	-	-	-	-	5.48	-
Follow-up Hdwy	-	-	-	2.272	-	3.572	3.372
Pot Cap-1 Maneuver	-	-	-	866	-	170	478
Stage 1	-	-	-	-	-	525	-
Stage 2	-	-	-	-	-	486	-
Platoon blocked, %		-	-		-		
Mov Cap-1 Maneuver	-	-	-	866	-	~ 134	478
Mov Cap-2 Maneuver	-	-	-	-	-	~ 134	-
Stage 1	-	-	-	-	-	525	-
Stage 2	-	-	-	-	-	383	-

Approach	EB	WB	NB
HCM Ctrl Dly, s/v		2.55	259.76
HCM LOS			F

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	181	-	-	460	-
HCM Lane V/C Ratio	1.404	-	-	0.163	-
HCM Ctrl Dly (s/v)	259.8	-	-	10	0
HCM Lane LOS	F	-	-	A	A
HCM 95th %tile Q(veh)	15.4	-	-	0.6	-

Notes	
~: Volume exceeds capacity	$: Delay exceeds 300s
+: Computation Not Defined	*: All major volume in platoon

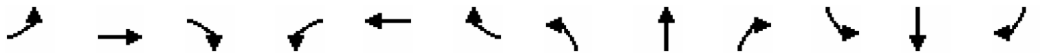
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	66	281	50	49	260	17	69	92	76	24	79	90
Future Volume (veh/h)	66	281	50	49	260	17	69	92	76	24	79	90
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
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	1841	1841	1841	1856	1856	1856	1781	1781	1781	1767	1767	1767
Adj Flow Rate, veh/h	72	305	54	53	283	18	75	100	83	26	86	98
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, %	4	4	4	3	3	3	8	8	8	9	9	9
Cap, veh/h	568	927	162	533	1009	64	0	0	0	57	187	196
Arrive On Green	0.06	0.31	0.31	0.05	0.30	0.30	0.00	0.00	0.00	0.14	0.14	0.14
Sat Flow, veh/h	1753	2975	520	1767	3367	213		0		420	1383	1449
Grp Volume(v), veh/h	72	178	181	53	147	154		0.0		108	0	102
Grp Sat Flow(s),veh/h/ln	1753	1749	1747	1767	1763	1817				1746	0	1506
Q Serve(g_s), s	0.9	2.6	2.7	0.7	2.1	2.2				1.9	0.0	2.1
Cycle Q Clear(g_c), s	0.9	2.6	2.7	0.7	2.1	2.2				1.9	0.0	2.1
Prop In Lane	1.00		0.30	1.00		0.12				0.24		0.96
Lane Grp Cap(c), veh/h	568	545	544	533	528	545				236	0	204
V/C Ratio(X)	0.13	0.33	0.33	0.10	0.28	0.28				0.46	0.00	0.50
Avail Cap(c_a), veh/h	833	1782	1780	822	1796	1852				1543	0	1331
HCM Platoon Ratio	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
Uniform Delay (d), s/veh	7.2	8.8	8.8	7.4	8.9	8.9				13.3	0.0	13.4
Incr Delay (d2), s/veh	0.1	0.3	0.4	0.1	0.3	0.3				1.4	0.0	1.9
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	0.7	0.7	0.2	0.6	0.6				0.7	0.0	0.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	7.3	9.1	9.2	7.5	9.2	9.2				14.7	0.0	15.3
LnGrp LOS	A	A	A	A	A	A				B		B
Approach Vol, veh/h		431			354						210	
Approach Delay, s/veh		8.9			9.0						15.0	
Approach LOS		A			A						B	

Timer - Assigned Phs	1	2		4	5	6
Phs Duration (G+Y+Rc), s	7.2	16.0		10.2	7.5	15.6
Change Period (Y+Rc), s	5.6	5.6		5.7	5.6	5.6
Max Green Setting (Gmax), s	7.0	34.0		29.5	7.0	34.0
Max Q Clear Time (g_c+I1), s	2.7	4.7		4.1	2.9	4.2
Green Ext Time (p_c), s	0.0	2.1		1.2	0.0	1.7

Intersection Summary		
HCM 7th Control Delay, s/veh		10.2
HCM 7th LOS		B

Notes

User approved pedestrian interval to be less than phase max green.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	94	401	71	71	379	25	86	114	94	33	108	123
Future Volume (veh/h)	94	401	71	71	379	25	86	114	94	33	108	123
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
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	1841	1841	1841	1856	1856	1856	1781	1781	1781	1767	1767	1767
Adj Flow Rate, veh/h	102	436	77	77	412	27	93	124	102	36	117	134
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, %	4	4	4	3	3	3	8	8	8	9	9	9
Cap, veh/h	501	877	154	462	952	62	0	0	0	70	227	243
Arrive On Green	0.07	0.29	0.29	0.06	0.28	0.28	0.00	0.00	0.00	0.17	0.17	0.17
Sat Flow, veh/h	1753	2974	522	1767	3359	219		0		421	1367	1461
Grp Volume(v), veh/h	102	255	258	77	216	223		0.0		149	0	138
Grp Sat Flow(s),veh/h/ln	1753	1749	1747	1767	1763	1816				1746	0	1504
Q Serve(g_s), s	1.4	4.3	4.3	1.1	3.5	3.5				2.7	0.0	3.0
Cycle Q Clear(g_c), s	1.4	4.3	4.3	1.1	3.5	3.5				2.7	0.0	3.0
Prop In Lane	1.00		0.30	1.00		0.12				0.24		0.97
Lane Grp Cap(c), veh/h	501	516	515	462	500	515				290	0	250
V/C Ratio(X)	0.20	0.49	0.50	0.17	0.43	0.43				0.51	0.00	0.55
Avail Cap(c_a), veh/h	643	1853	1851	627	1868	1925				856	0	737
HCM Platoon Ratio	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
Uniform Delay (d), s/veh	8.0	10.3	10.3	8.2	10.3	10.3				13.4	0.0	13.5
Incr Delay (d2), s/veh	0.2	0.7	0.8	0.2	0.6	0.6				1.4	0.0	1.9
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	1.2	1.3	0.3	1.0	1.1				0.9	0.0	0.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	8.2	11.0	11.0	8.4	10.9	10.9				14.8	0.0	15.4
LnGrp LOS	A	B	B	A	B	B				B		B
Approach Vol, veh/h		615			516						287	
Approach Delay, s/veh		10.6			10.5						15.1	
Approach LOS		B			B						B	

Timer - Assigned Phs	1	2		4	5	6
Phs Duration (G+Y+Rc), s	7.7	16.0		11.6	8.1	15.6
Change Period (Y+Rc), s	* 5.6	* 5.6		5.7	* 5.6	* 5.6
Max Green Setting (Gmax), s	* 5.4	* 37		17.3	* 5.4	* 37
Max Q Clear Time (g_c+I1), s	3.1	6.3		5.0	3.4	5.5
Green Ext Time (p_c), s	0.0	3.2		1.3	0.0	2.6

Intersection Summary		
HCM 7th Control Delay, s/veh		11.5
HCM 7th LOS		B

Notes

* HCM 7th computational engine requires equal clearance times for the phases crossing the barrier.

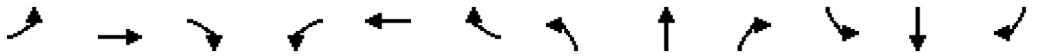
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	114	486	86	87	463	30	97	130	107	39	129	146
Future Volume (veh/h)	114	486	86	87	463	30	97	130	107	39	129	146
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
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	1841	1841	1841	1856	1856	1856	1781	1781	1781	1767	1767	1767
Adj Flow Rate, veh/h	124	528	93	95	503	33	105	141	116	42	140	159
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, %	4	4	4	3	3	3	8	8	8	9	9	9
Cap, veh/h	470	912	160	430	997	65	0	0	0	76	254	272
Arrive On Green	0.08	0.31	0.31	0.07	0.30	0.30	0.00	0.00	0.00	0.19	0.19	0.19
Sat Flow, veh/h	1753	2974	522	1767	3359	220		0		412	1370	1467
Grp Volume(v), veh/h	124	310	311	95	263	273		0.0		178	0	163
Grp Sat Flow(s),veh/h/ln	1753	1749	1747	1767	1763	1816				1746	0	1503
Q Serve(g_s), s	1.8	5.7	5.8	1.4	4.7	4.8				3.5	0.0	3.8
Cycle Q Clear(g_c), s	1.8	5.7	5.8	1.4	4.7	4.8				3.5	0.0	3.8
Prop In Lane	1.00		0.30	1.00		0.12				0.24		0.98
Lane Grp Cap(c), veh/h	470	537	536	430	523	539				323	0	278
V/C Ratio(X)	0.26	0.58	0.58	0.22	0.50	0.51				0.55	0.00	0.58
Avail Cap(c_a), veh/h	583	1708	1707	562	1722	1774				789	0	679
HCM Platoon Ratio	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
Uniform Delay (d), s/veh	8.4	11.2	11.2	8.6	11.1	11.1				14.1	0.0	14.3
Incr Delay (d2), s/veh	0.3	1.0	1.0	0.3	0.8	0.7				1.5	0.0	1.9
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	1.8	1.8	0.4	1.5	1.5				1.2	0.0	1.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	8.7	12.2	12.2	8.9	11.9	11.9				15.6	0.0	16.2
LnGrp LOS	A	B	B	A	B	B				B		B
Approach Vol, veh/h		745			631						341	
Approach Delay, s/veh		11.6			11.4						15.9	
Approach LOS		B			B						B	

Timer - Assigned Phs	1	2		4	5	6
Phs Duration (G+Y+Rc), s	8.1	17.3		12.8	8.5	17.0
Change Period (Y+Rc), s	* 5.6	* 5.6		5.7	* 5.6	* 5.6
Max Green Setting (Gmax), s	* 5.4	* 37		17.3	* 5.4	* 37
Max Q Clear Time (g_c+I1), s	3.4	7.8		5.8	3.8	6.8
Green Ext Time (p_c), s	0.0	4.0		1.5	0.0	3.3

Intersection Summary		
HCM 7th Control Delay, s/veh		12.4
HCM 7th LOS		B

Notes

* HCM 7th 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)	154	657	117	119	633	41	121	162	133	52	170	193
Future Volume (veh/h)	154	657	117	119	633	41	121	162	133	52	170	193
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
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	1841	1841	1841	1856	1856	1856	1781	1781	1781	1767	1767	1767
Adj Flow Rate, veh/h	167	714	127	129	688	45	132	176	145	57	185	210
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, %	4	4	4	3	3	3	8	8	8	9	9	9
Cap, veh/h	438	1070	190	384	1138	74	0	0	0	87	283	308
Arrive On Green	0.09	0.36	0.36	0.07	0.34	0.34	0.00	0.00	0.00	0.21	0.21	0.21
Sat Flow, veh/h	1753	2967	527	1767	3359	220		0		417	1353	1476
Grp Volume(v), veh/h	167	421	420	129	361	372		0.0		238	0	214
Grp Sat Flow(s),veh/h/ln	1753	1749	1746	1767	1763	1816				1746	0	1501
Q Serve(g_s), s	2.8	9.6	9.6	2.2	8.0	8.1				5.9	0.0	6.2
Cycle Q Clear(g_c), s	2.8	9.6	9.6	2.2	8.0	8.1				5.9	0.0	6.2
Prop In Lane	1.00		0.30	1.00		0.12				0.24		0.98
Lane Grp Cap(c), veh/h	438	631	630	384	597	615				364	0	313
V/C Ratio(X)	0.38	0.67	0.67	0.34	0.60	0.60				0.65	0.00	0.68
Avail Cap(c_a), veh/h	695	1273	1271	457	1060	1092				602	0	518
HCM Platoon Ratio	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
Uniform Delay (d), s/veh	9.3	12.7	12.7	9.8	13.0	13.0				17.1	0.0	17.2
Incr Delay (d2), s/veh	0.5	1.2	1.2	0.5	1.0	1.0				2.0	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	0.0
%ile BackOfQ(50%),veh/ln	0.9	3.1	3.1	0.7	2.7	2.8				2.2	0.0	2.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	9.8	13.9	14.0	10.3	14.0	14.0				19.1	0.0	19.9
LnGrp LOS	A	B	B	B	B	B				B		B
Approach Vol, veh/h		1008			862						452	
Approach Delay, s/veh		13.3			13.4						19.5	
Approach LOS		B			B						B	

Timer - Assigned Phs	1	2		4	5	6
Phs Duration (G+Y+Rc), s	9.0	22.6		15.6	10.1	21.6
Change Period (Y+Rc), s	* 5.6	* 5.6		5.7	* 5.6	* 5.6
Max Green Setting (Gmax), s	* 5.4	* 34		16.3	* 11	* 28
Max Q Clear Time (g_c+I1), s	4.2	11.6		8.2	4.8	10.1
Green Ext Time (p_c), s	0.0	5.5		1.7	0.2	4.2

Intersection Summary		
HCM 7th Control Delay, s/veh		14.5
HCM 7th LOS		B

Notes

* HCM 7th computational engine requires equal clearance times for the phases crossing the barrier.

MOVEMENT SUMMARY

Site: 101 [Cecil Poleline Existing PM (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.3.210

New Site
Site Category: (None)
Roundabout

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] ft	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed mph
South: Cecil NB approach															
3u	U	All MCs	1	0.3	1	0.3	0.311	6.6	LOS A	1.9	48.1	0.53	0.33	0.53	26.0
3	L2	All MCs	132	0.3	132	0.3	0.311	6.6	LOS A	1.9	48.1	0.53	0.33	0.53	27.4
8	T1	All MCs	91	0.3	91	0.3	0.311	6.6	LOS A	1.9	48.1	0.53	0.33	0.53	27.8
18	R2	All MCs	97	0.3	97	0.3	0.311	6.6	LOS A	1.9	48.1	0.53	0.33	0.53	27.7
Approach			320	0.3	320	0.3	0.311	6.6	LOS A	1.9	48.1	0.53	0.33	0.53	27.6
East: Poleline WB Approach															
1	L2	All MCs	64	0.3	64	0.3	0.144	4.6	LOS A	0.8	20.4	0.47	0.29	0.47	28.0
6	T1	All MCs	249	0.3	249	0.3	0.144	4.3	LOS A	0.8	20.9	0.47	0.28	0.47	26.0
16	R2	All MCs	20	0.3	20	0.3	0.144	4.2	LOS A	0.8	20.9	0.46	0.27	0.46	23.3
Approach			334	0.3	334	0.3	0.144	4.4	LOS A	0.8	20.9	0.47	0.28	0.47	26.1
North: Cecil SB approach															
7	L2	All MCs	7	0.0	7	0.0	0.104	5.3	LOS A	0.4	10.4	0.47	0.36	0.47	29.9
4	T1	All MCs	42	0.0	42	0.0	0.104	5.3	LOS A	0.4	10.4	0.47	0.36	0.47	28.5
14	R2	All MCs	38	0.0	38	0.0	0.104	5.3	LOS A	0.4	10.4	0.47	0.36	0.47	30.1
Approach			87	0.0	87	0.0	0.104	5.3	LOS A	0.4	10.4	0.47	0.36	0.47	29.3
West: Poleline EB Approach															
5u	U	All MCs	15	0.3	15	0.3	0.200	4.2	LOS A	1.2	28.9	0.30	0.13	0.30	30.2
5	L2	All MCs	52	0.3	52	0.3	0.200	4.2	LOS A	1.2	28.9	0.30	0.13	0.30	30.2
2	T1	All MCs	206	0.3	206	0.3	0.200	4.2	LOS A	1.2	28.9	0.30	0.13	0.30	30.8
12	R2	All MCs	105	0.3	105	0.3	0.102	4.3	LOS A	0.5	13.0	0.30	0.15	0.30	28.8
Approach			378	0.3	378	0.3	0.200	4.3	LOS A	1.2	28.9	0.30	0.14	0.30	30.1
All Vehicles			1119	0.3	1119	0.3	0.311	5.0	LOS A	1.9	48.1	0.43	0.25	0.43	28.0

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Options tab).
Roundabout LOS Method: Same as Signalised Intersections.
Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.
LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).
Roundabout Capacity Model: SIDRA HCM.
Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

MOVEMENT SUMMARY

Site: 101 [Cecil Poleline Existing PM (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.2.202

New Site
Site Category: (None)
Roundabout

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] ft	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed mph
South: Cecil NB approach															
3u	U	All MCs	1	0.3	1	0.3	0.471	9.6	LOS A	3.4	84.0	0.70	0.51	0.71	25.1
3	L2	All MCs	178	0.3	178	0.3	0.471	9.6	LOS A	3.4	84.0	0.70	0.51	0.71	26.4
8	T1	All MCs	122	0.3	122	0.3	0.471	9.6	LOS A	3.4	84.0	0.70	0.51	0.71	26.8
18	R2	All MCs	131	0.3	131	0.3	0.471	9.6	LOS A	3.4	84.0	0.70	0.51	0.71	26.7
Approach			432	0.3	432	0.3	0.471	9.6	LOS A	3.4	84.0	0.70	0.51	0.71	26.6
East: Poleline WB Approach															
1	L2	All MCs	94	0.3	94	0.3	0.235	6.0	LOS A	1.5	36.4	0.60	0.41	0.60	27.5
6	T1	All MCs	365	0.3	365	0.3	0.235	5.6	LOS A	1.5	37.8	0.59	0.39	0.59	25.6
16	R2	All MCs	29	0.3	29	0.3	0.235	5.4	LOS A	1.5	37.8	0.59	0.39	0.59	23.0
Approach			488	0.3	488	0.3	0.235	5.7	LOS A	1.5	37.8	0.59	0.40	0.59	25.7
North: Cecil SB approach															
7	L2	All MCs	11	0.0	11	0.0	0.169	6.7	LOS A	0.7	17.8	0.57	0.48	0.57	29.3
4	T1	All MCs	60	0.0	60	0.0	0.169	6.7	LOS A	0.7	17.8	0.57	0.48	0.57	28.0
14	R2	All MCs	54	0.0	54	0.0	0.169	6.7	LOS A	0.7	17.8	0.57	0.48	0.57	29.6
Approach			124	0.0	124	0.0	0.169	6.7	LOS A	0.7	17.8	0.57	0.48	0.57	28.8
West: Poleline EB Approach															
5u	U	All MCs	21	0.3	21	0.3	0.302	5.4	LOS A	1.9	48.5	0.40	0.21	0.40	29.8
5	L2	All MCs	75	0.3	75	0.3	0.302	5.4	LOS A	1.9	48.5	0.40	0.21	0.40	29.8
2	T1	All MCs	298	0.3	298	0.3	0.302	5.4	LOS A	1.9	48.5	0.40	0.21	0.40	30.3
12	R2	All MCs	152	0.3	152	0.3	0.155	5.1	LOS A	0.8	20.9	0.39	0.21	0.39	28.5
Approach			545	0.3	545	0.3	0.302	5.3	LOS A	1.9	48.5	0.39	0.21	0.39	29.7
All Vehicles			1589	0.3	1589	0.3	0.471	6.7	LOS A	3.4	84.0	0.55	0.37	0.55	27.5

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Options tab).
Roundabout LOS Method: Same as Signalised Intersections.
Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.
LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).
Roundabout Capacity Model: SIDRA HCM.
Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

SIDRA INTERSECTION 9.1 | Copyright © 2000-2022 Akcelik and Associates Pty Ltd | sidrasolutions.com
Organisation: J.U.B ENGINEERS, INC. | Licence: PLUS / 1PC | Processed: Monday, April 7, 2025 1:46:57 PM
Project: \\jub.com\central\Clients\ID\PostFallsCity\Projects\07-23-040_TMP\Planning\Traffic\Sidra\2030\Cecil_Poleline.sip9

MOVEMENT SUMMARY

Site: 101 [Cecil Poleline Existing PM (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.2.202

New Site
Site Category: (None)
Roundabout

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] ft	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed mph
South: Cecil NB approach															
3u	U	All MCs	2	0.3	2	0.3	0.609	13.5	LOS B	6.7	167.7	0.84	0.80	1.14	24.0
3	L2	All MCs	211	0.3	211	0.3	0.609	13.5	LOS B	6.7	167.7	0.84	0.80	1.14	25.3
8	T1	All MCs	145	0.3	145	0.3	0.609	13.5	LOS B	6.7	167.7	0.84	0.80	1.14	25.7
18	R2	All MCs	155	0.3	155	0.3	0.609	13.5	LOS B	6.7	167.7	0.84	0.80	1.14	25.5
Approach			513	0.3	513	0.3	0.609	13.5	LOS B	6.7	167.7	0.84	0.80	1.14	25.5
East: Poleline WB Approach															
1	L2	All MCs	116	0.3	116	0.3	0.313	7.4	LOS A	2.1	52.4	0.69	0.50	0.69	27.0
6	T1	All MCs	448	0.3	448	0.3	0.313	6.9	LOS A	2.2	55.1	0.69	0.48	0.69	25.2
16	R2	All MCs	36	0.3	36	0.3	0.313	6.6	LOS A	2.2	55.1	0.68	0.47	0.68	22.8
Approach			600	0.3	600	0.3	0.313	7.0	LOS A	2.2	55.1	0.69	0.48	0.69	25.4
North: Cecil SB approach															
7	L2	All MCs	13	0.0	13	0.0	0.226	8.1	LOS A	1.0	25.0	0.64	0.56	0.64	28.8
4	T1	All MCs	73	0.0	73	0.0	0.226	8.1	LOS A	1.0	25.0	0.64	0.56	0.64	27.5
14	R2	All MCs	65	0.0	65	0.0	0.226	8.1	LOS A	1.0	25.0	0.64	0.56	0.64	29.1
Approach			151	0.0	151	0.0	0.226	8.1	LOS A	1.0	25.0	0.64	0.56	0.64	28.3
West: Poleline EB Approach															
5u	U	All MCs	26	0.3	26	0.3	0.379	6.4	LOS A	2.6	66.2	0.48	0.27	0.48	29.4
5	L2	All MCs	91	0.3	91	0.3	0.379	6.4	LOS A	2.6	66.2	0.48	0.27	0.48	29.4
2	T1	All MCs	362	0.3	362	0.3	0.379	6.4	LOS A	2.6	66.2	0.48	0.27	0.48	29.9
12	R2	All MCs	185	0.3	185	0.3	0.196	5.7	LOS A	1.1	27.5	0.44	0.26	0.44	28.3
Approach			664	0.3	664	0.3	0.379	6.2	LOS A	2.6	66.2	0.47	0.27	0.47	29.4
All Vehicles			1927	0.3	1927	0.3	0.609	8.5	LOS A	6.7	167.7	0.65	0.50	0.73	26.9

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Options tab).
Roundabout LOS Method: Same as Signalised Intersections.
Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.
LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).
Roundabout Capacity Model: SIDRA HCM.
Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

SIDRA INTERSECTION 9.1 | Copyright © 2000-2022 Akcelik and Associates Pty Ltd | sidrasolutions.com
Organisation: J.U.B ENGINEERS, INC. | Licence: PLUS / 1PC | Processed: Tuesday, April 8, 2025 10:06:32 AM
Project: \\jub.com\central\Clients\ID\PostFallsCity\Projects\07-23-040_TMP\Planning\Traffic\Sidra\2035\Cecil_Poleline.sip9

MOVEMENT SUMMARY

Site: 101 [Cecil Poleline Existing PM (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.2.202

New Site
Site Category: (None)
Roundabout

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] ft	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed mph
South: Cecil NB approach															
3u	U	All MCs	2	0.3	2	0.3	0.988	53.4	LOS D	28.2	706.7	1.00	1.99	3.03	16.9
3	L2	All MCs	277	0.3	277	0.3	0.988	53.4	LOS D	28.2	706.7	1.00	1.99	3.03	17.5
8	T1	All MCs	191	0.3	191	0.3	0.988	53.4	LOS D	28.2	706.7	1.00	1.99	3.03	17.7
18	R2	All MCs	203	0.3	203	0.3	0.988	53.4	LOS D	28.2	706.7	1.00	1.99	3.03	17.6
Approach			673	0.3	673	0.3	0.988	53.4	LOS D	28.2	706.7	1.00	1.99	3.03	17.6
East: Poleline WB Approach															
1	L2	All MCs	158	0.3	158	0.3	0.516	12.5	LOS B	4.6	116.5	0.88	0.76	1.05	25.5
6	T1	All MCs	614	0.3	614	0.3	0.516	11.5	LOS B	4.9	121.9	0.88	0.76	1.03	24.0
16	R2	All MCs	49	0.3	49	0.3	0.516	10.9	LOS B	4.9	121.9	0.89	0.75	1.01	21.9
Approach			821	0.3	821	0.3	0.516	11.7	LOS B	4.9	121.9	0.88	0.76	1.03	24.1
North: Cecil SB approach															
7	L2	All MCs	17	0.0	17	0.0	0.386	12.9	LOS B	2.1	51.4	0.77	0.77	0.90	27.1
4	T1	All MCs	98	0.0	98	0.0	0.386	12.9	LOS B	2.1	51.4	0.77	0.77	0.90	26.0
14	R2	All MCs	88	0.0	88	0.0	0.386	12.9	LOS B	2.1	51.4	0.77	0.77	0.90	27.4
Approach			203	0.0	203	0.0	0.386	12.9	LOS B	2.1	51.4	0.77	0.77	0.90	26.7
West: Poleline EB Approach															
5u	U	All MCs	36	0.3	36	0.3	0.549	9.2	LOS A	4.6	115.1	0.65	0.42	0.65	28.3
5	L2	All MCs	123	0.3	123	0.3	0.549	9.2	LOS A	4.6	115.1	0.65	0.42	0.65	28.3
2	T1	All MCs	493	0.3	493	0.3	0.549	9.2	LOS A	4.6	115.1	0.65	0.42	0.65	28.8
12	R2	All MCs	252	0.3	252	0.3	0.287	7.1	LOS A	1.7	43.8	0.55	0.36	0.55	27.8
Approach			903	0.3	903	0.3	0.549	8.7	LOS A	4.6	115.1	0.63	0.40	0.63	28.4
All Vehicles			2600	0.3	2600	0.3	0.988	21.5	LOS C	28.2	706.7	0.82	0.95	1.40	23.3

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Options tab).
Roundabout LOS Method: Same as Signalised Intersections.
Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.
LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).
Roundabout Capacity Model: SIDRA HCM.
Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

SIDRA INTERSECTION 9.1 | Copyright © 2000-2022 Akcelik and Associates Pty Ltd | sidrasolutions.com

Intersection	
Int Delay, s/veh	1.6

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	48	25	27	458	214	40
Future Vol, veh/h	48	25	27	458	214	40
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	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	0	0	1	1	0	0
Mvmt Flow	51	27	29	487	228	43

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	794	249	270	0	-	0
Stage 1	249	-	-	-	-	-
Stage 2	545	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.11	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.209	-	-	-
Pot Cap-1 Maneuver	360	795	1299	-	-	-
Stage 1	797	-	-	-	-	-
Stage 2	585	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	349	795	1299	-	-	-
Mov Cap-2 Maneuver	349	-	-	-	-	-
Stage 1	773	-	-	-	-	-
Stage 2	585	-	-	-	-	-

Approach	EB	NB	SB
HCM Ctrl Dly, s/v	15.15	0.44	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	100	-	432	-	-
HCM Lane V/C Ratio	0.022	-	0.18	-	-
HCM Ctrl Dly (s/v)	7.8	0	15.1	-	-
HCM Lane LOS	A	A	C	-	-
HCM 95th %tile Q(veh)	0.1	-	0.6	-	-

Intersection	
Intersection Delay, s/veh	9
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	20	31	13	9	33	86	5	50	5	122	86	46
Future Vol, veh/h	20	31	13	9	33	86	5	50	5	122	86	46
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles, %	0	0	0	3	3	3	2	2	2	2	2	2
Mvmt Flow	22	33	14	10	35	92	5	54	5	131	92	49
Number of Lanes	0	1	0	0	1	1	0	1	0	1	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	1	2	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	1	1	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	2	2	1
HCM Control Delay, s/veh	9.1	8.4	9	9.3
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	8%	31%	21%	0%	100%	0%
Vol Thru, %	83%	48%	79%	0%	0%	65%
Vol Right, %	8%	20%	0%	100%	0%	35%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	60	64	42	86	122	132
LT Vol	5	20	9	0	122	0
Through Vol	50	31	33	0	0	86
RT Vol	5	13	0	86	0	46
Lane Flow Rate	65	69	45	92	131	142
Geometry Grp	4b	4b	5	5	5	5
Degree of Util (X)	0.096	0.104	0.07	0.123	0.205	0.192
Departure Headway (Hd)	5.353	5.456	5.598	4.785	5.624	4.876
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	667	655	639	748	638	735
Service Time	3.402	3.503	3.337	2.524	3.363	2.615
HCM Lane V/C Ratio	0.097	0.105	0.07	0.123	0.205	0.193
HCM Control Delay, s/veh	9	9.1	8.8	8.2	9.8	8.8
HCM Lane LOS	A	A	A	A	A	A
HCM 95th-tile Q	0.3	0.3	0.2	0.4	0.8	0.7

Intersection	
Intersection Delay, s/veh	9.5
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	24	38	15	10	38	99	6	58	6	144	102	54
Future Vol, veh/h	24	38	15	10	38	99	6	58	6	144	102	54
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles, %	0	0	0	3	3	3	2	2	2	2	2	2
Mvmt Flow	26	41	16	11	41	106	6	62	6	155	110	58
Number of Lanes	0	1	0	0	1	1	0	1	0	1	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	1	2	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	1	1	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	2	2	1
HCM Control Delay, s/veh	9.6	8.8	9.3	9.8
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	9%	31%	21%	0%	100%	0%
Vol Thru, %	83%	49%	79%	0%	0%	65%
Vol Right, %	9%	19%	0%	100%	0%	35%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	70	77	48	99	144	156
LT Vol	6	24	10	0	144	0
Through Vol	58	38	38	0	0	102
RT Vol	6	15	0	99	0	54
Lane Flow Rate	75	83	52	106	155	168
Geometry Grp	4b	4b	5	5	5	5
Degree of Util (X)	0.115	0.13	0.083	0.147	0.247	0.233
Departure Headway (Hd)	5.517	5.643	5.771	4.96	5.738	4.991
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	645	632	618	719	624	716
Service Time	3.59	3.709	3.531	2.719	3.495	2.748
HCM Lane V/C Ratio	0.116	0.131	0.084	0.147	0.248	0.235
HCM Control Delay, s/veh	9.3	9.6	9.1	8.6	10.4	9.3
HCM Lane LOS	A	A	A	A	B	A
HCM 95th-tile Q	0.4	0.4	0.3	0.5	1	0.9

Intersection	
Intersection Delay, s/veh	10.7
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	32	51	21	13	49	126	8	73	8	189	134	71
Future Vol, veh/h	32	51	21	13	49	126	8	73	8	189	134	71
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles, %	0	0	0	3	3	3	2	2	2	2	2	2
Mvmt Flow	34	55	23	14	53	135	9	78	9	203	144	76
Number of Lanes	0	1	0	0	1	1	0	1	0	1	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	1	2	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	1	1	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	2	2	1
HCM Control Delay, s/veh	10.6	9.7	10.2	11.3
HCM LOS	B	A	B	B

Lane	NBLn1	EBLn1	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	9%	31%	21%	0%	100%	0%
Vol Thru, %	82%	49%	79%	0%	0%	65%
Vol Right, %	9%	20%	0%	100%	0%	35%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	89	104	62	126	189	205
LT Vol	8	32	13	0	189	0
Through Vol	73	51	49	0	0	134
RT Vol	8	21	0	126	0	71
Lane Flow Rate	96	112	67	135	203	220
Geometry Grp	4b	4b	5	5	5	5
Degree of Util (X)	0.16	0.19	0.116	0.204	0.344	0.327
Departure Headway (Hd)	6.003	6.126	6.244	5.429	6.088	5.339
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	598	586	575	661	593	675
Service Time	4.03	4.156	3.972	3.157	3.808	3.059
HCM Lane V/C Ratio	0.161	0.191	0.117	0.204	0.342	0.326
HCM Control Delay, s/veh	10.2	10.6	9.8	9.6	12	10.6
HCM Lane LOS	B	B	A	A	B	B
HCM 95th-tile Q	0.6	0.7	0.4	0.8	1.5	1.4

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	5	3	6	34	12	64	1	249	48	41	174	8
Future Vol, veh/h	5	3	6	34	12	64	1	249	48	41	174	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	-	-	-	-	-	66	-	-	-	-	-	-
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, %	0	0	0	1	1	1	0	0	0	0	0	0
Mvmt Flow	5	3	7	37	13	70	1	271	52	45	189	9

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	562	608	193	579	586	297	198	0	0	323	0	0
Stage 1	283	283	-	299	299	-	-	-	-	-	-	-
Stage 2	279	325	-	280	287	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.11	6.51	6.21	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.11	5.51	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.11	5.51	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.509	4.009	3.309	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	441	413	853	428	424	745	1387	-	-	1248	-	-
Stage 1	729	681	-	712	668	-	-	-	-	-	-	-
Stage 2	732	653	-	729	676	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	371	396	853	404	406	745	1387	-	-	1248	-	-
Mov Cap-2 Maneuver	371	396	-	404	406	-	-	-	-	-	-	-
Stage 1	699	654	-	711	667	-	-	-	-	-	-	-
Stage 2	650	652	-	691	649	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	12.44	12.34	0.03	1.47
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	6	-	-	499	405	745	1248	-	-
HCM Lane V/C Ratio	0.001	-	-	0.031	0.124	0.093	0.036	-	-
HCM Ctrl Dly (s/v)	7.6	0	-	12.4	15.1	10.3	8	-	-
HCM Lane LOS	A	A	-	B	C	B	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.1	0.4	0.3	0.1	-	-

Intersection	
Intersection Delay, s/veh	9
Intersection LOS	A

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	30	9	244	9	22	183
Future Vol, veh/h	30	9	244	9	22	183
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	33	10	271	10	24	203
Number of Lanes	1	0	1	0	0	1

Approach	WB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	1
Conflicting Approach Left	NB		WB
Conflicting Lanes Left	1	0	1
Conflicting Approach Right	SB	WB	
Conflicting Lanes Right	1	1	0
HCM Control Delay, s/veh	8.3	9.2	8.9
HCM LOS	A	A	A

Lane	NBLn1	WBLn1	SBLn1
Vol Left, %	0%	77%	11%
Vol Thru, %	96%	0%	89%
Vol Right, %	4%	23%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	253	39	205
LT Vol	0	30	22
Through Vol	244	0	183
RT Vol	9	9	0
Lane Flow Rate	281	43	228
Geometry Grp	1	1	1
Degree of Util (X)	0.322	0.06	0.273
Departure Headway (Hd)	4.231	5.005	4.316
Convergence, Y/N	Yes	Yes	Yes
Cap	855	718	838
Service Time	2.231	3.018	2.316
HCM Lane V/C Ratio	0.329	0.06	0.272
HCM Control Delay, s/veh	9.2	8.3	8.9
HCM Lane LOS	A	A	A
HCM 95th-tile Q	1.4	0.2	1.1

Intersection	
Intersection Delay, s/veh	9.7
Intersection LOS	A

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	35	11	283	10	25	212
Future Vol, veh/h	35	11	283	10	25	212
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	39	12	314	11	28	236
Number of Lanes	1	0	1	0	0	1

Approach	WB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	1
Conflicting Approach Left	NB		WB
Conflicting Lanes Left	1	0	1
Conflicting Approach Right	SB	WB	
Conflicting Lanes Right	1	1	0
HCM Control Delay, s/veh	8.6	10	9.5
HCM LOS	A	A	A

Lane	NBLn1	WBLn1	SBLn1
Vol Left, %	0%	76%	11%
Vol Thru, %	97%	0%	89%
Vol Right, %	3%	24%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	293	46	237
LT Vol	0	35	25
Through Vol	283	0	212
RT Vol	10	11	0
Lane Flow Rate	326	51	263
Geometry Grp	1	1	1
Degree of Util (X)	0.387	0.073	0.321
Departure Headway (Hd)	4.284	5.172	4.382
Convergence, Y/N	Yes	Yes	Yes
Cap	843	692	822
Service Time	2.301	3.207	2.399
HCM Lane V/C Ratio	0.387	0.074	0.32
HCM Control Delay, s/veh	10	8.6	9.5
HCM Lane LOS	A	A	A
HCM 95th-tile Q	1.8	0.2	1.4

Intersection	
Intersection Delay, s/veh	11.3
Intersection LOS	B

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	46	15	359	13	32	269
Future Vol, veh/h	46	15	359	13	32	269
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	51	17	399	14	36	299
Number of Lanes	1	0	1	0	0	1

Approach	WB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	1
Conflicting Approach Left	NB		WB
Conflicting Lanes Left	1	0	1
Conflicting Approach Right	SB	WB	
Conflicting Lanes Right	1	1	0
HCM Control Delay, s/veh	9.2	12	10.9
HCM LOS	A	B	B

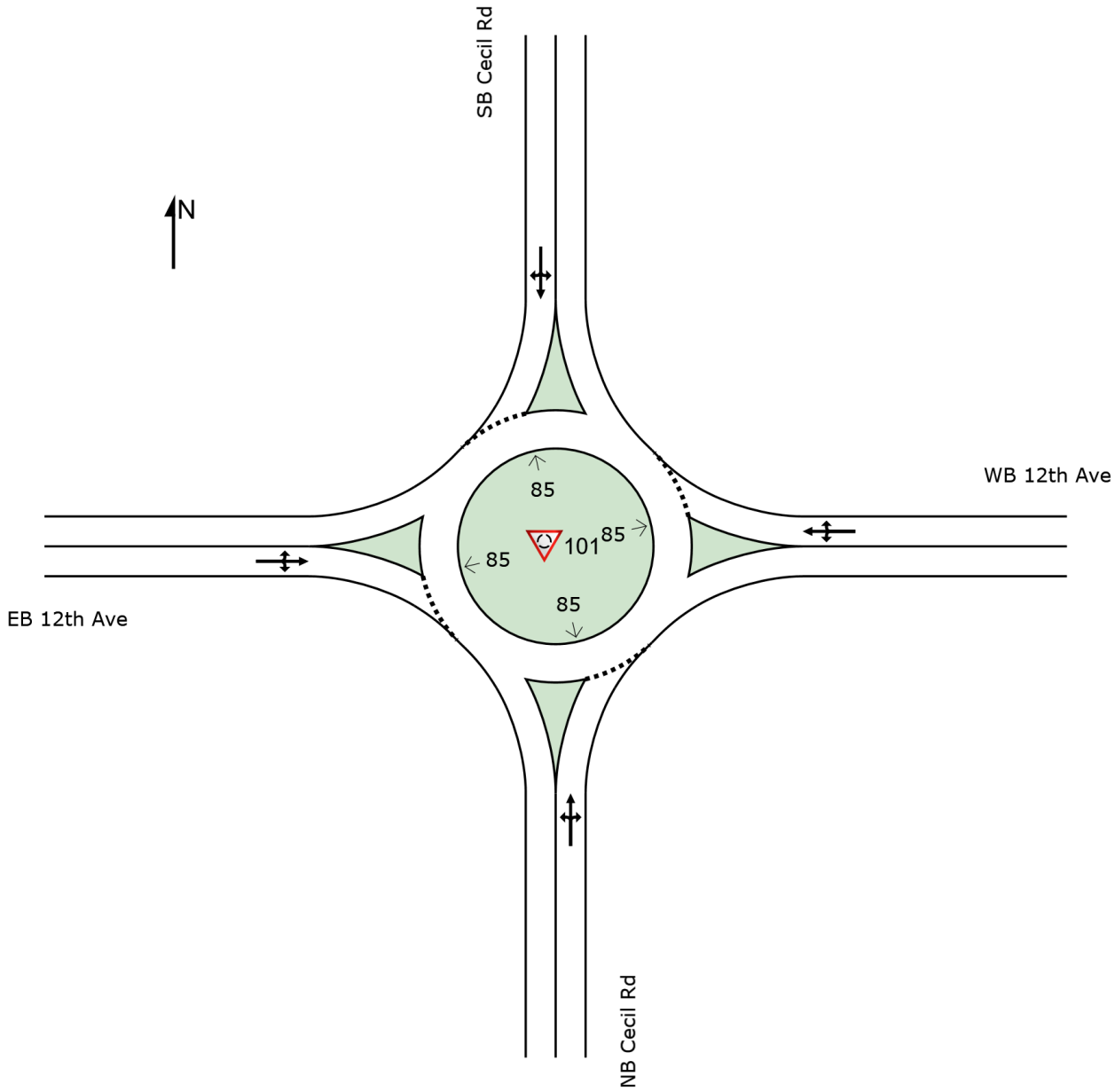
Lane	NBLn1	WBLn1	SBLn1
Vol Left, %	0%	75%	11%
Vol Thru, %	97%	0%	89%
Vol Right, %	3%	25%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	372	61	301
LT Vol	0	46	32
Through Vol	359	0	269
RT Vol	13	15	0
Lane Flow Rate	413	68	334
Geometry Grp	1	1	1
Degree of Util (X)	0.508	0.104	0.422
Departure Headway (Hd)	4.424	5.512	4.539
Convergence, Y/N	Yes	Yes	Yes
Cap	814	647	793
Service Time	2.454	3.573	2.572
HCM Lane V/C Ratio	0.507	0.105	0.421
HCM Control Delay, s/veh	12	9.2	10.9
HCM Lane LOS	B	A	B
HCM 95th-tile Q	2.9	0.3	2.1

SITE LAYOUT

Site: 101 [Cecil_12th_2045_PM (Site Folder: General)]

New Site
Site Category: (None)
Roundabout

Layout pictures are schematic functional drawings reflecting input data. They are not design drawings.



SIDRA INTERSECTION 9.1 | Copyright © 2000-2024 Akcelik and Associates Pty Ltd | sidrasolutions.com
Organisation: J.U.B ENGINEERS, INC. | Licence: PLUS / 1PC | Created: Thursday, July 3, 2025 10:56:18 AM
Project: \\jub.com\Central\Clients\ID\PostFallsCity\Projects\07-23-040_TMP\Planning\Traffic\Sidra\2045Build\Cecil_12th.sip9

MOVEMENT SUMMARY

Site: 101 [Cecil_12th_2045_PM (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.6.228

New Site
Site Category: (None)
Roundabout

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] ft	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed mph
South: NB Cecil Rd															
3	L2	All MCs	95	3.0	95	3.0	0.735	14.4	LOS B	8.9	228.9	0.73	0.41	0.73	18.0
8	T1	All MCs	665	3.0	665	3.0	0.735	14.4	LOS B	8.9	228.9	0.73	0.41	0.73	16.5
18	R2	All MCs	60	3.0	60	3.0	0.735	14.4	LOS B	8.9	228.9	0.73	0.41	0.73	18.0
Approach			820	3.0	820	3.0	0.735	14.4	LOS B	8.9	228.9	0.73	0.41	0.73	16.8
East: WB 12th Ave															
1	L2	All MCs	46	3.0	46	3.0	0.287	11.1	LOS B	1.9	49.1	0.87	0.71	0.87	16.9
6	T1	All MCs	87	3.0	87	3.0	0.287	11.1	LOS B	1.9	49.1	0.87	0.71	0.87	18.5
16	R2	All MCs	16	3.0	16	3.0	0.287	11.1	LOS B	1.9	49.1	0.87	0.71	0.87	17.8
Approach			149	3.0	149	3.0	0.287	11.1	LOS B	1.9	49.1	0.87	0.71	0.87	17.9
North: SB Cecil Rd															
7	L2	All MCs	11	3.0	11	3.0	0.432	8.2	LOS A	3.1	79.6	0.57	0.35	0.57	18.9
4	T1	All MCs	396	3.0	396	3.0	0.432	8.2	LOS A	3.1	79.6	0.57	0.35	0.57	18.2
14	R2	All MCs	34	3.0	34	3.0	0.432	8.2	LOS A	3.1	79.6	0.57	0.35	0.57	18.9
Approach			440	3.0	440	3.0	0.432	8.2	LOS A	3.1	79.6	0.57	0.35	0.57	18.3
West: EB 12th Ave															
5	L2	All MCs	55	3.0	55	3.0	0.214	6.6	LOS A	1.3	32.5	0.64	0.46	0.64	18.5
2	T1	All MCs	65	3.0	65	3.0	0.214	6.6	LOS A	1.3	32.5	0.64	0.46	0.64	19.2
12	R2	All MCs	55	3.0	55	3.0	0.214	6.6	LOS A	1.3	32.5	0.64	0.46	0.64	17.5
Approach			176	3.0	176	3.0	0.214	6.6	LOS A	1.3	32.5	0.64	0.46	0.64	18.4
All Vehicles			1585	3.0	1585	3.0	0.735	11.5	LOS B	8.9	228.9	0.69	0.43	0.69	17.5

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Options tab).
Roundabout LOS Method: Same as Signalised Intersections.
Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.
LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).
Roundabout Capacity Model: SIDRA HCM.
Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

SIDRA INTERSECTION 9.1 | Copyright © 2000-2024 Akcelik and Associates Pty Ltd | sidrasolutions.com

Intersection	
Int Delay, s/veh	9.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	1	7	3	137	1	110	10	70	161	120	46	2
Future Vol, veh/h	1	7	3	137	1	110	10	70	161	120	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	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	9	9	9	16	16	16	5	5	5	8	8	8
Mvmt Flow	1	8	3	152	1	122	11	78	179	133	51	2

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	419	598	52	511	509	167	53	0	0	257	0	0
Stage 1	319	319	-	189	189	-	-	-	-	-	-	-
Stage 2	101	279	-	322	320	-	-	-	-	-	-	-
Critical Hdwy	7.19	6.59	6.29	7.26	6.66	6.36	4.15	-	-	4.18	-	-
Critical Hdwy Stg 1	6.19	5.59	-	6.26	5.66	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.19	5.59	-	6.26	5.66	-	-	-	-	-	-	-
Follow-up Hdwy	3.581	4.081	3.381	3.644	4.144	3.444	2.245	-	-	2.272	-	-
Pot Cap-1 Maneuver	532	407	996	451	447	842	1533	-	-	1274	-	-
Stage 1	678	641	-	781	718	-	-	-	-	-	-	-
Stage 2	889	667	-	662	628	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	401	360	996	390	396	842	1533	-	-	1274	-	-
Mov Cap-2 Maneuver	401	360	-	390	396	-	-	-	-	-	-	-
Stage 1	605	572	-	774	712	-	-	-	-	-	-	-
Stage 2	752	662	-	580	560	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	13.41	19.92	0.31	5.83
HCM LOS	B	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	66	-	-	441	512	1236	-	-
HCM Lane V/C Ratio	0.007	-	-	0.028	0.538	0.105	-	-
HCM Ctrl Dly (s/v)	7.4	0	-	13.4	19.9	8.2	0	-
HCM Lane LOS	A	A	-	B	C	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.1	3.2	0.3	-	-

Intersection	
Int Delay, s/veh	3.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	6	3	7	39	14	74	1	319	61	52	223	10
Future Vol, veh/h	6	3	7	39	14	74	1	319	61	52	223	10
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	-	-	-	-	-	66	-	-	-	-	-	-
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, %	0	0	0	1	1	1	0	0	0	0	0	0
Mvmt Flow	7	3	8	42	15	80	1	347	66	57	242	11

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	717	776	248	739	748	380	253	0	0	413	0	0
Stage 1	361	361	-	382	382	-	-	-	-	-	-	-
Stage 2	357	415	-	357	366	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.11	6.51	6.21	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.11	5.51	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.11	5.51	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.509	4.009	3.309	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	347	331	796	334	342	669	1324	-	-	1157	-	-
Stage 1	662	629	-	642	614	-	-	-	-	-	-	-
Stage 2	665	596	-	663	624	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	275	312	796	309	322	669	1324	-	-	1157	-	-
Mov Cap-2 Maneuver	275	312	-	309	322	-	-	-	-	-	-	-
Stage 1	624	594	-	642	614	-	-	-	-	-	-	-
Stage 2	570	595	-	616	589	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	14.47	14.45	0.02	1.51
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	5	-	-	397	312	669	1157	-	-
HCM Lane V/C Ratio	0.001	-	-	0.044	0.184	0.12	0.049	-	-
HCM Ctrl Dly (s/v)	7.7	0	-	14.5	19.1	11.1	8.3	-	-
HCM Lane LOS	A	A	-	B	C	B	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.1	0.7	0.4	0.2	-	-

Intersection	
Int Delay, s/veh	3.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	6	4	8	43	15	81	1	369	71	61	258	12
Future Vol, veh/h	6	4	8	43	15	81	1	369	71	61	258	12
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	-	-	-	-	-	66	-	-	-	-	-	-
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, %	0	0	0	1	1	1	0	0	0	0	0	0
Mvmt Flow	7	4	9	47	16	88	1	401	77	66	280	13

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	831	900	287	857	868	440	293	0	0	478	0	0
Stage 1	420	420	-	442	442	-	-	-	-	-	-	-
Stage 2	411	480	-	415	426	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.11	6.51	6.21	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.11	5.51	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.11	5.51	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.509	4.009	3.309	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	291	280	757	279	292	619	1280	-	-	1095	-	-
Stage 1	615	593	-	596	578	-	-	-	-	-	-	-
Stage 2	622	557	-	617	588	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	218	260	757	251	270	619	1280	-	-	1095	-	-
Mov Cap-2 Maneuver	218	260	-	251	270	-	-	-	-	-	-	-
Stage 1	571	550	-	596	577	-	-	-	-	-	-	-
Stage 2	518	557	-	561	545	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	16.35	16.72	0.02	1.57
HCM LOS	C	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	4	-	-	337	256	619	1095	-	-
HCM Lane V/C Ratio	0.001	-	-	0.058	0.247	0.142	0.061	-	-
HCM Ctrl Dly (s/v)	7.8	0	-	16.3	23.6	11.8	8.5	-	-
HCM Lane LOS	A	A	-	C	C	B	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.2	0.9	0.5	0.2	-	-

Intersection	
Int Delay, s/veh	4.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	7	4	9	50	18	95	2	468	90	77	327	15
Future Vol, veh/h	7	4	9	50	18	95	2	468	90	77	327	15
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	-	-	-	-	-	66	-	-	-	-	-	-
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, %	0	0	0	1	1	1	0	0	0	0	0	0
Mvmt Flow	8	4	10	54	20	103	2	509	98	84	355	16

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1054	1142	364	1087	1101	558	372	0	0	607	0	0
Stage 1	531	531	-	562	562	-	-	-	-	-	-	-
Stage 2	523	611	-	525	539	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.11	6.51	6.21	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.11	5.51	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.11	5.51	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.509	4.009	3.309	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	206	202	686	194	213	531	1198	-	-	981	-	-
Stage 1	536	529	-	513	511	-	-	-	-	-	-	-
Stage 2	541	488	-	538	523	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	134	180	686	167	189	531	1198	-	-	981	-	-
Mov Cap-2 Maneuver	134	180	-	167	189	-	-	-	-	-	-	-
Stage 1	478	472	-	512	510	-	-	-	-	-	-	-
Stage 2	418	486	-	469	467	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	22.44	24.81	0.03	1.66
HCM LOS	C	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	6	-	-	228	172	531	981	-	-
HCM Lane V/C Ratio	0.002	-	-	0.095	0.429	0.194	0.085	-	-
HCM Ctrl Dly (s/v)	8	0	-	22.4	40.7	13.4	9	-	-
HCM Lane LOS	A	A	-	C	E	B	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.3	1.9	0.7	0.3	-	-

Intersection	
Int Delay, s/veh	5.5

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	123	147	35	26	58	115
Future Vol, veh/h	123	147	35	26	58	115
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	75
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	89	89	89	89	89	89
Heavy Vehicles, %	0	0	5	5	2	2
Mvmt Flow	138	165	39	29	65	129

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	69	0	-	0	496	54
Stage 1	-	-	-	-	54	-
Stage 2	-	-	-	-	442	-
Critical Hdwy	4.1	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.2	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1545	-	-	-	534	1013
Stage 1	-	-	-	-	969	-
Stage 2	-	-	-	-	648	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1545	-	-	-	481	1013
Mov Cap-2 Maneuver	-	-	-	-	481	-
Stage 1	-	-	-	-	873	-
Stage 2	-	-	-	-	648	-

Approach	EB	WB	SB
HCM Ctrl Dly, s/v	3.44	0	10.61
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	820	-	-	-	481	1013
HCM Lane V/C Ratio	0.089	-	-	-	0.135	0.128
HCM Ctrl Dly (s/v)	7.6	0	-	-	13.7	9.1
HCM Lane LOS	A	A	-	-	B	A
HCM 95th %tile Q(veh)	0.3	-	-	-	0.5	0.4

Intersection	
Int Delay, s/veh	7.3

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	107	35	128	132	95	127
Future Vol, veh/h	107	35	128	132	95	127
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	220	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	71	71	71	71	71	71
Heavy Vehicles, %	3	3	0	0	1	1
Mvmt Flow	151	49	180	186	134	179

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	200	0	629	100
Stage 1	-	-	-	-	175	-
Stage 2	-	-	-	-	454	-
Critical Hdwy	-	-	4.1	-	6.82	6.92
Critical Hdwy Stg 1	-	-	-	-	5.82	-
Critical Hdwy Stg 2	-	-	-	-	5.82	-
Follow-up Hdwy	-	-	2.2	-	3.51	3.31
Pot Cap-1 Maneuver	-	-	1384	-	417	939
Stage 1	-	-	-	-	840	-
Stage 2	-	-	-	-	610	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1384	-	363	939
Mov Cap-2 Maneuver	-	-	-	-	444	-
Stage 1	-	-	-	-	840	-
Stage 2	-	-	-	-	530	-

Approach	EB	WB	NB
HCM Ctrl Dly, s/v	0	3.93	16.01
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	636	-	-	1384	-
HCM Lane V/C Ratio	0.492	-	-	0.13	-
HCM Ctrl Dly (s/v)	16	-	-	8	-
HCM Lane LOS	C	-	-	A	-
HCM 95th %tile Q(veh)	2.7	-	-	0.4	-

Intersection	
Int Delay, s/veh	9.1

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	126	42	152	157	110	147
Future Vol, veh/h	126	42	152	157	110	147
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	220	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	71	71	71	71	71	71
Heavy Vehicles, %	3	3	0	0	1	1
Mvmt Flow	177	59	214	221	155	207

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	237	0	746	118
Stage 1	-	-	-	-	207	-
Stage 2	-	-	-	-	539	-
Critical Hdwy	-	-	4.1	-	6.82	6.92
Critical Hdwy Stg 1	-	-	-	-	5.82	-
Critical Hdwy Stg 2	-	-	-	-	5.82	-
Follow-up Hdwy	-	-	2.2	-	3.51	3.31
Pot Cap-1 Maneuver	-	-	1342	-	351	914
Stage 1	-	-	-	-	810	-
Stage 2	-	-	-	-	552	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1342	-	295	914
Mov Cap-2 Maneuver	-	-	-	-	385	-
Stage 1	-	-	-	-	810	-
Stage 2	-	-	-	-	464	-

Approach	EB	WB	NB
HCM Ctrl Dly, s/v	0	4.03	21.22
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	576	-	-	1342	-
HCM Lane V/C Ratio	0.628	-	-	0.159	-
HCM Ctrl Dly (s/v)	21.2	-	-	8.2	-
HCM Lane LOS	C	-	-	A	-
HCM 95th %tile Q(veh)	4.4	-	-	0.6	-

Intersection	
Int Delay, s/veh	24.7

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	166	55	200	206	139	186
Future Vol, veh/h	166	55	200	206	139	186
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	220	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	71	71	71	71	71	71
Heavy Vehicles, %	3	3	0	0	1	1
Mvmt Flow	234	77	282	290	196	262

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	311	0	981	156
Stage 1	-	-	-	-	273	-
Stage 2	-	-	-	-	708	-
Critical Hdwy	-	-	4.1	-	6.82	6.92
Critical Hdwy Stg 1	-	-	-	-	5.82	-
Critical Hdwy Stg 2	-	-	-	-	5.82	-
Follow-up Hdwy	-	-	2.2	-	3.51	3.31
Pot Cap-1 Maneuver	-	-	1261	-	248	865
Stage 1	-	-	-	-	752	-
Stage 2	-	-	-	-	452	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1261	-	~ 193	865
Mov Cap-2 Maneuver	-	-	-	-	288	-
Stage 1	-	-	-	-	752	-
Stage 2	-	-	-	-	351	-

Approach	EB	WB	NB
HCM Ctrl Dly, s/v	0	4.27	67.04
HCM LOS			F

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	466	-	-	1261	-
HCM Lane V/C Ratio	0.981	-	-	0.223	-
HCM Ctrl Dly (s/v)	67	-	-	8.7	-
HCM Lane LOS	F	-	-	A	-
HCM 95th %tile Q(veh)	12.6	-	-	0.9	-

Notes	
~: Volume exceeds capacity	$: Delay exceeds 300s
+: Computation Not Defined	*: All major volume in platoon

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	510	104	79	585	0	67	0	43	0	0	0
Future Volume (veh/h)	0	510	104	79	585	0	67	0	43	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
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	1900	1870	1900	1870	1870	1870
Adj Flow Rate, veh/h	0	526	107	81	603	0	69	0	44	0	0	0
Peak Hour Factor	0.92	0.97	0.97	0.97	0.97	0.92	0.97	0.92	0.97	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	0	2	0	2	2	2
Cap, veh/h	0	1144	232	461	1381	0	325	0	285	0	7	0
Arrive On Green	0.00	0.39	0.39	0.39	0.39	0.00	0.18	0.00	0.18	0.00	0.00	0.00
Sat Flow, veh/h	0	3037	596	794	3647	0	1810	0	1585	0	1870	0
Grp Volume(v), veh/h	0	317	316	81	603	0	69	0	44	0	0	0
Grp Sat Flow(s),veh/h/ln	0	1777	1763	794	1777	0	1810	0	1585	0	1870	0
Q Serve(g_s), s	0.0	3.7	3.7	2.4	3.5	0.0	0.9	0.0	0.7	0.0	0.0	0.0
Cycle Q Clear(g_c), s	0.0	3.7	3.7	6.1	3.5	0.0	0.9	0.0	0.7	0.0	0.0	0.0
Prop In Lane	0.00		0.34	1.00		0.00	1.00		1.00	0.00		0.00
Lane Grp Cap(c), veh/h	0	690	685	461	1381	0	325	0	285	0	7	0
V/C Ratio(X)	0.00	0.46	0.46	0.18	0.44	0.00	0.21	0.00	0.15	0.00	0.00	0.00
Avail Cap(c_a), veh/h	0	1023	1015	610	2045	0	1041	0	912	0	1076	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	1.00	1.00	1.00	1.00	0.00	1.00	0.00	1.00	0.00	0.00	0.00
Uniform Delay (d), s/veh	0.0	6.3	6.3	8.6	6.3	0.0	9.7	0.0	9.6	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.5	0.5	0.2	0.2	0.0	0.3	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	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.7	0.7	0.3	0.6	0.0	0.3	0.0	0.2	0.0	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	0.0	6.8	6.8	8.8	6.5	0.0	10.0	0.0	9.9	0.0	0.0	0.0
LnGrp LOS		A	A	A	A		B		A			
Approach Vol, veh/h		633			684			113			0	
Approach Delay, s/veh		6.8			6.7			10.0			0.0	
Approach LOS		A			A			A				

Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		11.0		16.8		0.0		16.8				
Change Period (Y+Rc), s		6.0		6.0		6.0		6.0				
Max Green Setting (Gmax), s		16.0		16.0		16.0		16.0				
Max Q Clear Time (g_c+I1), s		2.9		5.7		0.0		8.1				
Green Ext Time (p_c), s		0.3		2.7		0.0		2.7				

Intersection Summary												
HCM 7th Control Delay, s/veh			7.0									
HCM 7th LOS			A									

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	792	56	14	885	40	30
Future Volume (veh/h)	792	56	14	885	40	30
Initial Q (Qb), veh	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00
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	1885	1885	1900	1900
Adj Flow Rate, veh/h	808	57	14	903	41	31
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	1	1	0	0
Cap, veh/h	1650	116	840	3069	78	70
Arrive On Green	0.49	0.49	0.32	0.86	0.04	0.04
Sat Flow, veh/h	3460	237	1795	3676	1810	1610
Grp Volume(v), veh/h	426	439	14	903	41	31
Grp Sat Flow(s),veh/h/ln	1777	1828	1795	1791	1810	1610
Q Serve(g_s), s	16.1	16.1	0.0	4.8	2.2	1.9
Cycle Q Clear(g_c), s	16.1	16.1	0.0	4.8	2.2	1.9
Prop In Lane		0.13	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	871	896	840	3069	78	70
V/C Ratio(X)	0.49	0.49	0.02	0.29	0.52	0.45
Avail Cap(c_a), veh/h	871	896	840	3069	507	451
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.94	0.94	0.68	0.68	1.00	1.00
Uniform Delay (d), s/veh	17.1	17.1	7.2	1.4	46.8	46.7
Incr Delay (d2), s/veh	1.8	1.8	0.0	0.2	5.3	4.4
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.6	6.8	0.1	0.6	1.1	1.8
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	19.0	18.9	7.2	1.5	52.2	51.1
LnGrp LOS	B	B	A	A	D	D
Approach Vol, veh/h	865			917	72	
Approach Delay, s/veh	18.9			1.6	51.7	
Approach LOS	B			A	D	

Timer - Assigned Phs	4	6	7	8
Phs Duration (G+Y+Rc), s	90.7	9.3	36.7	54.0
Change Period (Y+Rc), s	5.0	5.0	5.0	5.0
Max Green Setting (Gmax), s	62.0	28.0	8.0	49.0
Max Q Clear Time (g_c+I1), s	6.8	4.2	2.0	18.1
Green Ext Time (p_c), s	7.7	0.2	0.0	6.0

Intersection Summary	
HCM 7th Control Delay, s/veh	11.6
HCM 7th LOS	B

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	870	61	17	1036	46	35
Future Volume (veh/h)	870	61	17	1036	46	35
Initial Q (Qb), veh	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00
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	1885	1885	1900	1900
Adj Flow Rate, veh/h	888	62	17	1057	47	36
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	1	1	0	0
Cap, veh/h	1957	137	767	3147	74	66
Arrive On Green	0.58	0.58	0.52	1.00	0.04	0.04
Sat Flow, veh/h	3463	235	1795	3676	1810	1610
Grp Volume(v), veh/h	468	482	17	1057	47	36
Grp Sat Flow(s),veh/h/ln	1777	1828	1795	1791	1810	1610
Q Serve(g_s), s	18.6	18.6	0.0	0.0	3.2	2.7
Cycle Q Clear(g_c), s	18.6	18.6	0.0	0.0	3.2	2.7
Prop In Lane		0.13	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	1032	1061	767	3147	74	66
V/C Ratio(X)	0.45	0.45	0.02	0.34	0.64	0.55
Avail Cap(c_a), veh/h	1032	1061	767	3147	423	377
HCM Platoon Ratio	1.00	1.00	2.00	2.00	1.00	1.00
Upstream Filter(I)	0.93	0.93	0.58	0.58	1.00	1.00
Uniform Delay (d), s/veh	14.8	14.8	4.4	0.0	58.6	58.3
Incr Delay (d2), s/veh	1.3	1.3	0.0	0.2	8.7	6.9
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.6	7.8	0.1	0.1	1.6	2.6
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	16.1	16.1	4.4	0.2	67.3	65.3
LnGrp LOS	B	B	A	A	E	E
Approach Vol, veh/h	950			1074	83	
Approach Delay, s/veh	16.1			0.2	66.4	
Approach LOS	B			A	E	

Timer - Assigned Phs	4	6	7	8
Phs Duration (G+Y+Rc), s	113.9	10.1	36.9	77.0
Change Period (Y+Rc), s	5.0	5.0	5.0	5.0
Max Green Setting (Gmax), s	85.0	29.0	8.0	72.0
Max Q Clear Time (g_c+I1), s	2.0	5.2	2.0	20.6
Green Ext Time (p_c), s	9.9	0.2	0.0	7.3

Intersection Summary	
HCM 7th Control Delay, s/veh	10.0
HCM 7th LOS	B



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	1024	72	22	1339	58	43
Future Volume (veh/h)	1024	72	22	1339	58	43
Initial Q (Qb), veh	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00
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	1885	1885	1900	1900
Adj Flow Rate, veh/h	1045	73	22	1366	59	44
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	1	1	0	0
Cap, veh/h	2725	190	464	3118	88	79
Arrive On Green	0.81	0.81	0.04	1.00	0.05	0.05
Sat Flow, veh/h	3463	235	1795	3676	1810	1610
Grp Volume(v), veh/h	551	567	22	1366	59	44
Grp Sat Flow(s),veh/h/ln	1777	1828	1795	1791	1810	1610
Q Serve(g_s), s	10.7	10.7	0.2	0.0	4.0	3.3
Cycle Q Clear(g_c), s	10.7	10.7	0.2	0.0	4.0	3.3
Prop In Lane		0.13	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	1437	1479	464	3118	88	79
V/C Ratio(X)	0.38	0.38	0.05	0.44	0.67	0.56
Avail Cap(c_a), veh/h	1437	1479	527	3118	409	364
HCM Platoon Ratio	1.00	1.00	2.00	2.00	1.00	1.00
Upstream Filter(I)	0.90	0.90	0.09	0.09	1.00	1.00
Uniform Delay (d), s/veh	3.3	3.3	2.1	0.0	58.0	57.7
Incr Delay (d2), s/veh	0.7	0.7	0.0	0.0	8.4	6.1
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.1	3.1	0.0	0.0	2.0	3.1
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	4.0	4.0	2.1	0.0	66.4	63.8
LnGrp LOS	A	A	A	A	E	E
Approach Vol, veh/h	1118			1388	103	
Approach Delay, s/veh	4.0			0.1	65.3	
Approach LOS	A			A	E	

Timer - Assigned Phs			4		6	7	8
Phs Duration (G+Y+Rc), s			113.0		11.0	7.7	105.3
Change Period (Y+Rc), s			5.0		5.0	5.0	5.0
Max Green Setting (Gmax), s			86.0		28.0	7.0	74.0
Max Q Clear Time (g_c+I1), s			2.0		6.0	2.2	12.7
Green Ext Time (p_c), s			15.5		0.3	0.0	9.5

Intersection Summary	
HCM 7th Control Delay, s/veh	4.3
HCM 7th LOS	A

Intersection	
Int Delay, s/veh	8.6

Movement	EBT	EBR	WBL	WBT	NWL	NWR
Lane Configurations						
Traffic Vol, veh/h	561	54	102	399	98	178
Future Vol, veh/h	561	54	102	399	98	178
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	Free	-	None	-	None
Storage Length	-	275	275	-	0	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	89	89	89	89	89	89
Heavy Vehicles, %	5	5	9	9	6	6
Mvmt Flow	630	61	115	448	110	200

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	-	630	0	1308	630
Stage 1	-	-	-	-	630	-
Stage 2	-	-	-	-	678	-
Critical Hdwy	-	-	4.19	-	6.46	6.26
Critical Hdwy Stg 1	-	-	-	-	5.46	-
Critical Hdwy Stg 2	-	-	-	-	5.46	-
Follow-up Hdwy	-	-	2.281	-	3.554	3.354
Pot Cap-1 Maneuver	-	0	919	-	173	474
Stage 1	-	0	-	-	523	-
Stage 2	-	0	-	-	497	-
Platoon blocked, %	-			-		
Mov Cap-1 Maneuver	-	-	919	-	151	474
Mov Cap-2 Maneuver	-	-	-	-	151	-
Stage 1	-	-	-	-	523	-
Stage 2	-	-	-	-	435	-

Approach	EB	WB	NW
HCM Ctrl Dly, s/v	0	1.93	38.34
HCM LOS			E

Minor Lane/Major Mvmt	NWLn1	NWLn2	EBT	WBL	WBT
Capacity (veh/h)	151	474	-	919	-
HCM Lane V/C Ratio	0.729	0.422	-	0.125	-
HCM Ctrl Dly (s/v)	75.3	18	-	9.5	-
HCM Lane LOS	F	C	-	A	-
HCM 95th %tile Q(veh)	4.4	2.1	-	0.4	-

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	12	27	5	3	15	0	5	39	7	2	31	9
Future Vol, veh/h	12	27	5	3	15	0	5	39	7	2	31	9
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	78	78	78	78	78	78	78	78	78	78	78	78
Heavy Vehicles, %	4	4	4	18	18	18	0	0	0	4	4	4
Mvmt Flow	15	35	6	4	19	0	6	50	9	3	40	12

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	123	122	46	129	124	54	51	0	0	59	0	0
Stage 1	51	51	-	67	67	-	-	-	-	-	-	-
Stage 2	72	72	-	62	56	-	-	-	-	-	-	-
Critical Hdwy	7.14	6.54	6.24	7.28	6.68	6.38	4.1	-	-	4.14	-	-
Critical Hdwy Stg 1	6.14	5.54	-	6.28	5.68	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.14	5.54	-	6.28	5.68	-	-	-	-	-	-	-
Follow-up Hdwy	3.536	4.036	3.336	3.662	4.162	3.462	2.2	-	-	2.236	-	-
Pot Cap-1 Maneuver	847	764	1018	808	738	969	1568	-	-	1532	-	-
Stage 1	957	849	-	904	808	-	-	-	-	-	-	-
Stage 2	932	831	-	910	817	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	820	760	1018	762	733	969	1568	-	-	1532	-	-
Mov Cap-2 Maneuver	820	760	-	762	733	-	-	-	-	-	-	-
Stage 1	956	847	-	901	805	-	-	-	-	-	-	-
Stage 2	906	828	-	866	816	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	9.85	10.04	0.72	0.35
HCM LOS	A	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	171	-	-	799	738	82	-	-
HCM Lane V/C Ratio	0.004	-	-	0.071	0.031	0.002	-	-
HCM Ctrl Dly (s/v)	7.3	0	-	9.8	10	7.4	0	-
HCM Lane LOS	A	A	-	A	B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.2	0.1	0	-	-

Intersection	
Int Delay, s/veh	4.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	15	35	7	4	20	0	7	51	9	2	40	11
Future Vol, veh/h	15	35	7	4	20	0	7	51	9	2	40	11
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	78	78	78	78	78	78	78	78	78	78	78	78
Heavy Vehicles, %	4	4	4	18	18	18	0	0	0	4	4	4
Mvmt Flow	19	45	9	5	26	0	9	65	12	3	51	14

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	160	158	58	168	160	71	65	0	0	77	0	0
Stage 1	63	63	-	89	89	-	-	-	-	-	-	-
Stage 2	96	95	-	79	71	-	-	-	-	-	-	-
Critical Hdwy	7.14	6.54	6.24	7.28	6.68	6.38	4.1	-	-	4.14	-	-
Critical Hdwy Stg 1	6.14	5.54	-	6.28	5.68	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.14	5.54	-	6.28	5.68	-	-	-	-	-	-	-
Follow-up Hdwy	3.536	4.036	3.336	3.662	4.162	3.462	2.2	-	-	2.236	-	-
Pot Cap-1 Maneuver	802	730	1002	761	704	948	1549	-	-	1509	-	-
Stage 1	942	838	-	880	791	-	-	-	-	-	-	-
Stage 2	906	813	-	892	806	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	766	724	1002	703	699	948	1549	-	-	1509	-	-
Mov Cap-2 Maneuver	766	724	-	703	699	-	-	-	-	-	-	-
Stage 1	941	837	-	875	786	-	-	-	-	-	-	-
Stage 2	871	808	-	835	804	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	10.23	10.38	0.77	0.28
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	183	-	-	761	700	65	-	-
HCM Lane V/C Ratio	0.006	-	-	0.096	0.044	0.002	-	-
HCM Ctrl Dly (s/v)	7.3	0	-	10.2	10.4	7.4	0	-
HCM Lane LOS	A	A	-	B	B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.3	0.1	0	-	-

Intersection	
Int Delay, s/veh	4.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	22	51	10	6	29	0	10	74	13	3	58	16
Future Vol, veh/h	22	51	10	6	29	0	10	74	13	3	58	16
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	78	78	78	78	78	78	78	78	78	78	78	78
Heavy Vehicles, %	4	4	4	18	18	18	0	0	0	4	4	4
Mvmt Flow	28	65	13	8	37	0	13	95	17	4	74	21

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	231	229	85	244	231	103	95	0	0	112	0	0
Stage 1	92	92	-	129	129	-	-	-	-	-	-	-
Stage 2	139	137	-	115	103	-	-	-	-	-	-	-
Critical Hdwy	7.14	6.54	6.24	7.28	6.68	6.38	4.1	-	-	4.14	-	-
Critical Hdwy Stg 1	6.14	5.54	-	6.28	5.68	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.14	5.54	-	6.28	5.68	-	-	-	-	-	-	-
Follow-up Hdwy	3.536	4.036	3.336	3.662	4.162	3.462	2.2	-	-	2.236	-	-
Pot Cap-1 Maneuver	719	667	969	678	642	910	1512	-	-	1466	-	-
Stage 1	910	815	-	838	760	-	-	-	-	-	-	-
Stage 2	859	779	-	853	780	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	670	659	969	596	634	910	1512	-	-	1466	-	-
Mov Cap-2 Maneuver	670	659	-	596	634	-	-	-	-	-	-	-
Stage 1	907	812	-	830	753	-	-	-	-	-	-	-
Stage 2	809	772	-	771	778	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	11.18	11.18	0.76	0.29
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	180	-	-	688	627	67	-	-
HCM Lane V/C Ratio	0.008	-	-	0.155	0.072	0.003	-	-
HCM Ctrl Dly (s/v)	7.4	0	-	11.2	11.2	7.5	0	-
HCM Lane LOS	A	A	-	B	B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.5	0.2	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	3	1	39	14	9	9	47	628	54	10	373	7
Future Vol, veh/h	3	1	39	14	9	9	47	628	54	10	373	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	115	-	-	-	-	-	115	-	-	100	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	93	93	93	93	93	93	93	93	93	93	93	93
Heavy Vehicles, %	0	0	0	0	0	0	1	1	1	0	0	0
Mvmt Flow	3	1	42	15	10	10	51	675	58	11	401	8

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	870	1261	204	1028	1235	367	409	0	0	733	0	0
Stage 1	426	426	-	805	805	-	-	-	-	-	-	-
Stage 2	444	834	-	223	430	-	-	-	-	-	-	-
Critical Hdwy	7.5	6.5	6.9	7.5	6.5	6.9	4.12	-	-	4.1	-	-
Critical Hdwy Stg 1	6.5	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.5	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.21	-	-	2.2	-	-
Pot Cap-1 Maneuver	249	172	809	191	178	636	1154	-	-	881	-	-
Stage 1	582	589	-	346	398	-	-	-	-	-	-	-
Stage 2	568	386	-	765	587	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	219	162	809	170	168	636	1154	-	-	881	-	-
Mov Cap-2 Maneuver	219	162	-	170	168	-	-	-	-	-	-	-
Stage 1	575	582	-	331	380	-	-	-	-	-	-	-
Stage 2	522	369	-	715	580	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	11	25.1	0.53	0.23
HCM LOS	B	D		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1154	-	-	219	735	213	881	-	-
HCM Lane V/C Ratio	0.044	-	-	0.015	0.058	0.161	0.012	-	-
HCM Ctrl Dly (s/v)	8.3	-	-	21.7	10.2	25.1	9.1	-	-
HCM Lane LOS	A	-	-	C	B	D	A	-	-
HCM 95th %tile Q(veh)	0.1	-	-	0	0.2	0.6	0	-	-

Intersection	
Int Delay, s/veh	4.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	160	3	74	1	1	1	44	165	0	2	212	129
Future Vol, veh/h	160	3	74	1	1	1	44	165	0	2	212	129
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
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	97	97	97	97	97	97	97	97	97	97	97	97
Heavy Vehicles, %	2	2	2	0	0	0	1	1	1	1	1	1
Mvmt Flow	165	3	76	1	1	1	45	170	0	2	219	133

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	484	484	219	485	616	170	352	0	0	170	0	0
Stage 1	223	223	-	261	261	-	-	-	-	-	-	-
Stage 2	261	261	-	224	356	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.1	6.5	6.2	4.11	-	-	4.11	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.5	4	3.3	2.209	-	-	2.209	-	-
Pot Cap-1 Maneuver	493	483	821	496	408	879	1213	-	-	1413	-	-
Stage 1	780	719	-	749	696	-	-	-	-	-	-	-
Stage 2	744	692	-	783	633	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	470	462	821	427	391	879	1213	-	-	1413	-	-
Mov Cap-2 Maneuver	470	462	-	427	391	-	-	-	-	-	-	-
Stage 1	778	718	-	718	667	-	-	-	-	-	-	-
Stage 2	711	664	-	706	632	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	14.56	12.29	1.7	0.04
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	379	-	-	470	797	497	17	-	-
HCM Lane V/C Ratio	0.037	-	-	0.351	0.1	0.006	0.001	-	-
HCM Ctrl Dly (s/v)	8.1	0	-	16.7	10	12.3	7.6	0	-
HCM Lane LOS	A	A	-	C	B	B	A	A	-
HCM 95th %tile Q(veh)	0.1	-	-	1.6	0.3	0	0	-	-

Intersection	
Int Delay, s/veh	5.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	185	3	86	1	1	1	50	191	0	2	224	136
Future Vol, veh/h	185	3	86	1	1	1	50	191	0	2	224	136
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
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	97	97	97	97	97	97	97	97	97	97	97	97
Heavy Vehicles, %	2	2	2	0	0	0	1	1	1	1	1	1
Mvmt Flow	191	3	89	1	1	1	52	197	0	2	231	140

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	536	535	231	537	675	197	371	0	0	197	0	0
Stage 1	235	235	-	300	300	-	-	-	-	-	-	-
Stage 2	301	300	-	237	375	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.1	6.5	6.2	4.11	-	-	4.11	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.5	4	3.3	2.209	-	-	2.209	-	-
Pot Cap-1 Maneuver	456	452	808	458	378	849	1193	-	-	1382	-	-
Stage 1	768	710	-	713	669	-	-	-	-	-	-	-
Stage 2	709	666	-	771	620	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	431	429	808	385	359	849	1193	-	-	1382	-	-
Mov Cap-2 Maneuver	431	429	-	385	359	-	-	-	-	-	-	-
Stage 1	767	709	-	679	637	-	-	-	-	-	-	-
Stage 2	672	633	-	682	619	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	16.69	12.93	1.69	0.04
HCM LOS	C	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	373	-	-	431	785	457	16	-	-
HCM Lane V/C Ratio	0.043	-	-	0.442	0.117	0.007	0.001	-	-
HCM Ctrl Dly (s/v)	8.2	0	-	19.8	10.2	12.9	7.6	0	-
HCM Lane LOS	A	A	-	C	B	B	A	A	-
HCM 95th %tile Q(veh)	0.1	-	-	2.2	0.4	0	0	-	-

Intersection	
Int Delay, s/veh	9.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	235	4	109	1	1	1	64	243	0	3	247	150
Future Vol, veh/h	235	4	109	1	1	1	64	243	0	3	247	150
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
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	97	97	97	97	97	97	97	97	97	97	97	97
Heavy Vehicles, %	2	2	2	0	0	0	1	1	1	1	1	1
Mvmt Flow	242	4	112	1	1	1	66	251	0	3	255	155

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	644	643	255	645	798	251	409	0	0	251	0	0
Stage 1	261	261	-	382	382	-	-	-	-	-	-	-
Stage 2	383	382	-	263	415	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.1	6.5	6.2	4.11	-	-	4.11	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.5	4	3.3	2.209	-	-	2.209	-	-
Pot Cap-1 Maneuver	386	392	784	388	321	793	1155	-	-	1321	-	-
Stage 1	744	692	-	644	616	-	-	-	-	-	-	-
Stage 2	640	612	-	747	596	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	358	365	784	306	299	793	1155	-	-	1321	-	-
Mov Cap-2 Maneuver	358	365	-	306	299	-	-	-	-	-	-	-
Stage 1	742	690	-	601	575	-	-	-	-	-	-	-
Stage 2	595	572	-	634	594	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	26.29	14.53	1.73	0.06
HCM LOS	D	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	375	-	-	358	753	381	22	-	-
HCM Lane V/C Ratio	0.057	-	-	0.678	0.155	0.008	0.002	-	-
HCM Ctrl Dly (s/v)	8.3	0	-	33.8	10.7	14.5	7.7	0	-
HCM Lane LOS	A	A	-	D	B	B	A	A	-
HCM 95th %tile Q(veh)	0.2	-	-	4.7	0.5	0	0	-	-

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	212	393	108	121	406	148	76	188	93	169	209	189
Future Volume (veh/h)	212	393	108	121	406	148	76	188	93	169	209	189
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
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	1885	1885	1885	1885	1885	1885	1885	1885	1885	1885	1885	1885
Adj Flow Rate, veh/h	219	405	111	125	419	153	78	194	96	174	215	195
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	1	1	1	1	1	1	1	1	1	1	1	1
Cap, veh/h	431	686	186	369	704	314	322	291	247	384	370	319
Arrive On Green	0.13	0.25	0.25	0.08	0.20	0.20	0.06	0.15	0.15	0.11	0.20	0.20
Sat Flow, veh/h	1795	2785	755	1795	3582	1598	1795	1885	1598	1795	1822	1571
Grp Volume(v), veh/h	219	259	257	125	419	153	78	194	96	174	211	199
Grp Sat Flow(s),veh/h/ln	1795	1791	1749	1795	1791	1598	1795	1885	1598	1795	1791	1602
Q Serve(g_s), s	5.5	7.5	7.6	3.2	6.2	5.0	2.1	5.7	3.2	4.6	6.2	6.6
Cycle Q Clear(g_c), s	5.5	7.5	7.6	3.2	6.2	5.0	2.1	5.7	3.2	4.6	6.2	6.6
Prop In Lane	1.00		0.43	1.00		1.00	1.00		1.00	1.00		0.98
Lane Grp Cap(c), veh/h	431	441	431	369	704	314	322	291	247	384	364	325
V/C Ratio(X)	0.51	0.59	0.60	0.34	0.60	0.49	0.24	0.67	0.39	0.45	0.58	0.61
Avail Cap(c_a), veh/h	1242	1040	1016	1270	2080	928	1254	1095	928	1229	1040	931
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	15.6	19.4	19.5	16.7	21.4	20.9	18.9	23.3	22.3	17.9	21.1	21.2
Incr Delay (d2), s/veh	0.3	1.2	1.3	0.2	0.8	1.2	0.1	2.6	1.0	0.3	1.5	1.9
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	2.0	2.9	2.9	1.2	2.4	1.8	0.8	2.5	1.2	1.7	2.5	2.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	16.0	20.7	20.8	16.9	22.2	22.1	19.1	25.9	23.3	18.2	22.5	23.1
LnGrp LOS	B	C	C	B	C	C	B	C	C	B	C	C
Approach Vol, veh/h		735			697			368			584	
Approach Delay, s/veh		19.3			21.2			23.8			21.4	
Approach LOS		B			C			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	13.6	17.5	9.6	17.9	10.6	20.4	12.4	15.0
Change Period (Y+Rc), s	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
Max Green Setting (Gmax), s	34.0	34.0	34.0	34.0	34.0	34.0	34.0	34.0
Max Q Clear Time (g_c+I1), s	7.5	8.2	4.1	8.6	5.2	9.6	6.6	7.7
Green Ext Time (p_c), s	0.3	3.3	0.1	2.5	0.2	3.1	0.2	1.4

Intersection Summary	
HCM 7th Control Delay, s/veh	21.1
HCM 7th LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	140	554	48	228	491	110	48	371	362	86	267	78
Future Volume (veh/h)	140	554	48	228	491	110	48	371	362	86	267	78
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
Ped-Bike Adj(A_pbT)	1.00		0.97	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	1885	1885	1885	1885	1885	1885	1885	1885	1885	1900	1900	1900
Adj Flow Rate, veh/h	146	577	50	238	511	115	50	386	377	90	278	81
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	1	1	1	1	1	1	1	1	1	0	0	0
Cap, veh/h	283	935	81	402	600	508	395	1017	452	342	842	240
Arrive On Green	0.08	0.28	0.28	0.12	0.32	0.32	0.04	0.28	0.28	0.06	0.30	0.30
Sat Flow, veh/h	1795	3327	288	1795	1885	1595	1795	3582	1592	1810	2770	791
Grp Volume(v), veh/h	146	310	317	238	511	115	50	386	377	90	179	180
Grp Sat Flow(s),veh/h/ln	1795	1791	1824	1795	1885	1595	1795	1791	1592	1810	1805	1756
Q Serve(g_s), s	4.6	12.2	12.3	7.5	20.5	4.3	1.6	7.0	18.0	2.8	6.2	6.4
Cycle Q Clear(g_c), s	4.6	12.2	12.3	7.5	20.5	4.3	1.6	7.0	18.0	2.8	6.2	6.4
Prop In Lane	1.00		0.16	1.00		1.00	1.00		1.00	1.00		0.45
Lane Grp Cap(c), veh/h	283	503	513	402	600	508	395	1017	452	342	549	534
V/C Ratio(X)	0.52	0.62	0.62	0.59	0.85	0.23	0.13	0.38	0.83	0.26	0.33	0.34
Avail Cap(c_a), veh/h	336	791	806	410	856	724	449	1318	586	359	664	646
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	20.4	25.3	25.3	18.3	25.8	20.3	19.1	23.3	27.2	18.6	21.8	21.9
Incr Delay (d2), s/veh	1.5	1.2	1.2	2.2	5.8	0.2	0.1	0.2	8.0	0.4	0.3	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	1.9	5.1	5.2	3.1	9.5	1.5	0.6	2.8	7.4	1.1	2.5	2.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	21.8	26.5	26.6	20.4	31.6	20.5	19.2	23.5	35.2	19.0	22.1	22.2
LnGrp LOS	C	C	C	C	C	C	B	C	D	B	C	C
Approach Vol, veh/h		773			864			813			449	
Approach Delay, s/veh		25.7			27.1			28.7			21.5	
Approach LOS		C			C			C			C	

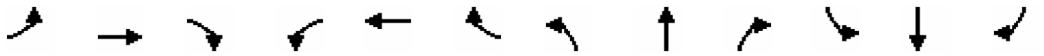
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.6	31.0	8.6	29.8	14.6	28.0	10.2	28.2
Change Period (Y+Rc), s	5.2	5.2	5.2	5.2	5.2	5.2	5.2	5.2
Max Green Setting (Gmax), s	8.8	36.8	5.8	29.8	9.8	35.8	5.8	29.8
Max Q Clear Time (g_c+I1), s	6.6	22.5	3.6	8.4	9.5	14.3	4.8	20.0
Green Ext Time (p_c), s	0.1	3.1	0.0	2.0	0.0	3.7	0.0	2.8

Intersection Summary	
HCM 7th Control Delay, s/veh	26.3
HCM 7th LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	149	589	51	250	539	121	55	430	420	93	290	84
Future Volume (veh/h)	149	589	51	250	539	121	55	430	420	93	290	84
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
Ped-Bike Adj(A_pbT)	1.00		0.97	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	1885	1885	1885	1885	1885	1885	1885	1885	1885	1900	1900	1900
Adj Flow Rate, veh/h	155	614	53	260	561	126	57	448	438	97	302	88
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	1	1	1	1	1	1	1	1	1	0	0	0
Cap, veh/h	259	1017	88	385	628	531	388	1086	483	313	885	253
Arrive On Green	0.08	0.31	0.31	0.11	0.33	0.33	0.04	0.30	0.30	0.06	0.32	0.32
Sat Flow, veh/h	1795	3329	287	1795	1885	1595	1795	3582	1592	1810	2768	792
Grp Volume(v), veh/h	155	330	337	260	561	126	57	448	438	97	195	195
Grp Sat Flow(s),veh/h/ln	1795	1791	1825	1795	1885	1595	1795	1791	1592	1810	1805	1756
Q Serve(g_s), s	5.3	14.4	14.5	9.1	25.9	5.3	2.0	9.1	24.3	3.3	7.6	7.8
Cycle Q Clear(g_c), s	5.3	14.4	14.5	9.1	25.9	5.3	2.0	9.1	24.3	3.3	7.6	7.8
Prop In Lane	1.00		0.16	1.00		1.00	1.00		1.00	1.00		0.45
Lane Grp Cap(c), veh/h	259	547	557	385	628	531	388	1086	483	313	577	561
V/C Ratio(X)	0.60	0.60	0.60	0.68	0.89	0.24	0.15	0.41	0.91	0.31	0.34	0.35
Avail Cap(c_a), veh/h	289	698	711	385	755	639	426	1162	517	322	586	570
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	22.7	27.1	27.2	20.3	29.1	22.2	20.6	25.5	30.8	20.3	23.8	23.9
Incr Delay (d2), s/veh	2.8	1.1	1.1	4.6	11.5	0.2	0.2	0.3	19.0	0.6	0.3	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	2.3	6.1	6.2	4.1	13.1	1.9	0.8	3.8	11.4	1.4	3.2	3.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	25.5	28.2	28.2	24.9	40.6	22.4	20.8	25.7	49.8	20.9	24.2	24.3
LnGrp LOS	C	C	C	C	D	C	C	C	D	C	C	C
Approach Vol, veh/h		822			947			943			487	
Approach Delay, s/veh		27.7			33.9			36.6			23.6	
Approach LOS		C			C			D			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.5	35.8	9.0	34.5	15.0	33.3	10.5	33.0
Change Period (Y+Rc), s	5.2	5.2	5.2	5.2	5.2	5.2	5.2	5.2
Max Green Setting (Gmax), s	8.8	36.8	5.8	29.8	9.8	35.8	5.8	29.8
Max Q Clear Time (g_c+I1), s	7.3	27.9	4.0	9.8	11.1	16.5	5.3	26.3
Green Ext Time (p_c), s	0.1	2.7	0.0	2.1	0.0	3.9	0.0	1.6

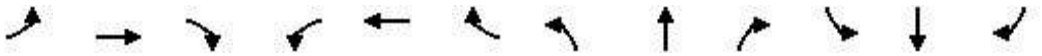
Intersection Summary	
HCM 7th Control Delay, s/veh	31.5
HCM 7th LOS	C



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	167	658	57	295	635	142	70	549	535	108	337	98
Future Volume (veh/h)	167	658	57	295	635	142	70	549	535	108	337	98
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
Ped-Bike Adj(A_pbT)	1.00		0.97	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	1885	1885	1885	1885	1885	1885	1885	1885	1885	1900	1900	1900
Adj Flow Rate, veh/h	174	685	59	307	661	148	73	572	557	112	351	102
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	1	1	1	1	1	1	1	1	1	0	0	0
Cap, veh/h	233	1120	96	396	708	599	335	1009	449	258	836	239
Arrive On Green	0.08	0.34	0.34	0.12	0.38	0.38	0.04	0.28	0.28	0.06	0.30	0.30
Sat Flow, veh/h	1795	3329	286	1795	1885	1595	1795	3582	1592	1810	2768	793
Grp Volume(v), veh/h	174	368	376	307	661	148	73	572	557	112	227	226
Grp Sat Flow(s),veh/h/ln	1795	1791	1825	1795	1885	1595	1795	1791	1592	1810	1805	1755
Q Serve(g_s), s	6.4	17.6	17.6	11.4	34.5	6.5	2.9	13.9	28.8	4.4	10.3	10.5
Cycle Q Clear(g_c), s	6.4	17.6	17.6	11.4	34.5	6.5	2.9	13.9	28.8	4.4	10.3	10.5
Prop In Lane	1.00		0.16	1.00		1.00	1.00		1.00	1.00		0.45
Lane Grp Cap(c), veh/h	233	602	614	396	708	599	335	1009	449	258	545	530
V/C Ratio(X)	0.75	0.61	0.61	0.77	0.93	0.25	0.22	0.57	1.24	0.43	0.42	0.43
Avail Cap(c_a), veh/h	233	645	657	396	753	637	360	1009	449	264	545	530
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	25.0	28.3	28.3	20.9	30.7	22.0	24.7	31.4	36.7	24.6	28.5	28.6
Incr Delay (d2), s/veh	12.2	1.5	1.5	9.3	18.1	0.2	0.3	0.7	126.5	1.2	0.5	0.5
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	3.4	7.5	7.7	5.5	18.4	2.4	1.3	6.0	26.5	1.9	4.4	4.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	37.3	29.9	29.9	30.2	48.8	22.2	25.0	32.1	163.2	25.8	29.0	29.1
LnGrp LOS	D	C	C	C	D	C	C	C	F	C	C	C
Approach Vol, veh/h		918			1116			1202			565	
Approach Delay, s/veh		31.3			40.1			92.4			28.4	
Approach LOS		C			D			F			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	13.0	43.6	9.6	36.1	17.0	39.6	11.6	34.0
Change Period (Y+Rc), s	5.2	5.2	5.2	5.2	5.2	5.2	5.2	5.2
Max Green Setting (Gmax), s	7.8	40.8	5.8	29.8	11.8	36.8	6.8	28.8
Max Q Clear Time (g_c+I1), s	8.4	36.5	4.9	12.5	13.4	19.6	6.4	30.8
Green Ext Time (p_c), s	0.0	1.9	0.0	2.4	0.0	4.2	0.0	0.0

Intersection Summary	
HCM 7th Control Delay, s/veh	52.8
HCM 7th LOS	D



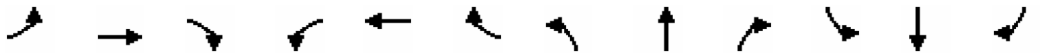
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	221	581	48	178	375	131	283	128	105	105	86	91
Future Volume (veh/h)	221	581	48	178	375	131	283	128	105	105	86	91
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.98	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	1885	1885	1885	1885	1870	1885	1870	1885	1870	1870	1870
Adj Flow Rate, veh/h	240	599	49	184	387	142	292	139	108	114	93	99
Peak Hour Factor	0.92	0.97	0.97	0.97	0.97	0.92	0.97	0.92	0.97	0.92	0.92	0.92
Percent Heavy Veh, %	2	1	1	1	1	2	1	2	1	2	2	2
Cap, veh/h	380	1097	90	398	1266	459	423	344	268	374	295	314
Arrive On Green	0.33	0.33	0.33	0.09	0.49	0.49	0.36	0.36	0.36	0.36	0.36	0.36
Sat Flow, veh/h	874	3353	274	1795	2575	933	1201	969	753	1131	829	882
Grp Volume(v), veh/h	240	320	328	184	268	261	292	0	247	114	0	192
Grp Sat Flow(s),veh/h/ln	874	1791	1836	1795	1791	1717	1201	0	1721	1131	0	1712
Q Serve(g_s), s	19.5	11.2	11.2	4.9	6.8	7.0	17.9	0.0	8.3	6.5	0.0	6.2
Cycle Q Clear(g_c), s	19.5	11.2	11.2	4.9	6.8	7.0	24.1	0.0	8.3	14.7	0.0	6.2
Prop In Lane	1.00		0.15	1.00		0.54	1.00		0.44	1.00		0.52
Lane Grp Cap(c), veh/h	380	586	601	398	880	844	423	0	612	374	0	609
V/C Ratio(X)	0.63	0.55	0.55	0.46	0.30	0.31	0.69	0.00	0.40	0.30	0.00	0.32
Avail Cap(c_a), veh/h	443	714	732	408	880	844	475	0	686	374	0	609
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	0.00	1.00
Uniform Delay (d), s/veh	23.9	21.1	21.1	14.7	11.6	11.7	26.6	0.0	18.6	24.1	0.0	17.9
Incr Delay (d2), s/veh	2.3	0.8	0.8	0.8	0.2	0.2	3.7	0.0	0.4	0.5	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	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.9	4.5	4.6	1.9	2.5	2.4	5.3	0.0	3.2	1.7	0.0	2.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	26.1	21.9	21.9	15.5	11.8	11.9	30.3	0.0	19.0	24.5	0.0	18.2
LnGrp LOS	C	C	C	B	B	B	C		B	C		B
Approach Vol, veh/h		888			713			539			306	
Approach Delay, s/veh		23.0			12.8			25.1			20.6	
Approach LOS		C			B			C			C	

Timer - Assigned Phs	1	2		4		6		8				
Phs Duration (G+Y+Rc), s	12.6	30.7		33.2		43.3		33.2				
Change Period (Y+Rc), s	5.7	* 5.7		6.0		5.7		* 6				
Max Green Setting (Gmax), s	7.3	* 31		16.0		30.1		* 31				
Max Q Clear Time (g_c+I1), s	6.9	21.5		16.7		9.0		26.1				
Green Ext Time (p_c), s	0.0	3.6		0.0		3.1		1.1				

Intersection Summary		
HCM 7th Control Delay, s/veh	20.2	
HCM 7th LOS	C	

Notes

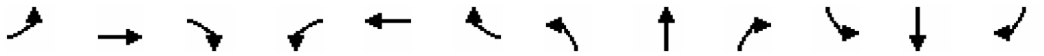
* HCM 7th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	275	510	140	160	538	196	97	241	119	189	234	211
Future Volume (veh/h)	275	510	140	160	538	196	97	241	119	189	234	211
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
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	1885	1885	1885	1885	1885	1885	1885	1885	1885	1885	1885	1885
Adj Flow Rate, veh/h	284	526	144	165	555	202	100	248	123	195	241	218
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	1	1	1	1	1	1	1	1	1	1	1	1
Cap, veh/h	359	748	204	351	1009	450	298	356	301	319	367	318
Arrive On Green	0.08	0.27	0.27	0.09	0.28	0.28	0.06	0.19	0.19	0.08	0.20	0.20
Sat Flow, veh/h	1795	2782	758	1795	3582	1598	1795	1885	1598	1795	1817	1576
Grp Volume(v), veh/h	284	338	332	165	555	202	100	248	123	195	237	222
Grp Sat Flow(s),veh/h/ln	1795	1791	1749	1795	1791	1598	1795	1885	1598	1795	1791	1602
Q Serve(g_s), s	5.0	10.9	11.0	4.2	8.5	6.7	2.8	7.9	4.3	5.0	7.8	8.2
Cycle Q Clear(g_c), s	5.0	10.9	11.0	4.2	8.5	6.7	2.8	7.9	4.3	5.0	7.8	8.2
Prop In Lane	1.00		0.43	1.00		1.00	1.00		1.00	1.00		0.98
Lane Grp Cap(c), veh/h	359	481	470	351	1009	450	298	356	301	319	361	323
V/C Ratio(X)	0.79	0.70	0.71	0.47	0.55	0.45	0.34	0.70	0.41	0.61	0.66	0.69
Avail Cap(c_a), veh/h	359	1060	1035	355	2176	970	321	940	796	319	893	798
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	20.6	21.2	21.2	15.7	19.6	19.0	19.4	24.3	22.9	20.9	23.6	23.7
Incr Delay (d2), s/veh	10.5	1.9	2.0	0.4	0.5	0.7	0.2	2.5	0.9	2.5	2.0	2.6
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.6	4.4	4.3	1.5	3.3	2.3	1.1	3.5	1.6	2.4	3.3	3.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	31.1	23.0	23.2	16.1	20.1	19.7	19.7	26.8	23.8	23.4	25.6	26.3
LnGrp LOS	C	C	C	B	C	B	B	C	C	C	C	C
Approach Vol, veh/h		954			922			471			654	
Approach Delay, s/veh		25.5			19.3			24.5			25.2	
Approach LOS		C			B			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.0	24.1	10.2	19.0	11.8	23.3	11.0	18.1
Change Period (Y+Rc), s	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
Max Green Setting (Gmax), s	5.0	39.0	5.0	32.0	6.0	38.0	5.0	32.0
Max Q Clear Time (g_c+I1), s	7.0	10.5	4.8	10.2	6.2	13.0	7.0	9.9
Green Ext Time (p_c), s	0.0	4.6	0.0	2.7	0.0	4.2	0.0	1.7

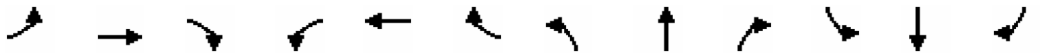
Intersection Summary	
HCM 7th Control Delay, s/veh	23.4
HCM 7th LOS	C



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	320	593	163	189	633	231	112	278	138	203	251	227
Future Volume (veh/h)	320	593	163	189	633	231	112	278	138	203	251	227
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
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	1885	1885	1885	1885	1885	1885	1885	1885	1885	1885	1885	1885
Adj Flow Rate, veh/h	330	611	168	195	653	238	115	287	142	209	259	234
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	1	1	1	1	1	1	1	1	1	1	1	1
Cap, veh/h	405	824	226	353	949	423	282	388	329	281	370	322
Arrive On Green	0.14	0.30	0.30	0.10	0.27	0.27	0.07	0.21	0.21	0.07	0.20	0.20
Sat Flow, veh/h	1795	2777	762	1795	3582	1598	1795	1885	1598	1795	1813	1579
Grp Volume(v), veh/h	330	394	385	195	653	238	115	287	142	209	256	237
Grp Sat Flow(s),veh/h/ln	1795	1791	1748	1795	1791	1598	1795	1885	1598	1795	1791	1601
Q Serve(g_s), s	9.9	14.6	14.7	5.7	12.1	9.5	3.7	10.5	5.7	5.0	9.8	10.2
Cycle Q Clear(g_c), s	9.9	14.6	14.7	5.7	12.1	9.5	3.7	10.5	5.7	5.0	9.8	10.2
Prop In Lane	1.00		0.44	1.00		1.00	1.00		1.00	1.00		0.99
Lane Grp Cap(c), veh/h	405	532	519	353	949	423	282	388	329	281	365	327
V/C Ratio(X)	0.81	0.74	0.74	0.55	0.69	0.56	0.41	0.74	0.43	0.75	0.70	0.73
Avail Cap(c_a), veh/h	405	851	830	507	1896	845	304	819	694	281	753	673
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	18.1	23.4	23.4	17.9	24.3	23.4	21.6	27.4	25.5	25.9	27.2	27.4
Incr Delay (d2), s/veh	11.4	2.1	2.1	0.5	0.9	1.2	0.4	2.8	0.9	9.2	2.4	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	5.0	6.0	5.9	2.2	4.9	3.5	1.5	4.8	2.1	1.8	4.2	4.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	29.4	25.4	25.5	18.4	25.2	24.6	21.9	30.2	26.4	35.2	29.7	30.5
LnGrp LOS	C	C	C	B	C	C	C	C	C	D	C	C
Approach Vol, veh/h		1109			1086			544			702	
Approach Delay, s/veh		26.6			23.9			27.5			31.6	
Approach LOS		C			C			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	16.0	25.5	11.1	21.0	13.7	27.9	11.0	21.2
Change Period (Y+Rc), s	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
Max Green Setting (Gmax), s	10.0	39.0	6.0	31.0	14.0	35.0	5.0	32.0
Max Q Clear Time (g_c+I1), s	11.9	14.1	5.7	12.2	7.7	16.7	7.0	12.5
Green Ext Time (p_c), s	0.0	5.5	0.0	2.8	0.1	4.6	0.0	2.0

Intersection Summary	
HCM 7th Control Delay, s/veh	26.9
HCM 7th LOS	C



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	410	760	209	245	821	299	143	353	175	232	287	259
Future Volume (veh/h)	410	760	209	245	821	299	143	353	175	232	287	259
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
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	1885	1885	1885	1885	1885	1885	1885	1885	1885	1885	1885	1885
Adj Flow Rate, veh/h	423	784	215	253	846	308	147	364	180	239	296	267
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	1	1	1	1	1	1	1	1	1	1	1	1
Cap, veh/h	404	957	263	336	1088	485	252	437	370	212	380	334
Arrive On Green	0.16	0.34	0.34	0.12	0.30	0.30	0.07	0.23	0.23	0.05	0.21	0.21
Sat Flow, veh/h	1795	2777	762	1795	3582	1598	1795	1885	1598	1795	1806	1585
Grp Volume(v), veh/h	423	506	493	253	846	308	147	364	180	239	294	269
Grp Sat Flow(s),veh/h/ln	1795	1791	1748	1795	1791	1598	1795	1885	1598	1795	1791	1600
Q Serve(g_s), s	15.0	24.4	24.4	9.0	20.4	15.8	6.0	17.4	9.2	5.0	14.7	15.1
Cycle Q Clear(g_c), s	15.0	24.4	24.4	9.0	20.4	15.8	6.0	17.4	9.2	5.0	14.7	15.1
Prop In Lane	1.00		0.44	1.00		1.00	1.00		1.00	1.00		0.99
Lane Grp Cap(c), veh/h	404	617	602	336	1088	485	252	437	370	212	377	337
V/C Ratio(X)	1.05	0.82	0.82	0.75	0.78	0.63	0.58	0.83	0.49	1.13	0.78	0.80
Avail Cap(c_a), veh/h	404	737	720	410	1475	658	252	637	540	212	567	507
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	22.1	28.3	28.3	22.0	30.1	28.4	27.9	34.6	31.5	36.9	35.3	35.5
Incr Delay (d2), s/veh	57.8	6.2	6.4	4.6	1.9	1.4	2.3	6.2	1.0	99.5	3.9	5.4
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	12.3	11.0	10.8	4.0	8.7	6.0	2.7	8.5	3.6	8.3	6.6	6.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	79.9	34.6	34.7	26.7	31.9	29.8	30.2	40.9	32.5	136.4	39.2	40.8
LnGrp LOS	F	C	C	C	C	C	C	D	C	F	D	D
Approach Vol, veh/h		1422			1407			691			802	
Approach Delay, s/veh		48.1			30.5			36.4			68.7	
Approach LOS		D			C			D			E	

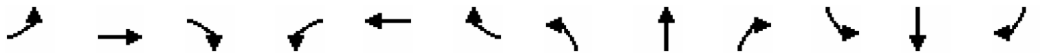
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	21.0	34.8	13.0	26.0	17.1	38.6	11.0	28.0
Change Period (Y+Rc), s	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
Max Green Setting (Gmax), s	15.0	39.0	7.0	30.0	15.0	39.0	5.0	32.0
Max Q Clear Time (g_c+I1), s	17.0	22.4	8.0	17.1	11.0	26.4	7.0	19.4
Green Ext Time (p_c), s	0.0	6.4	0.0	2.8	0.1	5.2	0.0	2.2

Intersection Summary	
HCM 7th Control Delay, s/veh	44.3
HCM 7th LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	13	582	9	53	662	136	6	17	44	84	34	8
Future Volume (veh/h)	13	582	9	53	662	136	6	17	44	84	34	8
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
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	1885	1885	1885	1856	1856	1856	1811	1811	1811	1885	1885	1885
Adj Flow Rate, veh/h	14	619	10	56	704	145	6	18	47	89	36	9
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	1	1	1	3	3	3	6	6	6	1	1	1
Cap, veh/h	232	942	15	334	869	179	307	48	125	376	251	63
Arrive On Green	0.02	0.26	0.26	0.05	0.30	0.30	0.01	0.11	0.11	0.07	0.17	0.17
Sat Flow, veh/h	1795	3607	58	1767	2911	599	1725	443	1156	1795	1455	364
Grp Volume(v), veh/h	14	307	322	56	426	423	6	0	65	89	0	45
Grp Sat Flow(s),veh/h/ln	1795	1791	1875	1767	1763	1748	1725	0	1599	1795	0	1819
Q Serve(g_s), s	0.3	7.3	7.3	1.1	10.7	10.7	0.1	0.0	1.8	2.0	0.0	1.0
Cycle Q Clear(g_c), s	0.3	7.3	7.3	1.1	10.7	10.7	0.1	0.0	1.8	2.0	0.0	1.0
Prop In Lane	1.00		0.03	1.00		0.34	1.00		0.72	1.00		0.20
Lane Grp Cap(c), veh/h	232	468	490	334	526	521	307	0	173	376	0	314
V/C Ratio(X)	0.06	0.66	0.66	0.17	0.81	0.81	0.02	0.00	0.38	0.24	0.00	0.14
Avail Cap(c_a), veh/h	388	601	629	422	592	586	474	0	537	434	0	610
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	0.00	1.00
Uniform Delay (d), s/veh	13.3	15.7	15.7	12.1	15.5	15.5	18.7	0.0	19.8	16.9	0.0	16.7
Incr Delay (d2), s/veh	0.1	1.7	1.6	0.2	7.5	7.6	0.0	0.0	1.4	0.3	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	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	2.5	2.6	0.3	4.3	4.3	0.1	0.0	0.7	0.7	0.0	0.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	13.5	17.4	17.3	12.4	23.0	23.1	18.7	0.0	21.1	17.2	0.0	16.9
LnGrp LOS	B	B	B	B	C	C	B		C	B		B
Approach Vol, veh/h		643			905			71			134	
Approach Delay, s/veh		17.3			22.4			20.9			17.1	
Approach LOS		B			C			C			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.5	11.1	8.6	18.5	6.4	14.2	6.8	20.2
Change Period (Y+Rc), s	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
Max Green Setting (Gmax), s	5.0	16.0	5.0	16.0	5.0	16.0	5.0	16.0
Max Q Clear Time (g_c+I1), s	4.0	3.8	3.1	9.3	2.1	3.0	2.3	12.7
Green Ext Time (p_c), s	0.0	0.2	0.0	1.9	0.0	0.1	0.0	1.5

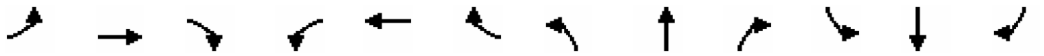
Intersection Summary	
HCM 7th Control Delay, s/veh	20.1
HCM 7th LOS	C



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	28	773	1	11	888	11	8	6	22	23	3	34
Future Volume (veh/h)	28	773	1	11	888	11	8	6	22	23	3	34
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
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	1900	1900	1900	1885	1885	1885	1841	1841	1841	1900	1900	1900
Adj Flow Rate, veh/h	30	831	1	12	955	12	9	6	24	25	3	37
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	0	0	0	1	1	1	4	4	4	0	0	0
Cap, veh/h	287	1628	2	827	2669	34	151	16	64	162	6	75
Arrive On Green	0.03	0.44	0.44	0.32	0.74	0.74	0.03	0.05	0.05	0.03	0.05	0.05
Sat Flow, veh/h	1810	3700	4	1795	3622	46	1753	322	1287	1810	122	1507
Grp Volume(v), veh/h	30	405	427	12	472	495	9	0	30	25	0	40
Grp Sat Flow(s),veh/h/ln	1810	1805	1899	1795	1791	1877	1753	0	1609	1810	0	1629
Q Serve(g_s), s	1.0	16.2	16.2	0.0	9.4	9.4	0.0	0.0	1.8	0.0	0.0	2.4
Cycle Q Clear(g_c), s	1.0	16.2	16.2	0.0	9.4	9.4	0.0	0.0	1.8	0.0	0.0	2.4
Prop In Lane	1.00		0.00	1.00		0.02	1.00		0.80	1.00		0.93
Lane Grp Cap(c), veh/h	287	794	836	827	1319	1383	151	0	80	162	0	81
V/C Ratio(X)	0.10	0.51	0.51	0.01	0.36	0.36	0.06	0.00	0.37	0.15	0.00	0.49
Avail Cap(c_a), veh/h	326	794	836	827	1319	1383	195	0	483	207	0	489
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)	0.37	0.37	0.37	0.77	0.77	0.77	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	17.8	20.2	20.2	8.9	4.7	4.7	45.3	0.0	46.0	45.3	0.0	46.3
Incr Delay (d2), s/veh	0.1	0.9	0.8	0.0	0.6	0.6	0.2	0.0	2.8	0.4	0.0	4.5
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	0.4	6.7	7.0	0.1	2.9	3.0	0.2	0.0	0.8	0.6	0.0	1.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	17.8	21.1	21.1	8.9	5.3	5.3	45.5	0.0	48.8	45.7	0.0	50.8
LnGrp LOS	B	C	C	A	A	A	D		D	D		D
Approach Vol, veh/h		862			979			39			65	
Approach Delay, s/veh		21.0			5.3			48.1			48.8	
Approach LOS		C			A			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.8	77.7	6.5	9.0	36.5	48.0	6.5	9.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	5.0	44.0	5.0	30.0	5.0	44.0	5.0	30.0
Max Q Clear Time (g_c+I1), s	3.0	11.4	2.0	4.4	2.0	18.2	2.0	3.8
Green Ext Time (p_c), s	0.0	7.0	0.0	0.2	0.0	5.4	0.0	0.1

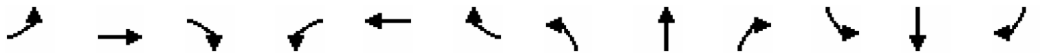
Intersection Summary	
HCM 7th Control Delay, s/veh	14.6
HCM 7th LOS	B



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	33	894	1	12	998	12	10	8	27	29	4	43
Future Volume (veh/h)	33	894	1	12	998	12	10	8	27	29	4	43
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
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	1900	1900	1900	1885	1885	1885	1841	1841	1841	1900	1900	1900
Adj Flow Rate, veh/h	35	961	1	13	1073	13	11	9	29	31	4	46
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	0	0	0	1	1	1	4	4	4	0	0	0
Cap, veh/h	727	2922	3	365	1900	23	105	15	50	130	6	72
Arrive On Green	0.56	1.00	1.00	0.01	0.52	0.52	0.02	0.04	0.04	0.03	0.05	0.05
Sat Flow, veh/h	1810	3700	4	1795	3624	44	1753	383	1235	1810	130	1500
Grp Volume(v), veh/h	35	469	493	13	530	556	11	0	38	31	0	50
Grp Sat Flow(s),veh/h/ln	1810	1805	1899	1795	1791	1877	1753	0	1618	1810	0	1630
Q Serve(g_s), s	0.0	0.0	0.0	0.4	24.8	24.8	0.0	0.0	2.9	0.0	0.0	3.7
Cycle Q Clear(g_c), s	0.0	0.0	0.0	0.4	24.8	24.8	0.0	0.0	2.9	0.0	0.0	3.7
Prop In Lane	1.00		0.00	1.00		0.02	1.00		0.76	1.00		0.92
Lane Grp Cap(c), veh/h	727	1425	1500	365	939	984	105	0	65	130	0	78
V/C Ratio(X)	0.05	0.33	0.33	0.04	0.56	0.56	0.11	0.00	0.58	0.24	0.00	0.64
Avail Cap(c_a), veh/h	727	1425	1500	411	939	984	142	0	392	170	0	408
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.10	0.10	0.10	0.70	0.70	0.70	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	6.7	0.0	0.0	15.1	19.9	19.9	58.9	0.0	58.5	57.9	0.0	58.0
Incr Delay (d2), s/veh	0.0	0.1	0.1	0.0	1.7	1.6	0.4	0.0	7.9	0.9	0.0	8.3
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	0.2	0.0	0.0	0.2	10.5	10.9	0.4	0.0	1.3	1.0	0.0	1.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	6.7	0.1	0.1	15.2	21.7	21.6	59.4	0.0	66.4	58.9	0.0	66.3
LnGrp LOS	A	A	A	B	C	C	E		E	E		E
Approach Vol, veh/h		997			1099			49			81	
Approach Delay, s/veh		0.3			21.5			64.8			63.5	
Approach LOS		A			C			E			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	38.7	69.0	6.3	10.0	5.8	101.9	7.3	9.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	7.0	65.0	5.0	31.0	5.0	67.0	6.0	30.0
Max Q Clear Time (g_c+I1), s	2.0	26.8	2.0	5.7	2.4	2.0	2.0	4.9
Green Ext Time (p_c), s	0.0	8.5	0.0	0.2	0.0	7.4	0.0	0.1

Intersection Summary	
HCM 7th Control Delay, s/veh	14.5
HCM 7th LOS	B



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	41	1136	2	15	1218	15	14	11	39	41	6	61
Future Volume (veh/h)	41	1136	2	15	1218	15	14	11	39	41	6	61
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
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	1900	1900	1900	1885	1885	1885	1841	1841	1841	1900	1900	1900
Adj Flow Rate, veh/h	44	1222	2	16	1310	16	15	12	42	44	6	66
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	0	0	0	1	1	1	4	4	4	0	0	0
Cap, veh/h	616	2028	3	741	1987	24	117	18	64	140	9	99
Arrive On Green	0.48	1.00	1.00	0.24	0.55	0.55	0.02	0.05	0.05	0.03	0.07	0.07
Sat Flow, veh/h	1810	3698	6	1795	3624	44	1753	359	1256	1810	136	1495
Grp Volume(v), veh/h	44	596	628	16	647	679	15	0	54	44	0	72
Grp Sat Flow(s),veh/h/ln	1810	1805	1899	1795	1791	1877	1753	0	1615	1810	0	1631
Q Serve(g_s), s	0.0	0.0	0.0	0.0	31.7	31.7	1.0	0.0	4.1	2.8	0.0	5.3
Cycle Q Clear(g_c), s	0.0	0.0	0.0	0.0	31.7	31.7	1.0	0.0	4.1	2.8	0.0	5.3
Prop In Lane	1.00		0.00	1.00		0.02	1.00		0.78	1.00		0.92
Lane Grp Cap(c), veh/h	616	990	1041	741	982	1029	117	0	82	140	0	108
V/C Ratio(X)	0.07	0.60	0.60	0.02	0.66	0.66	0.13	0.00	0.66	0.31	0.00	0.67
Avail Cap(c_a), veh/h	616	990	1041	741	982	1029	159	0	391	156	0	395
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.09	0.09	0.09	0.47	0.47	0.47	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	10.0	0.0	0.0	2.9	19.8	19.8	54.5	0.0	57.8	53.6	0.0	56.6
Incr Delay (d2), s/veh	0.0	0.2	0.2	0.0	1.6	1.6	0.5	0.0	8.6	1.3	0.0	6.9
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	0.4	0.1	0.1	0.1	13.1	13.7	0.5	0.0	1.9	1.4	0.0	2.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	10.0	0.2	0.2	2.9	21.4	21.4	55.0	0.0	66.4	54.9	0.0	63.5
LnGrp LOS	A	A	A	A	C	C	D		E	D		E
Approach Vol, veh/h		1268			1342			69			116	
Approach Delay, s/veh		0.6			21.2			63.9			60.2	
Approach LOS		A			C			E			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	33.8	72.0	6.0	12.2	33.8	72.0	7.9	10.3
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	5.0	68.0	5.0	30.0	5.0	68.0	5.0	30.0
Max Q Clear Time (g_c+I1), s	2.0	33.7	3.0	7.3	2.0	2.0	4.8	6.1
Green Ext Time (p_c), s	0.0	11.3	0.0	0.3	0.0	10.9	0.0	0.2

Intersection Summary	
HCM 7th Control Delay, s/veh	14.5
HCM 7th LOS	B

MOVEMENT SUMMARY

Site: 101 [Idaho_Poleline_Existing_PM (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.3.210

New Site
Site Category: (None)
Roundabout

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] ft	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed mph
South: Idaho NB Approach															
3	L2	All MCs	106	1.1	106	1.1	0.638	13.6	LOS B	7.9	199.2	0.85	0.77	1.14	26.9
8	T1	All MCs	331	1.1	331	1.1	0.638	13.6	LOS B	7.9	199.2	0.85	0.77	1.14	27.3
18	R2	All MCs	139	1.1	139	1.1	0.638	13.6	LOS B	7.9	199.2	0.85	0.77	1.14	27.2
Approach			577	1.1	577	1.1	0.638	13.6	LOS B	7.9	199.2	0.85	0.77	1.14	27.2
East: Poleline WB Approach															
1	L2	All MCs	116	2.4	116	2.4	0.576	13.5	LOS B	5.8	148.9	0.87	0.79	1.13	26.8
6	T1	All MCs	301	2.4	301	2.4	0.576	13.5	LOS B	5.8	148.9	0.87	0.79	1.13	27.2
16	R2	All MCs	27	2.4	27	2.4	0.576	13.5	LOS B	5.8	148.9	0.87	0.79	1.13	27.1
Approach			444	2.4	444	2.4	0.576	13.5	LOS B	5.8	148.9	0.87	0.79	1.13	27.1
North: Idaho SB Approach															
7u	U	All MCs	1	0.3	1	0.3	0.473	10.6	LOS B	3.8	96.0	0.81	0.64	0.88	28.1
7	L2	All MCs	26	0.3	26	0.3	0.473	10.6	LOS B	3.8	96.0	0.81	0.64	0.88	28.1
4	T1	All MCs	271	0.3	271	0.3	0.473	10.6	LOS B	3.8	96.0	0.81	0.64	0.88	28.6
14	R2	All MCs	87	0.3	87	0.3	0.473	10.6	LOS B	3.8	96.0	0.81	0.64	0.88	28.4
Approach			385	0.3	385	0.3	0.473	10.6	LOS B	3.8	96.0	0.81	0.64	0.88	28.5
West: Poleline EB Approach															
5	L2	All MCs	109	2.7	109	2.7	0.524	10.9	LOS B	4.6	117.6	0.76	0.61	0.87	27.7
2	T1	All MCs	266	2.7	266	2.7	0.524	10.9	LOS B	4.6	117.6	0.76	0.61	0.87	28.2
12	R2	All MCs	90	2.7	90	2.7	0.524	10.9	LOS B	4.6	117.6	0.76	0.61	0.87	28.0
Approach			465	2.7	465	2.7	0.524	10.9	LOS B	4.6	117.6	0.76	0.61	0.87	28.0
All Vehicles			1870	1.6	1870	1.6	0.638	12.3	LOS B	7.9	199.2	0.82	0.71	1.02	27.6

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Options tab).
Roundabout LOS Method: Same as Signalised Intersections.
Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.
LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).
Roundabout Capacity Model: SIDRA HCM.
Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

SIDRA INTERSECTION 9.1 | Copyright © 2000-2023 Akcelik and Associates Pty Ltd | sidrasolutions.com
Organisation: J.U.B ENGINEERS, INC. | Licence: PLUS / 1PC | Processed: Thursday, September 7, 2023 10:54:07 AM
Project: \\jub.com\Central\Clients\ID\PostFallsCity\Projects\07-23-040_TMP\Planning\Traffic\Sidra\Idaho_Poleline.sip9

MOVEMENT SUMMARY

Site: 101 [Idaho_4thPM (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.2.202

New Site
Site Category: (None)
Roundabout

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] ft	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed mph
South: Idaho_NBLeg															
3u	U	All MCs	1	1.4	1	1.4	0.005	3.9	LOS A	0.0	0.6	0.51	0.28	0.51	23.0
3	L2	All MCs	1	1.4	1	1.4	0.005	3.9	LOS A	0.0	0.6	0.51	0.28	0.51	23.0
8	T1	All MCs	1	1.4	1	1.4	0.005	3.9	LOS A	0.0	0.6	0.51	0.28	0.51	23.2
18	R2	All MCs	1	1.4	1	1.4	0.005	3.9	LOS A	0.0	0.6	0.51	0.28	0.51	23.2
Approach			4	1.4	4	1.4	0.005	3.9	LOS A	0.0	0.6	0.51	0.28	0.51	23.1
East: 4th_WB Approach															
1u	U	All MCs	1	4.9	1	4.9	0.097	4.0	LOS A	0.5	13.0	0.35	0.18	0.35	8.4
1	L2	All MCs	1	4.9	1	4.9	0.097	4.0	LOS A	0.5	13.0	0.35	0.18	0.35	23.5
6	T1	All MCs	61	4.9	61	4.9	0.097	4.0	LOS A	0.5	13.0	0.35	0.18	0.35	23.7
16	R2	All MCs	45	4.9	45	4.9	0.097	4.0	LOS A	0.5	13.0	0.35	0.18	0.35	23.6
Approach			109	4.9	109	4.9	0.097	4.0	LOS A	0.5	13.0	0.35	0.18	0.35	23.2
North: Idaho_SB Approach															
7u	U	All MCs	1	1.7	1	1.7	0.201	4.5	LOS A	1.2	29.7	0.24	0.10	0.24	23.1
7	L2	All MCs	84	1.7	84	1.7	0.201	4.5	LOS A	1.2	29.7	0.24	0.10	0.24	23.1
4	T1	All MCs	1	1.7	1	1.7	0.201	4.5	LOS A	1.2	29.7	0.24	0.10	0.24	23.2
14	R2	All MCs	166	1.7	166	1.7	0.201	4.5	LOS A	1.2	29.7	0.24	0.10	0.24	23.2
Approach			253	1.7	253	1.7	0.201	4.5	LOS A	1.2	29.7	0.24	0.10	0.24	23.1
West: 4th_EB Approach															
5u	U	All MCs	1	0.4	1	0.4	0.276	5.2	LOS A	1.7	42.4	0.29	0.13	0.29	22.9
5	L2	All MCs	157	0.4	157	0.4	0.276	5.2	LOS A	1.7	42.4	0.29	0.13	0.29	22.9
2	T1	All MCs	187	0.4	187	0.4	0.276	5.2	LOS A	1.7	42.4	0.29	0.13	0.29	23.1
12	R2	All MCs	1	0.4	1	0.4	0.276	5.2	LOS A	1.7	42.4	0.29	0.13	0.29	23.0
Approach			346	0.4	346	0.4	0.276	5.2	LOS A	1.7	42.4	0.29	0.13	0.29	23.0
All Vehicles			713	1.6	713	1.6	0.276	4.8	LOS A	1.7	42.4	0.29	0.13	0.29	23.1

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Options tab).
Roundabout LOS Method: Same as Signalised Intersections.
Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.
LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).
Roundabout Capacity Model: SIDRA HCM.
Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

MOVEMENT SUMMARY

Site: 101 [Idaho_4thPM (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.2.202

New Site
Site Category: (None)
Roundabout

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] ft	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed mph
South: Idaho_NBLeg															
3u	U	All MCs	1	1.4	1	1.4	0.005	4.1	LOS A	0.0	0.7	0.55	0.31	0.55	23.0
3	L2	All MCs	1	1.4	1	1.4	0.005	4.1	LOS A	0.0	0.7	0.55	0.31	0.55	23.0
8	T1	All MCs	1	1.4	1	1.4	0.005	4.1	LOS A	0.0	0.7	0.55	0.31	0.55	23.1
18	R2	All MCs	1	1.4	1	1.4	0.005	4.1	LOS A	0.0	0.7	0.55	0.31	0.55	23.1
Approach			4	1.4	4	1.4	0.005	4.1	LOS A	0.0	0.7	0.55	0.31	0.55	23.1
East: 4th_WB Approach															
1u	U	All MCs	1	4.9	1	4.9	0.117	4.3	LOS A	0.6	16.1	0.37	0.20	0.37	8.3
1	L2	All MCs	1	4.9	1	4.9	0.117	4.3	LOS A	0.6	16.1	0.37	0.20	0.37	23.5
6	T1	All MCs	73	4.9	73	4.9	0.117	4.3	LOS A	0.6	16.1	0.37	0.20	0.37	23.6
16	R2	All MCs	54	4.9	54	4.9	0.117	4.3	LOS A	0.6	16.1	0.37	0.20	0.37	23.6
Approach			129	4.9	129	4.9	0.117	4.3	LOS A	0.6	16.1	0.37	0.20	0.37	23.2
North: Idaho_SB Approach															
7u	U	All MCs	1	1.7	1	1.7	0.226	4.8	LOS A	1.4	34.5	0.27	0.11	0.27	23.0
7	L2	All MCs	94	1.7	94	1.7	0.226	4.8	LOS A	1.4	34.5	0.27	0.11	0.27	23.0
4	T1	All MCs	1	1.7	1	1.7	0.226	4.8	LOS A	1.4	34.5	0.27	0.11	0.27	23.1
14	R2	All MCs	186	1.7	186	1.7	0.226	4.8	LOS A	1.4	34.5	0.27	0.11	0.27	23.1
Approach			282	1.7	282	1.7	0.226	4.8	LOS A	1.4	34.5	0.27	0.11	0.27	23.1
West: 4th_EB Approach															
5u	U	All MCs	1	0.4	1	0.4	0.314	5.7	LOS A	2.0	50.5	0.33	0.15	0.33	22.8
5	L2	All MCs	177	0.4	177	0.4	0.314	5.7	LOS A	2.0	50.5	0.33	0.15	0.33	22.8
2	T1	All MCs	212	0.4	212	0.4	0.314	5.7	LOS A	2.0	50.5	0.33	0.15	0.33	23.0
12	R2	All MCs	1	0.4	1	0.4	0.314	5.7	LOS A	2.0	50.5	0.33	0.15	0.33	22.9
Approach			391	0.4	391	0.4	0.314	5.7	LOS A	2.0	50.5	0.33	0.15	0.33	22.9
All Vehicles			806	1.6	806	1.6	0.314	5.1	LOS A	2.0	50.5	0.32	0.15	0.32	23.0

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Options tab).
Roundabout LOS Method: Same as Signalised Intersections.
Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.
LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).
Roundabout Capacity Model: SIDRA HCM.
Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

MOVEMENT SUMMARY

Site: 101 [Idaho_4thPM (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.2.202

New Site
Site Category: (None)
Roundabout

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] ft	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed mph
South: Idaho_NBLeg															
3u	U	All MCs	1	1.4	1	1.4	0.006	4.5	LOS A	0.0	0.7	0.61	0.36	0.61	22.9
3	L2	All MCs	1	1.4	1	1.4	0.006	4.5	LOS A	0.0	0.7	0.61	0.36	0.61	22.9
8	T1	All MCs	1	1.4	1	1.4	0.006	4.5	LOS A	0.0	0.7	0.61	0.36	0.61	23.0
18	R2	All MCs	1	1.4	1	1.4	0.006	4.5	LOS A	0.0	0.7	0.61	0.36	0.61	23.0
Approach			4	1.4	4	1.4	0.006	4.5	LOS A	0.0	0.7	0.61	0.36	0.61	23.0
East: 4th_WB Approach															
1u	U	All MCs	1	4.9	1	4.9	0.163	4.9	LOS A	0.9	23.5	0.43	0.25	0.43	8.3
1	L2	All MCs	1	4.9	1	4.9	0.163	4.9	LOS A	0.9	23.5	0.43	0.25	0.43	23.4
6	T1	All MCs	98	4.9	98	4.9	0.163	4.9	LOS A	0.9	23.5	0.43	0.25	0.43	23.5
16	R2	All MCs	73	4.9	73	4.9	0.163	4.9	LOS A	0.9	23.5	0.43	0.25	0.43	23.5
Approach			173	4.9	173	4.9	0.163	4.9	LOS A	0.9	23.5	0.43	0.25	0.43	23.2
North: Idaho_SB Approach															
7u	U	All MCs	1	1.7	1	1.7	0.281	5.4	LOS A	1.8	45.6	0.34	0.16	0.34	22.8
7	L2	All MCs	113	1.7	113	1.7	0.281	5.4	LOS A	1.8	45.6	0.34	0.16	0.34	22.8
4	T1	All MCs	1	1.7	1	1.7	0.281	5.4	LOS A	1.8	45.6	0.34	0.16	0.34	23.0
14	R2	All MCs	225	1.7	225	1.7	0.281	5.4	LOS A	1.8	45.6	0.34	0.16	0.34	22.9
Approach			341	1.7	341	1.7	0.281	5.4	LOS A	1.8	45.6	0.34	0.16	0.34	22.9
West: 4th_EB Approach															
5u	U	All MCs	1	0.4	1	0.4	0.390	6.6	LOS A	2.7	68.9	0.39	0.19	0.39	22.6
5	L2	All MCs	216	0.4	216	0.4	0.390	6.6	LOS A	2.7	68.9	0.39	0.19	0.39	22.6
2	T1	All MCs	258	0.4	258	0.4	0.390	6.6	LOS A	2.7	68.9	0.39	0.19	0.39	22.7
12	R2	All MCs	1	0.4	1	0.4	0.390	6.6	LOS A	2.7	68.9	0.39	0.19	0.39	22.7
Approach			476	0.4	476	0.4	0.390	6.6	LOS A	2.7	68.9	0.39	0.19	0.39	22.7
All Vehicles			994	1.6	994	1.6	0.390	5.9	LOS A	2.7	68.9	0.38	0.19	0.38	22.8

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Options tab).
Roundabout LOS Method: Same as Signalised Intersections.
Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.
LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).
Roundabout Capacity Model: SIDRA HCM.
Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

Intersection	
Int Delay, s/veh	3.6

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	68	35	102	396	210	88
Future Vol, veh/h	68	35	102	396	210	88
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	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	87	87	87	87	87	87
Heavy Vehicles, %	1	1	1	1	0	0
Mvmt Flow	78	40	117	455	241	101

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	982	292	343	0	-	0
Stage 1	292	-	-	-	-	-
Stage 2	690	-	-	-	-	-
Critical Hdwy	6.41	6.21	4.11	-	-	-
Critical Hdwy Stg 1	5.41	-	-	-	-	-
Critical Hdwy Stg 2	5.41	-	-	-	-	-
Follow-up Hdwy	3.509	3.309	2.209	-	-	-
Pot Cap-1 Maneuver	278	750	1222	-	-	-
Stage 1	760	-	-	-	-	-
Stage 2	500	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	242	750	1222	-	-	-
Mov Cap-2 Maneuver	242	-	-	-	-	-
Stage 1	663	-	-	-	-	-
Stage 2	500	-	-	-	-	-

Approach	EB	NB	SB
HCM Ctrl Dly, s/v	23.22	1.69	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	369	-	314	-	-
HCM Lane V/C Ratio	0.096	-	0.377	-	-
HCM Ctrl Dly (s/v)	8.3	0	23.2	-	-
HCM Lane LOS	A	A	C	-	-
HCM 95th %tile Q(veh)	0.3	-	1.7	-	-

Intersection	
Int Delay, s/veh	3.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	5	221	5	17	200	41	10	11	37	40	28	6
Future Vol, veh/h	5	221	5	17	200	41	10	11	37	40	28	6
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	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	93	93	93	93	93	93	93	93	93	93	93	93
Heavy Vehicles, %	1	1	1	1	1	1	2	2	2	0	0	0
Mvmt Flow	5	238	5	18	215	44	11	12	40	43	30	6

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	259	0	0	243	0	0	518	547	240	528	527	237
Stage 1	-	-	-	-	-	-	251	251	-	274	274	-
Stage 2	-	-	-	-	-	-	267	296	-	254	254	-
Critical Hdwy	4.11	-	-	4.11	-	-	7.12	6.52	6.22	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.1	5.5	-
Follow-up Hdwy	2.209	-	-	2.209	-	-	3.518	4.018	3.318	3.5	4	3.3
Pot Cap-1 Maneuver	1311	-	-	1329	-	-	468	445	799	464	459	807
Stage 1	-	-	-	-	-	-	753	699	-	737	687	-
Stage 2	-	-	-	-	-	-	739	668	-	755	701	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1311	-	-	1329	-	-	425	435	799	420	449	807
Mov Cap-2 Maneuver	-	-	-	-	-	-	425	435	-	420	449	-
Stage 1	-	-	-	-	-	-	749	696	-	725	676	-
Stage 2	-	-	-	-	-	-	689	658	-	701	698	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	0.17	0.51	11.58	14.74
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	610	39	-	-	115	-	-	449
HCM Lane V/C Ratio	0.102	0.004	-	-	0.014	-	-	0.177
HCM Ctrl Dly (s/v)	11.6	7.8	0	-	7.7	0	-	14.7
HCM Lane LOS	B	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.3	0	-	-	0	-	-	0.6

Intersection	
Int Delay, s/veh	3.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	6	262	6	18	221	46	12	14	45	46	33	7
Future Vol, veh/h	6	262	6	18	221	46	12	14	45	46	33	7
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	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	93	93	93	93	93	93	93	93	93	93	93	93
Heavy Vehicles, %	1	1	1	1	1	1	2	2	2	0	0	0
Mvmt Flow	6	282	6	19	238	49	13	15	48	49	35	8

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	287	0	0	288	0	0	592	624	285	603	602	262
Stage 1	-	-	-	-	-	-	298	298	-	301	301	-
Stage 2	-	-	-	-	-	-	294	326	-	302	301	-
Critical Hdwy	4.11	-	-	4.11	-	-	7.12	6.52	6.22	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.1	5.5	-
Follow-up Hdwy	2.209	-	-	2.209	-	-	3.518	4.018	3.318	3.5	4	3.3
Pot Cap-1 Maneuver	1281	-	-	1280	-	-	418	402	754	414	416	781
Stage 1	-	-	-	-	-	-	711	667	-	712	668	-
Stage 2	-	-	-	-	-	-	714	648	-	711	668	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1281	-	-	1280	-	-	369	392	754	364	406	781
Mov Cap-2 Maneuver	-	-	-	-	-	-	369	392	-	364	406	-
Stage 1	-	-	-	-	-	-	707	663	-	699	656	-
Stage 2	-	-	-	-	-	-	657	637	-	647	664	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	0.17	0.5	12.51	16.8
HCM LOS			B	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	555	39	-	-	110	-	-	397
HCM Lane V/C Ratio	0.137	0.005	-	-	0.015	-	-	0.233
HCM Ctrl Dly (s/v)	12.5	7.8	0	-	7.9	0	-	16.8
HCM Lane LOS	B	A	A	-	A	A	-	C
HCM 95th %tile Q(veh)	0.5	0	-	-	0	-	-	0.9

Intersection	
Int Delay, s/veh	4.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	8	344	8	22	265	55	16	19	60	58	41	9
Future Vol, veh/h	8	344	8	22	265	55	16	19	60	58	41	9
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	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	93	93	93	93	93	93	93	93	93	93	93	93
Heavy Vehicles, %	1	1	1	1	1	1	2	2	2	0	0	0
Mvmt Flow	9	370	9	24	285	59	17	20	65	62	44	10

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	344	0	0	378	0	0	746	783	374	759	758	315
Stage 1	-	-	-	-	-	-	391	391	-	362	362	-
Stage 2	-	-	-	-	-	-	354	391	-	397	396	-
Critical Hdwy	4.11	-	-	4.11	-	-	7.12	6.52	6.22	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.1	5.5	-
Follow-up Hdwy	2.209	-	-	2.209	-	-	3.518	4.018	3.318	3.5	4	3.3
Pot Cap-1 Maneuver	1221	-	-	1185	-	-	330	326	672	325	339	731
Stage 1	-	-	-	-	-	-	633	607	-	661	629	-
Stage 2	-	-	-	-	-	-	663	607	-	632	608	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1221	-	-	1185	-	-	273	315	672	266	328	731
Mov Cap-2 Maneuver	-	-	-	-	-	-	273	315	-	266	328	-
Stage 1	-	-	-	-	-	-	627	601	-	644	613	-
Stage 2	-	-	-	-	-	-	592	592	-	547	602	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	0.18	0.52	15.15	23.97
HCM LOS			C	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	456	40	-	-	112	-	-	304
HCM Lane V/C Ratio	0.224	0.007	-	-	0.02	-	-	0.382
HCM Ctrl Dly (s/v)	15.2	8	0	-	8.1	0	-	24
HCM Lane LOS	C	A	A	-	A	A	-	C
HCM 95th %tile Q(veh)	0.8	0	-	-	0.1	-	-	1.7

Intersection	
Int Delay, s/veh	0.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	5	8	0	2	5	2	3	258	3	5	173	8
Future Vol, veh/h	5	8	0	2	5	2	3	258	3	5	173	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	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	91	91	91	91	91	91	91	91	91	91	91	91
Heavy Vehicles, %	0	0	0	0	0	0	5	5	5	6	6	6
Mvmt Flow	5	9	0	2	5	2	3	284	3	5	190	9

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	498	499	195	497	502	285	199	0	0	287	0	0
Stage 1	205	205	-	292	292	-	-	-	-	-	-	-
Stage 2	293	293	-	205	210	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.15	-	-	4.16	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.245	-	-	2.254	-	-
Pot Cap-1 Maneuver	486	476	852	486	475	759	1356	-	-	1253	-	-
Stage 1	801	735	-	721	675	-	-	-	-	-	-	-
Stage 2	720	674	-	801	732	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	475	473	852	474	471	759	1356	-	-	1253	-	-
Mov Cap-2 Maneuver	475	473	-	474	471	-	-	-	-	-	-	-
Stage 1	797	732	-	718	673	-	-	-	-	-	-	-
Stage 2	710	672	-	788	729	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	12.84	12.13	0.09	0.21
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	20	-	-	473	515	48	-	-
HCM Lane V/C Ratio	0.002	-	-	0.03	0.019	0.004	-	-
HCM Ctrl Dly (s/v)	7.7	0	-	12.8	12.1	7.9	0	-
HCM Lane LOS	A	A	-	B	B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.1	0.1	0	-	-

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	3	9	1	3	6	291	23	4	227	3
Future Vol, veh/h	0	0	3	9	1	3	6	291	23	4	227	3
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	88	88	88	88	88	88	88	88	88	88	88	88
Heavy Vehicles, %	0	0	0	0	0	0	3	3	3	4	4	4
Mvmt Flow	0	0	3	10	1	3	7	331	26	5	258	3

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	448	639	260	624	628	178	261	0	0	357	0	0
Stage 1	269	269	-	357	357	-	-	-	-	-	-	-
Stage 2	180	370	-	267	270	-	-	-	-	-	-	-
Critical Hdwy	7.3	6.5	6.2	7.3	6.5	6.9	4.145	-	-	4.16	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.5	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2285	-	-	2.238	-	-
Pot Cap-1 Maneuver	511	396	784	387	402	840	1295	-	-	1188	-	-
Stage 1	741	690	-	639	632	-	-	-	-	-	-	-
Stage 2	811	623	-	743	689	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	503	392	784	381	398	840	1295	-	-	1188	-	-
Mov Cap-2 Maneuver	503	392	-	381	398	-	-	-	-	-	-	-
Stage 1	738	687	-	635	628	-	-	-	-	-	-	-
Stage 2	801	620	-	736	686	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	9.61	13.51	0.15	0.14
HCM LOS	A	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1295	-	-	784	438	31	-	-
HCM Lane V/C Ratio	0.005	-	-	0.004	0.034	0.004	-	-
HCM Ctrl Dly (s/v)	7.8	-	-	9.6	13.5	8	0	-
HCM Lane LOS	A	-	-	A	B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0	0.1	0	-	-

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	3	10	1	3	7	353	28	5	273	3
Future Vol, veh/h	0	0	3	10	1	3	7	353	28	5	273	3
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	88	88	88	88	88	88	88	88	88	88	88	88
Heavy Vehicles, %	0	0	0	0	0	0	3	3	3	4	4	4
Mvmt Flow	0	0	3	11	1	3	8	401	32	6	310	3

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	540	772	312	755	758	216	314	0	0	433	0	0
Stage 1	323	323	-	433	433	-	-	-	-	-	-	-
Stage 2	217	449	-	322	325	-	-	-	-	-	-	-
Critical Hdwy	7.3	6.5	6.2	7.3	6.5	6.9	4.145	-	-	4.16	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.5	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2285	-	-	2.238	-	-
Pot Cap-1 Maneuver	442	333	733	314	339	794	1239	-	-	1112	-	-
Stage 1	693	654	-	577	585	-	-	-	-	-	-	-
Stage 2	771	576	-	695	653	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	433	328	733	309	334	794	1239	-	-	1112	-	-
Mov Cap-2 Maneuver	433	328	-	309	334	-	-	-	-	-	-	-
Stage 1	689	650	-	572	581	-	-	-	-	-	-	-
Stage 2	761	572	-	687	649	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	9.93	15.54	0.14	0.15
HCM LOS	A	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1239	-	-	733	357	32	-	-
HCM Lane V/C Ratio	0.006	-	-	0.005	0.045	0.005	-	-
HCM Ctrl Dly (s/v)	7.9	-	-	9.9	15.5	8.3	0	-
HCM Lane LOS	A	-	-	A	C	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0	0.1	0	-	-

Intersection	
Int Delay, s/veh	0.6

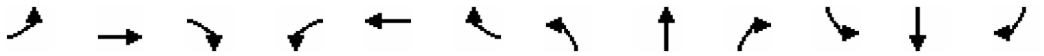
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	4	13	2	4	9	476	37	7	367	5
Future Vol, veh/h	0	0	4	13	2	4	9	476	37	7	367	5
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	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	88	88	88	88	88	88	88	88	88	88	88	88
Heavy Vehicles, %	0	0	0	0	0	0	3	3	3	4	4	4
Mvmt Flow	0	0	5	15	2	5	10	541	42	8	417	6

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	728	1039	420	1015	1021	291	423	0	0	583	0	0
Stage 1	436	436	-	582	582	-	-	-	-	-	-	-
Stage 2	292	603	-	433	439	-	-	-	-	-	-	-
Critical Hdwy	7.3	6.5	6.2	7.3	6.5	6.9	4.145	-	-	4.16	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.5	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2285	-	-	2.238	-	-
Pot Cap-1 Maneuver	328	232	638	207	238	711	1128	-	-	978	-	-
Stage 1	603	583	-	471	502	-	-	-	-	-	-	-
Stage 2	697	491	-	605	582	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	316	227	638	201	233	711	1128	-	-	978	-	-
Mov Cap-2 Maneuver	316	227	-	201	233	-	-	-	-	-	-	-
Stage 1	597	577	-	466	497	-	-	-	-	-	-	-
Stage 2	682	486	-	594	576	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	10.69	21.44	0.14	0.16
HCM LOS	B	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1128	-	-	638	241	33	-	-
HCM Lane V/C Ratio	0.009	-	-	0.007	0.09	0.008	-	-
HCM Ctrl Dly (s/v)	8.2	-	-	10.7	21.4	8.7	0	-
HCM Lane LOS	A	-	-	B	C	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0	0.3	0	-	-

HCM 7th Edition methodology expects strict NEMA phasing.



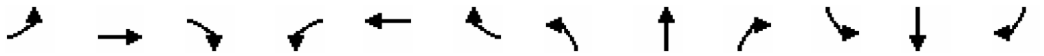
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	17	749	12	64	799	164	10	29	75	143	58	14
Future Volume (veh/h)	17	749	12	64	799	164	10	29	75	143	58	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
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	1885	1885	1885	1856	1856	1856	1811	1811	1811	1885	1885	1885
Adj Flow Rate, veh/h	18	797	13	68	850	174	11	31	80	152	62	15
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	1	1	1	3	3	3	6	6	6	1	1	1
Cap, veh/h	231	1208	20	331	1083	222	306	53	137	370	304	74
Arrive On Green	0.02	0.34	0.34	0.06	0.37	0.37	0.01	0.12	0.12	0.10	0.21	0.21
Sat Flow, veh/h	1795	3607	59	1767	2914	597	1725	447	1153	1795	1466	355
Grp Volume(v), veh/h	18	396	414	68	514	510	11	0	111	152	0	77
Grp Sat Flow(s),veh/h/ln	1795	1791	1875	1767	1763	1748	1725	0	1600	1795	0	1821
Q Serve(g_s), s	0.4	10.5	10.5	1.3	14.4	14.4	0.3	0.0	3.7	3.9	0.0	1.9
Cycle Q Clear(g_c), s	0.4	10.5	10.5	1.3	14.4	14.4	0.3	0.0	3.7	3.9	0.0	1.9
Prop In Lane	1.00		0.03	1.00		0.34	1.00		0.72	1.00		0.19
Lane Grp Cap(c), veh/h	231	600	628	331	655	650	306	0	190	370	0	378
V/C Ratio(X)	0.08	0.66	0.66	0.21	0.78	0.78	0.04	0.00	0.58	0.41	0.00	0.20
Avail Cap(c_a), veh/h	363	847	886	396	834	827	443	0	898	385	0	1041
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	0.00	1.00
Uniform Delay (d), s/veh	13.0	15.8	15.8	11.7	15.5	15.5	21.0	0.0	23.2	17.6	0.0	18.2
Incr Delay (d2), s/veh	0.1	1.2	1.2	0.3	3.8	3.9	0.0	0.0	2.8	0.7	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	0.1	3.6	3.8	0.4	5.2	5.1	0.1	0.0	1.4	1.4	0.0	0.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	13.2	17.0	17.0	12.0	19.3	19.4	21.1	0.0	26.0	18.3	0.0	18.5
LnGrp LOS	B	B	B	B	B	B	C		C	B		B
Approach Vol, veh/h		828			1092			122			229	
Approach Delay, s/veh		16.9			18.9			25.6			18.4	
Approach LOS		B			B			C			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.5	11.8	9.0	24.3	5.6	16.8	6.9	26.4
Change Period (Y+Rc), s	* 5.2	* 5.2	* 5.7	* 5.7	4.8	* 5.2	* 5.7	* 5.7
Max Green Setting (Gmax), s	* 5.8	* 31	* 5.3	* 26	5.2	* 32	* 5.3	* 26
Max Q Clear Time (g_c+I1), s	5.9	5.7	3.3	12.5	2.3	3.9	2.4	16.4
Green Ext Time (p_c), s	0.0	0.6	0.0	3.9	0.0	0.3	0.0	4.3

Intersection Summary	
HCM 7th Control Delay, s/veh	18.5
HCM 7th LOS	B

Notes

* HCM 7th computational engine requires equal clearance times for the phases crossing the barrier.



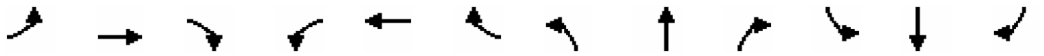
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	19	868	13	72	898	184	13	37	97	185	75	18
Future Volume (veh/h)	19	868	13	72	898	184	13	37	97	185	75	18
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
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	1885	1885	1885	1856	1856	1856	1811	1811	1811	1885	1885	1885
Adj Flow Rate, veh/h	20	923	14	77	955	196	14	39	103	197	80	19
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	1	1	1	3	3	3	6	6	6	1	1	1
Cap, veh/h	204	1269	19	300	1129	231	318	60	158	354	324	77
Arrive On Green	0.02	0.35	0.35	0.06	0.39	0.39	0.02	0.14	0.14	0.10	0.22	0.22
Sat Flow, veh/h	1795	3611	55	1767	2914	597	1725	439	1160	1795	1472	350
Grp Volume(v), veh/h	20	458	479	77	577	574	14	0	142	197	0	99
Grp Sat Flow(s),veh/h/ln	1795	1791	1875	1767	1763	1748	1725	0	1599	1795	0	1822
Q Serve(g_s), s	0.4	13.6	13.6	1.6	18.2	18.2	0.4	0.0	5.1	5.5	0.0	2.7
Cycle Q Clear(g_c), s	0.4	13.6	13.6	1.6	18.2	18.2	0.4	0.0	5.1	5.5	0.0	2.7
Prop In Lane	1.00		0.03	1.00		0.34	1.00		0.73	1.00		0.19
Lane Grp Cap(c), veh/h	204	629	659	300	683	677	318	0	218	354	0	402
V/C Ratio(X)	0.10	0.73	0.73	0.26	0.85	0.85	0.04	0.00	0.65	0.56	0.00	0.25
Avail Cap(c_a), veh/h	318	773	809	348	761	754	436	0	819	354	0	951
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	0.00	1.00
Uniform Delay (d), s/veh	14.2	17.2	17.2	12.8	17.0	17.0	22.0	0.0	25.0	19.1	0.0	19.6
Incr Delay (d2), s/veh	0.2	2.7	2.6	0.4	8.0	8.2	0.1	0.0	3.3	1.9	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	0.2	5.0	5.3	0.6	7.4	7.4	0.2	0.0	2.0	2.2	0.0	1.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	14.4	19.9	19.8	13.2	25.0	25.2	22.1	0.0	28.3	21.0	0.0	19.9
LnGrp LOS	B	B	B	B	C	C	C		C	C		B
Approach Vol, veh/h		957			1228			156			296	
Approach Delay, s/veh		19.7			24.4			27.7			20.6	
Approach LOS		B			C			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.0	13.5	9.3	27.1	5.9	18.6	7.1	29.3
Change Period (Y+Rc), s	* 5.2	* 5.2	* 5.7	* 5.7	4.8	* 5.2	* 5.7	* 5.7
Max Green Setting (Gmax), s	* 5.8	* 31	* 5.3	* 26	5.2	* 32	* 5.3	* 26
Max Q Clear Time (g_c+I1), s	7.5	7.1	3.6	15.6	2.4	4.7	2.4	20.2
Green Ext Time (p_c), s	0.0	0.8	0.0	4.0	0.0	0.4	0.0	3.4

Intersection Summary	
HCM 7th Control Delay, s/veh	22.5
HCM 7th LOS	C

Notes

* HCM 7th computational engine requires equal clearance times for the phases crossing the barrier.



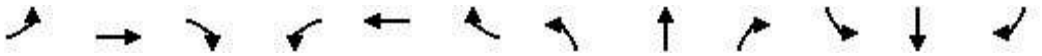
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	25	1106	17	88	1094	225	19	54	141	269	109	26
Future Volume (veh/h)	25	1106	17	88	1094	225	19	54	141	269	109	26
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
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	1885	1885	1885	1856	1856	1856	1811	1811	1811	1885	1885	1885
Adj Flow Rate, veh/h	27	1177	18	94	1164	239	20	57	150	286	116	28
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	1	1	1	3	3	3	6	6	6	1	1	1
Cap, veh/h	172	1537	24	253	1318	269	328	74	194	291	343	83
Arrive On Green	0.03	0.43	0.43	0.05	0.45	0.45	0.02	0.17	0.17	0.08	0.23	0.23
Sat Flow, veh/h	1795	3611	55	1767	2916	595	1725	441	1159	1795	1467	354
Grp Volume(v), veh/h	27	584	611	94	700	703	20	0	207	286	0	144
Grp Sat Flow(s),veh/h/ln	1795	1791	1875	1767	1763	1748	1725	0	1600	1795	0	1821
Q Serve(g_s), s	0.7	22.5	22.5	2.4	29.3	29.8	0.8	0.0	10.0	6.8	0.0	5.3
Cycle Q Clear(g_c), s	0.7	22.5	22.5	2.4	29.3	29.8	0.8	0.0	10.0	6.8	0.0	5.3
Prop In Lane	1.00		0.03	1.00		0.34	1.00		0.72	1.00		0.19
Lane Grp Cap(c), veh/h	172	762	798	253	797	790	328	0	267	291	0	425
V/C Ratio(X)	0.16	0.77	0.77	0.37	0.88	0.89	0.06	0.00	0.77	0.98	0.00	0.34
Avail Cap(c_a), veh/h	261	869	909	295	855	848	401	0	616	291	0	737
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	0.00	1.00
Uniform Delay (d), s/veh	17.4	19.8	19.8	15.5	20.2	20.4	26.9	0.0	32.3	30.2	0.0	25.8
Incr Delay (d2), s/veh	0.4	3.6	3.5	0.9	10.0	11.0	0.1	0.0	4.8	48.1	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	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	8.9	9.3	0.9	12.4	12.7	0.3	0.0	4.1	5.9	0.0	2.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	17.8	23.4	23.3	16.4	30.2	31.3	27.0	0.0	37.1	78.3	0.0	26.3
LnGrp LOS	B	C	C	B	C	C	C		D	E		C
Approach Vol, veh/h		1222			1497			227			430	
Approach Delay, s/veh		23.2			29.8			36.2			60.9	
Approach LOS		C			C			D			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.0	18.7	10.1	40.2	6.6	24.1	8.0	42.3
Change Period (Y+Rc), s	* 5.2	* 5.2	* 5.7	* 5.7	4.8	* 5.2	* 5.7	* 5.7
Max Green Setting (Gmax), s	* 6.8	* 31	* 6.3	* 39	5.2	* 33	* 6.3	* 39
Max Q Clear Time (g_c+I1), s	8.8	12.0	4.4	24.5	2.8	7.3	2.7	31.8
Green Ext Time (p_c), s	0.0	1.1	0.0	6.3	0.0	0.7	0.0	4.8

Intersection Summary	
HCM 7th Control Delay, s/veh	31.8
HCM 7th LOS	C

Notes

* HCM 7th 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)	87	327	46	178	230	55	29	231	193	64	226	59
Future Volume (veh/h)	87	327	46	178	230	55	29	231	193	64	226	59
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
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	1856	1856	1856	1856	1856	1856	1841	1841	1841	1796	1796	1796
Adj Flow Rate, veh/h	91	341	48	185	240	57	30	241	201	67	235	61
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	3	3	3	3	3	3	4	4	4	7	7	7
Cap, veh/h	533	1091	152	488	997	232	444	516	413	373	753	191
Arrive On Green	0.35	0.35	0.35	0.35	0.35	0.35	0.28	0.28	0.28	0.28	0.28	0.28
Sat Flow, veh/h	1074	3107	434	987	2838	661	1066	1846	1477	910	2695	685
Grp Volume(v), veh/h	91	192	197	185	147	150	30	228	214	67	147	149
Grp Sat Flow(s),veh/h/ln	1074	1763	1778	987	1763	1737	1066	1749	1575	910	1706	1673
Q Serve(g_s), s	2.1	2.6	2.6	5.5	1.9	2.0	0.7	3.5	3.7	2.2	2.2	2.3
Cycle Q Clear(g_c), s	4.1	2.6	2.6	8.1	1.9	2.0	3.0	3.5	3.7	5.8	2.2	2.3
Prop In Lane	1.00		0.24	1.00		0.38	1.00		0.94	1.00		0.41
Lane Grp Cap(c), veh/h	533	619	624	488	619	610	444	489	440	373	477	468
V/C Ratio(X)	0.17	0.31	0.32	0.38	0.24	0.25	0.07	0.47	0.49	0.18	0.31	0.32
Avail Cap(c_a), veh/h	684	868	875	628	868	855	671	861	775	566	840	824
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	9.0	7.7	7.7	10.6	7.5	7.5	10.5	9.7	9.8	12.2	9.2	9.3
Incr Delay (d2), s/veh	0.2	0.3	0.3	0.5	0.2	0.2	0.1	0.7	0.8	0.2	0.4	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	0.4	0.6	0.7	0.9	0.5	0.5	0.1	1.1	1.1	0.3	0.6	0.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	9.1	8.0	8.0	11.1	7.7	7.7	10.5	10.4	10.6	12.4	9.6	9.6
LnGrp LOS	A	A	A	B	A	A	B	B	B	B	A	A
Approach Vol, veh/h		480			482			472			363	
Approach Delay, s/veh		8.2			9.0			10.5			10.1	
Approach LOS		A			A			B			B	

Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		15.1		17.4		15.1		17.4				
Change Period (Y+Rc), s		6.0		6.0		6.0		6.0				
Max Green Setting (Gmax), s		16.0		16.0		16.0		16.0				
Max Q Clear Time (g_c+I1), s		5.7		6.1		7.8		10.1				
Green Ext Time (p_c), s		2.2		1.8		1.2		1.3				

Intersection Summary	
HCM 7th Control Delay, s/veh	9.4
HCM 7th LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	82	34	187	110	24	33	176	442	152	32	434	62
Future Volume (veh/h)	82	34	187	110	24	33	176	442	152	32	434	62
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
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	1737	1737	1737	1589	1589	1589	1678	1678	1678	1826	1826	1826
Adj Flow Rate, veh/h	89	37	203	120	26	0	191	480	165	35	472	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, %	11	11	11	21	21	21	15	15	15	5	5	5
Cap, veh/h	163	171	255	144	151		239	857	293	456	1918	
Arrive On Green	0.10	0.10	0.10	0.10	0.10	0.00	0.15	0.74	0.74	0.52	1.00	0.00
Sat Flow, veh/h	1654	1737	2591	1513	1589	1346	3100	2332	796	1739	3469	1547
Grp Volume(v), veh/h	89	37	203	120	26	0	191	327	318	35	472	0
Grp Sat Flow(s),veh/h/ln	1654	1737	1295	1513	1589	1346	1550	1594	1534	1739	1735	1547
Q Serve(g_s), s	7.0	2.7	10.4	10.6	2.0	0.0	8.1	12.5	12.7	1.4	0.0	0.0
Cycle Q Clear(g_c), s	7.0	2.7	10.4	10.6	2.0	0.0	8.1	12.5	12.7	1.4	0.0	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.52	1.00		1.00
Lane Grp Cap(c), veh/h	163	171	255	144	151		239	586	564	456	1918	
V/C Ratio(X)	0.55	0.22	0.80	0.83	0.17		0.80	0.56	0.56	0.08	0.25	
Avail Cap(c_a), veh/h	292	307	457	312	327		456	586	564	456	1918	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00	0.77	0.77	0.77	0.93	0.93	0.00
Uniform Delay (d), s/veh	58.4	56.5	60.0	60.5	56.6	0.0	56.5	13.0	13.1	24.2	0.0	0.0
Incr Delay (d2), s/veh	2.8	0.6	5.6	11.7	0.5	0.0	4.7	2.9	3.1	0.1	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	3.0	1.2	3.7	4.6	0.9	0.0	3.1	3.6	3.5	0.6	0.1	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	61.3	57.1	65.6	72.2	57.1	0.0	61.2	16.0	16.2	24.2	0.3	0.0
LnGrp LOS	E	E	E	E	E		E	B	B	C	A	
Approach Vol, veh/h		329			146			836			507	
Approach Delay, s/veh		63.5			69.5			26.4			1.9	
Approach LOS		E			E			C			A	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	16.5	81.2		19.4	41.7	56.0		18.9				
Change Period (Y+Rc), s	6.0	6.0		6.0	6.0	6.0		6.0				
Max Green Setting (Gmax), s	20.0	40.0		24.0	10.0	50.0		28.0				
Max Q Clear Time (g_c+I1), s	10.1	2.0		12.4	3.4	14.7		12.6				
Green Ext Time (p_c), s	0.4	3.4		1.0	0.0	4.4		0.4				

Intersection Summary		
HCM 7th Control Delay, s/veh		29.7
HCM 7th LOS		C

Notes

Unsignalized Delay for [WBR, SBR] is excluded from calculations of the approach delay and intersection delay.

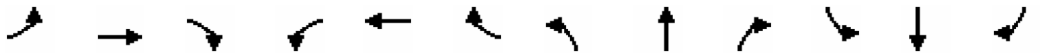
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	98	41	226	117	25	35	206	517	178	36	484	69
Future Volume (veh/h)	98	41	226	117	25	35	206	517	178	36	484	69
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
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	1737	1737	1737	1589	1589	1589	1678	1678	1678	1826	1826	1826
Adj Flow Rate, veh/h	107	45	246	127	27	0	224	562	193	39	526	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, %	11	11	11	21	21	21	15	15	15	5	5	5
Cap, veh/h	189	199	297	151	158		864	1354	463	50	1148	
Arrive On Green	0.11	0.11	0.11	0.10	0.10	0.00	0.56	1.00	1.00	0.03	0.33	0.00
Sat Flow, veh/h	1654	1737	2591	1513	1589	1346	3100	2330	798	1739	3469	1547
Grp Volume(v), veh/h	107	45	246	127	27	0	224	384	371	39	526	0
Grp Sat Flow(s),veh/h/ln	1654	1737	1295	1513	1589	1346	1550	1594	1534	1739	1735	1547
Q Serve(g_s), s	8.3	3.2	12.6	11.2	2.1	0.0	5.1	0.0	0.0	3.0	16.3	0.0
Cycle Q Clear(g_c), s	8.3	3.2	12.6	11.2	2.1	0.0	5.1	0.0	0.0	3.0	16.3	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.52	1.00		1.00
Lane Grp Cap(c), veh/h	189	199	297	151	158		864	926	891	50	1148	
V/C Ratio(X)	0.57	0.23	0.83	0.84	0.17		0.26	0.41	0.42	0.78	0.46	
Avail Cap(c_a), veh/h	268	281	419	278	292		864	926	891	115	1148	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00	0.76	0.76	0.76	0.90	0.90	0.00
Uniform Delay (d), s/veh	57.0	54.7	58.9	60.2	56.1	0.0	22.8	0.0	0.0	65.6	35.9	0.0
Incr Delay (d2), s/veh	2.6	0.6	9.3	11.9	0.5	0.0	0.1	1.0	1.1	21.0	1.2	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	3.6	1.4	4.6	4.8	0.9	0.0	1.8	0.3	0.3	1.6	7.1	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	59.6	55.3	68.2	72.1	56.6	0.0	23.0	1.0	1.1	86.7	37.1	0.0
LnGrp LOS	E	E	E	E	E		C	A	A	F	D	
Approach Vol, veh/h		398			154			979			565	
Approach Delay, s/veh		64.4			69.4			6.1			40.5	
Approach LOS		E			E			A			D	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	43.9	51.0		21.6	9.9	85.0		19.5				
Change Period (Y+Rc), s	6.0	6.0		6.0	6.0	6.0		6.0				
Max Green Setting (Gmax), s	20.0	45.0		22.0	9.0	56.0		25.0				
Max Q Clear Time (g_c+I1), s	7.1	18.3		14.6	5.0	2.0		13.2				
Green Ext Time (p_c), s	0.6	3.6		0.9	0.0	5.6		0.4				

Intersection Summary		
HCM 7th Control Delay, s/veh		31.1
HCM 7th LOS		C

Notes

Unsignalized Delay for [WBR, 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)	132	55	303	130	28	38	265	667	230	43	583	83
Future Volume (veh/h)	132	55	303	130	28	38	265	667	230	43	583	83
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
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	1737	1737	1737	1589	1589	1589	1678	1678	1678	1826	1826	1826
Adj Flow Rate, veh/h	143	60	329	141	30	0	288	725	250	47	634	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, %	11	11	11	21	21	21	15	15	15	5	5	5
Cap, veh/h	235	247	368	163	171		332	1050	362	230	1652	
Arrive On Green	0.14	0.14	0.14	0.11	0.11	0.00	0.21	0.90	0.90	0.26	0.95	0.00
Sat Flow, veh/h	1654	1737	2591	1513	1589	1346	3100	2325	802	1739	3469	1547
Grp Volume(v), veh/h	143	60	329	141	30	0	288	497	478	47	634	0
Grp Sat Flow(s),veh/h/ln	1654	1737	1295	1513	1589	1346	1550	1594	1533	1739	1735	1547
Q Serve(g_s), s	11.7	4.4	18.0	13.2	2.5	0.0	12.9	11.6	11.6	3.0	2.0	0.0
Cycle Q Clear(g_c), s	11.7	4.4	18.0	13.2	2.5	0.0	12.9	11.6	11.6	3.0	2.0	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.52	1.00		1.00
Lane Grp Cap(c), veh/h	235	247	368	163	171		332	719	692	230	1652	
V/C Ratio(X)	0.61	0.24	0.89	0.86	0.18		0.87	0.69	0.69	0.20	0.38	
Avail Cap(c_a), veh/h	253	265	396	252	265		452	719	692	230	1652	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00	0.63	0.63	0.63	0.83	0.83	0.00
Uniform Delay (d), s/veh	58.0	54.9	60.7	63.2	58.4	0.0	55.6	4.4	4.4	47.1	1.8	0.0
Incr Delay (d2), s/veh	3.7	0.5	21.0	17.0	0.5	0.0	8.4	3.4	3.6	0.4	0.6	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	5.1	2.0	7.0	5.9	1.0	0.0	4.9	2.4	2.4	1.3	0.6	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	61.7	55.4	81.7	80.2	58.9	0.0	64.0	7.8	8.0	47.5	2.4	0.0
LnGrp LOS	E	E	F	F	E		E	A	A	D	A	
Approach Vol, veh/h		532			171			1263			681	
Approach Delay, s/veh		73.4			76.4			20.7			5.5	
Approach LOS		E			E			C			A	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	21.4	74.6		26.5	25.0	71.0		21.5				
Change Period (Y+Rc), s	6.0	6.0		6.0	6.0	6.0		6.0				
Max Green Setting (Gmax), s	21.0	53.0		22.0	9.0	65.0		24.0				
Max Q Clear Time (g_c+I1), s	14.9	4.0		20.0	5.0	13.6		15.2				
Green Ext Time (p_c), s	0.5	4.9		0.5	0.0	8.0		0.3				

Intersection Summary			
HCM 7th Control Delay, s/veh		31.0	
HCM 7th LOS		C	

Notes

Unsignalized Delay for [WBR, SBR] is excluded from calculations of the approach delay and intersection delay.

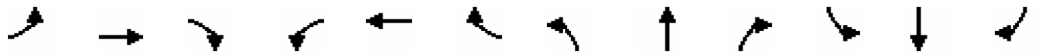
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	58	24	133	101	22	30	134	337	116	27	364	52
Future Volume (veh/h)	58	24	133	101	22	30	134	337	116	27	364	52
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
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	1737	1737	1737	1589	1589	1589	1678	1678	1678	1826	1826	1826
Adj Flow Rate, veh/h	63	26	145	110	24	0	146	366	126	29	396	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, %	11	11	11	21	21	21	15	15	15	5	5	5
Cap, veh/h	258	271	404	217	228		453	675	229	55	604	
Arrive On Green	0.16	0.16	0.16	0.14	0.14	0.00	0.15	0.29	0.29	0.03	0.17	0.00
Sat Flow, veh/h	1654	1737	2591	1513	1589	1346	3100	2336	793	1739	3469	1547
Grp Volume(v), veh/h	63	26	145	110	24	0	146	248	244	29	396	0
Grp Sat Flow(s),veh/h/ln	1654	1737	1295	1513	1589	1346	1550	1594	1535	1739	1735	1547
Q Serve(g_s), s	2.1	0.8	3.2	4.2	0.8	0.0	2.7	8.3	8.5	1.0	6.7	0.0
Cycle Q Clear(g_c), s	2.1	0.8	3.2	4.2	0.8	0.0	2.7	8.3	8.5	1.0	6.7	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.52	1.00		1.00
Lane Grp Cap(c), veh/h	258	271	404	217	228		453	460	443	55	604	
V/C Ratio(X)	0.24	0.10	0.36	0.51	0.11		0.32	0.54	0.55	0.53	0.66	
Avail Cap(c_a), veh/h	367	385	575	528	554		688	606	584	441	1429	
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	0.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	23.4	22.8	23.8	25.0	23.5	0.0	24.1	18.9	19.0	30.1	24.3	0.0
Incr Delay (d2), s/veh	0.5	0.2	0.5	1.8	0.2	0.0	0.4	1.0	1.1	7.7	1.2	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	0.8	0.3	1.0	1.6	0.3	0.0	0.9	2.9	2.8	0.5	2.6	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	23.9	23.0	24.4	26.8	23.7	0.0	24.5	19.9	20.0	37.7	25.5	0.0
LnGrp LOS	C	C	C	C	C		C	B	C	D	C	
Approach Vol, veh/h		234			134			638			425	
Approach Delay, s/veh		24.1			26.2			21.0			26.3	
Approach LOS		C			C			C			C	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	15.2	17.0		15.8	8.0	24.2		15.0				
Change Period (Y+Rc), s	6.0	6.0		6.0	6.0	6.0		6.0				
Max Green Setting (Gmax), s	14.0	26.0		14.0	16.0	24.0		22.0				
Max Q Clear Time (g_c+I1), s	4.7	8.7		5.2	3.0	10.5		6.2				
Green Ext Time (p_c), s	0.3	2.3		0.5	0.0	2.4		0.3				

Intersection Summary	
HCM 7th Control Delay, s/veh	23.6
HCM 7th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.
Unsignalized Delay for [WBR, SBR] is excluded from calculations of the approach delay and intersection delay.



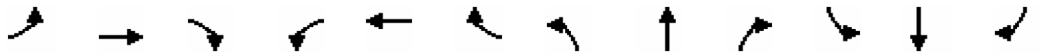
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	155	0	289	70	443	0	0	328	361
Future Volume (veh/h)	0	0	0	155	0	289	70	443	0	0	328	361
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Lane Width Adj.				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)				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
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1767	1767	1767	1722	1722	0	0	1752	1752
Adj Flow Rate, veh/h				161	0	0	73	461	0	0	342	0
Peak Hour Factor				0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %				9	9	9	12	12	0	0	10	10
Cap, veh/h				206	0		127	805	0	0	1258	
Arrive On Green				0.12	0.00	0.00	0.19	0.19	0.00	0.00	0.63	0.00
Sat Flow, veh/h				1682	0	1497	455	2966	0	0	3504	0
Grp Volume(v), veh/h				161	0	0	272	262	0	0	342	0
Grp Sat Flow(s),veh/h/ln				1682	0	1497	1699	1636	0	0	1664	0
Q Serve(g_s), s				6.3	0.0	0.0	9.9	9.9	0.0	0.0	3.1	0.0
Cycle Q Clear(g_c), s				6.3	0.0	0.0	9.9	9.9	0.0	0.0	3.1	0.0
Prop In Lane				1.00		1.00	0.27		0.00	0.00		0.00
Lane Grp Cap(c), veh/h				206	0		475	457	0	0	1258	
V/C Ratio(X)				0.78	0.00		0.57	0.57	0.00	0.00	0.27	
Avail Cap(c_a), veh/h				396	0		475	457	0	0	1258	
HCM Platoon Ratio				1.00	1.00	1.00	0.67	0.67	1.00	1.00	1.67	1.67
Upstream Filter(I)				1.00	0.00	0.00	0.84	0.84	0.00	0.00	0.93	0.00
Uniform Delay (d), s/veh				29.0	0.0	0.0	23.9	23.9	0.0	0.0	8.4	0.0
Incr Delay (d2), s/veh				6.4	0.0	0.0	4.2	4.3	0.0	0.0	0.5	0.0
Initial Q Delay(d3), s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				2.7	0.0	0.0	4.7	4.5	0.0	0.0	1.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh				35.4	0.0	0.0	28.1	28.3	0.0	0.0	8.9	0.0
LnGrp LOS				D			C	C			A	
Approach Vol, veh/h					161			534			342	
Approach Delay, s/veh					35.4			28.2			8.9	
Approach LOS					D			C			A	

Timer - Assigned Phs	2	4	6
Phs Duration (G+Y+Rc), s	30.7	13.3	24.0
Change Period (Y+Rc), s	5.0	5.0	5.0
Max Green Setting (Gmax), s	18.0	16.0	19.0
Max Q Clear Time (g_c+I1), s	5.1	8.3	11.9
Green Ext Time (p_c), s	1.7	0.4	1.9

Intersection Summary	
HCM 7th Control Delay, s/veh	22.9
HCM 7th LOS	C

Notes

Unsignalized Delay for [WBR, SBR] is excluded from calculations of the approach delay and intersection delay.



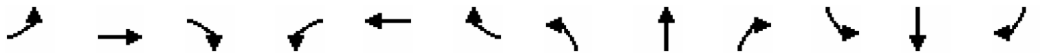
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	172	0	321	81	512	0	0	364	401
Future Volume (veh/h)	0	0	0	172	0	321	81	512	0	0	364	401
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Lane Width Adj.				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)				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
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1767	1767	1767	1722	1722	0	0	1752	1752
Adj Flow Rate, veh/h				179	0	0	84	533	0	0	379	0
Peak Hour Factor				0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %				9	9	9	12	12	0	0	10	10
Cap, veh/h				222	0		147	932	0	0	1077	
Arrive On Green				0.13	0.00	0.00	0.11	0.11	0.00	0.00	0.11	0.00
Sat Flow, veh/h				1682	0	1497	454	2968	0	0	3504	0
Grp Volume(v), veh/h				179	0	0	315	302	0	0	379	0
Grp Sat Flow(s),veh/h/ln				1682	0	1497	1699	1636	0	0	1664	0
Q Serve(g_s), s				7.0	0.0	0.0	12.0	12.0	0.0	0.0	7.2	0.0
Cycle Q Clear(g_c), s				7.0	0.0	0.0	12.0	12.0	0.0	0.0	7.2	0.0
Prop In Lane				1.00		1.00	0.27		0.00	0.00		0.00
Lane Grp Cap(c), veh/h				222	0		550	529	0	0	1077	
V/C Ratio(X)				0.80	0.00		0.57	0.57	0.00	0.00	0.35	
Avail Cap(c_a), veh/h				322	0		550	529	0	0	1077	
HCM Platoon Ratio				1.00	1.00	1.00	0.33	0.33	1.00	1.00	0.33	0.33
Upstream Filter(I)				1.00	0.00	0.00	0.78	0.78	0.00	0.00	0.90	0.00
Uniform Delay (d), s/veh				28.7	0.0	0.0	25.9	25.9	0.0	0.0	23.7	0.0
Incr Delay (d2), s/veh				9.2	0.0	0.0	3.4	3.5	0.0	0.0	0.8	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
%ile BackOfQ(50%),veh/ln				3.1	0.0	0.0	5.9	5.7	0.0	0.0	3.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh				37.9	0.0	0.0	29.3	29.4	0.0	0.0	24.6	0.0
LnGrp LOS				D			C	C			C	
Approach Vol, veh/h					179			617			379	
Approach Delay, s/veh					37.9			29.3			24.6	
Approach LOS					D			C			C	

Timer - Assigned Phs	2	4	6
Phs Duration (G+Y+Rc), s	27.0	14.0	27.0
Change Period (Y+Rc), s	5.0	5.0	5.0
Max Green Setting (Gmax), s	18.0	13.0	22.0
Max Q Clear Time (g_c+I1), s	9.2	9.0	14.0
Green Ext Time (p_c), s	1.5	0.3	2.5

Intersection Summary	
HCM 7th Control Delay, s/veh	29.1
HCM 7th LOS	C

Notes

Unsignalized Delay for [WBR, SBR] is excluded from calculations of the approach delay and intersection delay.



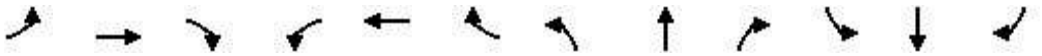
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	205	0	383	103	650	0	0	436	480
Future Volume (veh/h)	0	0	0	205	0	383	103	650	0	0	436	480
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Lane Width Adj.				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)				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
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1767	1767	1767	1722	1722	0	0	1752	1752
Adj Flow Rate, veh/h				214	0	0	107	677	0	0	454	0
Peak Hour Factor				0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %				9	9	9	12	12	0	0	10	10
Cap, veh/h				256	0		152	960	0	0	1019	
Arrive On Green				0.15	0.00	0.00	0.67	0.67	0.00	0.00	0.10	0.00
Sat Flow, veh/h				1682	0	1497	455	2966	0	0	3504	0
Grp Volume(v), veh/h				214	0	0	400	384	0	0	454	0
Grp Sat Flow(s),veh/h/ln				1682	0	1497	1699	1636	0	0	1664	0
Q Serve(g_s), s				8.9	0.0	0.0	10.7	10.6	0.0	0.0	9.2	0.0
Cycle Q Clear(g_c), s				8.9	0.0	0.0	10.7	10.6	0.0	0.0	9.2	0.0
Prop In Lane				1.00		1.00	0.27		0.00	0.00		0.00
Lane Grp Cap(c), veh/h				256	0		566	545	0	0	1019	
V/C Ratio(X)				0.84	0.00		0.71	0.70	0.00	0.00	0.45	
Avail Cap(c_a), veh/h				304	0		566	545	0	0	1019	
HCM Platoon Ratio				1.00	1.00	1.00	2.00	2.00	1.00	1.00	0.33	0.33
Upstream Filter(I)				1.00	0.00	0.00	0.57	0.57	0.00	0.00	0.87	0.00
Uniform Delay (d), s/veh				29.7	0.0	0.0	9.8	9.8	0.0	0.0	26.6	0.0
Incr Delay (d2), s/veh				15.9	0.0	0.0	4.2	4.4	0.0	0.0	1.2	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
%ile BackOfQ(50%),veh/ln				4.4	0.0	0.0	3.1	3.0	0.0	0.0	4.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh				45.5	0.0	0.0	14.0	14.1	0.0	0.0	27.8	0.0
LnGrp LOS				D			B	B			C	
Approach Vol, veh/h					214			784			454	
Approach Delay, s/veh					45.5			14.1			27.8	
Approach LOS					D			B			C	

Timer - Assigned Phs	2	4	6
Phs Duration (G+Y+Rc), s	27.1	15.9	29.0
Change Period (Y+Rc), s	5.0	5.0	5.0
Max Green Setting (Gmax), s	20.0	13.0	24.0
Max Q Clear Time (g_c+I1), s	11.2	10.9	12.7
Green Ext Time (p_c), s	1.9	0.2	4.0

Intersection Summary	
HCM 7th Control Delay, s/veh	23.0
HCM 7th LOS	C

Notes

Unsignalized Delay for [WBR, SBR] is excluded from calculations of the approach delay and intersection delay.



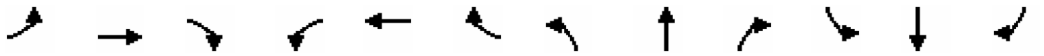
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	158	465	19	117	425	91	16	88	128	84	41	102
Future Volume (veh/h)	158	465	19	117	425	91	16	88	128	84	41	102
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
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	1856	1856	1856	1870	1870	1870	1885	1885	1885	1856	1856	1856
Adj Flow Rate, veh/h	161	474	19	119	434	93	16	90	131	86	42	104
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	3	3	3	2	2	2	1	1	1	3	3	3
Cap, veh/h	444	889	36	428	720	153	397	176	256	335	120	297
Arrive On Green	0.10	0.26	0.26	0.07	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25
Sat Flow, veh/h	1767	3455	138	1781	2916	620	1252	694	1010	1151	473	1172
Grp Volume(v), veh/h	161	241	252	119	263	264	16	0	221	86	0	146
Grp Sat Flow(s),veh/h/ln	1767	1763	1831	1781	1777	1759	1252	0	1703	1151	0	1645
Q Serve(g_s), s	2.8	5.0	5.0	2.0	5.5	5.6	0.4	0.0	4.7	2.9	0.0	3.1
Cycle Q Clear(g_c), s	2.8	5.0	5.0	2.0	5.5	5.6	3.5	0.0	4.7	7.6	0.0	3.1
Prop In Lane	1.00		0.08	1.00		0.35	1.00		0.59	1.00		0.71
Lane Grp Cap(c), veh/h	444	454	471	428	439	434	397	0	432	335	0	417
V/C Ratio(X)	0.36	0.53	0.53	0.28	0.60	0.61	0.04	0.00	0.51	0.26	0.00	0.35
Avail Cap(c_a), veh/h	589	1031	1070	593	1013	1003	1017	0	1275	907	0	1235
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	0.00	1.00
Uniform Delay (d), s/veh	10.4	13.4	13.5	10.7	14.0	14.0	14.3	0.0	13.5	16.7	0.0	12.9
Incr Delay (d2), s/veh	0.5	1.0	0.9	0.4	1.3	1.4	0.0	0.0	0.9	0.4	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	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	1.7	1.8	0.7	1.9	1.9	0.1	0.0	1.5	0.7	0.0	1.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	10.9	14.4	14.4	11.0	15.3	15.4	14.3	0.0	14.4	17.1	0.0	13.4
LnGrp LOS	B	B	B	B	B	B	B		B	B		B
Approach Vol, veh/h		654			646			237			232	
Approach Delay, s/veh		13.5			14.6			14.4			14.8	
Approach LOS		B			B			B			B	

Timer - Assigned Phs	2	3	4	6	7	8
Phs Duration (G+Y+Rc), s	16.2	9.5	16.4	16.2	9.1	16.8
Change Period (Y+Rc), s	* 5.5	5.4	6.0	5.5	6.0	* 6
Max Green Setting (Gmax), s	* 32	7.6	24.0	31.5	7.0	* 25
Max Q Clear Time (g_c+I1), s	9.6	4.8	7.6	6.7	4.0	7.0
Green Ext Time (p_c), s	1.1	0.1	2.8	1.3	0.1	2.6

Intersection Summary	
HCM 7th Control Delay, s/veh	14.2
HCM 7th LOS	B

Notes

* HCM 7th computational engine requires equal clearance times for the phases crossing the barrier.



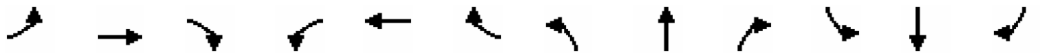
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	114	430	60	194	251	60	39	309	258	84	295	77
Future Volume (veh/h)	114	430	60	194	251	60	39	309	258	84	295	77
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
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	1856	1856	1856	1856	1856	1856	1841	1841	1841	1796	1796	1796
Adj Flow Rate, veh/h	119	448	62	202	261	62	41	322	269	88	307	80
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	3	3	3	3	3	3	4	4	4	7	7	7
Cap, veh/h	306	545	75	274	639	149	688	626	512	629	921	236
Arrive On Green	0.06	0.17	0.17	0.11	0.23	0.23	0.44	0.69	0.69	0.22	0.34	0.34
Sat Flow, veh/h	1767	3113	428	1767	2837	662	1753	1827	1493	1711	2689	690
Grp Volume(v), veh/h	119	253	257	202	160	163	41	308	283	88	193	194
Grp Sat Flow(s),veh/h/ln	1767	1763	1778	1767	1763	1736	1753	1749	1572	1711	1706	1672
Q Serve(g_s), s	7.5	18.8	19.0	12.3	10.5	10.9	0.0	11.6	12.0	0.0	11.4	11.7
Cycle Q Clear(g_c), s	7.5	18.8	19.0	12.3	10.5	10.9	0.0	11.6	12.0	0.0	11.4	11.7
Prop In Lane	1.00		0.24	1.00		0.38	1.00		0.95	1.00		0.41
Lane Grp Cap(c), veh/h	306	308	311	274	397	391	688	599	539	629	585	573
V/C Ratio(X)	0.39	0.82	0.83	0.74	0.40	0.42	0.06	0.51	0.53	0.14	0.33	0.34
Avail Cap(c_a), veh/h	306	516	520	354	684	674	688	599	539	629	585	573
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.93	0.93	0.93	1.00	1.00	1.00
Uniform Delay (d), s/veh	43.0	54.0	54.1	40.0	44.9	45.1	13.9	15.9	16.0	21.2	33.1	33.2
Incr Delay (d2), s/veh	0.8	5.4	5.6	5.7	0.7	0.7	0.0	2.9	3.4	0.1	1.5	1.6
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	3.4	8.7	8.9	5.8	4.7	4.8	0.5	4.1	3.8	1.7	5.0	5.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	43.8	59.4	59.7	45.7	45.6	45.8	13.9	18.8	19.4	21.3	34.6	34.8
LnGrp LOS	D	E	E	D	D	D	B	B	B	C	C	C
Approach Vol, veh/h		629			525			632			475	
Approach Delay, s/veh		56.6			45.7			18.7			32.3	
Approach LOS		E			D			B			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	35.2	52.0	19.8	29.0	35.2	52.0	13.0	35.8
Change Period (Y+Rc), s	5.4	* 5.4	5.2	5.2	* 5.4	5.4	5.2	5.2
Max Green Setting (Gmax), s	7.6	* 47	20.8	39.8	* 7.6	46.6	7.8	52.8
Max Q Clear Time (g_c+I1), s	2.0	14.0	14.3	21.0	2.0	13.7	9.5	12.9
Green Ext Time (p_c), s	0.1	4.4	0.3	2.8	0.0	2.4	0.0	2.0

Intersection Summary	
HCM 7th Control Delay, s/veh	38.4
HCM 7th LOS	D

Notes

* HCM 7th computational engine requires equal clearance times for the phases crossing the barrier.



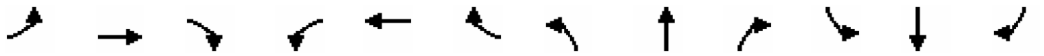
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	134	504	71	206	266	64	46	365	305	97	344	90
Future Volume (veh/h)	134	504	71	206	266	64	46	365	305	97	344	90
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
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	1856	1856	1856	1856	1856	1856	1841	1841	1841	1796	1796	1796
Adj Flow Rate, veh/h	140	525	74	215	277	67	48	380	318	101	358	94
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	3	3	3	3	3	3	4	4	4	7	7	7
Cap, veh/h	342	621	87	279	662	157	499	889	736	342	1348	349
Arrive On Green	0.08	0.20	0.20	0.11	0.23	0.23	0.01	0.16	0.16	0.04	0.50	0.50
Sat Flow, veh/h	1767	3104	436	1767	2826	672	1753	1816	1503	1711	2682	695
Grp Volume(v), veh/h	140	297	302	215	171	173	48	366	332	101	226	226
Grp Sat Flow(s),veh/h/ln	1767	1763	1777	1767	1763	1735	1753	1749	1570	1711	1706	1671
Q Serve(g_s), s	8.5	22.1	22.2	12.8	11.2	11.5	1.8	25.6	25.9	4.0	10.3	10.6
Cycle Q Clear(g_c), s	8.5	22.1	22.2	12.8	11.2	11.5	1.8	25.6	25.9	4.0	10.3	10.6
Prop In Lane	1.00		0.25	1.00		0.39	1.00		0.96	1.00		0.42
Lane Grp Cap(c), veh/h	342	353	356	279	413	406	499	856	769	342	857	840
V/C Ratio(X)	0.41	0.84	0.85	0.77	0.41	0.43	0.10	0.43	0.43	0.30	0.26	0.27
Avail Cap(c_a), veh/h	347	490	494	353	620	610	517	856	769	413	857	840
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.89	0.89	0.89	1.00	1.00	1.00
Uniform Delay (d), s/veh	38.8	52.3	52.4	38.3	44.2	44.3	16.7	39.8	40.0	18.6	19.4	19.5
Incr Delay (d2), s/veh	0.8	9.3	9.7	7.9	0.7	0.7	0.1	1.4	1.6	0.5	0.8	0.8
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	3.7	10.6	10.8	6.1	5.0	5.0	0.8	12.4	11.3	1.6	4.3	4.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	39.6	61.6	62.1	46.2	44.8	45.0	16.8	41.2	41.6	19.1	20.2	20.3
LnGrp LOS	D	E	E	D	D	D	B	D	D	B	C	C
Approach Vol, veh/h		739			559			746			553	
Approach Delay, s/veh		57.6			45.4			39.8			20.0	
Approach LOS		E			D			D			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.3	72.0	20.3	32.4	9.6	73.7	15.6	37.1
Change Period (Y+Rc), s	* 5.4	5.4	5.2	5.2	5.4	* 5.4	5.2	5.2
Max Green Setting (Gmax), s	* 12	44.6	20.8	37.8	5.6	* 51	10.8	47.8
Max Q Clear Time (g_c+I1), s	6.0	27.9	14.8	24.2	3.8	12.6	10.5	13.5
Green Ext Time (p_c), s	0.1	4.4	0.3	3.0	0.0	2.9	0.0	2.1

Intersection Summary	
HCM 7th Control Delay, s/veh	41.9
HCM 7th LOS	D

Notes

* HCM 7th 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)	173	651	92	229	269	71	60	476	398	125	443	116
Future Volume (veh/h)	173	651	92	229	269	71	60	476	398	125	443	116
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
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	1856	1856	1856	1856	1856	1856	1841	1841	1841	1796	1796	1796
Adj Flow Rate, veh/h	180	678	96	239	280	74	62	496	415	130	461	121
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	3	3	3	3	3	3	4	4	4	7	7	7
Cap, veh/h	393	759	107	276	769	200	443	771	644	273	1016	265
Arrive On Green	0.08	0.24	0.24	0.11	0.28	0.28	0.23	0.85	0.85	0.07	0.38	0.38
Sat Flow, veh/h	1767	3101	439	1767	2770	719	1753	1807	1511	1711	2679	698
Grp Volume(v), veh/h	180	385	389	239	176	178	62	480	431	130	292	290
Grp Sat Flow(s),veh/h/ln	1767	1763	1777	1767	1763	1726	1753	1749	1569	1711	1706	1671
Q Serve(g_s), s	11.0	30.4	30.5	14.2	11.6	11.9	0.0	12.9	12.9	7.6	18.5	18.7
Cycle Q Clear(g_c), s	11.0	30.4	30.5	14.2	11.6	11.9	0.0	12.9	12.9	7.6	18.5	18.7
Prop In Lane	1.00		0.25	1.00		0.42	1.00		0.96	1.00		0.42
Lane Grp Cap(c), veh/h	393	431	435	276	489	479	443	746	669	273	647	633
V/C Ratio(X)	0.46	0.89	0.89	0.87	0.36	0.37	0.14	0.64	0.64	0.48	0.45	0.46
Avail Cap(c_a), veh/h	393	487	491	353	622	609	443	746	669	285	647	633
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.78	0.78	0.78	1.00	1.00	1.00
Uniform Delay (d), s/veh	36.6	52.6	52.6	37.5	41.7	41.9	28.4	7.0	7.0	33.4	33.5	33.6
Incr Delay (d2), s/veh	0.8	17.2	17.4	16.4	0.4	0.5	0.1	3.3	3.7	1.3	2.3	2.4
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	4.9	15.4	15.6	7.4	5.1	5.2	1.4	3.4	3.1	3.3	8.1	8.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	37.4	69.8	69.9	53.9	42.2	42.4	28.6	10.3	10.7	34.6	35.8	35.9
LnGrp LOS	D	E	E	D	D	D	C	B	B	C	D	D
Approach Vol, veh/h		954			593			973			712	
Approach Delay, s/veh		63.7			47.0			11.7			35.6	
Approach LOS		E			D			B			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	15.0	66.8	21.7	40.4	21.8	60.0	17.0	45.2
Change Period (Y+Rc), s	* 5.4	5.4	5.2	5.2	* 5.4	5.4	5.2	5.2
Max Green Setting (Gmax), s	* 11	49.6	22.8	39.8	* 5.6	54.6	11.8	50.8
Max Q Clear Time (g_c+I1), s	9.6	14.9	16.2	32.5	2.0	20.7	13.0	13.9
Green Ext Time (p_c), s	0.0	7.8	0.4	2.7	0.0	3.8	0.0	2.2

Intersection Summary	
HCM 7th Control Delay, s/veh	38.8
HCM 7th LOS	D

Notes

* HCM 7th computational engine requires equal clearance times for the phases crossing the barrier.

Intersection	
Int Delay, s/veh	8.6

Movement	EBT	EBR	WBL	WBT	NWL	NWR
Lane Configurations						
Traffic Vol, veh/h	561	54	102	399	98	178
Future Vol, veh/h	561	54	102	399	98	178
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	Free	-	None	-	None
Storage Length	-	275	275	-	0	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	89	89	89	89	89	89
Heavy Vehicles, %	5	5	9	9	6	6
Mvmt Flow	630	61	115	448	110	200

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	-	630	0	1308	630
Stage 1	-	-	-	-	630	-
Stage 2	-	-	-	-	678	-
Critical Hdwy	-	-	4.19	-	6.46	6.26
Critical Hdwy Stg 1	-	-	-	-	5.46	-
Critical Hdwy Stg 2	-	-	-	-	5.46	-
Follow-up Hdwy	-	-	2.281	-	3.554	3.354
Pot Cap-1 Maneuver	-	0	919	-	173	474
Stage 1	-	0	-	-	523	-
Stage 2	-	0	-	-	497	-
Platoon blocked, %	-			-		
Mov Cap-1 Maneuver	-	-	919	-	151	474
Mov Cap-2 Maneuver	-	-	-	-	151	-
Stage 1	-	-	-	-	523	-
Stage 2	-	-	-	-	435	-

Approach	EB	WB	NW
HCM Ctrl Dly, s/v	0	1.93	38.34
HCM LOS			E

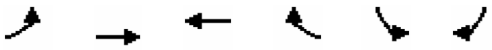
Minor Lane/Major Mvmt	NWLn1	NWLn2	EBT	WBL	WBT
Capacity (veh/h)	151	474	-	919	-
HCM Lane V/C Ratio	0.729	0.422	-	0.125	-
HCM Ctrl Dly (s/v)	75.3	18	-	9.5	-
HCM Lane LOS	F	C	-	A	-
HCM 95th %tile Q(veh)	4.4	2.1	-	0.4	-



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	38	170	172	105	76	32
Future Volume (veh/h)	38	170	172	105	76	32
Initial Q (Qb), veh	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00
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	1885	1885	1856	1856	1826	1826
Adj Flow Rate, veh/h	41	183	185	113	82	34
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	1	1	3	3	5	5
Cap, veh/h	71	1711	474	276	152	238
Arrive On Green	0.04	0.48	0.22	0.22	0.09	0.09
Sat Flow, veh/h	1795	3676	2239	1248	1739	2723
Grp Volume(v), veh/h	41	183	150	148	82	34
Grp Sat Flow(s),veh/h/ln	1795	1791	1763	1631	1739	1362
Q Serve(g_s), s	0.6	0.7	1.9	2.0	1.2	0.3
Cycle Q Clear(g_c), s	0.6	0.7	1.9	2.0	1.2	0.3
Prop In Lane	1.00			0.77	1.00	1.00
Lane Grp Cap(c), veh/h	71	1711	390	360	152	238
V/C Ratio(X)	0.58	0.11	0.39	0.41	0.54	0.14
Avail Cap(c_a), veh/h	516	5755	1943	1797	2186	3424
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	12.2	3.7	8.5	8.6	11.3	10.9
Incr Delay (d2), s/veh	7.3	0.0	0.6	0.7	2.9	0.3
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	0.1	0.5	0.5	0.4	0.1
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	19.4	3.7	9.2	9.3	14.2	11.1
LnGrp LOS	B	A	A	A	B	B
Approach Vol, veh/h		224	298		116	
Approach Delay, s/veh		6.6	9.3		13.3	
Approach LOS		A	A		B	

Timer - Assigned Phs	2	3	4		8
Phs Duration (G+Y+Rc), s	7.9	6.6	11.3		17.9
Change Period (Y+Rc), s	5.6	5.6	5.6		5.6
Max Green Setting (Gmax), s	32.4	7.4	28.4		41.4
Max Q Clear Time (g_c+I1), s	3.2	2.6	4.0		2.7
Green Ext Time (p_c), s	0.3	0.0	1.7		1.2

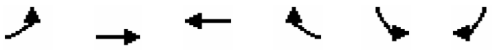
Intersection Summary	
HCM 7th Control Delay, s/veh	9.1
HCM 7th LOS	A



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	49	218	212	129	97	41
Future Volume (veh/h)	49	218	212	129	97	41
Initial Q (Qb), veh	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00
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	1885	1885	1856	1856	1826	1826
Adj Flow Rate, veh/h	53	234	228	139	104	44
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	1	1	3	3	5	5
Cap, veh/h	87	1777	525	307	172	270
Arrive On Green	0.05	0.50	0.25	0.25	0.10	0.10
Sat Flow, veh/h	1795	3676	2232	1253	1739	2723
Grp Volume(v), veh/h	53	234	186	181	104	44
Grp Sat Flow(s),veh/h/ln	1795	1791	1763	1630	1739	1362
Q Serve(g_s), s	0.8	1.0	2.5	2.6	1.6	0.4
Cycle Q Clear(g_c), s	0.8	1.0	2.5	2.6	1.6	0.4
Prop In Lane	1.00			0.77	1.00	1.00
Lane Grp Cap(c), veh/h	87	1777	432	400	172	270
V/C Ratio(X)	0.61	0.13	0.43	0.45	0.60	0.16
Avail Cap(c_a), veh/h	545	5750	1937	1791	2163	3387
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	12.9	3.8	8.8	8.9	11.9	11.4
Incr Delay (d2), s/veh	6.8	0.0	0.7	0.8	3.4	0.3
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	0.1	0.6	0.6	0.6	0.1
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	19.7	3.8	9.5	9.7	15.3	11.7
LnGrp LOS	B	A	A	A	B	B
Approach Vol, veh/h		287	367		148	
Approach Delay, s/veh		6.7	9.6		14.2	
Approach LOS		A	A		B	

Timer - Assigned Phs		2	3	4		8
Phs Duration (G+Y+Rc), s		8.3	6.9	12.4		19.3
Change Period (Y+Rc), s		5.6	5.6	5.6		5.6
Max Green Setting (Gmax), s		34.4	8.4	30.4		44.4
Max Q Clear Time (g_c+I1), s		3.6	2.8	4.6		3.0
Green Ext Time (p_c), s		0.4	0.0	2.2		1.6

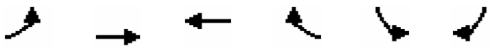
Intersection Summary	
HCM 7th Control Delay, s/veh	9.4
HCM 7th LOS	A



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	56	252	240	147	112	47
Future Volume (veh/h)	56	252	240	147	112	47
Initial Q (Qb), veh	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00
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	1885	1885	1856	1856	1826	1826
Adj Flow Rate, veh/h	60	271	258	158	120	51
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	1	1	3	3	5	5
Cap, veh/h	95	1804	553	328	198	311
Arrive On Green	0.05	0.50	0.26	0.26	0.11	0.11
Sat Flow, veh/h	1795	3676	2223	1261	1739	2723
Grp Volume(v), veh/h	60	271	212	204	120	51
Grp Sat Flow(s),veh/h/ln	1795	1791	1763	1629	1739	1362
Q Serve(g_s), s	1.0	1.2	3.0	3.1	1.9	0.5
Cycle Q Clear(g_c), s	1.0	1.2	3.0	3.1	1.9	0.5
Prop In Lane	1.00			0.77	1.00	1.00
Lane Grp Cap(c), veh/h	95	1804	458	423	198	311
V/C Ratio(X)	0.63	0.15	0.46	0.48	0.60	0.16
Avail Cap(c_a), veh/h	515	5428	1829	1690	2042	3198
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	13.6	3.9	9.1	9.2	12.3	11.7
Incr Delay (d2), s/veh	6.8	0.0	0.7	0.9	2.9	0.2
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	0.1	0.8	0.8	0.7	0.1
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	20.4	3.9	9.9	10.0	15.3	12.0
LnGrp LOS	C	A	A	B	B	B
Approach Vol, veh/h		331	416		171	
Approach Delay, s/veh		6.9	9.9		14.3	
Approach LOS		A	A		B	

Timer - Assigned Phs	2	3	4			8
Phs Duration (G+Y+Rc), s	8.9	7.1	13.2			20.4
Change Period (Y+Rc), s	5.6	5.6	5.6			5.6
Max Green Setting (Gmax), s	34.4	8.4	30.4			44.4
Max Q Clear Time (g_c+I1), s	3.9	3.0	5.1			3.2
Green Ext Time (p_c), s	0.5	0.0	2.5			1.8

Intersection Summary	
HCM 7th Control Delay, s/veh	9.7
HCM 7th LOS	A



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	71	320	297	181	143	60
Future Volume (veh/h)	71	320	297	181	143	60
Initial Q (Qb), veh	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00
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	1885	1885	1856	1856	1826	1826
Adj Flow Rate, veh/h	76	344	319	195	154	65
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	1	1	3	3	5	5
Cap, veh/h	109	1853	608	363	248	388
Arrive On Green	0.06	0.52	0.29	0.29	0.14	0.14
Sat Flow, veh/h	1795	3676	2215	1268	1739	2723
Grp Volume(v), veh/h	76	344	264	250	154	65
Grp Sat Flow(s),veh/h/ln	1795	1791	1763	1627	1739	1362
Q Serve(g_s), s	1.4	1.7	4.1	4.3	2.7	0.7
Cycle Q Clear(g_c), s	1.4	1.7	4.1	4.3	2.7	0.7
Prop In Lane	1.00			0.78	1.00	1.00
Lane Grp Cap(c), veh/h	109	1853	505	466	248	388
V/C Ratio(X)	0.70	0.19	0.52	0.54	0.62	0.17
Avail Cap(c_a), veh/h	512	4938	1627	1502	1764	2762
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	15.2	4.2	9.9	9.9	13.3	12.4
Incr Delay (d2), s/veh	7.7	0.0	0.8	1.0	2.5	0.2
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	0.3	1.2	1.1	1.0	0.2
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	22.9	4.3	10.7	10.9	15.8	12.6
LnGrp LOS	C	A	B	B	B	B
Approach Vol, veh/h		420	514		219	
Approach Delay, s/veh		7.7	10.8		14.9	
Approach LOS		A	B		B	

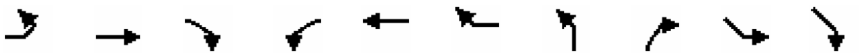
Timer - Assigned Phs	2	3	4	8
Phs Duration (G+Y+Rc), s	10.3	7.6	15.0	22.6
Change Period (Y+Rc), s	5.6	5.6	5.6	5.6
Max Green Setting (Gmax), s	33.4	9.4	30.4	45.4
Max Q Clear Time (g_c+I1), s	4.7	3.4	6.3	3.7
Green Ext Time (p_c), s	0.7	0.1	3.2	2.4

Intersection Summary	
HCM 7th Control Delay, s/veh	10.4
HCM 7th LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	180	89	6	19	46	59	8	141	58	103	49	142
Future Volume (veh/h)	180	89	6	19	46	59	8	141	58	103	49	142
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
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	1885	1885	1885	1870	1870	1870	1870	1870	1870	1856	1856	1856
Adj Flow Rate, veh/h	194	96	6	20	49	63	9	152	62	111	53	153
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	1	1	1	2	2	2	2	2	2	3	3	3
Cap, veh/h	292	307	260	49	119	138	18	303	119	197	94	255
Arrive On Green	0.16	0.16	0.16	0.09	0.09	0.09	0.12	0.12	0.12	0.16	0.16	0.16
Sat Flow, veh/h	1795	1885	1598	548	1337	1550	148	2450	962	1215	580	1572
Grp Volume(v), veh/h	194	96	6	67	0	65	114	0	109	164	0	153
Grp Sat Flow(s),veh/h/ln	1795	1885	1598	1843	0	1591	1863	0	1697	1795	0	1572
Q Serve(g_s), s	4.6	2.0	0.1	1.6	0.0	1.8	2.6	0.0	2.7	3.8	0.0	4.1
Cycle Q Clear(g_c), s	4.6	2.0	0.1	1.6	0.0	1.8	2.6	0.0	2.7	3.8	0.0	4.1
Prop In Lane	1.00		1.00	0.30		0.97	0.08		0.57	0.68		1.00
Lane Grp Cap(c), veh/h	292	307	260	164	0	142	231	0	210	291	0	255
V/C Ratio(X)	0.66	0.31	0.02	0.41	0.00	0.46	0.49	0.00	0.52	0.56	0.00	0.60
Avail Cap(c_a), veh/h	988	1037	879	1014	0	875	1025	0	933	1224	0	1072
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	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	17.9	16.8	16.0	19.6	0.0	19.7	18.6	0.0	18.6	17.6	0.0	17.7
Incr Delay (d2), s/veh	2.6	0.6	0.0	1.6	0.0	2.3	1.6	0.0	2.0	1.7	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	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.8	0.8	0.0	0.7	0.0	0.7	1.1	0.0	1.1	1.5	0.0	1.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	20.4	17.4	16.0	21.2	0.0	21.9	20.2	0.0	20.6	19.3	0.0	19.9
LnGrp LOS	C	B	B	C		C	C		C	B		B
Approach Vol, veh/h		296			132			223			317	
Approach Delay, s/veh		19.3			21.6			20.4			19.6	
Approach LOS		B			C			C			B	

Timer - Assigned Phs	2	4	6	8
Phs Duration (G+Y+Rc), s	13.4	12.4	10.6	9.1
Change Period (Y+Rc), s	6.0	5.0	5.0	5.0
Max Green Setting (Gmax), s	31.0	25.0	25.0	25.0
Max Q Clear Time (g_c+I1), s	6.1	6.6	4.7	3.8
Green Ext Time (p_c), s	1.4	1.0	1.2	0.6

Intersection Summary	
HCM 7th Control Delay, s/veh	20.0
HCM 7th LOS	B



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBR	SEL	SER
Lane Configurations										
Traffic Volume (veh/h)	390	3	45	0	0	0	248	19	315	50
Future Volume (veh/h)	390	3	45	0	0	0	248	19	315	50
Initial Q (Qb), veh	0	0	0				0	0	0	0
Lane Width Adj.	1.00	1.00	1.00				1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	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
Work Zone On Approach		No					No		No	
Adj Sat Flow, veh/h/ln	1796	1796	1796				1856	1856	1870	1870
Adj Flow Rate, veh/h	466	0	0				286	0	339	54
Peak Hour Factor	0.93	0.93	0.93				0.93	0.93	0.93	0.93
Percent Heavy Veh, %	7	7	7				3	3	2	2
Cap, veh/h	1305	685	0				701	0	0	0
Arrive On Green	0.38	0.00	0.00				0.20	0.00	0.00	0.00
Sat Flow, veh/h	3421	1796	0				3534		0	
Grp Volume(v), veh/h	466	0	0				286		0.0	
Grp Sat Flow(s),veh/h/ln	1711	1796	0				1767			
Q Serve(g_s), s	2.5	0.0	0.0				1.8			
Cycle Q Clear(g_c), s	2.5	0.0	0.0				1.8			
Prop In Lane	1.00		0.00				1.00			
Lane Grp Cap(c), veh/h	1305	685	0				701			
V/C Ratio(X)	0.36	0.00	0.00				0.41			
Avail Cap(c_a), veh/h	5413	2842	0				3574			
HCM Platoon Ratio	1.00	1.00	1.00				1.00			
Upstream Filter(I)	1.00	0.00	0.00				1.00			
Uniform Delay (d), s/veh	5.6	0.0	0.0				8.8			
Incr Delay (d2), s/veh	0.2	0.0	0.0				0.4			
Initial Q Delay(d3), s/veh	0.0	0.0	0.0				0.0			
%ile BackOfQ(50%),veh/ln	0.2	0.0	0.0				0.4			
Unsig. Movement Delay, s/veh										
LnGrp Delay(d), s/veh	5.8	0.0	0.0				9.2			
LnGrp LOS	A						A			
Approach Vol, veh/h		466					286			
Approach Delay, s/veh		5.8					9.2			
Approach LOS		A					A			

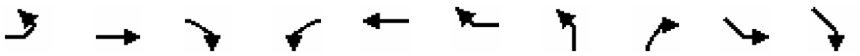
Timer - Assigned Phs	4	5
Phs Duration (G+Y+Rc), s	14.7	10.5
Change Period (Y+Rc), s	* 5.1	5.5
Max Green Setting (Gmax), s	* 40	25.5
Max Q Clear Time (g_c+I1), s	4.5	3.8
Green Ext Time (p_c), s	1.7	0.9

Intersection Summary	
HCM 7th Control Delay, s/veh	7.1
HCM 7th LOS	A

Notes

User approved volume balancing among the lanes for turning movement.

* HCM 7th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBR	SEL	SER
Lane Configurations										
Traffic Volume (veh/h)	462	3	53	0	0	0	297	23	364	58
Future Volume (veh/h)	462	3	53	0	0	0	297	23	364	58
Initial Q (Qb), veh	0	0	0				0	0	0	0
Lane Width Adj.	1.00	1.00	1.00				1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	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
Work Zone On Approach		No					No		No	
Adj Sat Flow, veh/h/ln	1796	1796	1796				1856	1856	1870	1870
Adj Flow Rate, veh/h	552	0	0				342	0	391	62
Peak Hour Factor	0.93	0.93	0.93				0.93	0.93	0.93	0.93
Percent Heavy Veh, %	7	7	7				3	3	2	2
Cap, veh/h	1304	684	0				732	0	0	0
Arrive On Green	0.38	0.00	0.00				0.21	0.00	0.00	0.00
Sat Flow, veh/h	3421	1796	0				3534		0	
Grp Volume(v), veh/h	552	0	0				342		0.0	
Grp Sat Flow(s),veh/h/ln	1711	1796	0				1767			
Q Serve(g_s), s	3.1	0.0	0.0				2.2			
Cycle Q Clear(g_c), s	3.1	0.0	0.0				2.2			
Prop In Lane	1.00		0.00				1.00			
Lane Grp Cap(c), veh/h	1304	684	0				732			
V/C Ratio(X)	0.42	0.00	0.00				0.47			
Avail Cap(c_a), veh/h	5304	2785	0				3502			
HCM Platoon Ratio	1.00	1.00	1.00				1.00			
Upstream Filter(I)	1.00	0.00	0.00				1.00			
Uniform Delay (d), s/veh	5.9	0.0	0.0				9.0			
Incr Delay (d2), s/veh	0.2	0.0	0.0				0.5			
Initial Q Delay(d3), s/veh	0.0	0.0	0.0				0.0			
%ile BackOfQ(50%),veh/ln	0.3	0.0	0.0				0.5			
Unsig. Movement Delay, s/veh										
LnGrp Delay(d), s/veh	6.1	0.0	0.0				9.4			
LnGrp LOS	A						A			
Approach Vol, veh/h		552					342			
Approach Delay, s/veh		6.1					9.4			
Approach LOS		A					A			

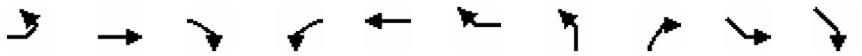
Timer - Assigned Phs	4	5
Phs Duration (G+Y+Rc), s	14.9	10.8
Change Period (Y+Rc), s	* 5.1	5.5
Max Green Setting (Gmax), s	* 40	25.5
Max Q Clear Time (g_c+I1), s	5.1	4.2
Green Ext Time (p_c), s	2.0	1.1

Intersection Summary	
HCM 7th Control Delay, s/veh	7.4
HCM 7th LOS	A

Notes

User approved volume balancing among the lanes for turning movement.

* HCM 7th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBR	SEL	SER
Lane Configurations										
Traffic Volume (veh/h)	607	4	69	0	0	0	395	31	462	73
Future Volume (veh/h)	607	4	69	0	0	0	395	31	462	73
Initial Q (Qb), veh	0	0	0				0	0	0	0
Lane Width Adj.	1.00	1.00	1.00				1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	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
Work Zone On Approach		No					No		No	
Adj Sat Flow, veh/h/ln	1796	1796	1796				1856	1856	1870	1870
Adj Flow Rate, veh/h	725	0	0				456	0	497	78
Peak Hour Factor	0.93	0.93	0.93				0.93	0.93	0.93	0.93
Percent Heavy Veh, %	7	7	7				3	3	2	2
Cap, veh/h	1254	658	0				861	0	0	0
Arrive On Green	0.37	0.00	0.00				0.24	0.00	0.00	0.00
Sat Flow, veh/h	3421	1796	0				3534		0	
Grp Volume(v), veh/h	725	0	0				456		0.0	
Grp Sat Flow(s),veh/h/ln	1711	1796	0				1767			
Q Serve(g_s), s	4.6	0.0	0.0				3.0			
Cycle Q Clear(g_c), s	4.6	0.0	0.0				3.0			
Prop In Lane	1.00		0.00				1.00			
Lane Grp Cap(c), veh/h	1254	658	0				861			
V/C Ratio(X)	0.58	0.00	0.00				0.53			
Avail Cap(c_a), veh/h	5023	2637	0				3316			
HCM Platoon Ratio	1.00	1.00	1.00				1.00			
Upstream Filter(I)	1.00	0.00	0.00				1.00			
Uniform Delay (d), s/veh	6.9	0.0	0.0				8.9			
Incr Delay (d2), s/veh	0.4	0.0	0.0				0.5			
Initial Q Delay(d3), s/veh	0.0	0.0	0.0				0.0			
%ile BackOfQ(50%),veh/ln	0.6	0.0	0.0				0.7			
Unsig. Movement Delay, s/veh										
LnGrp Delay(d), s/veh	7.3	0.0	0.0				9.4			
LnGrp LOS	A						A			
Approach Vol, veh/h		725					456			
Approach Delay, s/veh		7.3					9.4			
Approach LOS		A					A			

Timer - Assigned Phs	4	5
Phs Duration (G+Y+Rc), s	15.1	12.1
Change Period (Y+Rc), s	* 5.1	5.5
Max Green Setting (Gmax), s	* 40	25.5
Max Q Clear Time (g_c+I1), s	6.6	5.0
Green Ext Time (p_c), s	2.8	1.6

Intersection Summary	
HCM 7th Control Delay, s/veh	8.2
HCM 7th LOS	A

Notes

User approved volume balancing among the lanes for turning movement.

* HCM 7th computational engine requires equal clearance times for the phases crossing the barrier.

HCM 7th Edition methodology does not support Non-NEMA phasing.

HCM 7th Edition methodology does not support Non-NEMA phasing.

HCM 7th Edition methodology does not support Non-NEMA phasing.

HCM 7th Edition methodology does not support Non-NEMA phasing.

Intersection	
Int Delay, s/veh	4.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	11	343	17	96	319	5	17	38	65	3	28	13
Future Vol, veh/h	11	343	17	96	319	5	17	38	65	3	28	13
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	-	-	-	-	-	-	-	-	-	-	-	-
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	12	373	18	104	347	5	18	41	71	3	30	14

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	352	0	0	391	0	0	977	967	382	976	973	349
Stage 1	-	-	-	-	-	-	406	406	-	558	558	-
Stage 2	-	-	-	-	-	-	571	561	-	417	415	-
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	1207	-	-	1167	-	-	230	254	665	231	252	694
Stage 1	-	-	-	-	-	-	622	598	-	514	512	-
Stage 2	-	-	-	-	-	-	506	510	-	613	592	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1207	-	-	1167	-	-	174	223	665	151	221	694
Mov Cap-2 Maneuver	-	-	-	-	-	-	174	223	-	151	221	-
Stage 1	-	-	-	-	-	-	614	590	-	457	455	-
Stage 2	-	-	-	-	-	-	411	453	-	503	585	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	0.24	1.92	23.05	21.46
HCM LOS			C	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	328	53	-	-	410	-	-	266
HCM Lane V/C Ratio	0.398	0.01	-	-	0.089	-	-	0.18
HCM Ctrl Dly (s/v)	23	8	0	-	8.4	0	-	21.5
HCM Lane LOS	C	A	A	-	A	A	-	C
HCM 95th %tile Q(veh)	1.8	0	-	-	0.3	-	-	0.6

Intersection	
Int Delay, s/veh	1.3

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	17	109	70	10	3	17
Future Vol, veh/h	17	109	70	10	3	17
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	90	90	90	90	90	90
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	19	121	78	11	3	19

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	89	0	-	0	242	83
Stage 1	-	-	-	-	83	-
Stage 2	-	-	-	-	159	-
Critical Hdwy	4.1	-	-	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	2.2	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	1519	-	-	-	751	982
Stage 1	-	-	-	-	945	-
Stage 2	-	-	-	-	875	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1519	-	-	-	741	982
Mov Cap-2 Maneuver	-	-	-	-	741	-
Stage 1	-	-	-	-	932	-
Stage 2	-	-	-	-	875	-

Approach	EB	WB	SB
HCM Ctrl Dly, s/v	1	0	8.94
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	243	-	-	-	936
HCM Lane V/C Ratio	0.012	-	-	-	0.024
HCM Ctrl Dly (s/v)	7.4	0	-	-	8.9
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0.1

Intersection	
Int Delay, s/veh	1.3

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	19	126	81	12	3	19
Future Vol, veh/h	19	126	81	12	3	19
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	90	90	90	90	90	90
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	21	140	90	13	3	21

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	103	0	-	0	279	97
Stage 1	-	-	-	-	97	-
Stage 2	-	-	-	-	182	-
Critical Hdwy	4.1	-	-	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	2.2	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	1501	-	-	-	715	965
Stage 1	-	-	-	-	932	-
Stage 2	-	-	-	-	854	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1501	-	-	-	704	965
Mov Cap-2 Maneuver	-	-	-	-	704	-
Stage 1	-	-	-	-	918	-
Stage 2	-	-	-	-	854	-

Approach	EB	WB	SB
HCM Ctrl Dly, s/v	0.97	0	9.03
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	236	-	-	-	919
HCM Lane V/C Ratio	0.014	-	-	-	0.027
HCM Ctrl Dly (s/v)	7.4	0	-	-	9
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0.1

Intersection	
Int Delay, s/veh	1.3

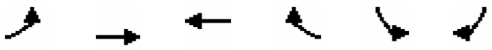
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	24	160	103	15	4	24
Future Vol, veh/h	24	160	103	15	4	24
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	27	178	114	17	4	27

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	131	0	-	0	354	123
Stage 1	-	-	-	-	123	-
Stage 2	-	-	-	-	231	-
Critical Hdwy	4.1	-	-	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	2.2	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	1467	-	-	-	648	934
Stage 1	-	-	-	-	908	-
Stage 2	-	-	-	-	812	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1467	-	-	-	635	934
Mov Cap-2 Maneuver	-	-	-	-	635	-
Stage 1	-	-	-	-	889	-
Stage 2	-	-	-	-	812	-

Approach	EB	WB	SB
HCM Ctrl Dly, s/v	0.98	0	9.27
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	235	-	-	-	875
HCM Lane V/C Ratio	0.018	-	-	-	0.036
HCM Ctrl Dly (s/v)	7.5	0	-	-	9.3
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0.1	-	-	-	0.1

HCM 7th Edition methodology supports yellow change in the range of 3 to 6 seconds.



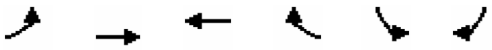
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	162	733	706	170	136	146
Future Volume (veh/h)	162	733	706	170	136	146
Initial Q (Qb), veh	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1885	1885	1885	1885	1885	1885
Adj Flow Rate, veh/h	165	748	720	173	139	149
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	1	1	1	1	1	1
Cap, veh/h	213	2163	1028	247	273	243
Arrive On Green	0.12	0.60	0.36	0.36	0.15	0.15
Sat Flow, veh/h	1795	3676	2958	688	1795	1598
Grp Volume(v), veh/h	165	748	450	443	139	149
Grp Sat Flow(s),veh/h/ln	1795	1791	1791	1761	1795	1598
Q Serve(g_s), s	3.9	4.6	9.5	9.5	3.1	3.9
Cycle Q Clear(g_c), s	3.9	4.6	9.5	9.5	3.1	3.9
Prop In Lane	1.00			0.39	1.00	1.00
Lane Grp Cap(c), veh/h	213	2163	643	632	273	243
V/C Ratio(X)	0.77	0.35	0.70	0.70	0.51	0.61
Avail Cap(c_a), veh/h	341	3027	939	923	1095	975
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	18.9	4.4	12.2	12.2	17.2	17.5
Incr Delay (d2), s/veh	5.9	0.1	1.4	1.4	1.5	2.5
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.8	0.9	3.1	3.1	1.3	1.4
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	24.9	4.5	13.6	13.6	18.7	20.1
LnGrp LOS	C	A	B	B	B	C
Approach Vol, veh/h		913	893		288	
Approach Delay, s/veh		8.2	13.6		19.4	
Approach LOS		A	B		B	

Timer - Assigned Phs		2	3	4		8
Phs Duration (G+Y+Rc), s		11.7	10.8	21.7		32.5
Change Period (Y+Rc), s		5.0	5.6	5.8		* 5.8
Max Green Setting (Gmax), s		27.0	8.4	23.2		* 37
Max Q Clear Time (g_c+I1), s		5.9	5.9	11.5		6.6
Green Ext Time (p_c), s		0.9	0.1	4.3		5.6

Intersection Summary	
HCM 7th Control Delay, s/veh	12.0
HCM 7th LOS	B

Notes

* HCM 7th computational engine requires equal clearance times for the phases crossing the barrier.



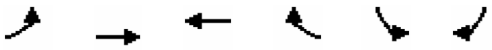
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	178	810	809	194	157	169
Future Volume (veh/h)	178	810	809	194	157	169
Initial Q (Qb), veh	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1885	1885	1885	1885	1885	1885
Adj Flow Rate, veh/h	182	827	826	198	160	172
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	1	1	1	1	1	1
Cap, veh/h	231	2219	1081	259	291	259
Arrive On Green	0.13	0.62	0.38	0.38	0.16	0.16
Sat Flow, veh/h	1795	3676	2960	687	1795	1598
Grp Volume(v), veh/h	182	827	516	508	160	172
Grp Sat Flow(s),veh/h/ln	1795	1791	1791	1762	1795	1598
Q Serve(g_s), s	4.9	5.6	12.5	12.5	4.1	5.0
Cycle Q Clear(g_c), s	4.9	5.6	12.5	12.5	4.1	5.0
Prop In Lane	1.00			0.39	1.00	1.00
Lane Grp Cap(c), veh/h	231	2219	676	665	291	259
V/C Ratio(X)	0.79	0.37	0.76	0.76	0.55	0.66
Avail Cap(c_a), veh/h	305	2712	841	827	981	873
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	20.9	4.7	13.5	13.5	19.0	19.4
Incr Delay (d2), s/veh	9.6	0.1	3.3	3.4	1.6	2.9
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.4	1.2	4.6	4.5	1.7	1.8
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	30.5	4.8	16.8	16.8	20.7	22.4
LnGrp LOS	C	A	B	B	C	C
Approach Vol, veh/h		1009	1024		332	
Approach Delay, s/veh		9.4	16.8		21.5	
Approach LOS		A	B		C	

Timer - Assigned Phs		2	3	4		8
Phs Duration (G+Y+Rc), s		13.0	12.0	24.4		36.4
Change Period (Y+Rc), s		5.0	5.6	5.8		* 5.8
Max Green Setting (Gmax), s		27.0	8.4	23.2		* 37
Max Q Clear Time (g_c+I1), s		7.0	6.9	14.5		7.6
Green Ext Time (p_c), s		1.0	0.1	4.2		6.3

Intersection Summary	
HCM 7th Control Delay, s/veh	14.3
HCM 7th LOS	B

Notes

* HCM 7th 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)	212	963	1014	244	199	214
Future Volume (veh/h)	212	963	1014	244	199	214
Initial Q (Qb), veh	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00
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	1885	1885	1885	1885	1885	1885
Adj Flow Rate, veh/h	216	983	1035	249	203	218
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	1	1	1	1	1	1
Cap, veh/h	262	2372	1242	298	320	285
Arrive On Green	0.15	0.66	0.43	0.43	0.18	0.18
Sat Flow, veh/h	1795	3676	2960	687	1795	1598
Grp Volume(v), veh/h	216	983	645	639	203	218
Grp Sat Flow(s),veh/h/ln	1795	1791	1791	1762	1795	1598
Q Serve(g_s), s	7.9	8.6	21.6	21.8	7.1	8.8
Cycle Q Clear(g_c), s	7.9	8.6	21.6	21.8	7.1	8.8
Prop In Lane	1.00			0.39	1.00	1.00
Lane Grp Cap(c), veh/h	262	2372	776	763	320	285
V/C Ratio(X)	0.82	0.41	0.83	0.84	0.63	0.77
Avail Cap(c_a), veh/h	329	2721	879	864	743	661
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	28.0	5.3	17.0	17.0	25.8	26.5
Incr Delay (d2), s/veh	12.8	0.1	6.2	6.6	2.1	4.3
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	2.2	8.9	9.0	3.1	3.5
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	40.8	5.4	23.1	23.6	27.8	30.7
LnGrp LOS	D	A	C	C	C	C
Approach Vol, veh/h		1199	1284		421	
Approach Delay, s/veh		11.8	23.4		29.3	
Approach LOS		B	C		C	

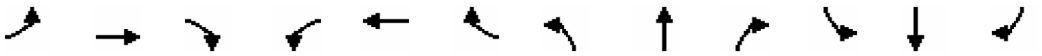
Timer - Assigned Phs		2	3	4		8
Phs Duration (G+Y+Rc), s		17.1	15.5	35.1		50.6
Change Period (Y+Rc), s		5.0	5.6	5.8		* 5.8
Max Green Setting (Gmax), s		28.0	12.4	33.2		* 51
Max Q Clear Time (g_c+I1), s		10.8	9.9	23.8		10.6
Green Ext Time (p_c), s		1.3	0.1	5.5		8.4

Intersection Summary	
HCM 7th Control Delay, s/veh	19.5
HCM 7th LOS	B

Notes

* HCM 7th computational engine requires equal clearance times for the phases crossing the barrier.

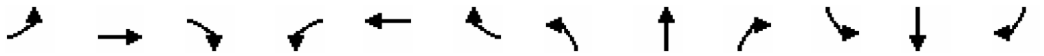
HCM 7th Edition methodology supports yellow change in the range of 3 to 6 seconds.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	642	131	107	795	0	105	0	67	0	0	0
Future Volume (veh/h)	0	642	131	107	795	0	105	0	67	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
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	1900	1870	1900	1870	1870	1870
Adj Flow Rate, veh/h	0	662	135	110	820	0	108	0	69	0	0	0
Peak Hour Factor	0.92	0.97	0.97	0.97	0.97	0.92	0.97	0.92	0.97	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	0	2	0	2	2	2
Cap, veh/h	0	1504	306	491	1817	0	301	0	263	0	6	0
Arrive On Green	0.00	0.51	0.51	0.51	0.51	0.00	0.17	0.00	0.17	0.00	0.00	0.00
Sat Flow, veh/h	0	3034	599	682	3647	0	1810	0	1585	0	1870	0
Grp Volume(v), veh/h	0	400	397	110	820	0	108	0	69	0	0	0
Grp Sat Flow(s),veh/h/ln	0	1777	1763	682	1777	0	1810	0	1585	0	1870	0
Q Serve(g_s), s	0.0	4.3	4.3	3.7	4.4	0.0	1.6	0.0	1.1	0.0	0.0	0.0
Cycle Q Clear(g_c), s	0.0	4.3	4.3	7.9	4.4	0.0	1.6	0.0	1.1	0.0	0.0	0.0
Prop In Lane	0.00		0.34	1.00		0.00	1.00		1.00	0.00		0.00
Lane Grp Cap(c), veh/h	0	909	901	491	1817	0	301	0	263	0	6	0
V/C Ratio(X)	0.00	0.44	0.44	0.22	0.45	0.00	0.36	0.00	0.26	0.00	0.00	0.00
Avail Cap(c_a), veh/h	0	1406	1395	682	2812	0	1173	0	1028	0	1710	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	1.00	1.00	1.00	1.00	0.00	1.00	0.00	1.00	0.00	0.00	0.00
Uniform Delay (d), s/veh	0.0	4.6	4.6	7.1	4.7	0.0	11.1	0.0	10.9	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.3	0.3	0.2	0.2	0.0	0.7	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	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.6	0.6	0.3	0.6	0.0	0.6	0.0	0.3	0.0	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	0.0	5.0	5.0	7.4	4.8	0.0	11.8	0.0	11.5	0.0	0.0	0.0
LnGrp LOS		A	A	A	A		B		B			
Approach Vol, veh/h		797			930			177			0	
Approach Delay, s/veh		5.0			5.1			11.7			0.0	
Approach LOS		A			A			B				

Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		9.5		20.6		0.0		20.6				
Change Period (Y+Rc), s		4.5		5.2		4.5		5.2				
Max Green Setting (Gmax), s		19.5		23.8		27.5		23.8				
Max Q Clear Time (g_c+I1), s		3.6		6.3		0.0		9.9				
Green Ext Time (p_c), s		0.6		4.7		0.0		5.5				

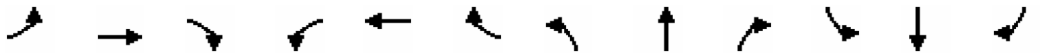
Intersection Summary												
HCM 7th Control Delay, s/veh			5.7									
HCM 7th LOS			A									



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	737	150	128	946	0	131	0	84	0	0	0
Future Volume (veh/h)	0	737	150	128	946	0	131	0	84	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
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	1900	1870	1900	1870	1870	1870
Adj Flow Rate, veh/h	0	760	155	132	975	0	135	0	87	0	0	0
Peak Hour Factor	0.92	0.97	0.97	0.97	0.97	0.92	0.97	0.92	0.97	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	0	2	0	2	2	2
Cap, veh/h	0	1633	333	462	1974	0	275	0	241	0	6	0
Arrive On Green	0.00	0.56	0.56	0.56	0.56	0.00	0.15	0.00	0.15	0.00	0.00	0.00
Sat Flow, veh/h	0	3033	599	610	3647	0	1810	0	1585	0	1870	0
Grp Volume(v), veh/h	0	459	456	132	975	0	135	0	87	0	0	0
Grp Sat Flow(s),veh/h/ln	0	1777	1762	610	1777	0	1810	0	1585	0	1870	0
Q Serve(g_s), s	0.0	5.1	5.1	5.5	5.6	0.0	2.3	0.0	1.6	0.0	0.0	0.0
Cycle Q Clear(g_c), s	0.0	5.1	5.1	10.6	5.6	0.0	2.3	0.0	1.6	0.0	0.0	0.0
Prop In Lane	0.00		0.34	1.00		0.00	1.00		1.00	0.00		0.00
Lane Grp Cap(c), veh/h	0	987	979	462	1974	0	275	0	241	0	6	0
V/C Ratio(X)	0.00	0.47	0.47	0.29	0.49	0.00	0.49	0.00	0.36	0.00	0.00	0.00
Avail Cap(c_a), veh/h	0	1276	1266	561	2552	0	1065	0	933	0	1552	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	1.00	1.00	1.00	1.00	0.00	1.00	0.00	1.00	0.00	0.00	0.00
Uniform Delay (d), s/veh	0.0	4.4	4.4	7.6	4.5	0.0	12.9	0.0	12.6	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.3	0.3	0.3	0.2	0.0	1.4	0.0	0.9	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	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.7	0.7	0.5	0.7	0.0	0.9	0.0	0.5	0.0	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	0.0	4.8	4.8	7.9	4.7	0.0	14.2	0.0	13.5	0.0	0.0	0.0
LnGrp LOS		A	A	A	A		B		B			
Approach Vol, veh/h		915			1107			222			0	
Approach Delay, s/veh		4.8			5.1			14.0			0.0	
Approach LOS		A			A			B				

Timer - Assigned Phs	2	4	6	8
Phs Duration (G+Y+Rc), s	9.5	23.6	0.0	23.6
Change Period (Y+Rc), s	4.5	5.2	4.5	5.2
Max Green Setting (Gmax), s	19.5	23.8	27.5	23.8
Max Q Clear Time (g_c+I1), s	4.3	7.1	0.0	12.6
Green Ext Time (p_c), s	0.8	5.4	0.0	5.8

Intersection Summary	
HCM 7th Control Delay, s/veh	5.8
HCM 7th LOS	A



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	926	189	168	1246	0	185	0	119	0	0	0
Future Volume (veh/h)	0	926	189	168	1246	0	185	0	119	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
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	1900	1870	1900	1870	1870	1870
Adj Flow Rate, veh/h	0	955	195	173	1285	0	191	0	123	0	0	0
Peak Hour Factor	0.92	0.97	0.97	0.97	0.97	0.92	0.97	0.92	0.97	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	0	2	0	2	2	2
Cap, veh/h	0	2039	416	384	2465	0	269	0	236	0	3	0
Arrive On Green	0.00	0.69	0.69	0.69	0.69	0.00	0.15	0.00	0.15	0.00	0.00	0.00
Sat Flow, veh/h	0	3033	600	489	3647	0	1810	0	1585	0	1870	0
Grp Volume(v), veh/h	0	577	573	173	1285	0	191	0	123	0	0	0
Grp Sat Flow(s),veh/h/ln	0	1777	1762	489	1777	0	1810	0	1585	0	1870	0
Q Serve(g_s), s	0.0	9.1	9.1	15.3	10.7	0.0	6.2	0.0	4.4	0.0	0.0	0.0
Cycle Q Clear(g_c), s	0.0	9.1	9.1	24.4	10.7	0.0	6.2	0.0	4.4	0.0	0.0	0.0
Prop In Lane	0.00		0.34	1.00		0.00	1.00		1.00	0.00		0.00
Lane Grp Cap(c), veh/h	0	1232	1222	384	2465	0	269	0	236	0	3	0
V/C Ratio(X)	0.00	0.47	0.47	0.45	0.52	0.00	0.71	0.00	0.52	0.00	0.00	0.00
Avail Cap(c_a), veh/h	0	1872	1856	560	3743	0	544	0	477	0	836	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	1.00	1.00	1.00	1.00	0.00	1.00	0.00	1.00	0.00	0.00	0.00
Uniform Delay (d), s/veh	0.0	4.3	4.3	9.8	4.5	0.0	24.9	0.0	24.2	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.3	0.3	0.8	0.2	0.0	3.4	0.0	1.8	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	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	1.9	1.9	1.3	2.2	0.0	2.8	0.0	1.7	0.0	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	0.0	4.6	4.6	10.6	4.7	0.0	28.4	0.0	26.0	0.0	0.0	0.0
LnGrp LOS		A	A	B	A		C		C			
Approach Vol, veh/h		1150			1458			314			0	
Approach Delay, s/veh		4.6			5.4			27.4			0.0	
Approach LOS		A			A			C				

Timer - Assigned Phs	2	4	6	8
Phs Duration (G+Y+Rc), s	13.6	47.9	0.0	47.9
Change Period (Y+Rc), s	4.5	5.2	4.5	5.2
Max Green Setting (Gmax), s	18.5	64.8	27.5	64.8
Max Q Clear Time (g_c+I1), s	8.2	11.1	0.0	26.4
Green Ext Time (p_c), s	1.0	10.0	0.0	16.3

Intersection Summary	
HCM 7th Control Delay, s/veh	7.4
HCM 7th LOS	A

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	5	345	2	21	291	4	9	7	35	4	4	2
Future Vol, veh/h	5	345	2	21	291	4	9	7	35	4	4	2
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	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	1	1	1	1	1	1	2	2	2	0	0	0
Mvmt Flow	6	383	2	23	323	4	10	8	39	4	4	2

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	328	0	0	386	0	0	768	770	384	771	769	326
Stage 1	-	-	-	-	-	-	396	396	-	372	372	-
Stage 2	-	-	-	-	-	-	372	374	-	398	397	-
Critical Hdwy	4.11	-	-	4.11	-	-	7.12	6.52	6.22	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.1	5.5	-
Follow-up Hdwy	2.209	-	-	2.209	-	-	3.518	4.018	3.318	3.5	4	3.3
Pot Cap-1 Maneuver	1237	-	-	1178	-	-	319	331	663	320	334	720
Stage 1	-	-	-	-	-	-	630	604	-	652	622	-
Stage 2	-	-	-	-	-	-	648	617	-	632	607	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1237	-	-	1178	-	-	304	321	663	285	324	720
Mov Cap-2 Maneuver	-	-	-	-	-	-	304	321	-	285	324	-
Stage 1	-	-	-	-	-	-	626	601	-	637	607	-
Stage 2	-	-	-	-	-	-	626	602	-	584	604	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	0.11	0.54	13.31	15.84
HCM LOS			B	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	490	26	-	-	119	-	-	343
HCM Lane V/C Ratio	0.116	0.004	-	-	0.02	-	-	0.032
HCM Ctrl Dly (s/v)	13.3	7.9	0	-	8.1	0	-	15.8
HCM Lane LOS	B	A	A	-	A	A	-	C
HCM 95th %tile Q(veh)	0.4	0	-	-	0.1	-	-	0.1

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	2	0	2	10	1	32	1	379	32	211	423	1
Future Vol, veh/h	2	0	2	10	1	32	1	379	32	211	423	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	130	-	-	67	-	-	50	-	-	100	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	89	89	89	89	89	89	89	89	89	89	89	89
Heavy Vehicles, %	0	0	0	0	0	0	3	3	3	2	2	2
Mvmt Flow	2	0	2	11	1	36	1	426	36	237	475	1

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1378	1413	475	1396	1397	444	476	0	0	462	0	0
Stage 1	949	949	-	446	446	-	-	-	-	-	-	-
Stage 2	429	464	-	949	951	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.13	-	-	4.12	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.227	-	-	2.218	-	-
Pot Cap-1 Maneuver	123	139	594	120	142	618	1081	-	-	1099	-	-
Stage 1	315	342	-	595	577	-	-	-	-	-	-	-
Stage 2	608	567	-	315	341	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	90	109	594	94	112	618	1081	-	-	1099	-	-
Mov Cap-2 Maneuver	90	109	-	94	112	-	-	-	-	-	-	-
Stage 1	247	268	-	595	577	-	-	-	-	-	-	-
Stage 2	571	566	-	246	268	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	28.5	20.61	0.02	3.05
HCM LOS	D	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1081	-	-	90	594	94	543	1099	-	-
HCM Lane V/C Ratio	0.001	-	-	0.025	0.004	0.12	0.068	0.216	-	-
HCM Ctrl Dly (s/v)	8.3	-	-	45.9	11.1	48.7	12.1	9.2	-	-
HCM Lane LOS	A	-	-	E	B	E	B	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.1	0	0.4	0.2	0.8	-	-

Intersection	
Int Delay, s/veh	3.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	3	0	3	12	1	37	1	424	36	250	501	2
Future Vol, veh/h	3	0	3	12	1	37	1	424	36	250	501	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	130	-	-	67	-	-	50	-	-	100	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	89	89	89	89	89	89	89	89	89	89	89	89
Heavy Vehicles, %	0	0	0	0	0	0	3	3	3	2	2	2
Mvmt Flow	3	0	3	13	1	42	1	476	40	281	563	2

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1604	1644	563	1624	1626	497	565	0	0	517	0	0
Stage 1	1125	1125	-	499	499	-	-	-	-	-	-	-
Stage 2	479	519	-	1125	1127	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.13	-	-	4.12	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.227	-	-	2.218	-	-
Pot Cap-1 Maneuver	86	101	530	83	103	577	1002	-	-	1049	-	-
Stage 1	252	283	-	557	547	-	-	-	-	-	-	-
Stage 2	571	536	-	252	282	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	58	74	530	60	76	577	1002	-	-	1049	-	-
Mov Cap-2 Maneuver	58	74	-	60	76	-	-	-	-	-	-	-
Stage 1	184	207	-	557	546	-	-	-	-	-	-	-
Stage 2	528	535	-	183	207	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	41.56	29.3	0.02	3.21
HCM LOS	E	D		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1002	-	-	58	530	60	491	1049	-	-
HCM Lane V/C Ratio	0.001	-	-	0.058	0.006	0.223	0.087	0.268	-	-
HCM Ctrl Dly (s/v)	8.6	-	-	71.3	11.8	80.9	13	9.7	-	-
HCM Lane LOS	A	-	-	F	B	F	B	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.2	0	0.8	0.3	1.1	-	-

Intersection	
Int Delay, s/veh	2.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Lane Configurations													
Traffic Vol, veh/h	3	0	3	15	2	47	2	515	44	1	328	657	2
Future Vol, veh/h	3	0	3	15	2	47	2	515	44	1	328	657	2
Conflicting Peds, #/hr	0	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	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	-	None
Storage Length	130	-	-	67	-	-	50	-	-	-	100	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	-	0	-
Peak Hour Factor	89	89	89	89	89	89	89	89	89	89	89	89	89
Heavy Vehicles, %	0	0	0	0	0	0	3	3	3	2	2	2	2
Mvmt Flow	3	0	3	17	2	53	2	579	49	1	369	738	2

Major/Minor	Minor2			Minor1			Major1			Major2			
Conflicting Flow All	2060	2110	738	2083	2088	603	740	0	0	-	628	0	0
Stage 1	1475	1478	-	608	608	-	-	-	-	-	-	-	-
Stage 2	584	633	-	1475	1480	-	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.13	-	-	-	4.12	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.227	-	-	-	2.218	-	-
Pot Cap-1 Maneuver	41	52	421	39	53	502	862	-	-	-	954	-	-
Stage 1	159	192	-	486	489	-	-	-	-	-	-	-	-
Stage 2	501	477	-	159	191	-	-	-	-	-	-	-	-
Platoon blocked, %								-	-			-	-
Mov Cap-1 Maneuver	35	52	421	39	53	502	862	-	-	~ -425	~ -425	-	-
Mov Cap-2 Maneuver	35	52	-	39	53	-	-	-	-	-	-	-	-
Stage 1	159	192	-	485	488	-	-	-	-	-	-	-	-
Stage 2	445	475	-	158	191	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	65.99	48.7	0.03	0.15
HCM LOS	F	E		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	862	-	-	35	421	39	374	+	-	-
HCM Lane V/C Ratio	0.003	-	-	0.096	0.008	0.432	0.147	-	-	-
HCM Ctrl Dly (s/v)	9.2	-	-	118.4	13.6	154.6	16.3	0.5	-	-
HCM Lane LOS	A	-	-	F	B	F	C	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.3	0	1.5	0.5	-	-	-

Notes	
~: Volume exceeds capacity	$: Delay exceeds 300s
+: Computation Not Defined	*: All major volume in platoon

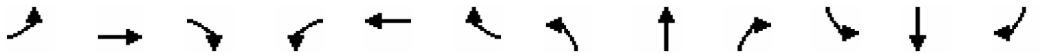
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	533	0	339	0	0	0	0	460	107	228	376	0
Future Volume (veh/h)	533	0	339	0	0	0	0	460	107	228	376	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	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
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870				0	1870	1870	1870	1870	0
Adj Flow Rate, veh/h	544	0	346				0	469	109	233	384	0
Peak Hour Factor	0.98	0.98	0.98				0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	2				0	2	2	2	2	0
Cap, veh/h	682	0	607				0	714	165	430	1602	0
Arrive On Green	0.38	0.00	0.38				0.00	0.25	0.25	0.13	0.45	0.00
Sat Flow, veh/h	1781	0	1585				0	2960	662	1781	3647	0
Grp Volume(v), veh/h	544	0	346				0	290	288	233	384	0
Grp Sat Flow(s),veh/h/ln	1781	0	1585				0	1777	1751	1781	1777	0
Q Serve(g_s), s	16.6	0.0	10.6				0.0	9.0	9.1	5.4	4.1	0.0
Cycle Q Clear(g_c), s	16.6	0.0	10.6				0.0	9.0	9.1	5.4	4.1	0.0
Prop In Lane	1.00		1.00				0.00		0.38	1.00		0.00
Lane Grp Cap(c), veh/h	682	0	607				0	443	436	430	1602	0
V/C Ratio(X)	0.80	0.00	0.57				0.00	0.65	0.66	0.54	0.24	0.00
Avail Cap(c_a), veh/h	1385	0	1232				0	1321	1302	855	4176	0
HCM Platoon Ratio	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				0.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	16.8	0.0	14.9				0.0	20.7	20.7	13.7	10.4	0.0
Incr Delay (d2), s/veh	2.2	0.0	0.8				0.0	1.6	1.7	1.1	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
%ile BackOfQ(50%),veh/ln	5.9	0.0	3.2				0.0	3.7	3.7	2.1	1.5	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	19.0	0.0	15.8				0.0	22.3	22.4	14.7	10.5	0.0
LnGrp LOS	B		B					C	C	B	B	
Approach Vol, veh/h		890						578			617	
Approach Delay, s/veh		17.8						22.4			12.1	
Approach LOS		B						C			B	

Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		32.6			12.4	20.2		28.8				
Change Period (Y+Rc), s		4.9			4.5	* 4.9		5.3				
Max Green Setting (Gmax), s		72.1			22.5	* 46		47.7				
Max Q Clear Time (g_c+I1), s		6.1			7.4	11.1		18.6				
Green Ext Time (p_c), s		3.0			0.6	4.2		4.9				

Intersection Summary												
HCM 7th Control Delay, s/veh			17.4									
HCM 7th LOS			B									

Notes

* HCM 7th 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)	86	18	7	51	10	141	18	389	50	215	614	68
Future Volume (veh/h)	86	18	7	51	10	141	18	389	50	215	614	68
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
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	1885	1885	1885	1841	1841	1841	1856	1856	1856	1885	1885	1885
Adj Flow Rate, veh/h	91	19	7	54	11	150	19	414	53	229	653	72
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	1	1	1	4	4	4	3	3	3	1	1	1
Cap, veh/h	116	49	18	268	13	184	523	801	102	812	1220	134
Arrive On Green	0.06	0.04	0.04	0.15	0.13	0.13	0.23	0.25	0.25	0.12	0.12	0.12
Sat Flow, veh/h	1795	1314	484	1753	108	1469	1767	3146	400	1795	3253	358
Grp Volume(v), veh/h	91	0	26	54	0	161	19	231	236	229	359	366
Grp Sat Flow(s),veh/h/ln	1795	0	1798	1753	0	1576	1767	1763	1783	1795	1791	1821
Q Serve(g_s), s	5.4	0.0	1.5	2.9	0.0	10.7	0.0	12.1	12.3	1.4	20.3	20.4
Cycle Q Clear(g_c), s	5.4	0.0	1.5	2.9	0.0	10.7	0.0	12.1	12.3	1.4	20.3	20.4
Prop In Lane	1.00		0.27	1.00		0.93	1.00		0.22	1.00		0.20
Lane Grp Cap(c), veh/h	116	0	67	268	0	197	523	449	454	812	672	683
V/C Ratio(X)	0.78	0.00	0.39	0.20	0.00	0.82	0.04	0.51	0.52	0.28	0.53	0.54
Avail Cap(c_a), veh/h	224	0	533	268	0	401	523	449	454	812	672	683
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.33	0.33	0.33
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	0.93	0.93	0.93
Uniform Delay (d), s/veh	49.8	0.0	50.8	40.0	0.0	46.0	27.4	34.5	34.6	27.7	38.5	38.5
Incr Delay (d2), s/veh	10.8	0.0	3.7	0.4	0.0	7.9	0.0	4.2	4.2	0.2	2.8	2.8
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	2.8	0.0	0.8	1.3	0.0	4.7	0.4	5.7	5.9	5.3	10.3	10.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	60.6	0.0	54.5	40.3	0.0	54.0	27.4	38.7	38.8	27.9	41.3	41.3
LnGrp LOS	E		D	D		D	C	D	D	C	D	D
Approach Vol, veh/h		117			215			486			954	
Approach Delay, s/veh		59.2			50.5			38.3			38.1	
Approach LOS		E			D			D			D	

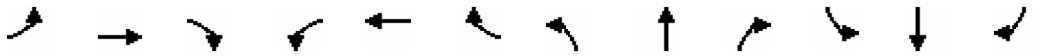
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	43.5	33.0	22.0	9.5	30.5	46.0	12.5	19.0
Change Period (Y+Rc), s	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5
Max Green Setting (Gmax), s	17.5	27.5	9.0	32.0	4.5	40.5	13.5	27.5
Max Q Clear Time (g_c+I1), s	3.4	14.3	4.9	3.5	2.0	22.4	7.4	12.7
Green Ext Time (p_c), s	0.6	2.4	0.0	0.1	0.0	4.6	0.1	0.8

Intersection Summary	
HCM 7th Control Delay, s/veh	41.0
HCM 7th LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	93	20	7	57	11	159	19	413	54	249	712	79
Future Volume (veh/h)	93	20	7	57	11	159	19	413	54	249	712	79
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
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	1885	1885	1885	1841	1841	1841	1856	1856	1856	1885	1885	1885
Adj Flow Rate, veh/h	99	21	7	61	12	169	20	439	57	265	757	84
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	1	1	1	4	4	4	3	3	3	1	1	1
Cap, veh/h	124	44	15	302	14	199	86	798	103	817	1957	217
Arrive On Green	0.07	0.03	0.03	0.17	0.14	0.14	0.02	0.25	0.25	0.12	0.20	0.20
Sat Flow, veh/h	1795	1353	451	1753	104	1471	1767	3140	406	1795	3251	361
Grp Volume(v), veh/h	99	0	28	61	0	181	20	245	251	265	417	424
Grp Sat Flow(s),veh/h/ln	1795	0	1804	1753	0	1576	1767	1763	1783	1795	1791	1820
Q Serve(g_s), s	6.7	0.0	1.9	3.7	0.0	13.9	1.1	15.0	15.1	5.1	25.1	25.1
Cycle Q Clear(g_c), s	6.7	0.0	1.9	3.7	0.0	13.9	1.1	15.0	15.1	5.1	25.1	25.1
Prop In Lane	1.00		0.25	1.00		0.93	1.00		0.23	1.00		0.20
Lane Grp Cap(c), veh/h	124	0	58	302	0	213	86	448	453	817	1078	1096
V/C Ratio(X)	0.80	0.00	0.48	0.20	0.00	0.85	0.23	0.55	0.55	0.32	0.39	0.39
Avail Cap(c_a), veh/h	239	0	502	302	0	375	122	448	453	817	1078	1096
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.33	0.33	0.33
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	0.90	0.90	0.90
Uniform Delay (d), s/veh	56.9	0.0	59.0	44.0	0.0	52.4	40.3	40.1	40.1	32.5	29.8	29.8
Incr Delay (d2), s/veh	11.1	0.0	6.0	0.3	0.0	9.0	1.3	4.8	4.8	0.2	0.9	0.9
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	3.5	0.0	1.0	1.7	0.0	6.1	0.5	7.2	7.3	7.5	12.4	12.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	67.9	0.0	65.0	44.3	0.0	61.4	41.7	44.8	45.0	32.7	30.8	30.7
LnGrp LOS	E		E	D		E	D	D	D	C	C	C
Approach Vol, veh/h		127			242			516			1106	
Approach Delay, s/veh		67.3			57.1			44.8			31.2	
Approach LOS		E			E			D			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	50.6	37.0	26.9	9.5	7.5	80.2	14.1	22.3
Change Period (Y+Rc), s	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5
Max Green Setting (Gmax), s	24.5	31.5	11.5	34.5	4.5	51.5	16.5	29.5
Max Q Clear Time (g_c+I1), s	7.1	17.1	5.7	3.9	3.1	27.1	8.7	15.9
Green Ext Time (p_c), s	0.7	2.7	0.0	0.1	0.0	6.1	0.1	0.9

Intersection Summary	
HCM 7th Control Delay, s/veh	40.2
HCM 7th LOS	D



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	108	23	9	69	13	194	21	461	60	317	907	101
Future Volume (veh/h)	108	23	9	69	13	194	21	461	60	317	907	101
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
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	1885	1885	1885	1841	1841	1841	1856	1856	1856	1885	1885	1885
Adj Flow Rate, veh/h	115	24	10	73	14	206	22	490	64	337	965	107
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	1	1	1	4	4	4	3	3	3	1	1	1
Cap, veh/h	141	45	19	354	16	234	406	822	107	732	1429	158
Arrive On Green	0.08	0.04	0.04	0.20	0.16	0.16	0.15	0.26	0.26	0.65	0.88	0.88
Sat Flow, veh/h	1795	1264	527	1753	100	1475	1767	3137	408	1795	3251	360
Grp Volume(v), veh/h	115	0	34	73	0	220	22	274	280	337	532	540
Grp Sat Flow(s),veh/h/ln	1795	0	1790	1753	0	1575	1767	1763	1782	1795	1791	1820
Q Serve(g_s), s	7.8	0.0	2.3	4.3	0.0	16.9	0.0	16.9	17.0	0.0	11.0	11.0
Cycle Q Clear(g_c), s	7.8	0.0	2.3	4.3	0.0	16.9	0.0	16.9	17.0	0.0	11.0	11.0
Prop In Lane	1.00		0.29	1.00		0.94	1.00		0.23	1.00		0.20
Lane Grp Cap(c), veh/h	141	0	64	354	0	250	406	462	467	732	787	800
V/C Ratio(X)	0.81	0.00	0.53	0.21	0.00	0.88	0.05	0.59	0.60	0.46	0.68	0.68
Avail Cap(c_a), veh/h	224	0	426	354	0	337	406	462	467	732	787	800
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	0.81	0.81	0.81
Uniform Delay (d), s/veh	56.2	0.0	58.8	41.2	0.0	51.0	30.0	40.0	40.0	13.0	4.9	4.9
Incr Delay (d2), s/veh	11.6	0.0	6.7	0.3	0.0	17.9	0.1	5.5	5.6	0.4	3.8	3.7
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	4.0	0.0	1.2	1.9	0.0	8.0	0.5	8.1	8.3	3.7	2.9	2.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	67.8	0.0	65.4	41.5	0.0	68.9	30.1	45.5	45.6	13.4	8.6	8.6
LnGrp LOS	E		E	D		E	C	D	D	B	A	A
Approach Vol, veh/h		149			293			576			1409	
Approach Delay, s/veh		67.3			62.1			45.0			9.7	
Approach LOS		E			E			D			A	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	45.5	38.0	30.5	9.9	23.5	60.0	15.2	25.2
Change Period (Y+Rc), s	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5
Max Green Setting (Gmax), s	27.5	32.5	12.5	29.5	5.5	54.5	15.5	26.5
Max Q Clear Time (g_c+I1), s	2.0	19.0	6.3	4.3	2.0	13.0	9.8	18.9
Green Ext Time (p_c), s	1.0	3.0	0.1	0.1	0.0	9.7	0.1	0.8

Intersection Summary	
HCM 7th Control Delay, s/veh	28.0
HCM 7th LOS	C



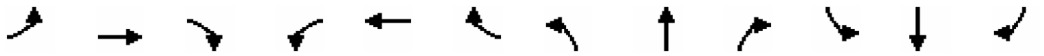
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	138	626	562	135	106	114
Future Volume (veh/h)	138	626	562	135	106	114
Initial Q (Qb), veh	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1885	1885	1885	1885	1885	1885
Adj Flow Rate, veh/h	141	639	573	138	108	116
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	1	1	1	1	1	1
Cap, veh/h	246	2116	888	213	250	222
Arrive On Green	0.14	0.59	0.31	0.31	0.14	0.14
Sat Flow, veh/h	1795	3676	2959	688	1795	1598
Grp Volume(v), veh/h	141	639	358	353	108	116
Grp Sat Flow(s),veh/h/ln	1795	1791	1791	1761	1795	1598
Q Serve(g_s), s	2.6	3.2	6.1	6.2	2.0	2.4
Cycle Q Clear(g_c), s	2.6	3.2	6.1	6.2	2.0	2.4
Prop In Lane	1.00			0.39	1.00	1.00
Lane Grp Cap(c), veh/h	246	2116	555	546	250	222
V/C Ratio(X)	0.57	0.30	0.64	0.65	0.43	0.52
Avail Cap(c_a), veh/h	854	2116	857	843	885	787
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	14.3	3.6	10.6	10.6	14.0	14.2
Incr Delay (d2), s/veh	2.1	0.1	1.3	1.3	1.2	1.9
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0	0.4	1.9	1.8	0.8	0.8
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	16.4	3.7	11.8	11.9	15.2	16.1
LnGrp LOS	B	A	B	B	B	B
Approach Vol, veh/h		780	711		224	
Approach Delay, s/veh		6.0	11.8		15.7	
Approach LOS		A	B		B	

Timer - Assigned Phs	2	3	4		8
Phs Duration (G+Y+Rc), s	9.4	10.0	16.1		26.1
Change Period (Y+Rc), s	4.5	5.1	* 5.1		5.1
Max Green Setting (Gmax), s	17.5	16.9	* 17		16.9
Max Q Clear Time (g_c+I1), s	4.4	4.6	8.2		5.2
Green Ext Time (p_c), s	0.5	0.3	2.9		3.3

Intersection Summary	
HCM 7th Control Delay, s/veh	9.7
HCM 7th LOS	A

Notes

* HCM 7th computational engine requires equal clearance times for the phases crossing the barrier.



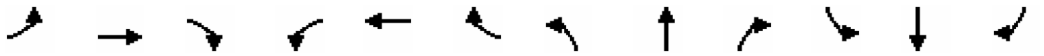
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	49	68	68	127	120	135	47	833	228	125	467	31
Future Volume (veh/h)	49	68	68	127	120	135	47	833	228	125	467	31
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
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	1885	1885	1885	1856	1856	1856	1870	1870	1870
Adj Flow Rate, veh/h	53	73	73	137	129	145	51	896	245	134	502	33
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	1	1	1	3	3	3	2	2	2
Cap, veh/h	164	147	147	276	149	167	548	1107	302	472	1505	99
Arrive On Green	0.04	0.17	0.17	0.05	0.18	0.18	0.24	0.81	0.81	0.17	0.44	0.44
Sat Flow, veh/h	1781	858	858	1795	810	911	1767	2737	747	1781	3385	222
Grp Volume(v), veh/h	53	0	146	137	0	274	51	577	564	134	263	272
Grp Sat Flow(s),veh/h/ln	1781	0	1716	1795	0	1721	1767	1763	1721	1781	1777	1830
Q Serve(g_s), s	2.6	0.0	8.3	5.5	0.0	16.7	0.0	19.5	19.6	0.0	10.4	10.5
Cycle Q Clear(g_c), s	2.6	0.0	8.3	5.5	0.0	16.7	0.0	19.5	19.6	0.0	10.4	10.5
Prop In Lane	1.00		0.50	1.00		0.53	1.00		0.43	1.00		0.12
Lane Grp Cap(c), veh/h	164	0	293	276	0	315	548	713	696	472	790	814
V/C Ratio(X)	0.32	0.00	0.50	0.50	0.00	0.87	0.09	0.81	0.81	0.28	0.33	0.33
Avail Cap(c_a), veh/h	182	0	431	276	0	438	548	713	696	472	790	814
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	0.54	0.54	0.54	1.00	1.00	1.00
Uniform Delay (d), s/veh	36.1	0.0	40.6	37.3	0.0	42.8	15.9	8.0	8.0	27.9	19.6	19.6
Incr Delay (d2), s/veh	1.1	0.0	1.3	1.4	0.0	12.8	0.0	5.4	5.6	0.3	1.1	1.1
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	1.2	0.0	3.7	0.8	0.0	8.2	0.7	4.2	4.2	2.9	4.4	4.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	37.2	0.0	41.9	38.7	0.0	55.6	15.9	13.4	13.6	28.3	20.7	20.7
LnGrp LOS	D		D	D		E	B	B	B	C	C	C
Approach Vol, veh/h		199			411			1192			669	
Approach Delay, s/veh		40.6			50.0			13.6			22.2	
Approach LOS		D			D			B			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	23.6	49.6	10.6	24.2	18.8	54.4	9.3	25.5
Change Period (Y+Rc), s	* 5.6	5.9	5.1	5.7	* 5.6	* 6.4	5.3	* 5.7
Max Green Setting (Gmax), s	* 9.4	43.7	5.5	27.1	* 5.1	* 48	5.1	* 28
Max Q Clear Time (g_c+I1), s	2.0	21.6	7.5	10.3	2.0	12.5	4.6	18.7
Green Ext Time (p_c), s	0.2	8.8	0.0	0.7	0.0	3.4	0.0	1.1

Intersection Summary	
HCM 7th Control Delay, s/veh	24.2
HCM 7th LOS	C

Notes

* HCM 7th computational engine requires equal clearance times for the phases crossing the barrier.



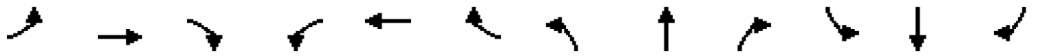
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	62	85	85	151	143	161	55	963	263	134	501	33
Future Volume (veh/h)	62	85	85	151	143	161	55	963	263	134	501	33
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
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	1885	1885	1885	1856	1856	1856	1870	1870	1870
Adj Flow Rate, veh/h	67	91	91	162	154	173	59	1035	283	144	539	35
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	1	1	1	3	3	3	2	2	2
Cap, veh/h	156	161	161	284	169	190	358	1235	336	372	1807	117
Arrive On Green	0.04	0.19	0.19	0.06	0.21	0.21	0.07	0.90	0.90	0.11	0.53	0.53
Sat Flow, veh/h	1781	858	858	1795	811	911	1767	2740	745	1781	3388	220
Grp Volume(v), veh/h	67	0	182	162	0	327	59	664	654	144	282	292
Grp Sat Flow(s),veh/h/ln	1781	0	1716	1795	0	1721	1767	1763	1721	1781	1777	1831
Q Serve(g_s), s	3.7	0.0	11.9	7.9	0.0	23.0	2.5	18.6	19.3	0.0	10.9	11.0
Cycle Q Clear(g_c), s	3.7	0.0	11.9	7.9	0.0	23.0	2.5	18.6	19.3	0.0	10.9	11.0
Prop In Lane	1.00		0.50	1.00		0.53	1.00		0.43	1.00		0.12
Lane Grp Cap(c), veh/h	156	0	323	284	0	359	358	795	776	372	947	976
V/C Ratio(X)	0.43	0.00	0.56	0.57	0.00	0.91	0.16	0.84	0.84	0.39	0.30	0.30
Avail Cap(c_a), veh/h	158	0	375	284	0	412	372	795	776	372	947	976
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00
Uniform Delay (d), s/veh	40.0	0.0	45.7	40.3	0.0	47.9	21.1	4.3	4.3	35.0	16.1	16.1
Incr Delay (d2), s/veh	1.8	0.0	1.5	2.7	0.0	22.2	0.1	3.6	3.9	0.7	0.8	0.8
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	1.7	0.0	5.3	1.0	0.0	12.1	1.0	2.9	2.9	4.0	4.6	4.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	41.9	0.0	47.3	43.0	0.0	70.1	21.2	7.9	8.2	35.7	16.9	16.9
LnGrp LOS	D		D	D		E	C	A	A	D	B	B
Approach Vol, veh/h		249			489			1377			718	
Approach Delay, s/veh		45.8			61.2			8.6			20.6	
Approach LOS		D			E			A			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	20.2	61.8	13.0	29.0	9.4	72.5	10.5	31.6
Change Period (Y+Rc), s	* 6.4	* 5.9	5.1	5.7	5.1	* 6.4	5.3	* 5.7
Max Green Setting (Gmax), s	* 11	* 56	7.9	27.1	5.3	* 61	5.3	* 30
Max Q Clear Time (g_c+I1), s	2.0	21.3	9.9	13.9	4.5	13.0	5.7	25.0
Green Ext Time (p_c), s	0.2	13.0	0.0	0.8	0.0	3.7	0.0	0.9

Intersection Summary	
HCM 7th Control Delay, s/veh	24.0
HCM 7th LOS	C

Notes

* HCM 7th 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)	86	119	119	198	188	211	70	1224	335	152	570	38
Future Volume (veh/h)	86	119	119	198	188	211	70	1224	335	152	570	38
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
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	1885	1885	1885	1856	1856	1856	1870	1870	1870
Adj Flow Rate, veh/h	92	128	128	213	202	227	75	1316	360	163	613	41
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	1	1	1	3	3	3	2	2	2
Cap, veh/h	140	190	190	269	193	217	502	1436	383	290	1652	110
Arrive On Green	0.05	0.22	0.22	0.06	0.24	0.24	0.19	1.00	1.00	0.07	0.49	0.49
Sat Flow, veh/h	1781	858	858	1795	810	911	1767	2751	735	1781	3381	226
Grp Volume(v), veh/h	92	0	256	213	0	429	75	832	844	163	322	332
Grp Sat Flow(s),veh/h/ln	1781	0	1716	1795	0	1721	1767	1763	1723	1781	1777	1830
Q Serve(g_s), s	4.9	0.0	16.9	7.9	0.0	29.5	0.0	0.0	0.0	6.7	14.0	14.1
Cycle Q Clear(g_c), s	4.9	0.0	16.9	7.9	0.0	29.5	0.0	0.0	0.0	6.7	14.0	14.1
Prop In Lane	1.00		0.50	1.00		0.53	1.00		0.43	1.00		0.12
Lane Grp Cap(c), veh/h	140	0	381	269	0	409	502	920	899	290	868	894
V/C Ratio(X)	0.66	0.00	0.67	0.79	0.00	1.05	0.15	0.90	0.94	0.56	0.37	0.37
Avail Cap(c_a), veh/h	140	0	381	269	0	409	502	920	899	290	868	894
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	0.09	0.09	0.09	1.00	1.00	1.00
Uniform Delay (d), s/veh	38.1	0.0	44.1	42.7	0.0	47.3	18.2	0.0	0.0	20.0	19.8	19.8
Incr Delay (d2), s/veh	10.7	0.0	4.6	14.8	0.0	57.5	0.0	1.6	2.5	2.5	1.2	1.2
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	2.6	0.0	7.7	3.8	0.0	19.2	1.2	0.4	0.6	3.0	6.0	6.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	48.8	0.0	48.7	57.5	0.0	104.7	18.2	1.6	2.5	22.4	21.0	21.0
LnGrp LOS	D		D	E		F	B	A	A	C	C	C
Approach Vol, veh/h		348			642			1751			817	
Approach Delay, s/veh		48.7			89.1			2.8			21.3	
Approach LOS		D			F			A			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	14.0	70.8	13.0	33.2	17.8	67.0	11.0	35.2
Change Period (Y+Rc), s	5.6	* 5.9	5.1	5.7	* 5.9	* 6.4	5.3	* 5.7
Max Green Setting (Gmax), s	8.4	* 58	7.9	27.3	* 5.9	* 61	5.7	* 30
Max Q Clear Time (g_c+I1), s	8.7	2.0	9.9	18.9	2.0	16.1	6.9	31.5
Green Ext Time (p_c), s	0.0	23.6	0.0	1.0	0.0	4.4	0.0	0.0

Intersection Summary	
HCM 7th Control Delay, s/veh	27.1
HCM 7th LOS	C

Notes

* HCM 7th computational engine requires equal clearance times for the phases crossing the barrier.

MOVEMENT SUMMARY

Site: 101 [Syringa_Poleline_Existing_PM (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.3.210

New Site
Site Category: (None)
Roundabout

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] ft	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed mph
South: Syringa NB Approach															
3	L2	All MCs	33	1.3	33	1.3	0.085	4.5	LOS A	0.5	11.5	0.54	0.36	0.54	26.1
8	T1	All MCs	29	1.3	29	1.3	0.085	4.5	LOS A	0.5	11.5	0.54	0.36	0.54	23.3
18	R2	All MCs	21	1.3	21	1.3	0.085	4.5	LOS A	0.5	11.5	0.54	0.36	0.54	26.4
Approach			83	1.3	83	1.3	0.085	4.5	LOS A	0.5	11.5	0.54	0.36	0.54	25.1
East: Poleline WB Approach															
1u	U	All MCs	3	1.0	3	1.0	0.376	6.6	LOS A	2.5	63.0	0.42	0.22	0.42	29.8
1	L2	All MCs	38	1.0	38	1.0	0.376	6.6	LOS A	2.5	63.0	0.42	0.22	0.42	26.0
6	T1	All MCs	352	1.0	352	1.0	0.376	6.6	LOS A	2.5	63.0	0.42	0.22	0.42	30.3
16	R2	All MCs	59	1.0	59	1.0	0.376	6.6	LOS A	2.5	63.0	0.42	0.22	0.42	26.1
Approach			452	1.0	452	1.0	0.376	6.6	LOS A	2.5	63.0	0.42	0.22	0.42	29.3
North: Syringa SB Approach															
7	L2	All MCs	32	0.9	32	0.9	0.129	4.9	LOS A	0.7	18.4	0.56	0.39	0.56	26.2
4	T1	All MCs	24	0.9	24	0.9	0.129	4.9	LOS A	0.7	18.4	0.56	0.39	0.56	23.3
14	R2	All MCs	70	0.9	70	0.9	0.129	4.9	LOS A	0.7	18.4	0.56	0.39	0.56	26.4
Approach			125	0.9	125	0.9	0.129	4.9	LOS A	0.7	18.4	0.56	0.39	0.56	25.7
West: Poleline EB Approach															
5u	U	All MCs	1	1.3	1	1.3	0.322	5.7	LOS A	2.1	53.5	0.32	0.15	0.32	29.9
5	L2	All MCs	92	1.3	92	1.3	0.322	5.7	LOS A	2.1	53.5	0.32	0.15	0.32	26.1
2	T1	All MCs	291	1.3	291	1.3	0.322	5.7	LOS A	2.1	53.5	0.32	0.15	0.32	30.4
12	R2	All MCs	21	1.3	21	1.3	0.322	5.7	LOS A	2.1	53.5	0.32	0.15	0.32	26.2
Approach			405	1.3	405	1.3	0.322	5.7	LOS A	2.1	53.5	0.32	0.15	0.32	29.1
All Vehicles			1065	1.1	1065	1.1	0.376	5.9	LOS A	2.5	63.0	0.41	0.22	0.41	28.4

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Options tab).
Roundabout LOS Method: Same as Signalised Intersections.
Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.
LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).
Roundabout Capacity Model: SIDRA HCM.
Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

MOVEMENT SUMMARY

Site: 101 [Spokane_Prairie_Existing_PM (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.2.202

New Site
Site Category: (None)
Roundabout

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] ft	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed mph
South: Spokane NB Approach															
3	L2	All MCs	49	0.0	49	0.0	0.206	6.0	LOS A	1.1	26.3	0.53	0.38	0.53	29.1
8	T1	All MCs	74	0.0	74	0.0	0.206	6.0	LOS A	1.1	26.3	0.53	0.38	0.53	24.7
18	R2	All MCs	65	0.0	65	0.0	0.206	6.0	LOS A	1.1	26.3	0.53	0.38	0.53	29.4
Approach			188	0.0	188	0.0	0.206	6.0	LOS A	1.1	26.3	0.53	0.38	0.53	27.2
East: Prairie WB Approach															
1	L2	All MCs	91	1.6	91	1.6	0.322	6.0	LOS A	2.2	54.6	0.40	0.20	0.40	29.0
6	T1	All MCs	181	1.6	181	1.6	0.322	6.0	LOS A	2.2	54.6	0.40	0.20	0.40	32.8
16	R2	All MCs	106	1.6	106	1.6	0.322	6.0	LOS A	2.2	54.6	0.40	0.20	0.40	26.9
Approach			379	1.6	379	1.6	0.322	6.0	LOS A	2.2	54.6	0.40	0.20	0.40	30.0
North: Spokane SB Approach															
7	L2	All MCs	62	3.8	62	3.8	0.116	5.0	LOS A	0.5	13.6	0.44	0.29	0.44	26.6
4	T1	All MCs	40	3.8	40	3.8	0.116	5.0	LOS A	0.5	13.6	0.44	0.29	0.44	24.7
14	R2	All MCs	5	3.8	5	3.8	0.116	5.0	LOS A	0.5	13.6	0.44	0.29	0.44	26.9
Approach			107	3.8	107	3.8	0.116	5.0	LOS A	0.5	13.6	0.44	0.29	0.44	25.9
West: Prairie EB Approach															
5	L2	All MCs	15	0.3	15	0.3	0.360	6.4	LOS A	2.3	58.8	0.46	0.26	0.46	26.9
2	T1	All MCs	344	0.3	344	0.3	0.360	6.4	LOS A	2.3	58.8	0.46	0.26	0.46	33.2
12	R2	All MCs	68	0.3	68	0.3	0.360	6.4	LOS A	2.3	58.8	0.46	0.26	0.46	29.5
Approach			427	0.3	427	0.3	0.360	6.4	LOS A	2.3	58.8	0.46	0.26	0.46	32.3
All Vehicles			1101	1.0	1101	1.0	0.360	6.1	LOS A	2.3	58.8	0.45	0.26	0.45	29.8

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Options tab).
Roundabout LOS Method: Same as Signalised Intersections.
Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.
LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).
Roundabout Capacity Model: SIDRA HCM.
Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

SIDRA INTERSECTION 9.1 | Copyright © 2000-2022 Akcelik and Associates Pty Ltd | sidrasolutions.com

MOVEMENT SUMMARY

Site: 101 [Spokane_Prairie_Existing_PM (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.2.202

New Site
Site Category: (None)
Roundabout

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] ft	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed mph
South: Spokane NB Approach															
3	L2	All MCs	56	0.0	56	0.0	0.257	7.0	LOS A	1.4	35.1	0.61	0.45	0.61	28.7
8	T1	All MCs	86	0.0	86	0.0	0.257	7.0	LOS A	1.4	35.1	0.61	0.45	0.61	24.4
18	R2	All MCs	76	0.0	76	0.0	0.257	7.0	LOS A	1.4	35.1	0.61	0.45	0.61	29.0
Approach			218	0.0	218	0.0	0.257	7.0	LOS A	1.4	35.1	0.61	0.45	0.61	26.9
East: Prairie WB Approach															
1	L2	All MCs	110	1.6	110	1.6	0.395	7.0	LOS A	2.9	72.7	0.47	0.25	0.47	28.6
6	T1	All MCs	217	1.6	217	1.6	0.395	7.0	LOS A	2.9	72.7	0.47	0.25	0.47	32.4
16	R2	All MCs	128	1.6	128	1.6	0.395	7.0	LOS A	2.9	72.7	0.47	0.25	0.47	26.5
Approach			454	1.6	454	1.6	0.395	7.0	LOS A	2.9	72.7	0.47	0.25	0.47	29.6
North: Spokane SB Approach															
7	L2	All MCs	71	3.8	71	3.8	0.142	5.5	LOS A	0.7	17.4	0.49	0.35	0.49	26.5
4	T1	All MCs	47	3.8	47	3.8	0.142	5.5	LOS A	0.7	17.4	0.49	0.35	0.49	24.6
14	R2	All MCs	6	3.8	6	3.8	0.142	5.5	LOS A	0.7	17.4	0.49	0.35	0.49	26.7
Approach			124	3.8	124	3.8	0.142	5.5	LOS A	0.7	17.4	0.49	0.35	0.49	25.7
West: Prairie EB Approach															
5	L2	All MCs	18	0.3	18	0.3	0.443	7.7	LOS A	3.1	78.7	0.54	0.32	0.54	26.5
2	T1	All MCs	412	0.3	412	0.3	0.443	7.7	LOS A	3.1	78.7	0.54	0.32	0.54	32.6
12	R2	All MCs	81	0.3	81	0.3	0.443	7.7	LOS A	3.1	78.7	0.54	0.32	0.54	29.0
Approach			511	0.3	511	0.3	0.443	7.7	LOS A	3.1	78.7	0.54	0.32	0.54	31.7
All Vehicles			1307	1.0	1307	1.0	0.443	7.1	LOS A	3.1	78.7	0.52	0.32	0.52	29.5

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Options tab).
Roundabout LOS Method: Same as Signalised Intersections.
Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.
LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).
Roundabout Capacity Model: SIDRA HCM.
Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

SIDRA INTERSECTION 9.1 | Copyright © 2000-2022 Akcelik and Associates Pty Ltd | sidrasolutions.com

MOVEMENT SUMMARY

Site: 101 [Spokane_Prairie_Existing_PM (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.2.202

New Site
Site Category: (None)
Roundabout

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] ft	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed mph
South: Spokane NB Approach															
3	L2	All MCs	72	0.0	72	0.0	0.394	10.3	LOS B	2.5	63.5	0.77	0.63	0.79	27.5
8	T1	All MCs	110	0.0	110	0.0	0.394	10.3	LOS B	2.5	63.5	0.77	0.63	0.79	23.6
18	R2	All MCs	96	0.0	96	0.0	0.394	10.3	LOS B	2.5	63.5	0.77	0.63	0.79	27.8
Approach			278	0.0	278	0.0	0.394	10.3	LOS B	2.5	63.5	0.77	0.63	0.79	25.9
East: Prairie WB Approach															
1	L2	All MCs	146	1.6	146	1.6	0.554	9.9	LOS A	4.8	122.0	0.63	0.38	0.63	27.6
6	T1	All MCs	289	1.6	289	1.6	0.554	9.9	LOS A	4.8	122.0	0.63	0.38	0.63	31.1
16	R2	All MCs	169	1.6	169	1.6	0.554	9.9	LOS A	4.8	122.0	0.63	0.38	0.63	25.7
Approach			604	1.6	604	1.6	0.554	9.9	LOS A	4.8	122.0	0.63	0.38	0.63	28.6
North: Spokane SB Approach															
7	L2	All MCs	90	3.8	90	3.8	0.206	6.9	LOS A	1.1	27.7	0.61	0.46	0.61	26.0
4	T1	All MCs	60	3.8	60	3.8	0.206	6.9	LOS A	1.1	27.7	0.61	0.46	0.61	24.2
14	R2	All MCs	9	3.8	9	3.8	0.206	6.9	LOS A	1.1	27.7	0.61	0.46	0.61	26.3
Approach			159	3.8	159	3.8	0.206	6.9	LOS A	1.1	27.7	0.61	0.46	0.61	25.3
West: Prairie EB Approach															
5	L2	All MCs	23	0.3	23	0.3	0.626	11.6	LOS B	7.0	176.7	0.72	0.56	0.87	25.4
2	T1	All MCs	548	0.3	548	0.3	0.626	11.6	LOS B	7.0	176.7	0.72	0.56	0.87	30.9
12	R2	All MCs	109	0.3	109	0.3	0.626	11.6	LOS B	7.0	176.7	0.72	0.56	0.87	27.7
Approach			680	0.3	680	0.3	0.626	11.6	LOS B	7.0	176.7	0.72	0.56	0.87	30.1
All Vehicles			1720	1.0	1720	1.0	0.626	10.3	LOS B	7.0	176.7	0.69	0.50	0.75	28.3

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Options tab).
Roundabout LOS Method: Same as Signalised Intersections.
Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.
LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).
Roundabout Capacity Model: SIDRA HCM.
Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

SIDRA INTERSECTION 9.1 | Copyright © 2000-2022 Akcelik and Associates Pty Ltd | sidrasolutions.com

Intersection	
Int Delay, s/veh	5.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	15	57	1	11	68	18	6	71	18	19	36	14
Future Vol, veh/h	15	57	1	11	68	18	6	71	18	19	36	14
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	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	3	3	3	5	5	5	1	1	1	0	0	0
Mvmt Flow	17	63	1	12	76	20	7	79	20	21	40	16

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	96	0	0	64	0	0	217	217	64	246	208	86
Stage 1	-	-	-	-	-	-	97	97	-	110	110	-
Stage 2	-	-	-	-	-	-	120	120	-	136	98	-
Critical Hdwy	4.13	-	-	4.15	-	-	7.11	6.51	6.21	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.11	5.51	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.11	5.51	-	6.1	5.5	-
Follow-up Hdwy	2.227	-	-	2.245	-	-	3.509	4.009	3.309	3.5	4	3.3
Pot Cap-1 Maneuver	1492	-	-	1519	-	-	741	683	1003	712	693	979
Stage 1	-	-	-	-	-	-	912	816	-	900	808	-
Stage 2	-	-	-	-	-	-	887	798	-	872	818	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1492	-	-	1519	-	-	674	669	1003	604	679	979
Mov Cap-2 Maneuver	-	-	-	-	-	-	674	669	-	604	679	-
Stage 1	-	-	-	-	-	-	901	807	-	892	801	-
Stage 2	-	-	-	-	-	-	822	792	-	762	809	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	1.53	0.84	10.91	10.79
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	714	369	-	-	196	-	-	699
HCM Lane V/C Ratio	0.148	0.011	-	-	0.008	-	-	0.11
HCM Ctrl Dly (s/v)	10.9	7.4	0	-	7.4	0	-	10.8
HCM Lane LOS	B	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.5	0	-	-	0	-	-	0.4

Intersection	
Int Delay, s/veh	6.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	22	82	1	15	95	25	9	91	23	24	46	18
Future Vol, veh/h	22	82	1	15	95	25	9	91	23	24	46	18
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	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	3	3	3	5	5	5	1	1	1	0	0	0
Mvmt Flow	24	91	1	17	106	28	10	101	26	27	51	20

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	133	0	0	92	0	0	305	307	92	343	294	119
Stage 1	-	-	-	-	-	-	141	141	-	153	153	-
Stage 2	-	-	-	-	-	-	164	167	-	191	141	-
Critical Hdwy	4.13	-	-	4.15	-	-	7.11	6.51	6.21	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.11	5.51	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.11	5.51	-	6.1	5.5	-
Follow-up Hdwy	2.227	-	-	2.245	-	-	3.509	4.009	3.309	3.5	4	3.3
Pot Cap-1 Maneuver	1445	-	-	1484	-	-	649	608	969	615	621	938
Stage 1	-	-	-	-	-	-	865	782	-	854	775	-
Stage 2	-	-	-	-	-	-	840	762	-	816	784	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1445	-	-	1484	-	-	566	590	969	484	602	938
Mov Cap-2 Maneuver	-	-	-	-	-	-	566	590	-	484	602	-
Stage 1	-	-	-	-	-	-	849	768	-	844	765	-
Stage 2	-	-	-	-	-	-	758	753	-	678	770	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	1.58	0.83	12.22	12.08
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	635	376	-	-	192	-	-	606
HCM Lane V/C Ratio	0.215	0.017	-	-	0.011	-	-	0.161
HCM Ctrl Dly (s/v)	12.2	7.5	0	-	7.5	0	-	12.1
HCM Lane LOS	B	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.8	0.1	-	-	0	-	-	0.6

Intersection	
Int Delay, s/veh	6.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	26	100	2	19	115	30	9	105	27	28	53	21
Future Vol, veh/h	26	100	2	19	115	30	9	105	27	28	53	21
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	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	3	3	3	5	5	5	1	1	1	0	0	0
Mvmt Flow	29	111	2	21	128	33	10	117	30	31	59	23

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	161	0	0	113	0	0	369	373	112	414	358	144
Stage 1	-	-	-	-	-	-	170	170	-	187	187	-
Stage 2	-	-	-	-	-	-	199	203	-	227	171	-
Critical Hdwy	4.13	-	-	4.15	-	-	7.11	6.51	6.21	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.11	5.51	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.11	5.51	-	6.1	5.5	-
Follow-up Hdwy	2.227	-	-	2.245	-	-	3.509	4.009	3.309	3.5	4	3.3
Pot Cap-1 Maneuver	1412	-	-	1457	-	-	589	559	943	552	572	908
Stage 1	-	-	-	-	-	-	834	760	-	820	749	-
Stage 2	-	-	-	-	-	-	805	735	-	780	761	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1412	-	-	1457	-	-	495	538	943	406	550	908
Mov Cap-2 Maneuver	-	-	-	-	-	-	495	538	-	406	550	-
Stage 1	-	-	-	-	-	-	816	743	-	807	737	-
Stage 2	-	-	-	-	-	-	710	723	-	623	744	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	1.54	0.87	13.44	13.4
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	583	364	-	-	200	-	-	542
HCM Lane V/C Ratio	0.269	0.02	-	-	0.014	-	-	0.209
HCM Ctrl Dly (s/v)	13.4	7.6	0	-	7.5	0	-	13.4
HCM Lane LOS	B	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	1.1	0.1	-	-	0	-	-	0.8

Intersection	
Int Delay, s/veh	8.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	36	136	2	25	154	41	11	132	34	36	68	26
Future Vol, veh/h	36	136	2	25	154	41	11	132	34	36	68	26
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	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	3	3	3	5	5	5	1	1	1	0	0	0
Mvmt Flow	40	151	2	28	171	46	12	147	38	40	76	29

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	217	0	0	153	0	0	497	504	152	554	483	194
Stage 1	-	-	-	-	-	-	232	232	-	249	249	-
Stage 2	-	-	-	-	-	-	264	272	-	304	233	-
Critical Hdwy	4.13	-	-	4.15	-	-	7.11	6.51	6.21	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.11	5.51	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.11	5.51	-	6.1	5.5	-
Follow-up Hdwy	2.227	-	-	2.245	-	-	3.509	4.009	3.309	3.5	4	3.3
Pot Cap-1 Maneuver	1347	-	-	1409	-	-	485	471	897	446	486	853
Stage 1	-	-	-	-	-	-	773	714	-	759	704	-
Stage 2	-	-	-	-	-	-	743	686	-	709	715	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1347	-	-	1409	-	-	374	446	897	276	460	853
Mov Cap-2 Maneuver	-	-	-	-	-	-	374	446	-	276	460	-
Stage 1	-	-	-	-	-	-	748	691	-	742	688	-
Stage 2	-	-	-	-	-	-	625	671	-	518	692	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	1.6	0.86	17.31	17.95
HCM LOS			C	C

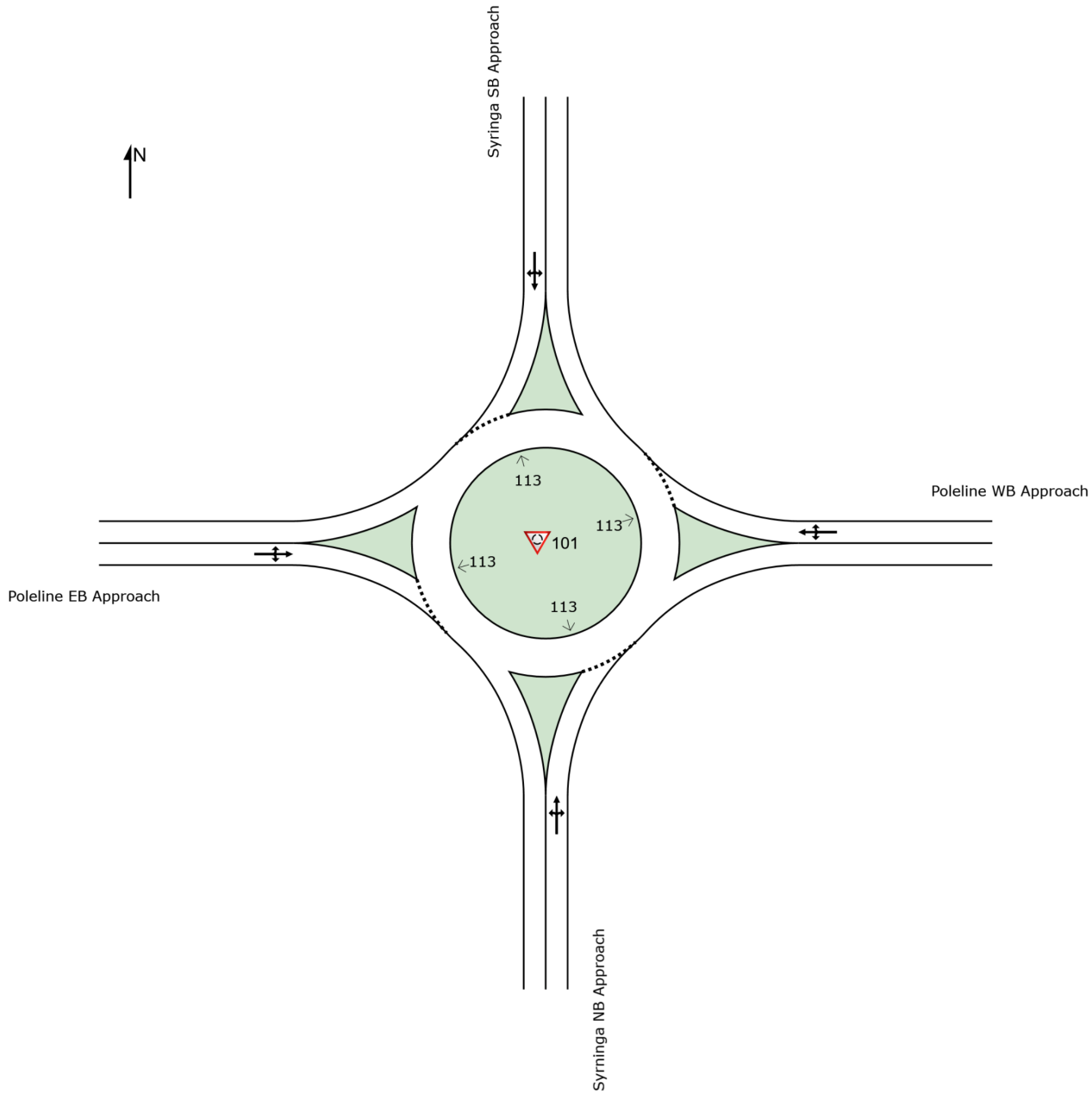
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	487	371	-	-	196	-	-	421
HCM Lane V/C Ratio	0.404	0.03	-	-	0.02	-	-	0.343
HCM Ctrl Dly (s/v)	17.3	7.8	0	-	7.6	0	-	17.9
HCM Lane LOS	C	A	A	-	A	A	-	C
HCM 95th %tile Q(veh)	1.9	0.1	-	-	0.1	-	-	1.5

SITE LAYOUT

Site: 101 [Syringa_Poleline_Existing_AM (Site Folder: General)]

New Site
Site Category: (None)
Roundabout

Layout pictures are schematic functional drawings reflecting input data. They are not design drawings.



SIDRA INTERSECTION 9.1 | Copyright © 2000-2023 Akcelik and Associates Pty Ltd | sidrasolutions.com
Organisation: J.U.B ENGINEERS, INC. | Licence: PLUS / 1PC | Created: Thursday, September 7, 2023 11:18:33 AM
Project: \\jub.com\Central\Clients\ID\PostFallsCity\Projects\07-23-040_TMP\Planning\Traffic\Sidra\Syringa_Poleline.sip9

MOVEMENT SUMMARY

Site: 101 [Syringa_Poleline_Existing_AM (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.3.210

New Site
Site Category: (None)
Roundabout

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] ft	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed mph
South: Syrninga NB Approach															
3	L2	All MCs	61	3.0	61	3.0	0.137	6.8	LOS A	0.8	21.6	0.76	0.59	0.76	25.1
8	T1	All MCs	17	3.0	17	3.0	0.137	6.8	LOS A	0.8	21.6	0.76	0.59	0.76	22.5
18	R2	All MCs	15	3.0	15	3.0	0.137	6.8	LOS A	0.8	21.6	0.76	0.59	0.76	25.3
Approach			93	3.0	93	3.0	0.137	6.8	LOS A	0.8	21.6	0.76	0.59	0.76	24.6
East: Poleline WB Approach															
1	L2	All MCs	24	10.8	24	10.8	0.356	6.8	LOS A	2.4	65.9	0.42	0.22	0.42	26.0
6	T1	All MCs	354	10.8	354	10.8	0.356	6.8	LOS A	2.4	65.9	0.42	0.22	0.42	30.3
16	R2	All MCs	13	10.8	13	10.8	0.356	6.8	LOS A	2.4	65.9	0.42	0.22	0.42	26.1
Approach			390	10.8	390	10.8	0.356	6.8	LOS A	2.4	65.9	0.42	0.22	0.42	29.8
North: Syringa SB Approach															
7	L2	All MCs	55	2.5	55	2.5	0.254	6.6	LOS A	1.5	39.3	0.64	0.46	0.64	25.7
4	T1	All MCs	38	2.5	38	2.5	0.254	6.6	LOS A	1.5	39.3	0.64	0.46	0.64	22.9
14	R2	All MCs	137	2.5	137	2.5	0.254	6.6	LOS A	1.5	39.3	0.64	0.46	0.64	25.9
Approach			230	2.5	230	2.5	0.254	6.6	LOS A	1.5	39.3	0.64	0.46	0.64	25.3
West: Poleline EB Approach															
5	L2	All MCs	54	5.0	54	5.0	0.572	9.6	LOS A	5.3	137.6	0.52	0.27	0.52	25.2
2	T1	All MCs	606	5.0	606	5.0	0.572	9.6	LOS A	5.3	137.6	0.52	0.27	0.52	29.3
12	R2	All MCs	14	5.0	14	5.0	0.572	9.6	LOS A	5.3	137.6	0.52	0.27	0.52	25.3
Approach			673	5.0	673	5.0	0.572	9.6	LOS A	5.3	137.6	0.52	0.27	0.52	28.8
All Vehicles			1386	6.1	1386	6.1	0.572	8.1	LOS A	5.3	137.6	0.53	0.31	0.53	28.1

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Options tab).
Roundabout LOS Method: Same as Signalised Intersections.
Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.
LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).
Roundabout Capacity Model: SIDRA HCM.
Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

SIDRA INTERSECTION 9.1 | Copyright © 2000-2023 Akcelik and Associates Pty Ltd | sidrasolutions.com
Organisation: J.U.B ENGINEERS, INC. | Licence: PLUS / 1PC | Processed: Thursday, September 7, 2023 11:20:00 AM
Project: \\jub.com\Central\Clients\ID\PostFallsCity\Projects\07-23-040_TMP\Planning\Traffic\Sidra\Syringa_Poleline.sip9

MOVEMENT SUMMARY

Site: 101 [Syringa_Poleline_Existing_MidDay (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.3.210

New Site
Site Category: (None)
Roundabout

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] ft	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed mph
South: Syringa NB Approach															
3	L2	All MCs	18	0.0	18	0.0	0.033	3.5	LOS A	0.2	4.1	0.41	0.23	0.41	26.3
8	T1	All MCs	9	0.0	9	0.0	0.033	3.5	LOS A	0.2	4.1	0.41	0.23	0.41	23.4
18	R2	All MCs	10	0.0	10	0.0	0.033	3.5	LOS A	0.2	4.1	0.41	0.23	0.41	26.6
Approach			37	0.0	37	0.0	0.033	3.5	LOS A	0.2	4.1	0.41	0.23	0.41	25.6
East: Poleline WB Approach															
1	L2	All MCs	10	2.3	10	2.3	0.190	4.4	LOS A	1.0	26.5	0.25	0.10	0.25	26.7
6	T1	All MCs	200	2.3	200	2.3	0.190	4.4	LOS A	1.0	26.5	0.25	0.10	0.25	31.3
16	R2	All MCs	31	2.3	31	2.3	0.190	4.4	LOS A	1.0	26.5	0.25	0.10	0.25	26.9
Approach			242	2.3	242	2.3	0.190	4.4	LOS A	1.0	26.5	0.25	0.10	0.25	30.5
North: Syringa SB Approach															
7u	U	All MCs	1	4.6	1	4.6	0.067	3.8	LOS A	0.3	8.7	0.39	0.23	0.39	23.4
7	L2	All MCs	20	4.6	20	4.6	0.067	3.8	LOS A	0.3	8.7	0.39	0.23	0.39	26.4
4	T1	All MCs	15	4.6	15	4.6	0.067	3.8	LOS A	0.3	8.7	0.39	0.23	0.39	23.5
14	R2	All MCs	37	4.6	37	4.6	0.067	3.8	LOS A	0.3	8.7	0.39	0.23	0.39	26.7
Approach			73	4.6	73	4.6	0.067	3.8	LOS A	0.3	8.7	0.39	0.23	0.39	25.8
West: Poleline EB Approach															
5u	U	All MCs	1	4.7	1	4.7	0.204	4.4	LOS A	1.2	30.9	0.20	0.07	0.20	30.4
5	L2	All MCs	49	4.7	49	4.7	0.204	4.4	LOS A	1.2	30.9	0.20	0.07	0.20	26.5
2	T1	All MCs	197	4.7	197	4.7	0.204	4.4	LOS A	1.2	30.9	0.20	0.07	0.20	31.0
12	R2	All MCs	13	4.7	13	4.7	0.204	4.4	LOS A	1.2	30.9	0.20	0.07	0.20	26.7
Approach			261	4.7	261	4.7	0.204	4.4	LOS A	1.2	30.9	0.20	0.07	0.20	29.8
All Vehicles			612	3.5	612	3.5	0.204	4.3	LOS A	1.2	30.9	0.25	0.11	0.25	29.2

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Options tab).
Roundabout LOS Method: Same as Signalised Intersections.
Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.
LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).
Roundabout Capacity Model: SIDRA HCM.
Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

MOVEMENT SUMMARY

Site: 101 [Syringa_Poleline_Existing_PM (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.3.210

New Site
Site Category: (None)
Roundabout

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] ft	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed mph
South: Syringa NB Approach															
3	L2	All MCs	33	1.3	33	1.3	0.085	4.5	LOS A	0.5	11.5	0.54	0.36	0.54	26.1
8	T1	All MCs	29	1.3	29	1.3	0.085	4.5	LOS A	0.5	11.5	0.54	0.36	0.54	23.3
18	R2	All MCs	21	1.3	21	1.3	0.085	4.5	LOS A	0.5	11.5	0.54	0.36	0.54	26.4
Approach			83	1.3	83	1.3	0.085	4.5	LOS A	0.5	11.5	0.54	0.36	0.54	25.1
East: Poleline WB Approach															
1u	U	All MCs	3	1.0	3	1.0	0.376	6.6	LOS A	2.5	63.0	0.42	0.22	0.42	29.8
1	L2	All MCs	38	1.0	38	1.0	0.376	6.6	LOS A	2.5	63.0	0.42	0.22	0.42	26.0
6	T1	All MCs	352	1.0	352	1.0	0.376	6.6	LOS A	2.5	63.0	0.42	0.22	0.42	30.3
16	R2	All MCs	59	1.0	59	1.0	0.376	6.6	LOS A	2.5	63.0	0.42	0.22	0.42	26.1
Approach			452	1.0	452	1.0	0.376	6.6	LOS A	2.5	63.0	0.42	0.22	0.42	29.3
North: Syringa SB Approach															
7	L2	All MCs	32	0.9	32	0.9	0.129	4.9	LOS A	0.7	18.4	0.56	0.39	0.56	26.2
4	T1	All MCs	24	0.9	24	0.9	0.129	4.9	LOS A	0.7	18.4	0.56	0.39	0.56	23.3
14	R2	All MCs	70	0.9	70	0.9	0.129	4.9	LOS A	0.7	18.4	0.56	0.39	0.56	26.4
Approach			125	0.9	125	0.9	0.129	4.9	LOS A	0.7	18.4	0.56	0.39	0.56	25.7
West: Poleline EB Approach															
5u	U	All MCs	1	1.3	1	1.3	0.322	5.7	LOS A	2.1	53.5	0.32	0.15	0.32	29.9
5	L2	All MCs	92	1.3	92	1.3	0.322	5.7	LOS A	2.1	53.5	0.32	0.15	0.32	26.1
2	T1	All MCs	291	1.3	291	1.3	0.322	5.7	LOS A	2.1	53.5	0.32	0.15	0.32	30.4
12	R2	All MCs	21	1.3	21	1.3	0.322	5.7	LOS A	2.1	53.5	0.32	0.15	0.32	26.2
Approach			405	1.3	405	1.3	0.322	5.7	LOS A	2.1	53.5	0.32	0.15	0.32	29.1
All Vehicles			1065	1.1	1065	1.1	0.376	5.9	LOS A	2.5	63.0	0.41	0.22	0.41	28.4

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Options tab).
Roundabout LOS Method: Same as Signalised Intersections.
Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.
LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).
Roundabout Capacity Model: SIDRA HCM.
Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

MOVEMENT SUMMARY

Site: 101 [Syringa_Poleline_Existing_PM (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.2.202

New Site
Site Category: (None)
Roundabout

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] ft	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed mph
South: Syringa NB Approach															
3	L2	All MCs	51	1.3	51	1.3	0.152	5.7	LOS A	0.9	22.7	0.65	0.48	0.65	25.8
8	T1	All MCs	46	1.3	46	1.3	0.152	5.7	LOS A	0.9	22.7	0.65	0.48	0.65	23.0
18	R2	All MCs	33	1.3	33	1.3	0.152	5.7	LOS A	0.9	22.7	0.65	0.48	0.65	26.0
Approach			129	1.3	129	1.3	0.152	5.7	LOS A	0.9	22.7	0.65	0.48	0.65	24.8
East: Poleline WB Approach															
1u	U	All MCs	4	1.0	4	1.0	0.475	8.3	LOS A	3.5	88.3	0.55	0.34	0.55	29.1
1	L2	All MCs	46	1.0	46	1.0	0.475	8.3	LOS A	3.5	88.3	0.55	0.34	0.55	25.5
6	T1	All MCs	420	1.0	420	1.0	0.475	8.3	LOS A	3.5	88.3	0.55	0.34	0.55	29.6
16	R2	All MCs	70	1.0	70	1.0	0.475	8.3	LOS A	3.5	88.3	0.55	0.34	0.55	25.6
Approach			539	1.0	539	1.0	0.475	8.3	LOS A	3.5	88.3	0.55	0.34	0.55	28.6
North: Syringa SB Approach															
7	L2	All MCs	40	0.9	40	0.9	0.183	5.9	LOS A	1.1	28.0	0.65	0.47	0.65	25.9
4	T1	All MCs	30	0.9	30	0.9	0.183	5.9	LOS A	1.1	28.0	0.65	0.47	0.65	23.0
14	R2	All MCs	89	0.9	89	0.9	0.183	5.9	LOS A	1.1	28.0	0.65	0.47	0.65	26.1
Approach			160	0.9	160	0.9	0.183	5.9	LOS A	1.1	28.0	0.65	0.47	0.65	25.4
West: Poleline EB Approach															
5u	U	All MCs	1	1.3	1	1.3	0.446	7.3	LOS A	3.4	85.8	0.42	0.21	0.42	29.3
5	L2	All MCs	125	1.3	125	1.3	0.446	7.3	LOS A	3.4	85.8	0.42	0.21	0.42	25.6
2	T1	All MCs	393	1.3	393	1.3	0.446	7.3	LOS A	3.4	85.8	0.42	0.21	0.42	29.8
12	R2	All MCs	28	1.3	28	1.3	0.446	7.3	LOS A	3.4	85.8	0.42	0.21	0.42	25.7
Approach			548	1.3	548	1.3	0.446	7.3	LOS A	3.4	85.8	0.42	0.21	0.42	28.5
All Vehicles			1376	1.1	1376	1.1	0.475	7.4	LOS A	3.5	88.3	0.52	0.31	0.52	27.8

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Options tab).
Roundabout LOS Method: Same as Signalised Intersections.
Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.
LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).
Roundabout Capacity Model: SIDRA HCM.
Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

SIDRA INTERSECTION 9.1 | Copyright © 2000-2022 Akcelik and Associates Pty Ltd | sidrasolutions.com

MOVEMENT SUMMARY

Site: 101 [Syringa_Poleline_Existing_PM (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.2.202

New Site
Site Category: (None)
Roundabout

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] ft	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed mph
South: Syringa NB Approach															
3	L2	All MCs	64	1.3	64	1.3	0.213	7.1	LOS A	1.4	34.2	0.74	0.57	0.74	25.4
8	T1	All MCs	58	1.3	58	1.3	0.213	7.1	LOS A	1.4	34.2	0.74	0.57	0.74	22.7
18	R2	All MCs	40	1.3	40	1.3	0.213	7.1	LOS A	1.4	34.2	0.74	0.57	0.74	25.6
Approach			162	1.3	162	1.3	0.213	7.1	LOS A	1.4	34.2	0.74	0.57	0.74	24.4
East: Poleline WB Approach															
1u	U	All MCs	4	1.0	4	1.0	0.552	9.9	LOS A	4.4	110.6	0.65	0.42	0.65	28.5
1	L2	All MCs	50	1.0	50	1.0	0.552	9.9	LOS A	4.4	110.6	0.65	0.42	0.65	25.0
6	T1	All MCs	467	1.0	467	1.0	0.552	9.9	LOS A	4.4	110.6	0.65	0.42	0.65	29.0
16	R2	All MCs	78	1.0	78	1.0	0.552	9.9	LOS A	4.4	110.6	0.65	0.42	0.65	25.1
Approach			600	1.0	600	1.0	0.552	9.9	LOS A	4.4	110.6	0.65	0.42	0.65	28.1
North: Syringa SB Approach															
7	L2	All MCs	47	0.9	47	0.9	0.229	6.9	LOS A	1.5	37.2	0.72	0.54	0.72	25.6
4	T1	All MCs	36	0.9	36	0.9	0.229	6.9	LOS A	1.5	37.2	0.72	0.54	0.72	22.8
14	R2	All MCs	103	0.9	103	0.9	0.229	6.9	LOS A	1.5	37.2	0.72	0.54	0.72	25.8
Approach			186	0.9	186	0.9	0.229	6.9	LOS A	1.5	37.2	0.72	0.54	0.72	25.1
West: Poleline EB Approach															
5u	U	All MCs	2	1.3	2	1.3	0.537	8.8	LOS A	4.6	116.6	0.51	0.27	0.51	28.7
5	L2	All MCs	148	1.3	148	1.3	0.537	8.8	LOS A	4.6	116.6	0.51	0.27	0.51	25.2
2	T1	All MCs	466	1.3	466	1.3	0.537	8.8	LOS A	4.6	116.6	0.51	0.27	0.51	29.2
12	R2	All MCs	33	1.3	33	1.3	0.537	8.8	LOS A	4.6	116.6	0.51	0.27	0.51	25.3
Approach			649	1.3	649	1.3	0.537	8.8	LOS A	4.6	116.6	0.51	0.27	0.51	28.0
All Vehicles			1597	1.1	1597	1.1	0.552	8.8	LOS A	4.6	116.6	0.61	0.39	0.61	27.2

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Options tab).
Roundabout LOS Method: Same as Signalised Intersections.
Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.
LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).
Roundabout Capacity Model: SIDRA HCM.
Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

MOVEMENT SUMMARY

Site: 101 [Syringa_Poleline_Existing_PM (Site Folder: General)]

Output produced by SIDRA INTERSECTION Version: 9.1.2.202

New Site
Site Category: (None)
Roundabout

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total veh/h	HV] %	Arrival Flows [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. veh	Dist] ft	Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed mph
South: Syringa NB Approach															
3	L2	All MCs	90	1.3	90	1.3	0.413	12.9	LOS B	3.2	81.2	0.94	0.79	1.00	23.8
8	T1	All MCs	82	1.3	82	1.3	0.413	12.9	LOS B	3.2	81.2	0.94	0.79	1.00	21.5
18	R2	All MCs	57	1.3	57	1.3	0.413	12.9	LOS B	3.2	81.2	0.94	0.79	1.00	24.0
Approach			228	1.3	228	1.3	0.413	12.9	LOS B	3.2	81.2	0.94	0.79	1.00	23.0
East: Poleline WB Approach															
1u	U	All MCs	5	1.0	5	1.0	0.728	15.8	LOS B	11.9	301.1	0.87	0.87	1.34	26.6
1	L2	All MCs	61	1.0	61	1.0	0.728	15.8	LOS B	11.9	301.1	0.87	0.87	1.34	23.5
6	T1	All MCs	563	1.0	563	1.0	0.728	15.8	LOS B	11.9	301.1	0.87	0.87	1.34	27.0
16	R2	All MCs	93	1.0	93	1.0	0.728	15.8	LOS B	11.9	301.1	0.87	0.87	1.34	23.6
Approach			723	1.0	723	1.0	0.728	15.8	LOS B	11.9	301.1	0.87	0.87	1.34	26.2
North: Syringa SB Approach															
7	L2	All MCs	60	0.9	60	0.9	0.353	10.0	LOS B	2.6	64.5	0.86	0.68	0.86	24.7
4	T1	All MCs	45	0.9	45	0.9	0.353	10.0	LOS B	2.6	64.5	0.86	0.68	0.86	22.1
14	R2	All MCs	130	0.9	130	0.9	0.353	10.0	LOS B	2.6	64.5	0.86	0.68	0.86	24.9
Approach			235	0.9	235	0.9	0.353	10.0	LOS B	2.6	64.5	0.86	0.68	0.86	24.3
West: Poleline EB Approach															
5u	U	All MCs	2	1.3	2	1.3	0.731	13.9	LOS B	9.8	248.2	0.75	0.48	0.81	27.0
5	L2	All MCs	195	1.3	195	1.3	0.731	13.9	LOS B	9.8	248.2	0.75	0.48	0.81	23.8
2	T1	All MCs	612	1.3	612	1.3	0.731	13.9	LOS B	9.8	248.2	0.75	0.48	0.81	27.4
12	R2	All MCs	43	1.3	43	1.3	0.731	13.9	LOS B	9.8	248.2	0.75	0.48	0.81	23.9
Approach			852	1.3	852	1.3	0.731	13.9	LOS B	9.8	248.2	0.75	0.48	0.81	26.3
All Vehicles			2038	1.1	2038	1.1	0.731	14.1	LOS B	11.9	301.1	0.83	0.68	1.02	25.6

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Options tab).
Roundabout LOS Method: Same as Signalised Intersections.
Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.
LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).
Roundabout Capacity Model: SIDRA HCM.
Delay Model: HCM Delay Formula (Stopline Delay: Geometric Delay is not included).
Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.
Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.
Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

SIDRA INTERSECTION 9.1 | Copyright © 2000-2022 Akcelik and Associates Pty Ltd | sidrasolutions.com
Organisation: J.U.B ENGINEERS, INC. | Licence: PLUS / 1PC | Processed: Tuesday, April 8, 2025 12:15:24 PM
Project: \\jub.com\central\Clients\ID\PostFallsCity\Projects\07-23-040_TMP\Planning\Traffic\Sidra\2045\Syringa_Poleline.sip9



CITY OF POST FALLS

2025 TRANSPORTATION MASTER PLAN

Open House 1 & 2 Sign-In and Comments

CITY OF POST FALLS -TRANSPORTATION MASTER PLAN UPDATE
Public Open House | Nov 13, 2023, | 4:00-7:00pm

CITY OF POST FALLS

Name	Address	Email	Phone
Ryan Lewis	1016 W. Hayden Ave, Hayden, ID 83835	RLewis@stratageotech.com	208-755-5362
Anna Staal	1321 E Ermina Ave, Spokane, WA	~~annastaal~~ astaal@postfalls.gov	442-333-5239
Tim R. Turnell Sr	2855 W. Yukon Ave PF 83854	tim.turnell@yahoo.com	208-949-4788
Vicky Jo Carey	2880 N. Shooting Star St.	islandveejer@gmail.com	208-819-8084
Kelly Heck		cwheck@msn.com	509-999-1994
Shannon Stein		srstein93@gmail	(406)249-3940
Carter Casidy	621 E 2nd Ave, PF, 83854	CarterCasidy@gmail.com	208-916-4348
Suzanne Knutson	4208 W. Appaloosa Rd	sknutson@startmail.com	208-704-2094
Samantha Steigleder			

CITY OF POST FALLS -TRANSPORTATION MASTER PLAN UPDATE

Public Open House | Nov 13, 2023, | 4:00-7:00pm

CITY OF POST FALLS

Name	Address	Email	Phone
ROB BEACHLER	600 W. Prairie Ave, CDA, ID 83814	robert.beachler@itd.idaho.gov	(208) 772-1216
Nancy Therwachter	25000 E. Hawkstone Lp. Liberty Lake	NTherwachter@postfalls.gov	208-457-3338
JAMES MULCAHY	1952 E SUNDANCE DR. P.F.	JMULCAHY@POSTFALLS.GOV	208-457-3333
Heather Mack	5220 S Perry St	Hmack5798@MSN.com	509 951 2960
LYNN BORDERS	107 S. BENTLEY PL, POST FALLS	LRBORDERS@GMAIL.COM	208-773-6981
Doug Melvin	2729 E. Ferry Landing	Doug.6820s@gov.com	509 981 8437
Robert Palus	408 N. Spokane St	rpalus@postfalls.gov	208 773-4235

2025 Transportation Master Plan *Update*

TRANSPORTATION MASTER PLAN UPDATE
Comment Card

CITY OF POST FALLS

Please use this comment card to provide your feedback to the project team. Specifically, what are your comments regarding the Plan Goals, and/or transportation system? (You may use the back of this card for additional space.)

EXIT 5 WESTBOUND OFF RAMP – HUGE DELAY FOR THE SOUTHBOUND TRAFFIC ONTO SPOKANE ST. & THEN A QUICK STOP AT THE NEXT LIGHT FOR THE ON/OFF RAMP.

TIMING NEEDS TO BE ADDRESSED FOR THE SIGNALS AT MULLAN + SPOKANE ST.

SURVEY

OPTIONAL

Name:

Address:

Email:

For more information visit the Post Falls Highway District Website:
bit.ly/PostFallsTMP

2025 Transportation Master Plan Update

TRANSPORTATION MASTER PLAN UPDATE
Comment Card

CITY OF POST FALLS

Please use this comment card to provide your feedback to the project team. Specifically, what are your comments regarding the Plan Goals, and/or transportation system? (You may use the back of this card for additional space.)

4th Street - difficult to turn into Spokane Street in the peak hour. Queues on Spokane block 4th St. turning traffic.

SURVEY

OPTIONAL

Name:

Address:

Email:

For more information visit the Post Falls Highway District Website:
bit.ly/PostFallsTMP

2025 Transportation Master Plan *Update*

CITY OF POST FALLS -TRANSPORTATION MASTER PLAN UPDATE
Public Open House | Aug 28, 2025 | 4:00-7:00pm

CITY OF POST FALLS

Name	Address	Email	Phone
ROB SORENSON	9636 N. IDAHO RD		208 967 4612
James Spilsbur	1830 E Sinto		
Dustin PARR	8098 N Crown Pointe St		
Maryjo McNally	3099 N. Kiernan Dr.		
John Keating	5114 E River Place		
Robert S. Palus	408 N Spokane	rpalus@postfalls.gov	
Dal N	2454 Sparrow. LP		
Julie Hensley	1360 E Warm Springs Ave		
James Steffensen	2503 N Partridge Loop		
Joseph Meek	408 N Spokane St	jmeek@postfalls.gov	
Bryan Jensen	2483 N Sparrow Loop	~~bjensen~~ bryanjensen11@gmail.com	208 582 0847
Greg Munden	2905 E. Burgundy Trl	munden2011@roadrunner.com	208-819-5496
DAVE MAXWELL	8362 N Meyer Rd	frdmftr422@gmail.com	208 964 7906
Debbie Goertzen	212 N. Olivewood Ln	goertzendebbie@gmail.com	509-961-9474
Tim Goertzen	"		

CITY OF POST FALLS -TRANSPORTATION MASTER PLAN UPDATE

Public Open House | Nov 13, 2023, | 4:00-7:00pm

CITY OF POST FALLS

Name	Address	Email	Phone
Mary Merrill	22760 Windermere Ave Coeur d'Alene, ID 83815	mmerrill53@hotmail.com	208-610-9824
Ross Kerns	112 E 1st Ave	ross.kerns1@gmail.com	832 654 8548
Catherine Harris	808 S. Riverside Harbor Dr Post Falls	CatDHarris@gmail.com	
Mack Harris	808 S Riverside Harbor Dr. Post Falls	MackLHarris@gmail.com	942-235-0086

2025 Transportation Master Plan Update

TRANSPORTATION MASTER PLAN UPDATE
Comment Card

CITY OF POST FALLS

Please use this comment card to provide your feedback to the project team. Specifically, what are your comments regarding the Plan Goals, and/or transportation system? (You may use the back of this card for additional space.)

Pleasant View & Expo intersection northbound Pleasant View 2 left turn lanes need fixing for asphalt ridges due to heavy semi traffic.

Striping on Expo parkway between Jacklin & Beck is much welcomed. I travel that every day to go to work. I feel much more confident driving that section now. Before with the parked cars on both side & no center line, traffic in both directions tended to drive in the middle & I was concerned about accidents if a car or truck didn't move over promptly. There had already been a parked truck that was rear-ended on southside just west of Inkwood. I appreciate the asphalt sealing too.

WEBSITE

OPTIONAL

Name: Debbie Goertzen

Address: 212 N. Olivewood Ln

Email: goertzendebbie@gmail.com

For more information visit the Post Falls Highway District Website: bit.ly/PostFallsTMP

2025 Transportation Master Plan Update

TRANSPORTATION MASTER PLAN UPDATE
Comment Card

CITY OF POST FALLS

Please use this comment card to provide your feedback to the project team. Specifically, what are your comments regarding the Plan Goals, and/or transportation system? (You may use the back of this card for additional space.)

* Praire / Idaho roundabout include eastbound right turn lane onto Idaho (south bound)

* Concern with higher speed traffic going eastbound on Praire thru the Spokane / Praire Roundabout

OPTIONAL

Name:

Address:

Email:

For more information visit the Post Falls Highway District Website: bit.ly/PostFallsTMP

WEBSITE

2025 Transportation Master Plan Update

TRANSPORTATION MASTER PLAN UPDATE
Comment Card

CITY OF POST FALLS

Please use this comment card to provide your feedback to the project team. Specifically, what are your comments regarding the Plan Goals, and/or transportation system? (You may use the back of this card for additional space.)

Roundabout @ Idaho + 3rd

OPTIONAL

Name:

Address:

Email:

For more information visit the Post Falls Highway District Website: bit.ly/PostFallsTMP

WEBSITE

2025 Transportation Master Plan Update

TRANSPORTATION MASTER PLAN UPDATE
Comment Card

CITY OF POST FALLS

Please use this comment card to provide your feedback to the project team. Specifically, what are your comments regarding the Plan Goals, and/or transportation system? (You may use the back of this card for additional space.)

Greensferry Bridge

OPTIONAL

Name:

Address:

Email:

For more information visit the Post Falls Highway District Website: bit.ly/PostFallsTMP

WEBSITE

2025 Transportation Master Plan Update

TRANSPORTATION MASTER PLAN UPDATE
Comment Card

CITY OF POST FALLS

Please use this comment card to provide your feedback to the project team. Specifically, what are your comments regarding the Plan Goals, and/or transportation system? (You may use the back of this card for additional space.)

- Move centennial trail down to the railroad tracks from Ross point to Huetter.

OPTIONAL

Name:

Address:

Email:

For more information visit the Post Falls Highway District Website: bit.ly/PostFallsTMP

WEBSITE

2025 Transportation Master Plan Update

TRANSPORTATION MASTER PLAN UPDATE
Comment Card

CITY OF POST FALLS

Please use this comment card to provide your feedback to the project team. Specifically, what are your comments regarding the Plan Goals, and/or transportation system? (You may use the back of this card for additional space.)

Hayden + Meyer - Crashes
Most in the City

OPTIONAL

Name:

Address:

Email:

For more information visit the Post Falls Highway District Website: bit.ly/PostFallsTMP

WEBSITE

2025 Transportation Master Plan Update

TRANSPORTATION MASTER PLAN UPDATE
Comment Card

CITY OF POST FALLS

Please use this comment card to provide your feedback to the project team. Specifically, what are your comments regarding the Plan Goals, and/or transportation system? (You may use the back of this card for additional space.)

Bulbouts are hazardous. In the winter cars tend to hit them. They also cause those on bikes to have to merge into traffic. The local roads are so narrow that it is difficult to drive one vehicle when two cars are parked. Since driveways have become short trucks can't park in them without impeding the sidewalks. This forces them to only be able to park in the street.

Roundabouts are great.

OPTIONAL

Name:

Address:

Email:

For more information visit the Post Falls Highway District Website: bit.ly/PostFallsTMP

WEBSITE

2025 Transportation Master Plan Update

TRANSPORTATION MASTER PLAN UPDATE
Comment Card

CITY OF POST FALLS

Please use this comment card to provide your feedback to the project team. Specifically, what are your comments regarding the Plan Goals, and/or transportation system? (You may use the back of this card for additional space.)

Please add trees to shade the bikeways and sidewalks. If necessary, put them on the south side of the trails to provide shade for bikers and walkers.

Thank you.

Could you could work with the USFS nursery to get trees?

OPTIONAL

Name: Mary J Merrill

Address:

Email: 208-610-9824

For more information visit the Post Falls Highway District Website: bit.ly/PostFallsTMP

WEBSITE

CITY OF POST FALLS
AGENDA REPORT
UNFINISHED BUSINESS/RETURNING ORDINANCES AND RESOLUTIONS
MEETING DATE: 4/21/2026

TO: HONORABLE MAYOR AND CITY COUNCIL

FROM: Robbie Quinn, Parks Planner

SUBJECT: The Quarry Sports Complex Phase 1 Construction Agreement

---

ITEM AND RECOMMENDED ACTION:
The Parks Department requests Council authorization for the Mayor to execute agreements with LaRiviere Inc. for construction of Quarry Sports Complex Phase 1, and with Michael Terrell - Landscape Architecture, PLLC (MT-LA) for construction administration and observation services.

DISCUSSION:
Over the past five years, the Parks and Recreation Department has advanced the Quarry Sports Complex from concept to construction-ready. Completed work includes the master plan, mass grading design, road frontage design, irrigation well design, and 100% construction documents for Phase 1. On the ground, the site has been mass graded to subgrade elevations, road frontage improvements along Cecil Road have been installed, and the irrigation well is in place. Last year, Council approved a $1,250,000.00 Land and Water Conservation Fund (LWCF) grant in support of the project.

On April 1, 2026, the City opened bids for Quarry Sports Complex Phase 1. LaRiviere Inc. submitted the sole bid at **$4,859,893.50** against an Engineer's Estimate of $4,998,626.00 (prepared in 2024). MT-LA and City staff have reviewed the bid, find it responsive, and recommend award to LaRiviere Inc. Phase 1 scope includes two multi-use fields, a shelter, restrooms, a parking lot, entry plaza, and a site maintenance yard. Staff is also seeking a 5% contingency which is intended to cover change orders arising from unforeseen conditions. Change orders drawing from contingency funds will require approval and signature by the Parks and Recreation Director or designee.

Additionally, staff is seeking council approval for the contract with MT-LA for construction administration and observation for $157,046.50. MT-LA will provide contract administration such as submittal review, review and preparation of contractor pay requests, and preparation of change order documentation. MT-LA will also provide construction observation such as construction diaries, materials review, testing procedure, workmanship observation, quantity tracking, erosion and sediment control compliance, punch list, and substantial and final inspections, and for elevations and construction locations. This contract will be billed based on actual working hours, and it assumes 8 months of construction.

Summary

Item	Amount
Base Bid: LaRiviere Inc.	$4,859,893.50
Contingency (5%)	$242,994.68
CA Agreement: MT-LA	$157,046.50
Total	**$5,259,934.68**

ITEM / PROJECT PREVIOUSLY REVIEWED BY COUNCIL ON:

08/06/24 - Quarry Sports Complex LWCF Grant Application
11/03/25 - Quarry Sports Complex LWCF Grant Acceptance
11/03/25 - Quarry Sports Complex Phase 1 Design Agreement

APPROVED OR DIRECTION GIVEN:
Council approved or provided direction to proceed on the previously reviewed item(s).

FISCAL IMPACT OR OTHER SOURCE OF FUNDING:
$1,250,000 LWCF
$4,009,934.68 Park Impact Fees
$5,259,934.68 - Total Request

BUDGET CODE:
038-443.0000.94165

ATTACHMENTS:
1. Quarry Contract Award Presentation
2. Quarry Construction Agreement - LaRiviere
3. Quarry Notice of Award - LaRiviere
4. Quarry CA Contract - MTLA
5. Quarry Bid Recommendation - MT-LA
6. Quarry Bid Review - City

Quarry Sports Complex
Contract Award

Robbie Quinn
Parks Planner



04/21/26
City Council Meeting

CITY OF POST FALLS

Project Background

Design Tasks Completed

- Master Plan
- Mass Grading
- Cecil Road Frontage
- Irrigation Well
- 100% Phase 1 CD’s

Construction Tasks Completed

- Mass Grading
- Cecil Road Frontage
- Irrigation Well



Project Background

08/06/24 - Council Approval for LWCF Grant Application

12/17/24 - Lot Line Adjustment

11/03/25 - Council Acceptance of the $1,250,000 LWCF Grant

12/16/25 - Council approval to grant RPWD a sewer easement



Phase 1 Construction

- Multi-use fields
- Shelter
- Restrooms
- Parking lot
- Entry Plaza
- Maintenance Yard

March 11, 2026 – Out to Bid
April 1, 2026 – Bid Opening



Phase 1 Bid Results

Bid Schedule	Engineer's Estimate	LaRiviere, Inc.
Base Bid	$4,998,626.00 (2024)	$4,859,893.50
Alt A	$472,726.00	$360,859.00
Alt B	$701,075.00	$470,700.00
Alt C	N/A	$113,878.00

MT-LA and City Staff recommend the project be awarded to the low responsive bidder, LaRiviere, Inc.

Seeking 5% contingency for potential change orders of unforeseen conditions in the amount of $242,994.68.

Construction	$4,859,893.50
Contingency	$242,994.68
TOTAL	**$5,102,888.18**



Paid out of Park Impact Fees and LWCF Grant

CITY OF POSTFALLS

Consultant Contract

MT-LA Scope:

- Submittals review
- Review and preparation of contractor pay requests
- Construction inspections and diaries
- Materials review
- Testing procedure
- Quantity tracking
- Substantial and final inspections

Consultant Construction Administration and Observation Contact

TOTAL **$157,046.50**

Paid out of Park Impact Fees



Summary

Cost Summary	
Construction	$4,859,893.50
Construction Contingency (5%)	$242,994.68
Consultant Contract	$157,046.50
TOTAL	**$5,259,934.68**

$1,250,000.00 – LWCF Grant
$4,009,934.68 – Park Impact Fees



Phase 1 Schedule

- May 2026 – Notice to Proceed
- Eight-months for construction
- November 2026 – Substantial Completion
- December 2026 – Final Completion



Questions?



AGREEMENT

THIS AGREEMENT is dated as of the _____ day of April the year 2026 by and between **The City of Post Falls,** (hereinafter called OWNER) and **LaRiviere, Inc**. (hereinafter called CONTRACTOR).

OWNER and CONTRACTOR, in consideration of the mutual covenants hereinafter set forth, agree as follows:

Article 1 WORK

CONTRACTOR shall complete all Work as specified or indicated in the Contract Documents. The Work is generally described by Schedule, or part thereof as identified in the Notice of Award as follows:

Schedule A – Base Bid: Complete construction (includes but is not limited to) of:
(Portions of Schedule A are federally funded and must comply with the Build America, Buy America (BABA) Act, and are subject to all requirements set forth in the contract documents.)

- Site Work:
  - Site Preparation: General Requirements, Mobilization, Survey and Staking
- Site Demolition: Clearing and Grubbing, Select Demolition of Site Improvements
- Site Earthwork: Site Grading and Excavation, Imported Structural Fill, Excess Material, Fine Grading, Erosion and Dust Control, Construction Entrance, Geogrid Fabric Stabilization.
- Parking Lots: Parking Lot Signage, Parking Lot Construction and associated improvements.
- Pedestrian Paving: Sidewalks including integral color plaza.
- Site Amenities: Bike Racks
- Planting Irrigation: Irrigation System including pump station, turf and shrub irrigation, sleeves and irrigation controller.
- Landscaping: Plants, Turf and Grasses, Planting Soils, Mulches, and associated tasks.
- Site Utilities: Sanitary Sewer, Storm Water Facilities.

Schedule B – Base Bid: Complete construction (includes but is not limited to) of:

- Restroom and Shelter Building: complete construction.
- Site Development: Retaining Wall
- Site Improvements
  - Chain Link Fencing including gates and accessories.
  - Concrete Mow Strip at Fencing
  - Concrete Mow Strip
  - Bollards
  - Tree Grates
  - Benches
  - Site Sign including metal fabrication
  - Site Furnishings: Trash Receptacles and Mutt Mitt Dispensers
- Water Supply
  - Waterline piping (C900 and HDPE), valves, fittings and accessories.
  - Fire hydrants
  - Drinking Fountain

  - Water Service Point of Connection
- Site Electrical Utilities
  - Site utilities including power and low voltage
  - Site feeders and circuiting
  - Distribution equipment
  - Electrical trenching
  - Site Lighting and Controls

Article 2 OWNER'S AUTHORIZED REPRESENTATIVE

The Project has been designed by Michael Terrell – Landscape Architecture, PLLC. Who is hereinafter called Owner's Authorized Representative and who will assume all duties and responsibilities and will have the rights and authority assigned to Owner's Authorized Representative in the Contract Documents in connection with completion of the Work in accordance with the Contract Documents, unless the City of Post Falls designates otherwise in writing.

Article 3 CONTRACT TIME

3.1 Work encompassed by this Agreement as identified in Article 1 above shall be Substantially Complete, as defined in Standard General and Supplemental Conditions; and shall be Complete and ready for Final Payment, in accordance with the General Conditions; in accordance with the following:

Substantial Completion	Final Completion	Liquidated Damages per Calendar Days
180 Calendar Days From Notice to Proceed	210 Calendar Days From Notice to Proceed	$1,000 after Substantial Completion $500 after Final Completion

3.2 The Contractor will be given authorization to commence construction upon issuance of the Notice to Proceed. The Contract Time shall commence upon the Notice to Proceed date as described in the Section 01000 Special Provisions.

3.3 Liquidated Damages. OWNER and CONTRACTOR recognize that time is of the essence of this Agreement and that Owner will suffer financial loss if the Work is not substantially complete within the time specified in paragraph 3.1 above, plus any extensions thereof allowed in accordance with Article 11 of the General Conditions. They also recognize the delays, expense and difficulties involved in proving in a legal or arbitration proceeding the actual loss suffered by OWNER if the Work is not substantially complete on time. Accordingly, instead of requiring any such proof, "OWNER and CONTRACTOR agree that as liquidated damages for delay (but not as a penalty), CONTRACTOR shall pay OWNER $1,000 for each day that expires after the time specified in the paragraph above for Substantial Completion until the Work is substantially complete. After

Substantial Completion, if CONTRACTOR shall neglect, refuse, or fail to complete the remaining Work within the Contract Time or any proper extension thereof granted by OWNER, CONTRACTOR shall pay OWNER $500 for each day that expires after the time specified in the paragraph above for final completion and readiness for final payment until the Work is completed and ready for final payment."

Article 4 CONTRACT PRICE

OWNER shall pay CONTRACTOR for performance of the Work in accordance with the Contract Documents in current funds as follows: **$4,859,893.50.** See copy of CONTRACTOR'S BID (and attachments) marked Exhibit 1, attached.

Article 5 PAYMENT PROCEDURES

CONTRACTOR shall submit Applications for Payment in accordance with Article 15 of the General Conditions on or about the 26th day of each month. Applications for Payment will be processed by ENGINEER as provided in the General Conditions.

5.1 Progress Payments. OWNER shall make progress payments on account of the Contract Price on the basis of CONTRACTOR's Applications for Payment as recommended by OWNER'S AUTHORIZED REPRESENTATIVE, during construction as provided below. Applications for payment will be formatted to align with the Project's Bid Schedules 'A' and 'B'. All progress payments will be on the basis of the progress of the Work measured by the schedule of values provided for in paragraph 15.01 of the General Conditions.

5.1.1 Prior to Final Completion, progress payments will be in an amount equal to 95% of the Work completed, less aggregate of payments previously made and less such amounts as Owner's Authorized Representative shall determine in accordance with paragraph 15.01 of the General Conditions.

5.1.2 The CONTRACTOR is notified and accepts by execution of the Agreement, that progress payments may not be made for up to 45 (forty-five) days from the date of approval of the payment request by the Owner.

5.2 Final Payment. Upon final completion and acceptance of the Work in accordance with the General Conditions, Owner shall pay the remainder of the Contract Price as recommended by OWNER'S AUTHORIZED REPRESENTATIVE.

5.3 Payments to Subcontractors. The CONTRACTOR agrees to pay each subcontractor it contracts with to perform any portion of the work for satisfactory performance of its contract no later than

30 days from the receipt of each payment the CONTRACTOR receives from the OWNER. The CONTRACTOR agrees further to return retainage payments to each subcontractor within 30 days after the subcontractor's work is satisfactorily completed. Any delay or postponement of payment from the above referenced time frame may occur only for good cause following written approval of the OWNER. Failure by the CONTRACTOR to carry out these requirements shall be a material breach of this Agreement.

Article 6 INTEREST

All moneys not paid when due hereunder shall bear interest at the legal rate set by 28-22-104, Idaho Code.

Article 7 CONTRACTOR'S REPRESENTATIONS

In order to induce OWNER to enter into this Agreement, CONTRACTOR makes the following representations:

7.1 CONTRACTOR has familiarized himself with the nature and extent of the Contract Documents, Work, locality, and with all local conditions and Federal, State and local laws, ordinances, rules and regulations that in any manner may affect cost, progress or performance of the Work.

7.2 CONTRACTOR has studied carefully all reports of investigations and tests of subsurface and latent physical conditions at the site or otherwise affecting cost, progress or performance of the Work which were relied upon by OWNER'S AUTHORIZED REPRESENTATIVE in the preparation of the Drawings and Specifications and which have been identified in Supplementary Conditions - Owner.

7.3 CONTRACTOR has made or caused to be made examinations, investigations and tests and studies of such reports and related data in addition to those referred to in paragraph 7.2 as he deems necessary for the performance of the Work at the Contract Price, within the Contract Time and in accordance with the other terms and conditions of the Contract Documents; and no additional examinations, investigations, tests, reports or similar data are or will be required by CONTRACTOR for such purposes.

7.4 CONTRACTOR has correlated the results of all such observations, examinations, investigations, tests, reports and data with the terms and conditions of the Contract Documents.

7.5 CONTRACTOR has given OWNER'S AUTHORIZED REPRESENTATIVE written notice of all conflicts, errors or discrepancies that he has discovered in the Contract Documents and the written resolution thereof by OWNER'S AUTHORIZED REPRESENTATIVE is acceptable to CONTRACTOR.

Article 8 CONTRACT DOCUMENTS

The Contract Documents which comprise the entire Agreement between OWNER and CONTRACTOR consist of the following:

8.1 This Agreement, pages 1 to 6, inclusive.

8.2 Performance and Payment Bonds.

8.3 Certificates of Insurance.

8.4 Notice of Award.

8.5 Construction Documents and Specifications bearing the title: **The Quarry Sports Complex, Phase I Project,** dated March 11,2026, to include, but not limited to Contract Documents, Specifications, General Conditions, Supplementary Conditions – Owner, Addenda and consisting of divisions and pages, as listed in Table of Contents.

8.6 Drawings bearing the title: **The Quarry Sports Complex, Phase I Project,** dated 02/12/2026, consisting of sheets numbered 1 through 74, inclusive.

8.7 Addendums Numbered 1, 2, and 3, dated 03/18/26, 03/23/26, and 03/25/26; **The Quarry Sports Complex, Phase I.**

8.8 Alternates: N/A

8.9 CONTRACTOR's Bid, dated April 1, 2026, including Additional Bid Forms, attached.

8.10 Any Modification, including Change Orders, duly delivered after execution of Agreement.

There are no Contract Documents other than those listed above in this Article 8. The Contract Documents may only be altered, amended or repealed by a Field Order, Work Change Directive, Change Order, or Written Amendment as defined in Article 1 of the General Conditions. Copies of the appropriate forms are included in Section II of the document referenced in item 8.5 above.

Article 9 MISCELLANEOUS

9.1 Terms used in this Agreement which are defined in Article 1 of the General Conditions shall have the meanings indicated in the General Conditions.

9.2 No assignment by a party hereto of any rights under or interests in the Contract Documents will be binding on another party hereto without the written consent of the party sought to be bound; and specifically, but without limitation, moneys that may become due and moneys that are due may not be assigned without such consent (except to the extent that the effect of this restriction may be limited by law), and unless specifically stated to the contrary in any written consent to an assignment no assignment will release or discharge the assignor from any duty or responsibility under the Contract Documents.

9.3 OWNER and CONTRACTOR each binds himself, his partners, successors, assigns and legal representatives to the other party hereto, his partners, successors, assigns and legal representatives in respect to all covenants, agreements and obligations contained in the Contract Documents.

Article 10 OTHER PROVISIONS

10.1 Work shall not commence until Pre-Construction Conference has been held at a mutually agreed to time and place.

10.1.1.1"corrupt practice" means the offering, giving, receiving, or soliciting of any thing of value likely to influence the action of a public official in the bidding process or in the Contract execution;

10.1.1.2"fraudulent practice" means an intentional misrepresentation of facts made (a) to influence the bidding process or the execution of the Contract to the detriment of Owner, (b) to establish Bid or Contract prices at artificial non-competitive levels, or (c) to deprive Owner of the benefits of free and open competition;

10.1.1.3"collusive practice" means a scheme or arrangement between two or more Bidders, with or without the knowledge of Owner, a purpose of which is to establish Bid prices at artificial, non-competitive levels; and

10.1.1.4"coercive practice" means harming or threatening to harm, directly or indirectly, persons or their property to influence their participation in the bidding process or affect the execution of the Contract.

10.2 The CONTRACTOR shall not commence work on the project until receipt of the Notice To Proceed. Contract time shall commence on the effective date of the Notice to Proceed.

10.2 Other Provisions

10.2.1 The Contractor, in consideration of securing the business of constructing public works in this state, recognizing that the business in which he is engaged is of a transitory character, and that in the pursuit thereof, his property used therein may be without the state when taxes, excises, or license fees to which he is liable becomes payable, agrees:

10.2.1.1 To pay promptly when due all taxes, (other than on real property), excises and license fees due to the state, its subdivisions, and municipal and quasi-municipal corporations therein, accrued or accruing during the term to this Agreement, whether or not the same shall be payable at the end of such term;

10.2.1.2 That if the said taxes, excises, and licenses fees are not payable at the end of said term, but liability for the payment thereof exists, even though the same constitute liens upon his property, to secure the same to the satisfaction of the respective officers charged with the collection thereof; and

10.2.1.3 That, in the event of his default in the payment or securing of such taxes, excises, and licenses fees, to consent that the department, officer, board, or taxing unit entering into this Agreement may withhold from any payment due him hereunder the estimated amount of such accrued and accruing taxes, excises, and license fees for the benefit of all taxing units to which said Contractor is liable.

10.2.2 Pursuant to the provisions of section 63-1504 of the Idaho Code, before final payment can be made, the Contractor shall furnish to the Owner, evidence that he has paid all taxes, excises, and license fees due to the state and its taxing units, due and payable during the term of the contract for such construction, and that he has secured all such taxes, excises, and license fees liability for the payment of which has accrued during the term of such contract, notwithstanding they may not yet be due or payable.

10.3 Work shall not commence until Pre-Construction Conference has been held at a mutually agreed to time and place.

10.4 The CONTRACTOR shall not commence work on the project until receipt of the Notice To Proceed. Contract time shall commence on the effective date of the Notice to Proceed.

10.5 Additional Requirements of the State of Idaho. The clauses contained in this Article are required by the State of Idaho. The inclusion of these clauses in this Agreement by the City does not indicate the City's support or opposition to these clauses nor Agreement by the City that these clauses are relevant to the subject matter of this Agreement. Rather, these clauses are included solely to comply with Idaho state law.

10.5.1 Boycotting Israel: CONTRACTOR certifies that it is not currently engaged in, and will not, for the duration of this Agreement, engage in a boycott of the goods or services of the state of Israel or territories under its control as those terms are defined in the "Anti-Boycott Against Israel Act" (Idaho Code 67-2346).

10.5.2 Contract with Abortion Providers: To the extent this agreement is subject to the use of public funds, CONTRACTOR certifies that it is not, and will not, for the duration of this Agreement become, an abortion provider or an affiliate of an abortion provider as those terms are defined in the "No Public Funds for Abortions Act" Idaho Code Title 18, Chapter 87).

IN WITNESS WHEREOF, the parties hereto have signed this Agreement in triplicate. One counterpart each has been delivered to OWNER, CONTRACTOR, and OWNER'S AUTHORIZED REPRESENTATIVE. All portions of the Contract Documents have been signed or identified by OWNER and CONTRACTOR or by OWNER'S AUTHORIZED REPRESENTATIVE on their behalf.

This Agreement will be effective on April _____, 2026.

OWNER:

City of Post Falls

By:

Name: Randy Westlund

Title: City of Post Falls Mayor

Date:

Address for giving notices:

408 N Spokane St

Post Falls, ID 83854

CONTRACTOR:

LaRiviere Inc.

By:

Name:

Title:

Date:

Attest

Address for giving notices:

License No.:
Agent for service of process:

Notary Public in and for the State of Idaho

Residing at:

My Commission Expires:

EXHIBIT 1

The Quarry Sports Complex, Phase I
City of Post Falls
Parks and Recreation Department

BID

PROJECT IDENTIFICATION: **The Quarry Sports Complex, Phase I**

THIS BID IS SUBMITTED TO OWNER: **CITY OF POST FALLS**
408 Spokane Street
Post Falls, ID 83854

1. The undersigned BIDDER proposes and agrees, if this Bid is accepted, to enter into an Agreement with OWNER in the form included in the Contract Documents to complete all Work as specified or indicated in the Contract Documents for the Contract Price and within the Contract Time indicated in this Bid and in accordance with the Contract Documents.

2. BIDDER accepts all of the terms and conditions of the Instructions to Bidders, including without limitation those dealing with the disposition of Bid Security. This Bid will remain open for 30 days after the day of Bid Opening. BIDDER will sign the Agreement and submit the Contract Security and other documents required by the Contract Documents within 10 days after the date of OWNER'S Notice of Award.

3. In submitting this Bid, BIDDER represents, as more fully set forth in the Agreement, that:

   a) BIDDER has examined copies of all the Contract Documents and of the following addenda:

Addendum Date:	Number of Addendum:
3.18.26	Addendum #1
3.23.26	Addendum #2
3.25.26	Addendum #3

   (Receipt of all of which is hereby acknowledged) and also copies of the Advertisement or Invitation to Bid and the Instructions to Bidders;

   b) BIDDER has examined the site and locality where the Work is to be performed, the legal requirements (Federal, State and local laws, ordinances, rules and regulations) and the conditions affecting cost, progress or performance of the Work and has made such independent investigations as BIDDER deems necessary;

   c) This Bid is genuine and not made in the interest of or on behalf of any undisclosed person, firm or corporation and is not submitted in conformity with any agreement or rules of any group, association, organization or corporation; BIDDER has not directly or indirectly induced or solicited any other BIDDER to submit a false or sham Bid; BIDDER has not or induced any person, firm or a corporation to refrain from bidding; and BIDDER has not sought by collusion to obtain for himself any advantage over any other Bidder or over OWNERS; and

   d.) The BIDDER and all Subcontractors currently possess the appropriate Idaho Public Works CONTRACTOR'S LICENSE.

Idaho Contractors License No. RCE-22213.

e) All Subcontractors currently possess the appropriate Idaho Public Works CONTRACTOR'S LICENSE.

4. BIDDER will complete the Work per the prices established in the attached Bid Schedule:

BID SCHEDULE SUMMARY:

Title	Total Schedule Price
Schedule A / Base Bid:	$ 3,354,560.50
Schedule B / Base Bid:	$ 1,505,333.00
Total Price	$ 4,859,893.50
Alternates	
Alternate "A"	$ 360,859.00
Alternate "B"	$ 470,700.00
Alternate "C"	$ 113,878.00

5. BIDDER agrees that the:

a) Work will be Substantially Complete and Complete on or before the dates or within the number of calendar days indicated in Article 3.1 of the Agreement.

b) BIDDER accepts the provisions of Article 3.2 of the Agreement as to Liquidated Damages in the event of failure to complete the Work on time.

6. The following documents are attached to, and made a condition of, and incorporated by reference into this Bid if not attached.

1. Bid Schedules
2. Bidder's Check List
3. Bid Bond
4. Designation of Subcontractors and Suppliers
5. Non-Collusion Affidavit
6. Anti-Discrimination Affidavit
7. Affidavit of Payment or Securement of All Taxes
8. Non-Discrimination Requirements
9. Build America, Buy America Requirement Acknowledgement

7. Communications concerning this Bid shall be addressed to:

The address of BIDDER indicated below:

LaRiviere, Inc.
Hiede Grant - Estimating Director/ Secretary
17564 N. Dylan Ct., Rathdrum, ID 83858

8. The terms used in this Bid which are defined in the General Conditions of the Construction Contract included as part of the Contract Documents have the meanings assigned to them in the General Conditions, and as may be amended.

9. Bid Opening: April 1st 2026 (Date) 1:00 PM (Time)

SUBMITTED on April 1st, 2026.

If BIDDER is:

A Corporation

LaRiviere, Inc.
(Corporation Name)

Idaho
(State of Incorporation)

By _____
(Signature of Person Authorized to Sign)

Thomas LaRiviere III - President
(Name and Title of Person Authorized to Sign)

Attest Hiede Grant
(Secretary)

Business Address 17564 N. Dylan Ct., Rathdrum, ID 83858

Phone No. 208-683-2646

A Joint Venture

By _____
(Signature)

(Name)

(Address)

By _____
(Signature)

(Name)

(Address)

(Each joint venturer must sign. The manner of signing for each individual, partnership and corporation that is a party to the joint venture should be in the manner indicated above.)

Attest_____
(Secretary)

Business Address_____

_____

_____

Phone No._____

A Partnership

_____
(Firm Name)

_____
(Signature of General Partner)

_____
(Name of General Partner)

Business address_____

_____

_____

Phone No._____

Attest_____
(Secretary)

Business Address_____

_____

_____

Phone No._____

An Individual

By_____
(Signature of Individual)

By_____
(Individual's Name)

Doing business as_____

Business address_____

_____

_____

Phone No._____

Attest_____
(Secretary)

Business address_____

_____

Phone No._____

CITY OF POST FALL

The Quarry Sports Complex, Phase I

BID SCHEDULE A: Base Bid

TRACT 4 & 13, BLOCK 26 OF SECTION 26 TOWNSHIP 51 NORTH, RANGE 5 WEST, B.M. AND LOT 1, BLOCK 7 OF TULLAMORE 5TH ADDITION

March 25, 2026 (Addendum #3, quantity changes in bold)

BIDDER acknowledges receipt of following ADDENDA: _____

Item No.	Item Description	Estimated Quantity	Unit Measure	Unit Price	Extended Price
Base Bid					
1	(2010.4.1.A.1)Mobilization and Bond (not to exceed 5% of Total Bid) @	1	LS	148,737.00	$ 148,737 .00
2	General Conditions @	1	LS	584.00	$ 584 .00
Site Work					
3	Quality Control @	1	LS	44,917.00	$ 44,917 .00
4	Traffic Control @	1	LS	5,844.00	$ 5,844 .00
5	Contractor Furnished Construction Surveying @	1	LS	18,935.00	$ 18,935 .00
Site Demolition					
6	(201.4.1.B.1) Clearing and Grubbing @	36,200	SY	0.80	$ 28,960 .00
7	(201.4.1.E.1) Curb and Gutter Removal and Disposal @	25	LF	17.00	$ 425 .00
8	(201.4.1.D.1) Pavement Removal and Disposal @	137	SY	21.00	$ 2,877 .00
Site Earthwork					
9	Site Watering for Dust Control @	1	LS	2,922.00	$ 2,922 .00
10	Fiber Roll @	1,520	LF	5.00	$ 7,600 .00
11	(1008.4.1.C.1) Inlet Protection @	10	EA	227.00	$ 2,270 .00
12	(1003.4.1.C.1) Silt Fence @	915	LF	5.50	$ 5,032 .50
13	(202.4.1.A.1) Excavation (Embankment) @	1500	CY	24.00	$ 36,000 .00
14	(202.4.1.A.1) Excavation (General Site Grading) @	4000	CY	6.60	$ 26,000 .00
15	(202.4.1.A.1) Excavation Haul (Stockpile Onsite Location) @	2500	CY	11.00	$ 27,500 .00
16	(202.4.6.A.1) Import Borrow (Structural) @	200	CY	51.00	$ 10,200 .00
17	(1001.4.2.B.1) Stabilized Construction Entrance @	1	EA	4,116.00	$ 4,116 .00
18	(2050.4.1.C.1) Subgrade Separation Non-Woven Geotextile Fabric @	1,240	SY	2.50	$ 3,100 .00
19	Geogrid - Tensar TriAx TX160 @	280	SY	6.50	$ 1,820 .00
Site Development					
20	(1005.4.1.H.1) Retaining Wall @	635	SF	70.00	$ 44,450 .00
Parking Lots					
21	ADA Parking Signage @	7	EA	877.00	$ 6,139 .00
22	(11.04.4.1.A.1) Painted Pavement Markings (ADA) (blue/white) @	7	EA	58.00	$ 406 .00
23	(1104.4.1.A.1) Pavement Line Paint @	2,625	LF	1.50	$ 3,937 .50
24	(610.4.1.A.1) 3" Plant Mix Pavement @	830	TON	115.00	$ 95,450 .00
25	(802.4.1.A.1) Crushed Aggregate for Base - Type 1 @	1,300	CY	31.00	$ 40,300 .00
26	6" Concrete Curb Stop @	12	EA	176.00	2,112.00

27	(706.4.1.A.3) 6" Vertical Curb @	1,365	LF	19.00	$ 25,935	.00
28	(706.4.1.A.1) 3" Rolled Curb and Gutter @	55	LF	29.00	$ 1,595	.00
29	(706.4.1.A.5) 6" Curb and Gutter @	45	LF	34.00	$ 1,530	.00
30	(706.4.1.F.1) Driveway Approach and Sidewalk - Type B @	1	EA	7,226.00	$ 7,226	.00
31	(602.4.1.P.1) Drainage Curb Cut @	5	EA	126.00	$ 630	.00
	Pedestrian Paving					
32	(705.4,1.A.1) 6" Reinforced Concrete Pavement @	1,090	SY	148.00	$ 161,320	.00
33	(705.4.1.A.1) 6" Driveable Reinforced Concrete Pavement @	230	SY	157.00	$ 36,110	.00
34	(705.4.1.A.1) 6" Dark Grey Reinforced Concrete, Decorative @	660	SY	174.00	$ 114,840	.00
35	(705.4.1.A.1) 6" Driveable Dark Grey Reinforced Concrete, Decorative @	80	SY	264.00	$ 21,120	.00
36	(802.4.1.A.1) Crushed Aggregate for Base - Type 1 @	280	CY	66.00	$ 18,480	.00
37	(706.4.1.H.1) Pedestrian Ramp / Detectable Warning Surface @	3	EA	2,640.00	7,920.	00
	Site Amenities					
38	Bike Racks @	8	EA	788.00	$ 6,304	.00
	Planting Irrigation					
39	Planting Irrigation @	1	LS	531,399.00	531,399	.00
40	Pump Station @	1	LS	678,103.00	$ 678,103	.00
	Landscaping					
41	Turf and Grasses: planting soils, labor, materials @	1	LS	695,238.00	$ 695,238	.00
42	Plants: Planting, Planting soils, labor, materials @	1	LS	311,340.00	$ 311,340	.00
	Site Utilities					
43	(504.4.1.B.1) 4" SDR-35 PVC Sewer Service @	17	LF	40.00	$ 680	.00
44	(504.4.1.B.1) 6" SDR-35 PVC Sewer Service @	660	LF	32.00	$ 21,120	.00
45	(501.4.1.A.1) 8" SDR-35 PVC Sewer Pipe @	660	LF	36.00	$ 23,760	.00
46	(301.4.1.A.1) Sewer Trenching and Backfilling @	1,337	LF	25.00	$ 33,425	.00
47	(503.4.1.A.3) Sewer Service Line Cleanout @	8	EA	995.00	$ 7,960	.00
48	(305.4.1.A.1) Imported Pipe Bedding,Type 1 - Sewer @	1,337	LF	6.00	$ 8,022	.00
49	(502.4.1.A.1) 48" Standard Sanitary Sewer Manhole @	2	EA	5,380.00	$ 10,760	.00
50	Single Depth Dry Well @	2	EA	3,551.00	$ 7,102	.00
51	Double Depth Dry Well @	5	EA	4,104.00	$ 20,520	.00
52	(602.4.1.F.1) Catch Basin - Type I @	1	EA	3,135.00	$ 3,135	.00
53	6" HDPE Drain Pipe @	51	LF	32.00	$ 1,632	.00
54	10" HDPE Drain Pipe @	131	LF	37.00	$ 4,847	.00
55	12" HDPE Culvert @	37	LF	49.00	$ 1,813	.00
56	(1006.4.1.B.1) Rip Rap Slope Protection @	2	EA	364.00	$ 728	.00
57	(1006.4.1.B.1) Rip Rap Pipe Outlet @	2	EA	364.00	$ 728	.00
58	(301.4.1.A.1) Storm - Trenching and Backfilling @	219	LF	25.00	$ 5,475	.00
59	(305.4.1.A.1) Imported Pipe Bedding, Type 1 - Storm @	219	LF	6.50	$ 1,423	.50
60	(704.4.1.D.1) Miscellaneous Precast Structure (Underdrain) @	3	EA	3902.00	$ 11,706	.00
				BASE BID SCH A TOTAL =	$ $3,354,560	.50

CITY OF POST FALL
The Quarry Sports Complex, Phase I
BID SCHEDULE B and Alternates
TRACT 4 & 13, BLOCK 25 OF SECTION 25 TOWNSHIP 51 NORTH, RANGE 5 WEST, B.M. AND LOT 1, BLOCK 7 OF TULLAMORE 5TH ADDITION

March 25, 2025 (Addendum #3)

BIDDER acknowledges receipt of following ADDENDA:

Item No.	Item Description	Estimated Quantity	Unit Measure	Unit Price	Extended Price
Restroom and Shelter Building					
3	Restroom and Shelter Building Construction @	1	LS	520,714.00	$ 520714.00
Site Development					
5	Concrete Mow Strip @	1	LS	25,953.00	$ 25953.00
Site Improvements					
6	Type 'C1' 6' Chain Link Fence with Concrete Mow Curb including gates and accessories @	913	LF	56.00	$ 51128.00
6	Type 'C2' 6' Chain Link Fence including gates and accessories @	46	LF	133.00	$ 6118.00
6	Type 'C3' 6' Chain Link Fence with slats and mow curb including gates and accessories @	446	LF	129.00	$ 57534.00
6	Site Furnishings: Acces Control Gates @	1	EA	13441.00	$ 13441.00
7	Tree Grates @	14	EA	4005.00	$ 56070.00
6	Benches @	1	EA	3686.00	$ 3686.00
6	Site Sign including metal fabrication @	1	EA	26836.00	$ 26836.00
7	Site Furnishings: Trash Receptacles, Big Can @	4	EA	3732.00	$ 14928.00
8	Site Furnishings: Architectural Bollard @	5	EA	687.00	$ 3435.00
8	Site Furnishings: Removable Architectural Bollard @	7	EA	1028.00	$ 7196.00
8	Site Furnishings: Field Locating Pins @	8	EA	584.00	$ 4672.00
8	Site Furnishings: Dog Waste Station @	3	EA	421.00	$ 1263.00
Water Supply					
30	(401.4.1.A.1) 6" C900 DR-18 Water Line - Fire @	755	LF	47.00	$ 35485.00
42	(401.4.1.B.1) 6" D.I. Tee @	1	EA	1219.00	$ 1219.00
43	(401.4.1.B.1) 6" 45° D.I. Elbow @	1	EA	1018.00	$ 1018.00
44	(401.4.1.B.1) 6" 90° D.I. Elbow @	2	EA	1040.00	$ 2080.00
41	(402.4.1.A.1) 6" Resilient Gate Valve @	3	EA	2261.00	$ 6783.00
45	(403.4.1.A.1) Fire Hydrant Assembly @	2	EA	7461.00	$ 14922.00
31	1" IPS HDPE DR-11 Water Service @	18	LF	40.00	$ 720.00
32	(401.4.1.A.1) 2" HDPE DR-11 Water Line @	740	LF	32.00	$ 23680.00
33	2" HDPE DR-11 Water Service @	100	LF	119.00	$ 11900.00

34	(301.4.1.A.1) Water - Trenching and Backfilling @	1,613	LF	25.00	$ 40325.00
35	(305.4.1.A.1) Imported Pipe Bedding, Type 1 - Water @	1,613	LF	9.00	$ 14517.00
37	(401.4.1.B.1) 2" HDPE 90° Elbow @	1	EA	482.00	$ 482.00
38	(401.4.1.B.1) 2" HDPE 45° Elbow @	1	EA	481.00	$ 481.00
39	(401.4.1.B.1) 2" HDPE Tee @	1	EA	493.00	$ 493.00
40	(403.4.1.A.1) 2" Brass Ball Valve @	2	EA	1050.00	$ 2100.00
46	(404.4.1.A.1) Hot Tap Connection @	1	EA	1939.00	$ 1939.00
36	(404.4.1.A.1) Water Line Connection @	1	EA	619.00	$ 619.00
Site Electrical Utilities					
67	Site Electrical Utilities @	1	LS	553596.00	$ 553596.00
				BASE BID SCH B TOTAL =	$ $1,505,333.00
Alternate A Playground					
37	Alternate A: All work as indicated on plans @	1	LS	360859.00	$ 360859.00
				ALTERNATE A TOTAL =	$ $360859.00
Alternate B: Pickleball Courts and Basketball Court Construction					
38	Alternate B: All work as indicated on plans @	1	LS	470700.00	$ 470700.00
				ALTERNATE B TOTAL =	$ $470700.00
Alternate C					
39	Alternate C: All work as indicated on plans @	1	LS	113878.00	$ 113878.00
				ALTERNATE C TOTAL =	$ $113878.00

PENAL SUM FORM

BID BOND

BIDDER *(Name and Address):*

LaRiviere Incorporated
17564 North Dylan Court
Rathdrum, ID 83858

SURETY *(Name and Address of Principal Place of Business):*

United States Fire Insurance Company
305 Madison Avenue
Morristown, NJ 07960

OWNER *(Name and Address):*

City of Post Falls
408 Spokane St
Post Falls, ID 83854

BID

BID DUE DATE: April 1, 2026

PROJECT *(Brief Description Including Location):*

The Quarry Sports Complex, Phase 1 - Post Falls, ID

BOND

BOND NUMBER: Bid Bond

DATE: *(Not later than Bid Due Date):* March 30, 2026

PENAL SUM: Five Percent of Amount Bid - 5%

IN WITNESS WHEREOF, Surety and Bidder, intending to be legally bound hereby, subject to the terms printed on the reverse side hereof, do each cause this Bid Bond to be duly executed on its behalf by its authorized officer, agent or representative.

BIDDER	SURETY
LaRiviere Incorporated (Seal)	United States Fire Insurance Company (Seal)
Bidder's Name and Corporate Seal	Surety's Name and Corporate Seal
By: Heidi Grant	By: Liliana Castrejon Perez
Signature and Title SECRETARY	Signature and Title Liliana Castrejon Perez, Attorney-in-Fact
	(Attach Power of Attorney)
Attest: Evelyn Ybarra	Attest: Jennifer Martinez Ibarra
Signature and Title BIDDING ADMINISTRATOR	Signature and Title Jennifer Martinez Ibarra, Witness

Note: (1) Above addresses are to be used for giving required notice.
(2) Any singular reference to Bidder, Surety, Owner, or other party shall be considered plural where applicable.

IMPORTANT--Surety companies executing BONDS must appear on the Treasury Department's most current list (Circular 570 as amended) and be authorized to transact business in the state where the project is located.

1. Bidder and Surety, jointly and severally, bind themselves, their heirs, executors, administrators, successors, and assigns to pay to Owner upon default of Bidder the penal sum set forth on the face of this Bond.

2. Default of Bidder shall occur upon the failure of Bidder to deliver, within the time required by the Bidding Documents, the executed Agreement required by the Bidding Documents and any performance and payment bonds required by the Bidding Documents and Contract Documents.

3. This obligation shall be null and void if:
   3.1. Owner accepts Bidder's bid and Bidder delivers within the time required by the Bidding Documents (or any extension thereof agreed to in writing by Owner) the executed Agreement required by the Bidding Documents and any performance and payment bonds required by the Bidding Documents and Contract Documents, or
   3.2. All bids are rejected by Owner, or
   3.3. Owner fails to issue a notice of award to Bidder within the time specified in the Bidding Documents (or any extension thereof agreed to in writing by Bidder and, if applicable, consented to by Surety when required by paragraph 5 hereof).

4. Payment under this Bond will be due and payable upon default of Bidder and within 30 calendar days after receipt by Bidder and Surety of written notice of default from Owner, which notice will be given with reasonable promptness, identifying this Bond and the Project and including a statement of the amount due.

5. Surety waives notice of any and all defenses based on or arising out of any time extension to issue notice of award agreed to in writing by Owner and Bidder, provided that the time for issuing notice of award including extensions shall not in the aggregate exceed 120 days from Bid Due Date without Surety's written consent.

6. No suit or action shall be commenced under this Bond prior to 30 calendar days after the notice of default, required in Paragraph 4 above, is received by Bidder and Surety, and in no case later than one year after Bid Due Date.

7. Any suite or action under this Bond shall be commenced only in a court of competent jurisdiction located in the state in which the Project is located.

8. Notice required hereunder shall be in writing and sent to Bidder and Surety at their respective addresses shown on the face of this Bond. Such notices may be sent by personal delivery, commercial courier, or by United States Registered or Certified Mail, return receipt requested, postage pre-paid, and shall be deemed to be effective upon receipt by the party concerned.

9. Surety shall cause to be attached to this Bond a current and effective Power of Attorney evidencing the authority of the officer, agent, or representative who executed this Bond on behalf of Surety to execute, seal, and deliver such Bond and bind the Surety thereby.

10. This Bond is intended to conform to all applicable statutory requirements. Any applicable requirement of any applicable statute that has been omitted from this Bond shall be deemed to be included herein as if set forth as length. If any provision of the Bond conflicts with any applicable provision of any applicable statute, then the provision of said statue shall govern and the remainder of the Bond that is not in conflict therewith shall continue in full force and effect.

11. The term "bid" as used herein includes a bid, offer, or proposal as applicable.

POWER OF ATTORNEY
UNITED STATES FIRE INSURANCE COMPANY
PRINCIPAL OFFICE - MORRISTOWN, NEW JERSEY

KNOW ALL MEN BY THESE PRESENTS: That United States Fire Insurance Company, a corporation duly organized and existing under the laws of the state of Delaware, has made, constituted and appointed, and does hereby make, constitute and appoint: **Liliana Castrejon Perez**

each, its true and lawful Attorney(s)-In-Fact, with full power and authority hereby conferred in its name, place and stead, to execute, acknowledge and deliver: Any and all bonds and undertakings of surety and other documents that the ordinary course of surety business may require, and to bind United States Fire Insurance Company thereby as fully and to the same extent as if such bonds or undertakings had been duly executed and acknowledged by the regularly elected officers of United States Fire Insurance Company at its principal office, in amounts or penalties: **Unlimited**

This Power of Attorney limits the act of those named therein to the bonds and undertakings specifically named therein, and they have no authority to bind United States Fire Insurance Company except in the manner and to the extent therein stated.

Surety Bond No.: Bid Bond
Principal: LaRiviere Incorporated
Obligee: City of Post Falls

This Power of Attorney is granted pursuant to Article IV of the By-Laws of United States Fire Insurance Company as now in full force and effect, and consistent with Article III thereof, which Articles provide, in pertinent part:

Article IV, Execution of Instruments - Except as the Board of Directors may authorize by resolution, the Chairman of the Board, President, any Vice-President, any Assistant Vice President, the Secretary, or any Assistant Secretary shall have power on behalf of the Corporation:

(a) to execute, affix the corporate seal manually or by facsimile to, acknowledge, verify and deliver any contracts, obligations, instruments and documents whatsoever in connection with its business including, without limiting the foregoing, any bonds, guarantees, undertakings, recognizances, powers of attorney or revocations of any powers of attorney, stipulations, policies of insurance, deeds, leases, mortgages, releases, satisfactions and agency agreements;
(b) to appoint, in writing, one or more persons for any or all of the purposes mentioned in the preceding paragraph (a), including affixing the seal of the Corporation.

Article III, Officers, Section 3.11, Facsimile Signatures. The signature of any officer authorized by the Corporation to sign any bonds, guarantees, undertakings, recognizances, stipulations, powers of attorney or revocations of any powers of attorney and policies of insurance issued by the Corporation may be printed, facsimile, lithographed or otherwise produced. In addition, if and as authorized by the Board of Directors, dividend warrants or checks, or other numerous instruments similar to one another in form, may be signed by the facsimile signature or signatures, lithographed or otherwise produced, of such officer or officers of the Corporation as from time to time may be authorized to sign such instruments on behalf of the Corporation. The Corporation may continue to use for the purposes herein stated the facsimile signature of any person or persons who shall have been such officer or officers of the Corporation, notwithstanding the fact that he may have ceased to be such at the time when such instruments shall be issued.

IN WITNESS WHEREOF, United States Fire Insurance Company has caused these presents to be signed and attested by its appropriate officer and its corporate seal hereunto affixed this 18th day of November, 2024.

UNITED STATES FIRE INSURANCE COMPANY

Matthew E. Lubin, President

State of New Jersey }
County of Morris }

On this 18th day of November, 2024, before me, a Notary public of the State of New Jersey, came the above named officer of United States Fire Insurance Company, to me personally known to be the individual and officer described herein, and acknowledged that he executed the foregoing instrument and affixed the seal of United States Fire Insurance Company thereto by the authority of his office.

ETHAN SCHWARTZ
NOTARY PUBLIC
STATE OF NEW JERSEY
MY COMMISSION EXPIRES 6/25/2029
COMMISSION: #50223171

Ethan Schwartz (Notary Public)

I, the undersigned officer of United States Fire Insurance Company, a Delaware corporation, do hereby certify that the original Power of Attorney of which the foregoing is a full, true and correct copy is still in force and effect and has not been revoked.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed the corporate seal of United States Fire Insurance Company on the 30th day of March 2026

UNITED STATES FIRE INSURANCE COMPANY

Michael C. Fay, Senior Vice President

CONTACT INFORMATION: Bond Verifications: surety@cfins.com / Claims: SuretyClaimsSupport@cfins.com

DESIGNATION OF SUBCONTRACTORS

The bidder's attention is directed to the provisions of Idaho Code Section 67-2310 which requires subcontractors who will perform mechanical, electrical or plumbing work to be named on the bid of the general contractor. The Contractor shall not name more than one subcontractor for each work item. If the Contractor intends to perform mechanical and/or electrical work under the provisions of his own license, he shall name himself providing he is properly licensed. Additionally, Contractor shall provide the subcontractors that will perform earthwork, site utilities, synthetic turf, landscape and irrigation.

The Contractor shall not, without written consent of the Owner, make any substitution, alterations, or additions to the following list of subcontractors which is made a material part of this BID.

The following is a complete list of the proposed Subcontractors: (Attach additional sheets if necessary.)

Name and Address	Approximate Amount of Subcontract or Value of Materials	Idaho Public Works Contractor License No.	Type Work To Be Done
Thorco, INC. PO Box 2167, CDA, ID 83816	$481,508.00	PWC-C-10130-Unlimited-1-4	Electrical
Air tech mechanical co. 7820 N Franklin St CDA, ID 83815	$40,000.00	PWC-C-12273	HVAC
Ascent mechanical and Plumbing Inc. 764 S. clearwater loop Post Falls, ID 83854	$109,223.00	013229	Plumbing
Northwest Playground Equipment, Inc. PO Box 2410 Issaquah, WA 98027	$ 99,000.00	022206-AA	Synthetic Turf
LaRiviere, Inc. 17564 N Dylan Ct. Rathdrum, ID 83858	Approx $ 2,500,000.00	17425 Unlimited	Earth Work & Utilities
LaRiviere, Inc. 17564 N Dylan Ct. Rathdrum, ID 83858	$1,385,327.00	17425 Unlimited	Lanscape & Irrigation

LaRiviere, Inc.
(Name of Firm)

Heide Grant
(Signature)

April 1st 2026
(Date)

Secretary / Estimating Director
(Title)

Non-Collusion Affidavit

(THIS FORM TO BE EXECUTED BY EACH BIDDER AND SUBMITTED WITH BID)

State of Idaho)
:ss
County of Kootenai)

Hiede Grant, being duly sworn, deposes and says that he/she is Secretary
(sole owner, a partner, president, secretary, etc.)
of LaRiviere, Inc.,
the party making the foregoing bid, that such Bid is not made in the interest of or on behalf of any undisclosed person, partnership, company association, organization or corporation; that such Bid is genuine and not collusive or sham; that said Bidder has not directly or indirectly induced or solicited any other bidder to put in a false or sham bid, and has not directly or indirectly colluded, conspired, connived, or agreed with any bidder or anyone else to put in a shame bid, nor that anyone shall refrain from bidding; that said Bidder has not in any manner, directly or indirectly, sought by agreement, communication, or conference with anyone to fix the bid price of said Bidder or of any other bidder, nor to fix any overhead, profit, or cost advantage against the public body awarding the contract or anyone interested in the proposed contract; that all statement contained in such Bid are true; and, further, that said Bidder has not directly or indirectly, submitted its bid price or any breakdown thereof, nor the contents thereof, nor divulged information or data relative thereto, not paid and will not pay fee in connection therewith to any corporation, partnership, company, association, organization, bid depository, nor to any member or agent thereof, nor to any other individual except to such person or persons as have a partnership or other financial interest with said bidder in his/her general business.

Signed: Hiede Grant

Title: Secretary

Subscribed and sworn to before me this 1st day of April, 2026.

GRACE H. DANIELSON
NOTARY PUBLIC - STATE OF IDAHO
COMMISSION NUMBER 20225566
MY COMMISSION EXPIRES 11-28-2028

Grace H Danielson

Notary Public in and for the State of Idaho
Residing at: Kootenai
My Commission expires: 11/28/28

Anti-Discrimination Affidavit

STATE OF Idaho)
)ss
COUNTY OF Kootenai)

The Bidder hereby covenants, stipulates and agrees that no person shall be discriminated against in the bidding of the services and/or materials herein under and that the Bidder shall no refuse to hire any person therefore because of such person's race, creed, sex, color, or national origin, unless based on a bona fide occupation qualification. Also, the Bidder will in no manner discriminate against any person because of such person's race, creed, sex, color, or national origin. Any such discrimination shall be deemed a violation of this Bid and shall render this Bid subject to forfeiture.

Heidi Grant
Contractor's Signature

Subscribed and sworn to before me this 1st day of April, 2026.

Grace H Daniel
NOTARY PUBLIC in and for the State of ID, residing at Kootenai

Grace H. Danielson
11-28-2028

GRACE H. DANIELSON
NOTARY PUBLIC - STATE OF IDAHO
COMMISSION NUMBER 20225566
MY COMMISSION EXPIRES 11-28-2028

Affidavit of Payment or Securement of All Taxes

STATE OF IDAHO)
): ss
County of Kootenai)

Hiede Grant, being first duly sworn, deposes and says that he [is] [is not] IS in conformance with Idaho Code 63-15-2; affiant states that LaRiviere, Inc. has paid or secured to the satisfaction of the respective taxing units all taxes for which he or his property is liable now due or delinquent including assessments, excises, and license fees levied by the State of Idaho or any taxing unit within the State of Idaho.

Dated this 1st day of April, 20 26 .

Subscribed and sworn to before me this 1st day of April, 20 26 .

Grace H Daniel

Notary Public for State of Idaho

Residing at: Kootenai

My Commission expires: 11/28/28

GRACE H. DANIELSON
NOTARY PUBLIC - STATE OF IDAHO
COMMISSION NUMBER 20225566
MY COMMISSION EXPIRES 11-28-2028

CERTIFICATE OF AUTHORITY – SECRETARY / ESTIMATING DIRECTOR

This is to certify that Hiede Grant has been duly appointed as the Secretary / Estimating Director of LARIVIERE, INC., an Idaho corporation ("Corporation"). This appointment was made pursuant to the authority set forth in the Bylaws of the Corporation and Idaho Code § 30-29-840, and was affirmed by unanimous written consent of the shareholders and directors of the Corporation.

As of the date below, the following authority is conferred upon the officer named above:

a. Issue notices for all meetings, except notices for special shareholders meetings and special directors meetings called by the requisite number of shareholders or directors;

b. Keep minutes of all meetings, have charge of the seal and the corporate books, and make such reports and perform such other duties as are incident to such office or as are properly required of the Secretary by the Board;

c. Sign bid bonds, performance and payment bonds, and retainage bonds;

d. Execute bid proposals and related submission documentation; and

e. Bind the Corporation in subcontractor and supplier and supplier agreements, when the Chief Business Officer / Vice President is unavailable.

This Certificate of Authority is provided for the purpose of confirming the named officer's authority to act on behalf of the Corporation in dealings with financial institutions, contracting parties, governmental agencies, and other third parties.

Dated: 8.18.2025

LARIVIERE, INC.

By: _____

Name: Thomas R. LaRiviere, III

Title: President & Chief Executive Officer

NOTICE OF AWARD

Dated:_____

TO: LaRiviere, Inc.
(BIDDER)

ADDRESS: 17564 N Dylan Ct.
Rathdrum, ID 83858

OWNERS' CONTRACT NO._____

CONTRACT FOR: The Quarry Sports Complex, Phase I
(Insert name of Contract as it appears in the Bidding Documents)

You are notified that your Bid dated April 1, 2026, for the above Contract has been considered. You are the apparent Successful Bidder and have been awarded a contract for The Quarry Sports Complex, Phase I.

The Contract Price of your contract is **$4,859,893.50.**

Three copies each of the proposed Agreement and Contract Bond Forms accompany this Notice of Award.

1 set of the Construction Specifications and Drawings will be delivered separately or otherwise made available to you immediately. Additional copies of plans and specifications may be obtained by the Contractor for the cost of reproduction.

You must comply with the following conditions precedent within ten days of the date of this Notice of Award that is by May 1, 2026.

1. You must deliver to the OWNER 2 fully executed counterparts of the Agreement including all required bonds.

2. You must deliver with the executed Agreement the Contract Security (Bonds) as specified in the Instructions to Bidders, paragraph 17, General Conditions, Article 6 and Supplemental Conditions, Section 1000.

3. You must deliver with the executed Agreement the Certificates of Insurance as specified in the Instructions to Bidders, paragraph 17, General Conditions, Article 6 and Supplemental Conditions, Section 1000.

4. The Contractor shall have possessed and retained a valid Idaho Public Works Contractor's License of the appropriate classification at the time of bid submittal.

5. The Contractor shall assure that the Subcontractor(s) have possessed and retained a valid Idaho Public Works Contractor's License of the appropriate classification at the time of bid submittal.

6. The Contractor should be prepared to receive a Notice to Proceed with an effective date for commencement of construction on May 13, 2026.

7. Other Conditions and Precedents:

    a. Complete Public Works Contract Report (WH-5) and submit to Idaho State Tax Commission within thirty days of award.

Failure to comply with these conditions within the time specified will entitle OWNER to consider your Bid abandoned, to annul this Notice of Award and to declare your Bid Security forfeited.

Within thirty days after you comply with those conditions, OWNER will return to you one fully signed counterpart of the Agreement with the Contract Documents attached.

ACCEPTANCE OF AWARD

City of Post Falls, Idaho	
(OWNER)	(CONTRACTOR)
By:	By:
(AUTHORIZED SIGNATURE)	(AUTHORIZED SIGNATURE)
City of Post Falls Mayor	
(TITLE) (DATE)	(TITLE) (DATE)

CITY OF POST FALLS:
City of Post Falls Idaho
C/O City of Post Falls PARKS DEPARTMENT
408 N. Spokane Street
Post Falls, ID 83854

City Contract Administrator: Jason Faulkner, Finance Director. Phone: (208) 773-3511
Email: jfaulkner@postfalls.gov

City Project Manager: Robbie Quinn, Parks Planner. Phone: (208) 457-3320
Email: rquinn@postfalls.gov

CONSULTANT:
Michael Terrell Landscape Architecture, PLLC
1421 N Meadowwood Lane, Suite 150
Firm Project Manager: Michael Terrell, Owner. Phone: (509) 922-7449
Email: mterrell@mt-la.com

THIS AGREEMENT made and entered into by and between the City of Post Falls, a political subdivision of the State of Idaho, having offices for the transaction of business at 408 N. Spokane Street, Post Falls, Idaho 83854, hereinafter referred to as the "**City**," and Michael Terrell Landscape Architecture, PLLC having offices for the transaction of business at 1421 N Meadowwood Lane, Suite 150 hereinafter referred to as the "**Consultant**" jointly, hereinafter referred to along with the City as the "Parties."

W I T N E S S E T H:

WHEREAS, the City desires to obtain professional construction administration services to complete construction oversite for Quarry Sports Complex Phase 1 construction; and

WHEREAS, Michael Terrell Landscape Architecture, PLLC has been selected by the City to complete such services.

NOW, THEREFORE, for and in consideration of the mutual covenants and conditions set forth herein, the Parties mutually agree as follows:

ARTICLE 1. SUBJECT AND PURPOSE

1.1. **PURPOSE:** The City hereby agrees to engage the Consultant, and the Consultant hereby agrees to perform the services hereinafter set forth, which are generally described as Construction Support Services for the construction of this phase of the Quarry Sports Complex, and laid out within **Exhibit "A"**, which is incorporated herein by this reference.

ARTICLE 2. SCOPE OF WORK AND PERSONNEL

2.1. **PROJECT LOCATION**: This project will be in the City of Post Falls.

2.2. **SCOPE/STATEMENT OF WORK**: The Consultant will provide the professional services described in the Scope of Services attached hereto as **Exhibit "A"**, which is incorporated herein by reference. All services required hereunder will be performed by the Consultant or under Consultant's direct supervision, and all personnel engaged in the work shall be fully qualified and authorized under state and local law to perform such services. The Consultant must coordinate work with the City Project Manager or their representative.

2.3. **PERSONNEL:** The Consultant represents that it has or will secure all personnel required to perform its services at its own expense under this Agreement. Such personnel shall not be employees of or have any contractual relationship with the City. It is expected that the Project Manager and other key employee(s) upon which the Consultant based its qualifications to perform the work will be the ones who perform the services on behalf of the Consultant. The Consultant may not replace the Project Manager or other key employee(s) without obtaining the City's approval, which the City will not unreasonably withhold. The written request for substitution must describe why the action is being requested and be accompanied by the documentation for the person(s) as called for in the Request for Qualification's criteria section dealing with the competence of personnel and any relevant specialized experience. Based upon the City's review of the Consultant's documentation, and any supplemental information that the City may request, the City may, at its sole option: (1) approve the Consultant's request in writing; or (2) deny the Consultant's request and call for other substitute(s) or replacement(s) to be submitted for review; or (3) terminate this Agreement for cause and remove the Consultant from the project.

2.4. **ASSIGNABILITY:** The Consultant may not assign or transfer any interest in this Agreement without the prior written consent of the City thereto. However, claims for money due or to become due to the Consultant from the City under this Agreement may be assigned to a bank, trust company, or other financial institution without such approval. The Consultant must provide notice of any such assignment or transfer promptly to the City. Likewise, the Consultant may not delegate duties or otherwise subcontract work or services under this Agreement without the prior written approval of the City.

2.5. **RELATIONSHIP OF THE PARTIES**: The Consultant shall perform its obligations hereunder as an independent contractor of the City. The City may administer this Agreement and monitor the Consultant's compliance with this Agreement but shall not supervise or otherwise direct the Consultant except to provide recommendations and approvals according to this Agreement.

2.6**. TERM**: Services shall be performed as expeditiously as is consistent with professional skill and care and the orderly progress of the work. Upon request of the City, and subject to the City's approval, a schedule for the performance of the services, which may be adjusted as the project proceeds, shall be submitted for review and approval. The schedule shall include allowances for periods required for the City's review and the receipt of submissions by authorities having jurisdiction over the project.

ARTICLE 3. COMPENSATION

3.1. **BASIS OF COMPENSATION**: Consultant will be paid on a lump sum basis, listed **Exhibit "A"**. Total reimbursement to the Consultant, including reimbursable expenses, will not exceed **$157,046.50** without a change order approved in writing by both parties. Prices and rates shall remain firm for the duration of this Agreement unless formally amended or changed by Change Order to the Agreement.

3.2. **REIMBURSABLE EXPENSES**: Reimbursable expenses must have the prior written approval of the City. Reimbursable expenses will be billed at cost unless otherwise approved in writing by the Contract Administrator. Such reimbursable expenses are subject to the total compensation limit addressed in Section 3.1 of this Article. Reimbursable expenses include costs by the Consultant and the Consultant's employees in the interest of the project.

3.3. **EXCLUSIONS FROM COMPENSATION:** Except as otherwise provided in this Agreement, the City shall not offer any additional compensation, payment, use of facilities, service, or other value to the Consultant in connection with the performance of this Agreement. The parties understand and agree that except as otherwise provided in this Article, administrative overhead and other indirect or direct costs the Consultant may incur in the performance of its obligations under this Agreement, including but not limited to fees, licenses, and permits, have already been included in the computation of the Consultant's price and may not be charged to the City.

3.4. **TIME OF PAYMENT:** Payments will be made monthly based on an invoice for services rendered and costs incurred during the previous month. Each invoice will contain the project or contract number and be sequentially numbered beginning with "Pay Request 1". The invoice will be addressed to the Project Manager at the above address. The invoice will be paid within thirty (30) days of receipt by the City, contingent upon review and authorization by the City's Contract Administrator and Project Manager. Each monthly invoice must reflect the total work performed and approved to date. Past due amounts may bear a finance charge as stipulated by law not to exceed 1% of the past due amount per month.

3.5. **METHOD OF PAYMENT:** The City, in its sole discretion, may elect to make payment by warrant (check), credit card (payment card or "P" card), Automated Clearing House (ACH), or Electronic Payment (E-payment or E-payables). The pricing submitted by the Consultant and accepted by the City includes applicable payment terms and any fees incurred by the Consultant through their financial institutions in taking any of the above-referenced payment methods. No additional fees or charges to the City shall apply unless otherwise pre-approved by the City.

3.6. **FINAL INVOICE:** For the Parties to close their books and records, the Consultant will state "final invoice" or other words to that effect on its final or last billing to the City for the work of the Agreement. Since this Agreement will be closed and any budget balances deleted, the Consultant agrees that any further charges not adequately included on this or previous billings will be waived in their entirety.

ARTICLE 4. INSURANCE

4.1. **INSURANCE**: The Consultant will maintain, at a minimum, the insurance coverages outlined in this Article. Any exclusions must be pre-approved by the City of Post Falls Finance Department. Work under this Agreement may not commence until evidence of all required insurance is provided to, and approved

by, the City's Legal Department. The Consultant's insurer must have a minimum A.M. Best's rating of A-VII and must be licensed to do business in the State of Idaho. Evidence of such insurance shall consist of a completed copy of the certificate of insurance, signed by the insurance agent for the Consultant. The insurance policy or policies will not be canceled, materially changed, or altered without forty-five (45) days prior notice submitted to the City. The policy must be endorsed, and the certificate must reflect that the City of Post Falls is named as an additional insured on the Consultant's general liability policy concerning activities under this Agreement. The policy must provide, and the certificate must reflect that the insurance afforded applies separately to each insured against whom a claim is made, or suit is brought except with respect to the limits of the company's liability. Additionally, the policy must be endorsed, and the certificate must reflect that the insurance afforded therein shall be primary insurance for the Consultant. The certificate holder shall be City of Post Falls C/O City of Post Falls Parks Department, . Any insurance or self-insurance carried by the City shall be excess and not contributory insurance to that provided by the Consultant.

4.2. **GENERAL LIABILITY INSURANCE**: The Consultant must have Commercial General Liability Insurance with limits of $1,000,000.00 per occurrence, which includes general aggregate, products, completed operation, personal injury, and fire damage. The General Liability Insurance must state that the City of Post Falls, its officers, agents and employees, and any other entity required explicitly by the provisions of this Agreement will be specifically named additional insured(s) for all coverage provided by this policy of insurance and shall be fully and completely protected by this policy from all claims.

4.3. **AUTOMOBILE INSURANCE**: The Consultant must carry, for the duration of this Agreement, comprehensive automobile liability coverage of $1,000,000.00 for any vehicle used in conjunction with the provision of services under the terms of this Agreement. The policy must provide that it will not be canceled, materially changed, or renewed without thirty (30) days prior written notice to the Policy Holder, who shall notify the City of Post Falls within three (3) days.

4.4. **WORKERS COMPENSATION**: The Consultant agrees to maintain Workmen's Compensation coverage on all employees, including employees of subcontractors, during the term of this Agreement as required by Idaho Code and to provide proof of Worker's Compensation coverage by providing its State Industrial Account Identification Number to the City. Should the Consultant fail to maintain such insurance during the entire term hereof, the Consultant will indemnify the City against any loss resulting from such failure, either by compensation or additional premium liability.

4.5. **PROFESSIONAL LIABILITY INSURANCE**: The Consultant will carry Professional Liability insurance coverage in the minimum amount of this Agreement or $1,000,000.00, whichever is less.

4.6. **FAILURE TO COMPLY:** Failure of the Consultant to fully comply with the above insurance requirements during the term of this Agreement will be considered a material breach of this Agreement and could be cause for immediate termination of the Agreement at the City's sole discretion. Alternatively, the City may procure and maintain, at the Consultant's sole expense, insurance up to the amount of the required coverage(s). The City may offset the cost of such insurance against any payment due to the Consultant for work performed under this Agreement.

ARTICLE 5. CONTRACT TERMINATION

5.1. **TERMINATION BY CONSULTANT:** This Agreement may be terminated by the Consultant upon thirty (30) days prior written notice to the City in the event of substantial failure by the City to perform under the terms of this Agreement through no fault of the Consultant.

5.2. **TERMINATION BY CITY:** The City may terminate this Agreement with or without cause immediately upon written notice to the Consultant. In the event of termination of a Contract through no fault of the Consultant, the City agrees to pay the Consultant for services rendered to the City's satisfaction up to the date of termination based upon actual costs and expenses incurred according to this Agreement. Payment will be based upon the Consultant's itemized breakdown and documentation that services have been performed to the date of termination and acceptance of said documentation by the City. In the event of termination for cause, the Consultant must reimburse the City for all reasonable costs associated with the replacement of the Consultant with a different entity to complete the work that is the subject of this Agreement.

5.3. **CLOSE-OUT OF WORK:** Immediately after sending a Termination Notice to the City or receiving a Termination Notice from the City, and except as otherwise directed by the City, the Consultant must:

(1) Stop work on the date and to the extent specified; and

(2) Terminate and settle all orders and subcontracts relating to the performance of the terminated work; and

(3) Transfer all work in process, completed work, and other material related to the terminated work to the City; and

(4) Continue and complete all parts of the work that have not been terminated.

ARTICLE 6. INDEMNIFICATION

6.1. **CONSULTANT TO INDEMNIFY CITY:** The Consultant agrees to indemnify, defend (at the City's sole option), and hold the City harmless from any and all claims, including but not limited to reasonable attorney fees, demands, losses and liabilities to or by third parties to the extent arising from, resulting from, a negligent act, error or omission of the Consultant performed under this Agreement by the Consultant, its agents or employees to the fullest extent permitted by law. The Consultant's duty to indemnify the City shall not apply to liability for damages arising from bodily injury to persons or damage to property caused by or resulting from the negligence of the City, its agents, or employees. The Consultant's duty to indemnify the City for liability for damages arising out of bodily injury to persons or damage to property caused by or resulting from the concurrent negligence or (a) the City, its agents or employees, and (b) Consultant, its agents or employees shall apply only to the extent of negligence of the Consultant or its agents or employees. Consultant's duty to defend (at the City's sole option), indemnify, and hold the City harmless shall include, as to all claims, demands, losses, and liability to which it applies, the City's personnel-related costs, reasonable attorney's fees, court costs, and all other claim-related expenses. The Consultant's defense obligation under the indemnity paragraph shall include only the reimbursement of reasonable defense costs to the extent of the Consultant's actual, proportional indemnity obligation as determined by a court of law.

6.2. **PROFESSIONAL LIABILITY:** The Consultant's professional liability to the City (including Consultant's officers, directors, employees, and agents) is limited to the amount payable under this Agreement or one million dollars ($1,000,000), whichever is less. In no case will the Consultant's professional liability to third parties be limited in any way. This limitation applies to all lawsuits, claims,

or actions identified under any legal theory related to the Consultant's services under this Agreement and any continuation or extension of such services.

6.3. **U.C.C., LIENS, ETC.** The Consultant's indemnification shall expressly include all claims for loss or liability because of wrongful payments under the Uniform Commercial Code or other statutory or contractual liens or rights of third parties, including taxes accrued or accruing as a result of this Agreement or work performed or materials furnished directly or indirectly because of this Agreement.

ARTICLE 7. INSTRUMENTS OF SERVICE/RECORDS

7.1. **CITY OWNS INSTRUMENTS OF SERVICE:** Drawings and other documents, including those in electronic form, prepared by the Consultant and Consultant's subcontractors are Instruments of Service. The City shall own all rights, title, and interest in all of the Instruments of Service and all of the other materials conceived or created by the Consultant or its employees or subcontractors, either individually or jointly with others, which arise out of the performance of this Agreement, including any inventions, reports, studies, designs, drawings, specifications, notes, documents, software and documentation, computer-based training modules, electronically, magnetically or digitally recorded material, and other work in whatever form (hereafter "Materials"). All finished or unfinished Materials prepared by the Consultant under this Agreement shall be the property of the City whether or not the project is completed, or this Agreement is canceled before expiration. Use or reuse of Consultant's work for any purpose other than intended by this Agreement shall be at City's sole risk.

7.2. **CONSULTANT TO ASSIGN RIGHTS:** The Consultant hereby assigns to the City all rights, titles, and interests to the Materials. Upon request of the City, the Consultant will execute all papers and perform all other acts necessary to assist the City in obtaining and registering copyrights, patents, or other forms of protection provided by law for the Materials, such work being at additional expense to the City. The Materials created under this Agreement by the Consultant, its employees, or subcontractors, individually or jointly with others, shall be considered "works made for hire" as defined by the United States Copyright Act. All of the Materials, whether in a paper, electronic, or another form, shall be remitted to the City by the Consultant, its employees, and any subcontractors, and the Consultant shall not copy, reproduce, allow, or cause to have the Materials copied, imitated or used for any purpose other than the performance of the Consultant's obligations under this Agreement without the prior written consent of the City except that the Consultant may retain copies necessary for record-keeping, documentation and other such business purposes related to the Agreement.

7.3. **STANDARD ELEMENTS**: The preceding shall not be construed to mean that the City shall acquire an exclusive possessory right, by copyright or otherwise, to the exclusion of the Consultant, in standard elements found in the Materials (such as standard details) generated and authored by the Consultant for its regular, repeated and ongoing use in designs, plans and drawings for its customers in the ordinary course of its business. The City further waives any claim against the Consultant for errors or omissions arising specifically from changes made by the City or others to the Materials after completing the work provided by this Agreement. This waiver does not extend to errors or omissions in the Materials unrelated to any such changes by the City or others.

7.4. **INFRINGING ON OTHERS INTELLECTUAL PROPERTY:** The Consultant represents and believes that Materials produced or used under this Agreement do not and will not infringe upon any

intellectual property rights of another, including but not limited to patents, copyrights, trade secrets, trade names, and service marks and names. The Consultant shall indemnify and defend (at the City's sole option) the City at the Consultant's expense from any action or claim brought against the City to the extent that it is based on a claim that all or part of the Materials infringes upon the intellectual property rights of another. The Consultant shall be responsible for payment of any and all such claims, demands, obligations, liabilities, costs, and damages, including, but not limited to, reasonable attorney fees arising out of this Agreement, amendments, and supplements thereto, which are attributed to such claims or actions. This paragraph shall not apply to claims that arise from Materials specifically required by the City or to portions of the Materials which the City directed the Consultant to include within said Materials. If such a claim or action arises, or in the Consultant's or the City's opinion is likely to arise. In that case, the Consultant will, at the City's discretion, either procure for the City the right or license to continue using the Materials at issue or replace or modify the allegedly infringing Materials. This remedy shall be in addition to and shall not be exclusive to other remedies provided by law.

7.5. **FINDINGS CONFIDENTIAL:** Any reports, information, data, etc., given to or prepared or assembled by the Consultant under this Agreement which the City requests to be kept confidential shall not be made available to any individual or organization by the Consultant without the prior written approval of the City.

7.6. **MAINTENANCE OF RECORDS**: The Consultant will maintain, for at least three (3) years after completion of this Agreement, all relevant records concerning this Agreement. The Consultant shall make available to the City, at any time during their regular operating hours, all records, books, or pertinent information which the Consultant shall have kept in conjunction with this Agreement and which the City may be required by law to include or make part of its auditing procedures, an audit trail or which may be necessary for funding the services contracted for herein.

7.7. **APPROVAL OF DOCUMENTS**: The City's approval of documents resulting from the services provided by the Consultant does not relieve the Consultant from its responsibility to comply with the standard of care for the performance of its services outlined in this Agreement.

7.8. **ARTICLE APPLICABLE TO SUBCONTRACTORS:** The Consultant shall ensure that the substance of the preceding subsections is included in each subcontract for the work under this Agreement.

ARTICLE 8. GENERAL CONDITIONS

8.1. **PAYMENT OF TAXES**: This Agreement is for the employment of the Consultant as an independent contractor. The Consultant acknowledges that they are an independent contractor doing business as listed above and is solely responsible for paying any and all taxes associated with the work of this Agreement, including but not necessarily limited to income and social security taxes.

8.2. **ENFORCEMENT COSTS**: If any legal action or other proceeding is brought for the enforcement of this Agreement, or because of an alleged dispute, breach, default, or misrepresentation in connection with any provisions of this Agreement, the successful or prevailing Party or Parties shall be entitled to recover reasonable attorney's fees, court costs, and all expenses (including taxes) even if not taxable as court costs (including, without limitation, all such fees, costs, and expenses incident to appeals), incurred in that action or proceeding, in addition to any other relief to which such Party or Parties may be entitled.

8.3. **COMPLIANCE WITH LAWS**: The Parties hereto expressly agree to observe federal, state, and local laws, ordinances, and regulations to the extent that they may have any bearing on either providing any money under the terms of this Agreement or the services provided under the terms of this Agreement.

8.4. **MODIFICATION**: No modification or amendment to this Agreement will be valid until the same is reduced to writing, in the form of a change order, and executed with the same formalities as this present Agreement.

8.5. **VENUE STIPULATION**: This Agreement has and shall be construed as having been made and delivered in the State of Idaho, and the laws of the State of Idaho shall apply to the construction and enforcement of this Agreement or any provision hereto. Any civil action arising from this Agreement shall be brought in the District Court for the First Judicial District of the State of Idaho at Coeur d'Alene, Kootenai County, Idaho, and may not thereafter be removed to any other state or federal court.

8.6. **WAIVER**: No officer, employee, agent, or otherwise of the City has the power, right, or authority to waive any of the conditions or provisions of this Agreement. No waiver of any breach of this Agreement shall be held to be a waiver of any other or subsequent breach. All remedies afforded in this Agreement or law shall be taken and construed as cumulative, in addition to every other remedy provided herein or by law. Failure of the City to enforce at any time any of the provisions of this Agreement or to require at any time performance by the Consultant of any provision hereof shall in no way be construed to be a waiver of such provisions, nor in any way affect the validity of this Agreement or any part thereof, or the right of the City to enforce every such provision hereafter.

8.7. **HEADINGS**: This Agreement's Article and Section headings have been inserted solely for convenience and ready reference. In no way do they purport to, and shall not be deemed to, define, limit, or extend the scope or intent of the Articles or Sections they appertain.

8.8. **OTHER EMPLOYMENT**: This Agreement is not an exclusive services agreement. The Consultant may take on other professional assignments while completing work under this Agreement.

8.9. **RECOVERY OF FUNDS**: Whenever, under this Agreement, any sum of money shall be recoverable from or payable by the Consultant to the City, the same amount may be deducted from any sum due to the Consultant under this Agreement or any other contract between the Consultant and the City including reasonable attorney fees and or any additional collection costs. The rights of the City are in addition and without prejudice to any other right the City may have to claim the amount of any loss or damage suffered by the City on account of the acts or omissions of the Consultant.

8.10. **SEVERABILITY:** In the event any term or condition of this Agreement or application thereof to any person or circumstances is held invalid, such invalidity shall not affect other terms, conditions, or applications of this Agreement, which can be given effect without the invalid term, condition, or application. To this end, the terms and conditions of this Agreement are declared severable.

8.11. **NOTIFICATION:** All notices called for or provided for in this Agreement shall be in writing and must be served on any of the Parties either personally or by United States Mail to their respective addresses set forth above. All notices or other communications given hereunder and sent or delivered to the Party at the address set forth for such shall be deemed received: (1) when certified mail is deposited in the United States

mail, postage prepaid; or (2) on the third day following the day on which the same have been mailed by first class delivery, postage prepaid; or (3) on the day such notices or other communications are received when sent by personal delivery, prepaid.

8.12. **INTEREST OF MEMBERS OF CITY AND OTHERS:** No officer, member, or employee of the City and no member of its governing body, and no other public official of the governing body shall participate in any decision relating to this Agreement which affects their interest or the interest of any corporation, partnership, or association in which they are, directly or indirectly, interested or has any personal or financial interest, direct or indirect, in this Agreement or the proceeds thereof.

8.13. **INTEREST OF CONSULTANT:** The Consultant covenants that they presently have no interest and shall not acquire any direct or indirect interest that would conflict in any manner or degree with the services required to be performed under this Agreement. The Consultant further covenants that in the performance of this Agreement, the Consultant shall employ no person having any such interest.

8.14. **PERMITS:** The Consultant shall acquire and maintain in good standing all permits, licenses, and other documents necessary to its performance under this Agreement.

8.15. **INTEGRATION:** This instrument and all appendices and amendments hereto embody the parties' entire Agreement. There are no promises, terms, conditions, or obligations other than those contained herein, and this Agreement shall supersede all previous communications, representations, or agreements, either oral or written, between the parties.

8.16 **NONDISCRIMINATION:** The Consultant will not discriminate against any employee or applicant for employment because of race, color, religion, sex, or national origin. The Consultant shall take affirmative action to ensure that applicants are employed and that employees are treated during employment without regard to their race, color, religion, sex, or national origin. Such actions shall include, but not be limited to, the following: employment, upgrading, demotions, or transfers; recruitment or recruitment advertising; layoffs or terminations; rates of pay or other forms of compensation; selection for training, including apprenticeship; and participation in recreational and educational activities. The Consultant agrees to post in conspicuous places available for employees and applicants for employment notices to be provided, setting forth the provisions of this nondiscrimination clause. The Consultant shall keep such records and submit such reports concerning the racial and ethnic origin of applicants for employment and employees as the City may require. The Consultant further agrees to comply with all the Nondiscrimination Requirements contained in Exhibit "B", which is incorporated herein by this reference.

8.17. **ADDITIONAL REQUIREMENTS OF THE STATE OF IDAHO:** The clauses in this Section are required by the State of Idaho. The inclusion of these clauses in this Agreement by the City does not indicate the City's support or opposition to these clauses nor acknowledgment by the City that these clauses are relevant to the subject matter of this Agreement. Instead, these clauses are included solely to comply with Idaho state law.

a. **Boycotting Israel**: If payments under this Agreement exceed one hundred thousand dollars ($100,000) and the Consultant employs ten (10) or more persons, then the Consultant certifies that it is not currently engaged in and will not, for the duration of this Agreement, engage in a boycott of the goods or services of the state of Israel or

territories under its control as those terms are defined in the "Anti-Boycott Against Israel Act" (Idaho Code 67-2346).

b. **Boycotting Certain Sectors**: If payments under this Agreement exceed one hundred thousand dollars ($100,000) and the Consultant employs ten (10) or more persons, then the Consultant certifies that it is not currently engaged in and will not, for the duration of this Agreement, engage in a boycott of the goods or services of companies engaged in or supporting the exploration, production, utilization, transportation, sale, or manufacture of fossil fuel-based energy, timber, minerals, hydroelectric power, nuclear energy, or agriculture; or the manufacture, distribution, sale, or use of firearms as those terms are defined in Idaho Code 67-2347A.

c. **Government of China**: Consultant certifies that it is not and will not, for the duration of this Agreement, be owned or operated by the government of China as those terms are defined in Idaho Code Title 67, Chapter 23.

d. **Contract with Abortion Providers**: To the extent this Agreement is subject to the use of public funds, Consultant certifies that it is not, and will not, for the duration of this Agreement, become an abortion provider or an affiliate of an abortion provider as those terms are defined in the "No Public Funds for Abortions Act" (Idaho Code Title 18, Chapter 87).

ARTICLE 9. CONTRACT DOCUMENTS

9.1. **CONTRACT DOCUMENTS**: The Contract Documents consist of this Agreement, the other documents listed below, and all modifications and change orders issued subsequent thereto. These form a contract; all are as entirely a part of the contract as if attached to this Agreement or repeated herein. In the event of any inconsistency between the provisions of this Agreement and the documents listed below, the provisions of this Agreement will control, and the order of precedence will be in the order listed. An enumeration of the contract documents is set forth below:

1. This Agreement; and
2. Exhibit "A" Agreement for Professional Services; and
3. Exhibit "B" Nondiscrimination Requirements

END OF ARTICLES

IN WITNESS WHEREOF, the Parties hereto have caused this Agreement to be executed on the day and year set forth herein above.

MAYOR OF POST FALLS, IDAHO

_____
Randy Westlund, Mayor

ATTEST:

BY: _____
Shannon Howard
City Clerk

Date: _____, 2026

CONSULTANT

_____
Michael Terrell, Owner
Michael Terrell Landscape Architecture, PLLC

Date: April 7, 2026

EXHIBIT A

Michael Terrell ■ Landscape Architecture, PLLC
1421 N. Meadowwood Lane, Suite 150
Liberty Lake, WA 99019
(509) 922-7449

April 6, 2026

Client: City of Post Falls, Parks & Recreation
Phone: (509) 363-5462
Contact: Robbie Quinn, PLA, Parks Planner
Address: 408 N Spokane Street
Post Falls Idaho 83854
Spokane, WA 99202

Project: Tullamore Sports Complex Phase I, Task Order 9.0 Construction Support Services
Project Number: 24-018
Address: Corner of E. Killdeer Avenue and N. Charleville Road, Post Falls, Idaho

Scope of Work: Michael Terrell ■ Landscape Architecture, PLLC (Consultant), Ardurra, H2A Architects, MACC Estimating and KWR Electrical Engineers agree to perform the following Professional Services for the City of Post Falls:

Project Understanding:

Phase I, Task Order 8.0 of The Tullamore Sports Complex is a modification of previously completed construction drawings and bidding. This task is to provide Construction Support Services for the construction of this phase of the Tullamore (The Quarry) Sports Complex. This phase includes construction of parking lot, restroom / shelter, site utilities, lighting, playground, landscape and irrigation. The MT ■ LA team will provide all the necessary labor and material to provide Construction Support Services for construction of this phase based on the prepared bid documents. The estimated fees are based on the associated work compared to the total contract days on the project per the bid schedule.

The following assumptions have been made in the development of this Scope of Services:

A. The Client shall be responsible for payment of all agency review and/or application fees.
B. Compaction testing services will be provided by the contractor.
C. Attendance at City Council meetings is not included but can be added with additional fees at the Clients request.
D. Preparation of a SWPPP and filing a Notice of Intent (NOI) with DEQ is not anticipated.
E. Client will provide coordination with the Public during design and construction.
F. The Contractor will provide Traffic Control Plans. Preparation of Traffic Control Plans is not included as part of this contract.
G. Active construction is assumed to be no longer than 8 months.

Task 9.0: Construction Support Services	
I. **Project Management**: Conduct daily management of the project and administrative tasks of a general nature as required over the duration of the project. This task includes efforts for coordination between MT-LA, design team and City of Post Falls, quality control, communications, and general project management to maintain continuity and flexibility. This task also includes time for monthly billings and monitoring budget items. It is assumed that with bidding coordination and construction there will be eight (8) months of overall project management and coordination. A. Shop drawing & submittal review for compliance with design intent and specifications B. Review / process Contractor's submittals and other documents that include, but are not limited to shop drawings, product and material data and requests for information/clarifications (RFI's). Shop drawing & submittal review for compliance with design intent and specifications. Services shall include providing responses to Contractor as necessary, review of Owner-prepared change order proposal forms, and reviewing Contractor's proposed costs of Owner-approved changes in the work. **II. Construction Administration / Observation** A. Provide support and attend one (1) pre-construction conference after contract has been awarded to contractor. Provide office administration support and coordination and correspondence during construction as MTLA may request or as work activities require. In addition, this includes submittals review, quality control testing review, preparation of responses to RFI's, support in preparation of up to change orders, review of contractor monthly pay requests, and preparation of change order documentation. An allowance of time is included for this task. a. MT-LA: Assuming 3 hours per week for Project Manager and 4 hours per week for staff landscape architect. b. Civil Engineering: Assuming 2 hours per week for Project Manager and 6 hours per week for staff engineer, a total of 32 weeks of construction is anticipated. c. Architectural: Provide construction administration for restroom/shelter building construction. Assume six month construction schedule. d. Electrical: Construction administration services include: i. Review of equipment substitution requests. ii. Review shop drawings and submittals during construction. iii. Attendance at pre-construction meeting.	

iv. Response to requests for information (RFI) during construction.
v. Develop change proposal documents.
vi. Review contractor provided as-built documentation.

e. Additional construction administration at the request of the City will be billed on a time and materials basis.

B. Site Visits:
   i. The design team will conduct the following site visits during construction:
      1. MTLA: Conduct twenty (20) site visits to review the progress of the Work and/or attend project meetings as requested by the Owner. Task shall include preparing a written report for each site visit and issuing copies to all concerned parties. Site observations by sub-consultant include:
         a) Civil: Conduct construction observation during construction to observe conformance of work with the engineering documents as required to allow the Consultant to certify construction was completed in accordance with approved plans and specifications. Observation activities may include but are not limited to: Construction Diaries, Materials Review, Testing Procedure, Workmanship Observation, Quantity Tracking, Punch List, etc. For this scope and budget, it is assumed that the Consultant will be on-site for 10 meetings, and it is assumed that construction observations will coincide with these site meetings. Each site visit with construction observation is assumed to be six (6) hours total with project manager attending three site visits and EI attending the remaining seven (7). Additional construction observations will be billed on a time and materials basis. Scope also includes two days of time for survey crew on as needed basis during construction.
         b) H2A: Conduct six site visits.
         c) KWR: Perform up to (7) site visit to observe electrical systems installation and verify conformance with the drawings and specifications. An “Engineer’s Field Observation Report” shall be prepared for each site visit performed. Site visits may be scheduled for review of electrical systems rough-in, punch list, final back check, or at the request of the Landscape Architect.

C. Final Completion. Conduct site visits to prepare a ‘punch list’ of incorrect and/or incomplete work. Transmit ‘punch list’ to Contractor for review, correction, and comment. Prepare ‘punch list’ for Final Completion.
   i. Review record documents prepared by the Contractor. Civil to prepare record drawings based on marked-up plans from the contractor.
   ii. Written documentation of field requests and proposal requests.
   iii. Project Close-out
   iv. Final punch-list(s)

D. Closeout i. Record Drawings: Prepare record drawings for submittal to the City based on marked-up plans from the contractor. Submittal shall be in conformance with City as built and electronic submittal standards for incorporation into the City GIS system.		
9.1	Principal in Charge and Landscape Architecture: Michael Terrell – Landscape Architecture, PLLC Fee:	$28,500.00
8.2	Civil Engineering Design: Ardurra ($96,015.00 x 1.10 = $105,616.5) Fee:	$105,616.50
8.3	Architectural Design: H2A Architects (includes building electrical, structural, and mechanical). ($8,800 x 1.10 = $9,680.00) Fee:	$9,680.00
8.4	Electrical Design: KWR Engineering ($9,500.00 x 1.10 = $10,450.00) Fee:	$10,450.00
8.5	Direct Costs / Expenses: Direct Costs: Printing and other expenses are reimbursable at cost + 15%. Estimated, actual cost is dependent on requests for meetings and actual cost of printing.	$3,500.00
	Task 1 Subtotal:	**$157,046.50**

EXTENDED LANDSCAPE DESIGN SERVICES

The following services are specifically excluded from this agreement but may be added as additional services with associated fees by written authorization by the City of Post Falls.

- The Client shall be responsible for payment of all agency review and/or application fees.
- Compaction testing services will be provided by the contractor.
- Attendance at City Council meetings is not included but can be added with additional fees at the Clients request.
- Preparation of a SWPPP and filing a Notice of Intent (NOI) with DEQ is not anticipated.
- Client will provide coordination with the Public during design and construction.
- The Contractor will provide Traffic Control Plans. Preparation of Traffic Control Plans is not included as part of this contract.
- Active construction is assumed to be no longer than 8 months.
- Additional master planning and/or Capital Improvement Planning.
- Preparation of environmental studies such as wetlands delineation, biological assessment, endangered species documentation, environmental assessment, or environmental impact statements.
- Archaeological surveys and reporting.
- Design of any additional off-site improvements deemed necessary (drainage, sewer, water, etc.)
- Any professional / legal representation
- Preparation or coordination of any entitlements, license, development, annexation, or other associated agreements.
- Preparation of any easements or license agreements including associated exhibits, legal descriptions

and other documents.

- Survey services beyond those listed above.
- Legal services
- Utility relocations
- Hydraulic modeling or analysis
- Laboratory fees
- Quality Control Testing
- Agency submittal fees, review fees or permit fees.
- Attendance at meetings other than those listed above.
- Changes made necessary from unforeseen or unforeseeable site conditions
- Any services, product or professional responsibility not specifically described above.

This Proposal and Contract may be withdrawn by Michael Terrell ■ Landscape Architecture, PLLC if not accepted within 30 days.

Signature:_____ **Date:** 4/6/2026

Michael D. Terrell, ASLA

Acceptance of Proposal: I have read the above proposal, fees, and terms and they are hereby accepted. Michael Terrell ■ Landscape Architecture, PLLC is authorized to commence work as specified and agreed to herein.

Signature:_____ **Date:** _____

Exhibit B Nondiscrimination Requirements

This Attachment is to be inserted in every contract subject to Title VI of the Civil Rights Act of 1964 and associated Regulations.

During the performance of this contract, the contractor/consultant, for itself, its assignees and successors in interest (hereinafter referred to as the "contractor") agrees as follows:

1. **Compliance with Regulations**
   The Contractor shall comply with the Regulations relative to non-discrimination in federally assisted programs of United States Department of Transportation (USDOT), Title 49, Code of Federal Regulations, part 21, as they may be amended from time to time, (hereinafter referred to as the Regulations), which are herein incorporated by reference and made a part of this contract.
2. **Non-discrimination**
   The Contractor, with regard to the work performed by it during the contract, shall not discriminate on the grounds of race, color, sex, or national origin in the selection and retention of sub-contractors, including procurement of materials and leases of equipment. The Contractor shall not participate either directly or indirectly in the discrimination prohibited by Section 21.5 of the Regulations, including employment practices when the contract covers a program set forth in Appendix B of the Regulations.
3. **Solicitations for Sub-contracts, Including Procurement of Materials and Equipment**
   In all solicitations either by competitive bidding or negotiations made by the Contractor for work to be performed under a sub-contract, including procurement of materials or leases of equipment, each potential sub-contractor or supplier shall be notified by the Contractor of the Contractor's obligations under this contract and the Regulations relative to non-discrimination on the grounds of race, color, sex, or national origin.
4. **Information and Reports**
   The Contractor shall provide all information and reports required by the Regulations or directives issued pursuant thereto, and shall permit access to its books, records, accounts, other sources of information, and its facilities as may be determined by the contracting agency or the appropriate federal agency to be pertinent to ascertain compliance with such Regulations, orders and instructions. Where any information required of a contractor is in the exclusive possession of another who fails or refuses to furnish this information, the Contractor shall so certify to ITD or the USDOT as appropriate, and shall set forth what efforts it has made to obtain the information.
5. **Sanctions for Non-compliance**
   In the event of the Contractor's non-compliance with the non-discrimination provisions of this contract, the contracting agency shall impose such contract sanctions as it or the USDOT may determine to be appropriate, including, but not limited to:

   - Withholding of payments to the Contractor under the contract until the Contractor complies, and/or;
   - Cancellation, termination, or suspension of the contract, in whole or in part.

Incorporation of Provisions

The Contractor shall include the provisions of paragraphs (1) through (5) in every sub-contract, including procurement of materials and leases of equipment, unless exempt by the Regulations, or directives issued pursuant thereto. The Contractor shall take such action with respect to any sub-contractor or procurement as the contracting agency or USDOT may direct as a means of enforcing such provisions including sanctions for non-compliance.

Provided, however, that in the event a contractor becomes involved in, or is threatened with, litigation with a sub-contractor or supplier as a result of such direction, the Contractor may request ITD enter into such litigation to protect the interests of the state and, in addition, the Contractor may request the USDOT enter into such litigation to protect the interests of the United States.

MEMO

To: City of Post Falls Parks and Recreation	**Attention:** Robbie Quinn
From: Jeff Stiltz, MT-LA	**Date:** April 3, 2026
Project: The Quarry Sports Complex, Phase I	**Project No:** 24-018
Re: Bid Results Recommendation	**CC:** File

Dear Mr. Quinn

We have evaluated the bids received on Wednesday, April 1, 2026 for The Quarry Sports Complex, Phase I. A total of one bid was received.

Engineers Estimate (included in Addendum #1):
Base Bid: $4,998,626.00 | Alt A: $472,726.00 | Alt: B: $701,075.00 | Alt C: N/A

Submitted Bid(s):
Contractor: LaRiviere, inc.
Base Bid: $4,859,893.00 | Alt A: $360,859.00 | Alt: B: $470,700.00 | Alt C: $113,878.00

MT-LA did not find any apparent discrepancies in bid tabulation or supporting bidder's form and would recommend the complete bid submittal by LaRiviere, inc. to be awarded as apparent low bidder.

Jeffrey C Stiltz, PLA
Michael Terrell Landscape Architecture, PLLC
1421 N Meadowwood Lane, Suite 150
Liberty Lake, WA 99019

CITY OF POST FALLS

Legal Services
Phone: (208) 773-0215
Fax: (208) 773-0214

Memorandum of Legal Counsel

To: Robert Quinn, Parks Planner
From: Chris Gabbert, Deputy City Attorney
Date: April 10, 2026
Re: April 1, 2026, Bid Opening – Quarry Sports Complex

My review and analysis are based purely on the legal aspects of the bid as authorized by the Idaho purchasing statutes, particularly Idaho Code § 67-2805, and the required information contained in the notice inviting bids. On or about April 1, 2026, I received copies of one (1) bid received and opened by the City Clerk, Shannon Howard, at or about 10:00 a.m.

The bid consisted of a single submission from LaRiviere, Inc. in the amount of $4,859,893.50.

I have reviewed the submittal from the only bidder LaRiviere, Inc. My review leads me to conclude, on a purely legal level, that LaRiviere, Inc. is the lowest responsive bidder, and if the City intends to award the bid, it should be awarded to it My conclusion is based upon the following information:

1. I have reviewed the Bid Total Sheet and bid submittals from the City Clerk. The submittal by LaRiviere, Inc. appears timely.
2. The submittal was provided on the required form and with the required attachments:
    a. Completed proposal;
    b. 5% Bid Bond;
    c. Bidder information identifying LaRiviere, Inc. as an Idaho corporation;
    d. List of required subcontractors with the requisite license information;
    e. Executed Non-Collusion Affidavit;
    f. Executed Anti-Discrimination Affidavit;
    g. The attestations and documents were executed by Hiede Grant, Estimating Director authorized to execute bid proposals on behalf of the corporation.

3. I researched the Public Works License of LaRiviere Inc. to confirm the validity of the license, the level of the license, and the approved types of work. LaRiviere, Inc. is a licensed Public Works Contractor with an "Unlimited" license No. [PWC-C-17425].

Based on my review, LaRiviere, Inc. is compliant with Idaho Law and the City of Post Falls Procurement standards, and is the lowest responsive bidder at $4,859,893.50, which is lower than the engineer's estimate oof $4,998,626.00.

I did not review the details of the plans or specifications and did not see any proposed alternates or modifications. I will defer to you on the technical aspects of the bid, as I lack the requisite knowledge and skills to opine on the technical aspects.

Should you have any questions, please feel free to contact me.

Sincerely,

Chris Gabbert

Christopher D. Gabbert
Deputy City Attorney

CITY OF POST FALLS
AGENDA REPORT
UNFINISHED BUSINESS/RETURNING ORDINANCES AND RESOLUTIONS
MEETING DATE: 4/21/2026

TO: HONORABLE MAYOR AND CITY COUNCIL

FROM: Jaxon Fleshman, Project Manager, Andrew Arbini, Projects Divison Manager

SUBJECT: Seltice Way Rehabilitation and Pipeline Project, Recommendation to Award

---

ITEM AND RECOMMENDED ACTION:

City Council approves the recommendation of award for the Seltice Way Rehabilitation and Pipeline project to MDM Construction Group, Inc. and authorizes the Mayor to sign the Notice of Award.

DISCUSSION:

The city opened bids for the Seltice Way Rehabilitation and Pipeline project on March 24, 2026. The city received seven bids. The low bid of $4,936,253.00 was submitted by MDM Construction Group, Inc. The engineer's estimate for construction was $9,288,988.00. City Staff recommends the construction contract be awarded to MDM Construction Group, Inc., as the lowest, responsive bidder.

The pavement condition of Seltice Way between McGuire and Chase Road is in poor condition. Interim repairs by city crews have extended the current life of the pavement surface; However, ongoing repairs are ineffective in the long-term preservation of the existing pavement surface. This project will reconstruct the road structure from the base up, resulting in a road designed to last 20+ years.

The proposed project on Seltice Way presents an opportunity to include below ground piping infrastructure identified in the City's master planning documents. Additionally, the scope of work includes improvements to pedestrian facilities, stormwater collection and dry utility installation. Including the underground improvements in the project will avoid duplicate projects in the future.

In July 2024, City Council approved the design contract with J-U-B Engineers. Early in the design, the City of Rathdrum requested a section of their future forcemain be constructed with the Seltice Way project. The City of Rathdrum's sewer system pumps wastewater to the City of Post Falls Water Reclamation Facility. City Council approved a Memorandum of Understanding (MOU) whereby the City of Post Falls will be reimbursed by the City of Rathdrum for the design and construction costs of this new pipeline. Constructing this pipeline at the same time as the Post Falls work decreases the likelihood of future projects in this corridor and will decrease the potential for conflicts within the construction zone. Overall, this is anticipated to save both entities on the construction work and will decrease the long-term impact to the public.

This project will occur in multiple phases over the next two construction seasons and includes a winter shutdown in the project schedule. Project completion is anticipated by end of Fall 2027.

City Staff will provide a brief presentation of this item to City Council.

ITEM / PROJECT PREVIOUSLY REVIEWED BY COUNCIL ON:

Engineering Services Agreement – July 16, 2024
Memorandum of Understanding with East Greenacres Irrigation District – March 18, 2025
Contract Amendment with JUB Engineers – May 6, 2025
Memorandum of Understanding with City of Rathdrum – May 6, 2025

APPROVED OR DIRECTION GIVEN:

Council approved the items noted above.

FISCAL IMPACT OR OTHER SOURCE OF FUNDING:

City Council approval authorizes the Mayor to sign the Notice of Award to MDM Construction Group, Inc. in the amount of $4,936,253.00 and authorizes a 10% contingency in the amount of $493,626.00 for potential change orders for unforeseen conditions or changes that would benefit the project related utilities and streets infrastructure. Contract changes utilizing contingency funds will require authorization of the Public Works Director or his designee. Council approval is for the requested amount of $5,429,878.30. Change orders of greater than the Director's delegated signing authority threshold, (currently $50,000) will be brought to Council for approval. In cases of emergency or where delay would incur significant risk or expense to the City, the Public Works Director may authorize change orders of a greater amount, within the approved contingency, and will provide a report as to the decision at the next scheduled City Council meeting. Funding for this project will come from the Seltice Way Rehabilitation Streets Construction and Seltice Way Force Mains Budget Codes. The City of Rathdrum's proportionate share is approximately 16% of the construction cost which represents the amount eligible for reimbursement to the City of Post Falls.

BUDGET CODE:

001-431.0000.95040 and 652-463.3229.95520

ATTACHMENTS:

1. 042126 PPT Seltice Way - Award and CMS services
2. NoticeofAward
3. J-U-B Bid Review Letter
4. City Memo of Legal Bid Review

Seltice Way Rehabilitation and Pipeline Project – Recommendation to Award & CMS Amendment



Andrew Arbini, Projects Division Manager
Jaxon Fleshman, Project Manager
Public Works Department

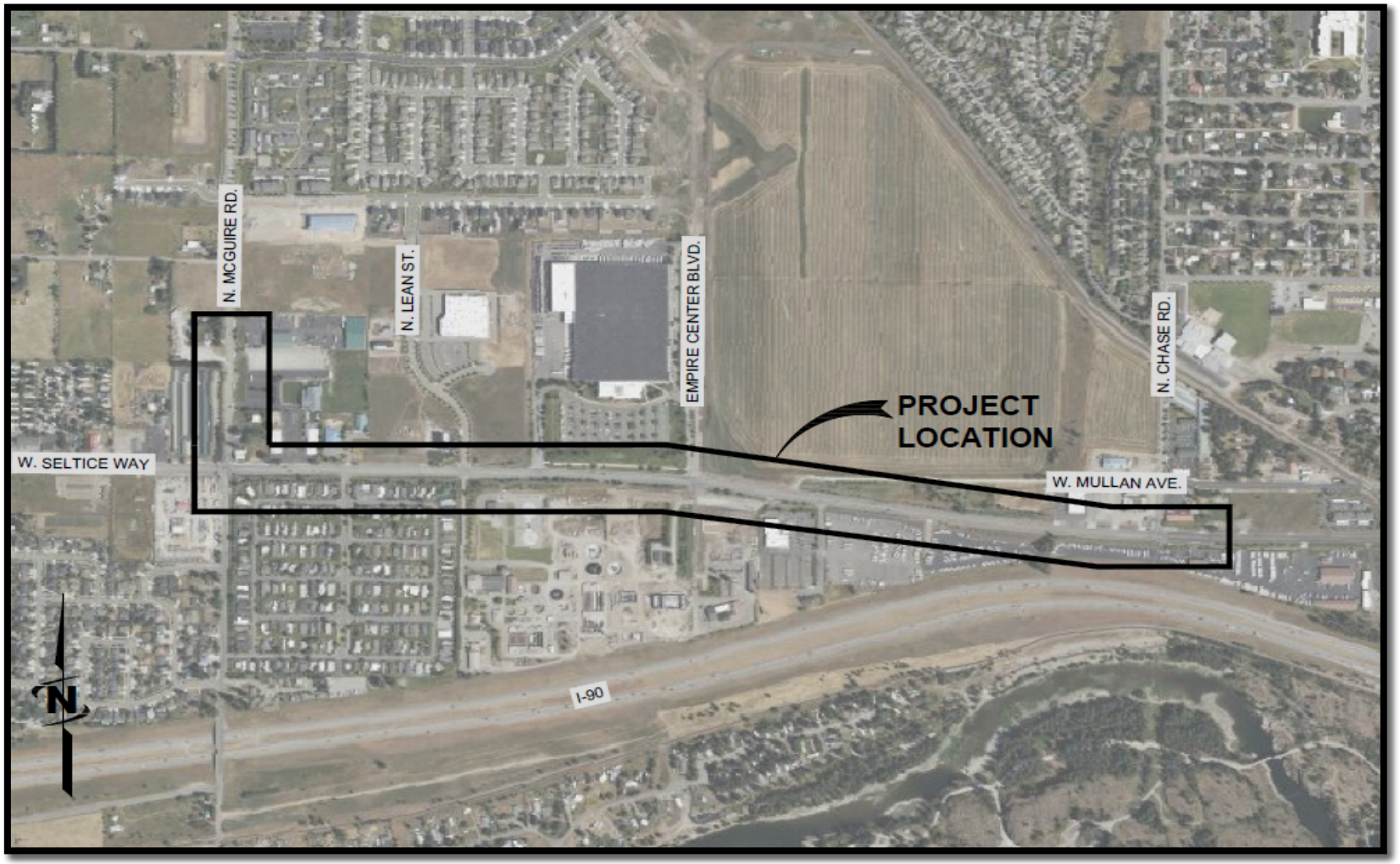
April 21, 2026

CITY OF POST FALLS

Presentation Outline

- Project location and summary of work
- Project Background
- Memorandum of Understanding
  - City of Rathdrum
  - East Green Acres Irrigation District
- Bid results
- Financial summaries
- Construction overview
- Timeline and next steps

Project Limits



Summary of Project Work

- Installation of new wastewater utilities to meet future needs
- Reconstruct Seltice Way from the base up
  -Results in a road designed to last 20+ years
- Address deficiencies with the existing roadway stormwater collection
- Improvements to pedestrian ramps at intersections

Project Background

Pavement is in poor condition on Seltice Way (McGuire to Chase Road)

- Interim repairs have extended the life of the pavement
- Pavement Condition Study
- 2022 Geotechnical exploration of the subsurface of the roadway
- Original concrete highway (US-10) underneath existing roadway

Interest from City Departments and outside entities:

- City of Post Falls Utilities, Parks, Streets, and Engineering
- City of Rathdrum
- East Green Acres Irrigation (EGID)
- Avista and other utilities in the project limits

MOU with City of Rathdrum

- City of Rathdrum Wastewater – Pumped to City of Post Falls Water Reclamation Facility (WRF)
- Forcemain upgrade needed to accommodate future flows
- City of Rathdrum will reimburse City of Post Falls for their portion of the work, per the MOU

MOU with East Green Acres Irrigation

- EGID Drinking Water System – City of Post Falls is required to protect EGID water lines

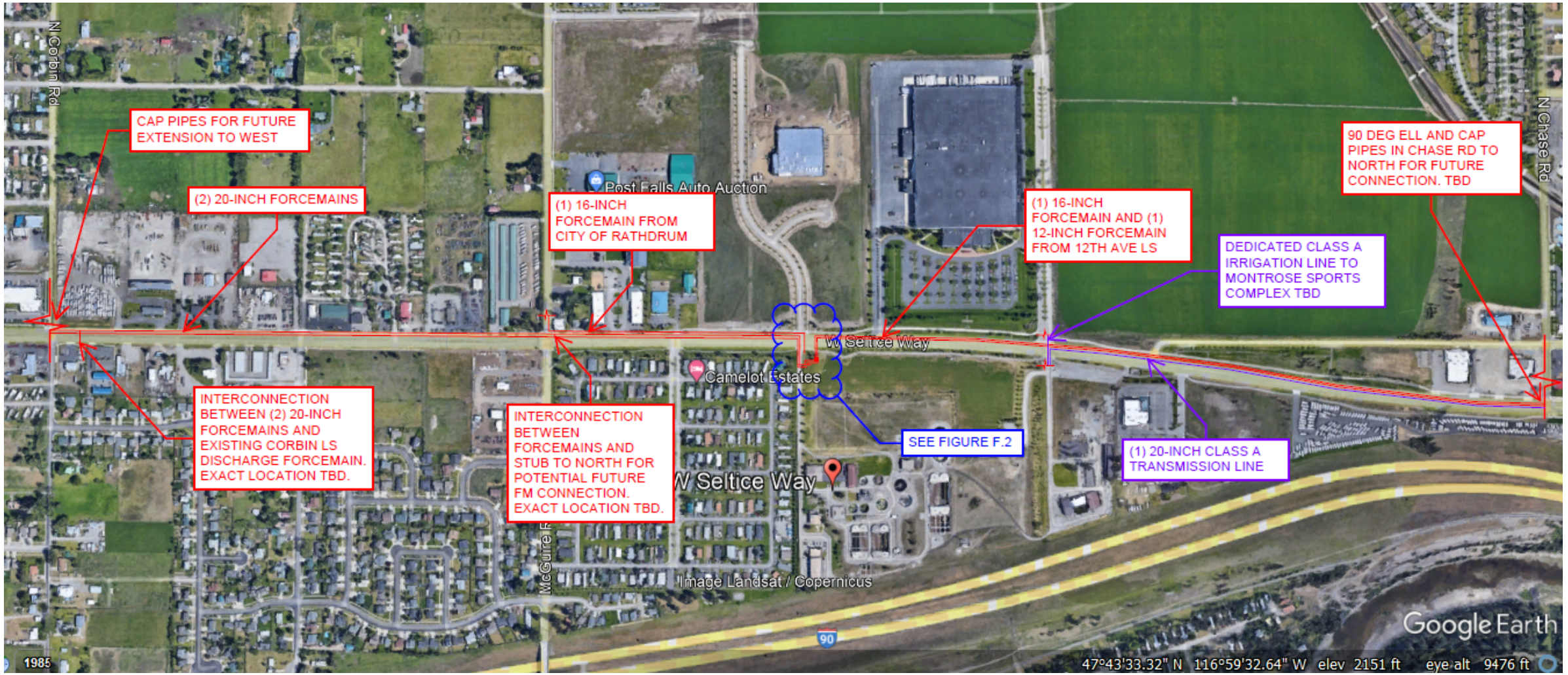
- EGID will perform the protection work and seek reimbursement from City of Post Falls, per the MOU

Benefits

- Same Design and Construction Engineer – Reduces Costs, Increases Efficiency
- Decreased likelihood of near future projects in this corridor
- Decreased potential for utility conflicts within the project limits
- Establishes Roles and Responsibilities for both Parties

CITY OF POST FALLS

Seltice Way Utilities



Existing Roadway Condition





Bid Results

Bid Opening on March 24, 2026

Engineer's Estimate	***$9,288.988.00***
Halme Construction	$ 6,554,003.65
Selland Construction	$ 6,508,400.00
Apollo	$ 6,221,384.50
North Fork Enterprises	$ 5,503,477.80
LaRiviere	$ 5,451,437.55
Interstate Concrete & Asphalt	$ 5,376,888.67
MDM Construction Group (Low Bid)	$ 4,936,253.00

CITY OF POSTFALLS

Financials: MDM – Construction

Bid Amount	$ 4,936,253.00
Requested Contingency (10% of Contract)	$ 493,625.30
Total	**$ 5,429,878.30**

- Lowest Responsive Bidder
- Engineers Estimate - $9,288,988.00
- 7 Bidders – Competitive Pricing

Construction Management Services

Support services are more significant for this type of project:

- Full road closure is not feasible
  - Prioritzing the movement of traffic through phase 1 and 2 (versus road closure)
  - Construction staking
- Limited closures for McGuire and Chase intersections
  - Anticpates some night work and work outside of Monday - Friday
- Two construction seasons
  - Full-time observation on-site
- Comprehsive public outreach plan to mitigate impacts to the traveling public

Financials: J-U-B – Design and CMS

J-U-B Contract for Design (Awarded 7/16/24)	$ 918,900.00
J-U-B Contract Amendment (CMS)	$ 1,230,700.00
Requested Contingency (10%)	$ 123,070.00
CMS and Contingency Total	**$ 1,353,770.00**

- Tonight's Total Request: $6,783,648.30
- Includes Construction Award and CMS Amendment
- Reimbursement from City of Rathdrum for proportionate share

Financials – Project Cost Share

Project Cost	***~$7.9 Million***
Utilities	~56% Cost Share
Streets	~28% Cost Share
City of Rathdrum	~16% Cost Share

- Budgeted and Funded from: 001-431.0000.95040 and 652-463.3229.95520

- EGID Protection Work
  - Estimated cost: $200K
  - City of Post Falls will reimburse EGID, per MOU

CITY OF POST FALLS

Construction Overview

Four phases of construction:

Phase 3 and 4 (McGuire & Seltice and Chase & Seltice Intersections)

- Requires closure of intersections
- One intersection closed at a time. Detour routes will be posted
- Anticipate contractor will construct this season (2026)

Phase 1 and 2 (Seltice Way – McGuire to Chase)

- Maintains one lane of travel in each direction
- Anticpate contractor to construct in 2027

Timeline and Next Steps

Construction:

- Summer 2026 – Fall 2027 (Includes Winter shutdown)
- Public Outreach will occur through all phases of the project
- Road closures and detour routes will be published in advance
- Project updates will be posted to the City's website and social media



Questions?

Notice of Award

Date: _____

Project: City of Post Falls – Seltice Way Rehabilitation & Pipeline Project	
Owner: City of Post Falls, ID	Owner's Contract No.:
Contract: City of Post Falls – Seltice Way Rehabilitation & Pipeline Project	Engineer's Project No.: 20-24-039
Bidder: MDM Construction Group, Inc.	
Bidder's Address: *PO Box 2006 Hayden, ID 83835*	

You are notified that your Bid dated for the above Contract has been considered. You are the Successful Bidder and are awarded a Contract for

City of Post Falls – Seltice Way Rehabilitation & Pipeline Project

The Contract Price of your Contract is $4,936,253.00

1 copies of the proposed Contract Documents (except Drawings) accompany this Notice of Award.

2 sets of the Drawings will be delivered separately or otherwise made available to you immediately.

You must comply with the following conditions precedent within [15] days of the date you receive this Notice of Award.

1. Deliver to the Owner [4] fully executed counterparts of the Contract Documents.
2. Deliver with the executed Contract Documents the Contract security [Bonds] as specified in the Instructions to Bidders (Article 20), General Conditions (Paragraph 5.01), and Supplementary Conditions (Paragraph SC-5.01).
3. Other conditions precedent:
   None

Failure to comply with these conditions within the time specified will entitle Owner to consider you in default, annul this Notice of Award, and declare your Bid security forfeited.

Within ten days after you comply with the above conditions, Owner will return to you one fully executed counterpart of the Contract Documents.

City of Post Falls, ID
Owner

By: _____
Authorized Signature

_____
Title

Copy to Engineer

THIS PAGE WAS INTENTIONALLY LEFT BLANK

March 26, 2026

Jaxon Fleshman
City of Post Falls Project Manager, Public Works
408 N. Spokane Street
Post Falls, ID 83854

RE: CITY OF POST FALLS – SELTICE WAY REHABILITATION & PIPELINE PROJECT – BID REVIEW

Dear Mr. Fleshman:

On March 24, 2026, the City of Post Falls received seven bids for the Seltice Way Rehabilitation & Pipeline Project. Per Article 19.04 of the Instructions to Bidders, the basis of award is the lowest Base Bid Total corrected for discrepancies. Per Article 2 of the Bid Form, the Bids will remain subject to acceptance for 45 days after the Bid opening. A summary of the bids is included below, and a detailed Bid Abstract is **enclosed**.

Bidder	Total Base Bid
MDM Construction Group, Inc.	$4,936,253.00
Interstate Concrete & Asphalt	$5,376,888.67
LaRiviere, Inc.	$5,451,437.55
North Fork Enterprises, LLC	$5,503,477.80
Apollo, Inc.	$6,221,384.50
Selland Construction, Inc.	$6,508,400.00
Halme Construction, Inc.	$6,554,003.65

J-U-B ENGINEERS, Inc. (J-U-B) has reviewed the bids to determine general compliance with the administrative requirements of the bidding process (i.e., whether each bid received was responsive) based on the following:

- Bid received on time
- Bid signed
- Evidence of authority to sign provided
- Addenda properly acknowledged
- Bid Form completed in general conformance with the Instructions to Bidders
- Bid Security included and executed
- Bidder's Idaho Public Works Contractor License number included
- Statutory Naming of Subcontractors Form completed (Plumbing, Electrical, HVAC).
- Contractor's Non-Collusion and Anti-Discrimination Affidavits signed and included

Our review did not include independent verification of the Bidder's business status, the signatory's evidence of authority to sign, or other possible reasons for considering the bids unresponsive. However,

J-U-B did verify the active status of the Idaho Public Works license for all Bidders and their named subcontractors on the Idaho Division of Building Safety (DBS) Public Works Contractor License Search (eTRAKiT) website on March 24, 2026. We reviewed that the licenses are valid but not scope classification nor specialty work.

Based on our review of the contract documents, and upon completion of further review and concurrence by City legal staff, we recommend the City consider awarding the project to MDM Construction Group, Inc. for a total contract price of Four Million Nine Hundred Thirty-Six Thousand Two Hundred Fifty-Three Dollars and no/100 ($4,936,253.00). A copy of the bid from MDM Construction Group, Inc. and the Bid Abstract are enclosed for reference.

Please conduct any additional review deemed necessary and provide your authorization of Award and we will move forward with the preparation of the Notice of Award and Contract Documents for MDM Construction Group, Inc.

If you would like to discuss our review or have additional questions, please do not hesitate to contact me at 208-762-8787.

Sincerely,

J-U-B ENGINEERS, Inc.

Jon Baune, P.E.

Project Manager

Attachments: Bid Abstract (1 page)

MDM Construction Group, Inc. Bid (26 pages)

City of Post Falls - Seltice Way Rehabilitation & Pipeline Project
BID OPENING - Post Falls City Hall - 2:00 P.M. - March 24, 2026

Engineer's Opinion of Probable Cost: $9.2M

BID ABSTRACT

				BIDDER NAME:	MDM Construction Group, Inc.	Interstate Concrete & Asphalt	LaRiviere, Inc.	North Fork Enterprises, LLC	Apollo, Inc.	Selland Construction, Inc.	Halme Construction, Inc.
				ADDRESS:	PO Box 2006 Hayden, ID, 83835	8849 W Wyoming Ave. Rathdrum, ID 83858	17564 N Dylan Ct. Rathdrum, ID 83858	206 N Division Street Pinehurst, ID 83850	1133 W. Columbia Drive Kennewick, WA 99336	1285 S. Wenatchee Ave. Wenatchee, WA 98801	8727 W Hwy 2 #100 Spokane, WA 99224
ITEM NO.	ITEM DESCRIPTION	EST. QUAN.	UNIT		UNIT PRICE / TOTAL PRICE	UNIT PRICE / TOTAL PRICE	UNIT PRICE / TOTAL PRICE	UNIT PRICE / TOTAL PRICE	UNIT PRICE / TOTAL PRICE	UNIT PRICE / TOTAL PRICE	UNIT PRICE / TOTAL PRICE
Base Bid											
2010.4.1.A.1	Mobilization, Demobilization, Bonding and Insurance	1	LS		$282,000.00 / $282,000.00	$675,312.05 / $675,312.05	$346,889.00 / $346,889.00	$265,000.00 / $265,000.00	$615,000.00 / $615,000.00	$179,000.00 / $179,000.00	$923,541.13 / $923,541.13
201.4.1.C.1	Removal of Obstructions	1	LS		$18,000.00 / $18,000.00	$17,033.80 / $17,033.80	$77,769.00 / $77,769.00	$10,500.00 / $10,500.00	$65,000.00 / $65,000.00	$40,000.00 / $40,000.00	$40,026.28 / $40,026.28
201.4.1.D.1	Removal of Sidewalk	345	SY		$3.50 / $1,207.50	$23.40 / $8,073.00	$19.00 / $6,555.00	$5.00 / $1,725.00	$25.00 / $8,625.00	$6.00 / $2,070.00	$10.54 / $3,636.30
201.4.1.D.2	Removal of Concrete Pavement	14,050	SY		$10.00 / $140,500.00	$16.55 / $232,527.50	$13.00 / $182,650.00	$10.85 / $152,442.50	$25.00 / $351,250.00	$14.00 / $196,700.00	$36.64 / $514,792.00
201.4.1.E.1	Removal of Curb and Gutter	1,010	LF		$4.00 / $4,040.00	$7.25 / $7,322.50	$6.50 / $6,565.00	$3.15 / $3,181.50	$12.00 / $12,120.00	$3.00 / $3,030.00	$6.00 / $6,060.00
202.4.1.D.1	Excavation	1	LS		$425,000.00 / $425,000.00	$500,484.30 / $500,484.30	$720,759.00 / $720,759.00	$350,000.00 / $350,000.00	$773,000.00 / $773,000.00	$325,000.00 / $325,000.00	$452,994.12 / $452,994.12
202.4.9.A.1	Soft Spot Repair	700	CY		$30.00 / $21,000.00	$51.75 / $36,225.00	$74.00 / $51,800.00	$35.70 / $24,990.00	$53.00 / $37,100.00	$65.00 / $45,500.00	$67.04 / $46,928.00
206.4.1.A.1	Seedbed Preparation	0.05	AC		$20,000.00 / $1,000.00	$28,350.70 / $1,417.54	$11,286.00 / $564.30	$42,800.00 / $2,140.00	$27,800.00 / $1,390.00	$11,000.00 / $550.00	$36,914.73 / $1,845.74
206.4.1.B.1	Seeding	0.05	AC		$10,000.00 / $500.00	$8,797.20 / $439.86	$3,887.00 / $194.35	$14,445.00 / $722.25	$9,000.00 / $450.00	$16,500.00 / $825.00	$10,509.17 / $525.46
206.4.1.C.1	Mulching	0.05	AC		$10,000.00 / $500.00	$8,797.20 / $439.86	$3,887.00 / $194.35	$38,092.00 / $1,904.60	$9,000.00 / $450.00	$44,000.00 / $2,200.00	$30,291.14 / $1,514.56
206.4.1.G.1	Fertilizing	0.05	AC		$10,000.00 / $500.00	$8,797.20 / $439.86	$2,591.00 / $129.55	$16,050.00 / $802.50	$9,000.00 / $450.00	$18,000.00 / $900.00	$10,509.17 / $525.46
303.4.1.B.1	Exploratory Excavation (Potholing)	1	LS		$20,000.00 / $20,000.00	$38,190.30 / $38,190.30	$5,432.00 / $5,432.00	$18,630.00 / $18,630.00	$92,000.00 / $92,000.00	$75,000.00 / $75,000.00	$20,772.40 / $20,772.40
3000.4.1.A.1	Reuse Water Main Pipeline - Size 8" - Type PVC C900 DR 18	162	LF		$177.00 / $28,674.00	$124.20 / $20,120.40	$90.00 / $14,580.00	$159.35 / $25,814.70	$120.00 / $19,440.00	$122.00 / $19,764.00	$71.54 / $11,589.48
3000.4.1.A.1	Reuse Water Main Pipeline - Size 20" - Type PVC C905 DR 18	2,771	LF		$117.00 / $324,207.00	$100.90 / $279,593.90	$111.00 / $307,581.00	$142.87 / $395,892.77	$112.00 / $310,352.00	$155.00 / $429,505.00	$109.79 / $304,228.09
3000.4.1.B.1	Reuse Water Fittings– 8"	3	EA		$699.00 / $2,097.00	$955.25 / $2,865.75	$1,692.00 / $5,076.00	$1,100.00 / $3,300.00	$753.00 / $2,259.00	$1,950.00 / $5,850.00	$1,858.38 / $5,575.14
3000.4.1.B.1	Reuse Water Fittings – 20"	5	EA		$6,500.00 / $32,500.00	$6,013.15 / $30,065.75	$6,338.00 / $31,690.00	$5,700.00 / $28,500.00	$5,800.00 / $29,000.00	$12,300.00 / $61,500.00	$6,543.16 / $32,715.80
3000.4.1.C.1	Reuse Water Valves – 8"	2	EA		$5,225.00 / $10,450.00	$2,622.60 / $5,245.20	$4,261.00 / $8,522.00	$3,750.00 / $7,500.00	$2,700.00 / $5,400.00	$4,700.00 / $9,400.00	$5,046.99 / $10,093.98
3000.4.1.C.1	Reuse Water Valves – 20"	2	EA		$5,225.00 / $10,450.00	$13,951.35 / $27,902.70	$18,226.00 / $36,452.00	$17,000.00 / $34,000.00	$13,000.00 / $26,000.00	$22,500.00 / $45,000.00	$19,128.68 / $38,257.36
3000.4.1.D.1	Reuse Water Force Main Isolation – 8" Camlock Assembly (SD-507)	2	EA		$9,005.00 / $18,010.00	$10,453.15 / $20,906.30	$9,529.00 / $19,058.00	$9,090.00 / $18,180.00	$10,800.00 / $21,600.00	$12,500.00 / $25,000.00	$11,489.88 / $22,979.76
505.4.1.A.1	Pressure Sewer Pipeline - Size 12" Type PVC C-900 DR 18	3,972	LF		$38.00 / $150,936.00	$62.10 / $246,661.20	$69.00 / $274,068.00	$104.28 / $414,200.16	$76.00 / $301,872.00	$100.00 / $397,200.00	$66.84 / $265,488.48
505.4.1.A.1	Pressure Sewer Pipeline - Size 16" Type PVC C-905 DR 18	6,148	LF		$85.00 / $522,580.00	$77.60 / $477,084.80	$76.00 / $467,248.00	$111.50 / $685,502.00	$90.00 / $553,320.00	$110.50 / $679,354.00	$99.04 / $608,897.92
505.4.1.A.1	Pressure Sewer Pipeline - Size 20" Type PVC C-905 DR 18	2,964	LF		$136.00 / $403,104.00	$108.65 / $322,038.60	$107.00 / $317,148.00	$120.78 / $357,991.92	$116.00 / $343,824.00	$156.00 / $462,384.00	$110.85 / $328,559.40
505.4.1.B.1	Pressure Sewer Fittings – 12"	5	EA		$1,510.00 / $7,550.00	$1,671.45 / $8,357.25	$2,219.00 / $11,095.00	$1,611.00 / $8,055.00	$1,600.00 / $8,000.00	$2,700.00 / $13,500.00	$2,389.10 / $11,945.50
505.4.1.B.1	Pressure Sewer Fittings– 16"	10	EA		$2,835.00 / $28,350.00	$3,622.40 / $36,224.00	$3,561.00 / $35,610.00	$2,888.00 / $28,880.00	$2,800.00 / $28,000.00	$4,200.00 / $42,000.00	$3,742.52 / $37,425.20
505.4.1.B.1	Pressure Sewer Fittings – 20"	7	EA		$3,010.00 / $21,070.00	$3,182.50 / $22,277.50	$3,843.00 / $26,901.00	$3,060.00 / $21,420.00	$3,000.00 / $21,000.00	$4,500.00 / $31,500.00	$3,925.33 / $27,477.31
505.4.1.D.1	Pressure Sewer Force Main Isolation – 8" Camlock Assembly (SD-507)	3	EA		$9,200.00 / $27,600.00	$9,811.50 / $29,434.50	$9,717.00 / $29,151.00	$8,660.00 / $25,980.00	$11,000.00 / $33,000.00	$16,000.00 / $48,000.00	$13,784.45 / $41,353.35
505.4.1.E.1	Detail 1 / CD-301 Sewer Flow Modification - Seltice & McGuire FM Connection Valve Cluster (STA. 159+50)	1	LS		$97,030.00 / $97,030.00	$195,194.80 / $195,194.80	$253,386.00 / $253,386.00	$262,000.00 / $262,000.00	$242,000.00 / $242,000.00	$295,000.00 / $295,000.00	$262,477.25 / $262,477.25
505.4.1.F.1	Detail 1 / CD-302 Sewer Flow Modification - Connection of FM drains to existing SS MH (STA. 191+35)	1	LS		$33,400.00 / $33,400.00	$41,398.70 / $41,398.70	$29,724.00 / $29,724.00	$51,780.00 / $51,780.00	$80,000.00 / $80,000.00	$70,000.00 / $70,000.00	$53,807.18 / $53,807.18
505.4.1.G.1	Detail 2 / CD-302 Sewer Flow Modification - Rathdrum FM Connection (STA. 303+41)	1	LS		$92,030.00 / $92,030.00	$99,046.35 / $99,046.35	$94,071.00 / $94,071.00	$110,250.00 / $110,250.00	$112,000.00 / $112,000.00	$145,000.00 / $145,000.00	$120,012.07 / $120,012.07
505.4.1.H.1	Detail 3 / CD-302 Sewer Flow Modification - New 48-in Doghouse Manhole for FM drains (STA. 206+17)	1	LS		$72,380.00 / $72,380.00	$83,573.60 / $83,573.60	$75,408.00 / $75,408.00	$98,000.00 / $98,000.00	$105,000.00 / $105,000.00	$135,000.00 / $135,000.00	$110,183.35 / $110,183.35
512.4.1.A.1	Sewage Bypass Systems	1	LS		$100,000.00 / $100,000.00	$41,400.00 / $41,400.00	$24,184.00 / $24,184.00	$10,000.00 / $10,000.00	$26,000.00 / $26,000.00	$255,000.00 / $255,000.00	$55,736.23 / $55,736.23
601.4.1.A.5	10-Inch Storm Drain Pipe, PVC D 3034	235	LF		$58.50 / $13,747.50	$103.50 / $24,322.50	$53.00 / $12,455.00	$85.93 / $20,193.55	$58.00 / $13,630.00	$155.00 / $36,425.00	$58.85 / $13,829.75
602.4.1.F.1	Catch Basin - Type 2 and Grate	6	EA		$1,920.00 / $11,520.00	$1,655.95 / $9,935.70	$4,037.00 / $24,222.00	$2,740.00 / $16,440.00	$3,000.00 / $18,000.00	$3,200.00 / $19,200.00	$3,523.72 / $21,142.32
706.4.1.A.5	Standard Curb and Gutter	960	LF		$67.00 / $64,320.00	$41.05 / $39,408.00	$37.00 / $35,520.00	$40.95 / $39,312.00	$48.00 / $46,080.00	$56.40 / $54,144.00	$62.86 / $60,345.60
706.4.1.E.1	Concrete Sidewalk	625	SY		$91.00 / $56,875.00	$89.05 / $55,656.25	$81.00 / $50,625.00	$126.00 / $78,750.00	$105.00 / $65,625.00	$80.00 / $50,000.00	$140.64 / $87,900.00
706.4.1.I.1	Drainage Curb Cut	3	EA		$450.00 / $1,350.00	$241.15 / $723.45	$223.00 / $669.00	$367.50 / $1,102.50	$450.00 / $1,350.00	$442.00 / $1,326.00	$247.27 / $741.81
802.4.1.B.1	Crushed Aggregate for Base Type I	22,230	TON		$24.50 / $544,635.00	$17.50 / $389,025.00	$23.00 / $511,290.00	$21.51 / $478,167.30	$21.50 / $477,945.00	$26.40 / $586,872.00	$19.28 / $428,594.40
810.4.1.A.1	Plant Mix Pavement, SP-3 PG 64-28	13,690	TON		$80.00 / $1,095,200.00	$77.75 / $1,064,397.50	$82.00 / $1,122,580.00	$84.70 / $1,159,543.00	$75.75 / $1,037,017.50	$85.00 / $1,163,650.00	$88.09 / $1,205,952.10
1001.4.1.A.1	Sediment Control	1	LS		$5,640.00 / $5,640.00	$8,826.75 / $8,826.75	$2,431.00 / $2,431.00	$12,300.00 / $12,300.00	$10,560.00 / $10,560.00	$37,500.00 / $37,500.00	$9,140.79 / $9,140.79
1001.4.1.B.1	Stabilized Construction Entrance	8	EA		$3,200.00 / $25,600.00	$1,806.00 / $14,448.00	$2,665.00 / $21,320.00	$2,328.00 / $18,624.00	$3,300.00 / $26,400.00	$3,000.00 / $24,000.00	$3,075.59 / $24,604.72
1006.4.1.B.1	Riprap Slope and Outlet Protection	75	SY		$168.00 / $12,600.00	$108.65 / $8,148.75	$31.00 / $2,325.00	$32.20 / $2,415.00	$71.00 / $5,325.00	$115.00 / $8,625.00	$150.51 / $11,288.25
1007.4.1.A.1	Topsoiling	255	SY		$23.50 / $5,992.50	$22.75 / $5,801.25	$15.00 / $3,825.00	$17.85 / $4,551.75	$53.00 / $13,515.00	$16.00 / $4,080.00	$28.58 / $7,287.90
1102.4.1.E.1	Conduit, Size 2"	5,295	LF		$15.00 / $79,425.00	$11.40 / $60,363.00	$13.00 / $68,835.00	$24.36 / $128,986.20	$12.00 / $63,540.00	$13.00 / $68,835.00	$28.68 / $151,860.60
1102.4.1.F.1	Junction Box	10	EA		$1,875.00 / $18,750.00	$1,888.80 / $18,888.00	$2,111.00 / $21,110.00	$1,787.00 / $17,870.00	$1,940.00 / $19,400.00	$2,200.00 / $22,000.00	$2,063.88 / $20,638.80
1103.4.1.A.1	Construction Traffic Control	1	LS		$75,000.00 / $75,000.00	$121,634.10 / $121,634.10	$53,386.00 / $53,386.00	$64,000.00 / $64,000.00	$117,000.00 / $117,000.00	$330,000.00 / $330,000.00	$76,824.27 / $76,824.27
1104.4.1.A.1	Pavement Line Paint	17,080	LF		$0.20 / $3,416.00	$0.20 / $3,416.00	$0.20 / $3,416.00	$0.37 / $6,319.60	$0.20 / $3,416.00	$0.20 / $3,416.00	$0.43 / $7,344.40
1104.4.1.B.1	Thermoplastic Pavement Markings	1,210	SF		$11.00 / $13,310.00	$10.35 / $12,523.50	$12.00 / $14,520.00	$9.40 / $11,374.00	$11.00 / $13,310.00	$12.00 / $14,520.00	$11.10 / $13,431.00
1105.4.1.E.1	Permanent Signing	4	EA		$703.00 / $2,812.00	$646.85 / $2,587.40	$723.00 / $2,892.00	$551.25 / $2,205.00	$665.00 / $2,660.00	$780.00 / $3,120.00	$760.37 / $3,041.48
2020.4.1.C.1	Furnishing and Placing Monument Frame & Cover	2	EA		$422.00 / $844.00	$1,025.20 / $2,050.40	$896.00 / $1,792.00	$380.00 / $760.00	$816.00 / $1,632.00	$820.00 / $1,640.00	$2,877.76 / $5,755.52
2030.4.1.A.1	Manhole, Adjust to Grade	4	EA		$427.00 / $1,708.00	$925.60 / $3,702.40	$1,184.00 / $4,736.00	$1,100.00 / $4,400.00	$918.00 / $3,672.00	$2,500.00 / $10,000.00	$949.04 / $3,796.16
2050.4.1.B.1	Riprap / Erosion Control Geotextile	85	SY		$0.50 / $42.50	$25.35 / $2,154.75	$27.00 / $2,295.00	$10.60 / $901.00	$11.00 / $935.00	$10.00 / $850.00	$29.81 / $2,533.85
2060.4.1.A.1	Remove and Reset Mailbox	1	EA		$100.00 / $100.00	$776.25 / $776.25	$868.00 / $868.00	$575.00 / $575.00	$770.00 / $770.00	$565.00 / $565.00	$1,280.40 / $1,280.40
2061.4.1.A.1	Drywell - Double Depth	1	EA		$4,700.00 / $4,700.00	$5,278.35 / $5,278.35	$5,312.00 / $5,312.00	$7,015.00 / $7,015.00	$12,700.00 / $12,700.00	$6,900.00 / $6,900.00	$9,097.15 / $9,097.15
2062.4.1.A.1	Landscape Irrigation	1	LS		$2,000.00 / $2,000.00	$15,524.50 / $15,524.50	$24,559.00 / $24,559.00	$8,388.00 / $8,388.00	$42,000.00 / $42,000.00	$20,000.00 / $20,000.00	$25,608.09 / $25,608.09
	BASE BID TOTAL:				**$4,936,253.00**	**$5,376,888.67**	**$5,451,437.55**	**$5,503,477.80**	**$6,221,384.50**	**$6,508,400.00**	**$6,554,003.65**
	Completed Bid Form				YES	YES	YES	YES	YES	YES	YES
	Addenda Acknowledged										
	Addendum No. 1				YES	YES	YES	YES	YES	YES	YES
	Addendum No. 2				YES	YES	YES	YES	YES	YES	YES
	Addendum No.3				YES	YES	YES	YES	YES	YES	YES
	Addendum No. 4				YES	YES	YES	YES	YES	YES	YES
	General Contractor Public Works License Number				047150-U-1-2	PWC-C-12090-U-1-2-3	PWC-17425	052054-U-1-2-3	3371685	PWC-C-13976-U-1-2	PWC-C-17552
	Anti-Discrimination Affidavit				YES	YES	YES	YES	YES	YES	YES
	Non-Collusion Affidavit				YES	YES	YES	YES	YES	YES	YES
	Bid Security				YES	YES	YES	YES	YES	YES	YES
	Naming of Subcontractors										
	Plumbing				N/A	N/A	WRay Plumbing - PWC-010819	N/A	N/A	N/A	N/A
	HVAC				N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Electrical				Thorco inc. - PWC-C-10130-U-1-4	Thorco inc. - PWC-C-10130-U-1-4	Thorco inc. - PWC-C-10130-U-1-4	Thorco inc. - PWC-C-10130-U-1-4	Thorco inc. - PWC-C-10130-U-1-4	Thorco inc. - PWC-C-10130-U-1-4	Midland Electric Inc. - 029296

Notes:

ARTICLE 1 – BID RECIPIENT

1.01 This Bid is submitted to:

Attn: City Clerk
City of Post Falls
408 N. Spokane Street
Post Falls, Idaho 83854

(See the project Advertisement to Bid for additional information)

1.02 The undersigned Bidder proposes and agrees, if this Bid is accepted, to enter into an Agreement with Owner in the form included in the Bidding Documents to perform all Work as specified or indicated in the Bidding Documents for the prices and within the times indicated in this Bid and in accordance with the other terms and conditions of the Bidding Documents.

ARTICLE 2 – BIDDER'S ACKNOWLEDGEMENTS

2.01 Bidder accepts all of the terms and conditions of the Advertisement to Bid and Instructions to Bidders, including without limitation those dealing with the disposition of Bid security. This Bid will remain subject to acceptance for 45 days after the Bid opening, or for such longer period of time that Bidder may agree to in writing upon request of Owner.

ARTICLE 3 – BIDDER'S REPRESENTATIONS

3.01 In submitting this Bid, Bidder represents that:

A. Bidder has examined and carefully studied the Bidding Documents, other related data identified in the Bidding Documents, and the following Addenda, receipt of ~~all~~ which is hereby acknowledged:

Addendum No.	Addendum Date
1	3-12-2026
2	3-17-2026
3	3-20-2026
4	3-23-2026

B. Bidder has visited the Site and become familiar with and is satisfied as to the general, local, and Site conditions that may affect cost, progress, and performance of the Work.

C. Bidder is familiar with and is satisfied as to all Laws and Regulations that may affect cost, progress, and performance of the Work.

D. Bidder has carefully studied all: (1) reports of explorations and tests of subsurface conditions at or contiguous to the Site and all drawings of physical conditions relating to existing surface or subsurface structures at the Site (except Underground Facilities) that have been identified in SC-4.02 as containing reliable "technical data," and (2) reports and drawings of Hazardous Environmental Conditions, if any, at the Site that have been identified in SC-4.06 as containing reliable "technical data."

E. Bidder has considered the information known to Bidder; information commonly known to contractors doing business in the locality of the Site; information and observations obtained from visits to the Site;

and the Bidding Documents, with respect to the effect of such information, observations, and documents on (1) the cost, progress, and performance of the Work; (2) the means, methods, techniques, sequences, and procedures of construction to be employed by Bidder, including applying the specific means, methods, techniques, sequences, and procedures of construction expressly required by the Bidding Documents; and (3) Bidder's safety precautions and programs.

F. Bidder has obtained and carefully studied (or assumes responsibility for having done so) all additional or supplementary examinations, investigations, explorations, test, studies and data concerning conditions (surface, subsurface and Underground Facilities) at or contiguous to the Site which may affect cost, progress, or performance of the Work or which relate to any aspect of the means, methods, techniques, sequences, and procedures of construction to be employed by Bidder, including applying the specific means, methods, techniques, sequences, and procedures of construction expressly required by the Bidding Documents to be employed by Bidder safety precautions and programs incident thereto.

G. Based on the information and observations referred to in Paragraph 3.01.E and 3.01.F above, Bidder does not consider that further examinations, investigations, explorations, tests, studies, or data are necessary for the determination of this Bid for performance of the Work at the price(s) bid and within the times required, and in accordance with the other terms and conditions of the Bidding Documents.

H. Bidder is aware of the general nature of work to be performed by Owner and others at the Site that relates to the Work as indicated in the Bidding Documents.

I. Bidder has given Engineer written notice of all conflicts, errors, ambiguities, or discrepancies that Bidder has discovered in the Bidding Documents, and the written resolution thereof by Engineer is acceptable to Bidder. Owner does not warrant that the Contract Documents or Plans will be free from defect or error and Bidder is responsible for verifying viability of any plans and specifications for accuracy and completeness, and if a defect or error is discovered, the Bidder is obligated to inform the Owner.

I. The Bidding Documents are generally sufficient to indicate and convey understanding of all terms and conditions for the performance of the Work for which this Bid is submitted.

ARTICLE 4 – BIDDER'S CERTIFICATION

4.01 Bidder certifies that:

A. This Bid is genuine and not made in the interest of or on behalf of any undisclosed individual or entity and is not submitted in conformity with any collusive agreement or rules of any group, association, organization, or corporation;

B. Bidder has not directly or indirectly induced or solicited any other Bidder to submit a false or sham Bid;

C. Bidder has not solicited or induced any individual or entity to refrain from bidding; and

D. Bidder has not engaged in corrupt, fraudulent, collusive, or coercive practices in competing for the Contract. For the purposes of this Paragraph 4.01.D:

1. "Corrupt practice" means the offering, giving, receiving, or soliciting of any thing of value likely to influence the action of a public official in the bidding process;

2. "Fraudulent practice" means an intentional misrepresentation of facts made (a) to influence the bidding process to the detriment of Owner, (b) to establish bid prices at artificial non-competitive levels, or (c) to deprive Owner of the benefits of free and open competition;

3. "Collusive practice" means a scheme or arrangement between two or more Bidders, with or without the knowledge of Owner, a purpose of which is to establish bid prices at artificial, non-competitive levels; and

4. "Coercive practice" means harming or threatening to harm, directly or indirectly, persons or their property to influence their participation in the bidding process or affect the execution of the Contract.

ARTICLE 5 – BASIS OF BID

5.01 Bidder will complete the Work in accordance with the Contract Documents for the following price(s):

UNIT PRICE BID

Item No.	Description	Unit	Estimated Quantity	Bid Unit Price	Bid Price
BASE BID					
2010.4.1.A.1	Mobilization, Demobilization, Bonding and Insurance	LS	1	$282,000.00	$282,000.00
201.4.1.C.1	Removal of Obstructions	LS	1	$18,000.00	$18,000.00
201.4.1.D.1	Removal of Sidewalk	SY	345	$3.50	$1,207.50
201.4.1.D.2	Removal of Concrete Pavement	SY	14,050	$10.00	$140,500.00
201.4.1.E.1	Removal of Curb and Gutter	LF	1,010	$4.00	$4,040.00
202.4.1.D.1	Excavation	LS	1	$425,000.00	$425,000.00
202.4.9.A.1	Soft Spot Repair	CY	700	$30.00	$21,000.00
206.4.1.A.1	Seedbed Preparation	AC	0.05	$20,000.00	$1,000.00
206.4.1.B.1	Seeding	AC	0.05	$10,000.00	$500.00
206.4.1.C.1	Mulching	AC	0.05	$10,000.00	$500.00
206.4.1.G.1	Fertilizing	AC	0.05	$10,000.00	$500.00
303.4.1.B.1	Exploratory Excavation (Potholing)	LS	1	$20,000.00	$20,000.00
3000.4.1.A.1	Reuse Water Main Pipeline - Size 8" - Type PVC C900 DR 18	LF	162	$177.00	$28,674.00
3000.4.1.A.1	Reuse Water Main Pipeline - Size 20" - Type PVC C905 DR 18	LF	2,771	$117.00	$324,207.00
3000.4.1.B.1	Reuse Water Fittings– 8"	EA	3	$699.00	$2,097.00
3000.4.1.B.1	Reuse Water Fittings – 20"	EA	5	$6,500.00	$32,500.00
3000.4.1.C.1	Reuse Water Valves – 8"	EA	2	$5,225.00	$10,450.00
3000.4.1.C.1	Reuse Water Valves – 20"	EA	2	$5,225.00	$10,450.00
3000.4.1.D.1	Reuse Water Force Main Isolation – 8" Camlock Assembly (SD-507)	EA	2	$9,005.00	$18,010.00
505.4.1.A.1	Pressure Sewer Pipeline - Size 12" Type PVC C-900 DR 18	LF	3,972	$38.00	$150,936.00
505.4.1.A.1	Pressure Sewer Pipeline - Size 16" Type PVC C-905 DR 18	LF	6,148	$85.00	$522,580.00
505.4.1.A.1	Pressure Sewer Pipeline - Size 20" Type PVC C-905 DR 18	LF	2,964	$136.00	$403,104.00
505.4.1.B.1	Pressure Sewer Fittings – 12"	EA	5	$1,510.00	$7,550.00
505.4.1.B.1	Pressure Sewer Fittings– 16"	EA	10	$2,835.00	$28,350.00
505.4.1.B.1	Pressure Sewer Fittings – 20"	EA	7	$3,010.00	$21,070.00
505.4.1.D.1	Pressure Sewer Force Main Isolation – 8" Camlock Assembly (SD-507)	EA	3	$9,200.00	$27,600.00
505.4.1.E.1	Detail 1/CD-301 Sewer Flow Modification - Seltice & McGuire FM Connection Valve Cluster (STA. 159+50)	LS	1	$97,030.00	$97,030.00
505.4.1.F.1	Detail 1/CD-302 Sewer Flow Modification - Connection of FM drains to existing SS MH (STA. 191+35)	LS	1	$33,400.00	$33,400.00

Item No.	Description	Unit	Estimated Quantity	Bid Unit Price	Bid Price
505.4.1.G.1	Detail 2/CD-302 Sewer Flow Modification - Rathdrum FM Connection (STA. 303+41)	LS	1	$ 92,030.00	$ 92,030.00
505.4.1.H.1	Detail 3/CD-302 Sewer Flow Modification - New 48-in Doghouse Manhole for FM drains (STA. 206+17)	LS	1	$ 72,380.00	$ 72,380.00
512.4.1.A.1	Sewage Bypass Systems	LS	1	$ 100,000.00	$ 100,000.00
601.4.1.A.5	10-Inch Storm Drain Pipe, PVC D 3034	LF	235	$ 58.50	$ 13,747.50
602.4.1.F.1	Catch Basin - Type 2 and Grate	EA	6	$ 1,920.00	$ 11,520.00
706.4.1.A.5	Standard Curb and Gutter	LF	960	$ 67.00	$ 64,320.00
706.4.1.E.1	Concrete Sidewalk	SY	625	$ 91.00	$ 56,875.00
706.4.1.I.1	Drainage Curb Cut	EA	3	$ 450.00	$ 1,350.00
802.4.1.B.1	Crushed Aggregate for Base Type I	TON	22,230	$ 24.50	$ 544,635.00
810.4.1.A.1	Plant Mix Pavement, SP-3 PG 64-28	TON	13,690	$ 80.00	$ 1,095,200.00
1001.4.1.A.1	Sediment Control	LS	1	$ 5,640.00	$ 5,640.00
1001.4.1.B.1	Stabilized Construction Entrance	EA	8	$ 3,200.00	$ 25,600.00
1006.4.1.B.1	Riprap Slope and Outlet Protection	SY	75	$ 168.00	$ 12,600.00
1007.4.1.A.1	Topsoiling	SY	255	$ 23.50	$ 5,992.50
1102.4.1.E.1	Conduit, Size 2"	LF	5,295	$ 15.00	$ 79,425.00
1102.4.1.F.1	Junction Box	EA	10	$ 1,875.00	$ 18,750.00
1103.4.1.A.1	Construction Traffic Control	LS	1	$ 75,000.00	$ 75,000.00
1104.4.1.A.1	Pavement Line Paint	LF	17,080	$ 0.20	$ 3,416.00
1104.4.1.B.1	Thermoplastic Pavement Markings	SF	1,210	$ 11.00	$ 13,310.00
1105.4.1.E.1	Permanent Signing	EA	4	$ 703.00	$ 2,812.00
2020.4.1.C.1	Furnishing and Placing Monument Frame & Cover	EA	2	$ 422.00	$ 844.00
2030.4.1.A.1	Manhole, Adjust to Grade	EA	4	$ 427.00	$ 1,708.00
2050.4.1.B.1	Riprap/Erosion Control Geotextile	SY	85	$ 0.50	$ 42.50
2060.4.1.A.1	Remove and Reset Mailbox	EA	1	$ 100.00	$ 100.00
2061.4.1.A.1	Drywell - Double Depth	EA	1	$ 4,700.00	$ 4,700.00
2062.4.1.A.1	Landscape Irrigation	LS	1	$ 2,000.00	$ 2,000.00
				BASE BID TOTAL	$ 4,936,253.00

Bid prices listed shall include all applicable taxes and fees.

ARTICLE 6 – TIME OF COMPLETION

6.01 Bidder agrees that the Work will be substantially complete and will be completed and ready for final payment in accordance with Paragraph 14.07 of the General Conditions on or before the dates or within the number of calendar days indicated in the Agreement.

6.02 Bidder accepts the provisions of the Agreement as to liquidated damages.

6.03 Bidder agrees to comply with Idaho Code 44-1001 through 44-1005, regarding employment of Idaho residents.

ARTICLE 7 – ATTACHMENTS TO THIS BID

7.01 The following documents are submitted with and made a condition of this Bid:

A. Required Bid security in accordance with Article 8 of the Instructions to Bidders;

B. Not used;

C. Bidder shall include in their Bid the name, or names and address, or addresses, and Idaho Public Works Contractor License Numbers of the Subcontractors who shall, in the event the Bidder secures the Contract, subcontract the plumbing, heating and air-conditioning work, and electrical work under the general Contract;

D. Contractor's Non-Collusion Affidavit;

E. Anti-Discrimination Affidavit;

F. Naming of Subcontractors Form;

G. Evidence of Authority to Sign

ARTICLE 8 – DEFINED TERMS

8.01 The terms used in this Bid with initial capital letters have the meanings stated in the Instructions to Bidders, the General Conditions, and the Supplementary Conditions.

ARTICLE 9 – BID SUBMITTAL

9.01 This Bid is submitted by:

If Bidder is:

An Individual

Name (typed or printed): N/A

By: N/A
(Individual's signature)

Doing business as: N/A

A Partnership

Partnership Name: N/A

By: N/A
(Signature of general partner -- attach evidence of authority to sign)

Name (typed or printed): N/A

Date of Qualification to do business in Idaho is N/A/____/

_____. A Corporation

Corporation Name: MDM CONSTRUCTION GROUP, INC.

State of Incorporation: IDAHO
Type (General Business, Professional, Service, Limited Liability): GENERAL BUSINESS

By: 

(Signature -- attach evidence of authority to sign)

Name (typed or printed): DENNIS O'HAGAN

Title: PRESIDENT 

Attest Kevin Vedder, Secretary/Treasurer
Date of Qualification to do business in Idaho is 06/18/2019.

A Joint Venture
Name of Joint Venture: N/A

First Joint Venturer Name: N/A (SEAL)

By: N/A
(Signature of first joint venture partner -- attach evidence of authority to

sign) Name (typed or printed): N/A

Title: N/A

Second Joint Venturer Name: N/A

By: N/A

(Signature of second joint venture partner -- attach evidence of authority to sign)

Name (typed or printed): N/A

Title: N/A

(Each joint venturer must sign. The manner of signing for each individual, partnership, and corporation that is a party to the joint venture should be in the manner indicated above.)

Bidder's Business Address PO Box 2006, Hayden, ID 83835

Phone No. 208-762-7236 Fax No. 208-772-2486

E-mail jesse.ohagan@mdmcon.com

SUBMITTED on March 24, 20 26.

Idaho Public Works Contractor License No. 047150-U-1-2.

BID BOND

Any singular reference to Bidder, Surety, Owner or other party shall be considered plural where applicable.

BIDDER *(Name and Address)*:

MDM Construction Group, Inc.
P.O. Box 2006
Hayden, ID 83835

SURETY *(Name and Address of Principal Place of Business)*:

The Cincinnati Insurance Company
P.O. Box 145496
Cincinnati, OH 45250

OWNER *(Name and Address)*:

City of Post Falls
408 Spokane Street
Post Falls, ID 83854

BID

Bid Due Date: March 24, 2026

Description *(Project Name and Include Location)*:

City of Post Falls - Seltice Way Rehabilitation & Pipeline Project

BOND

Bond Number: Bid Bond

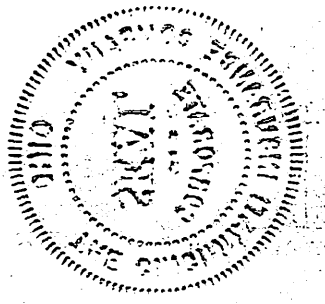
Date *(Not earlier than Bid due date)*: March 24, 2026

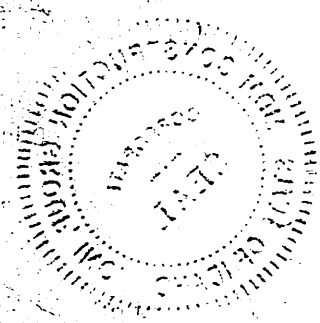
Penal sum Five Percent of Amount Bid ($ 5%)
(Written in Words) (Figures)

Surety and Bidder, intending to be legally bound hereby, subject to the terms set forth below, do each cause this Bid Bond to be duly executed by an authorized officer, agent, or representative.

BIDDER	SURETY
MDM Construction Group, Inc. (Seal)	The Cincinnati Insurance Company (Seal)
Bidder's Name and Corporate Seal	Surety's Name and Corporate Seal
By: Signature	By: Signature (Attach Power of Attorney)
DENNIS O'HAGAN	Jennifer Martinez Ibarra
Print Name	Print Name
PRESIDENT	Attorney-in-Fact
Title	Title
Attest: Signature	Attest: Signature
KEVIN VEDDER SECRETARY/TREASURER	Liliana Castrejon Perez, Witness
Title	Title

Note: Above addresses are to be used for giving any required notice. Provide execution by any additional parties, such as joint venturers, if necessary.





1. Bidder and Surety, jointly and severally, bind themselves, their heirs, executors, administrators, successors, and assigns to pay to Owner upon default of Bidder the penal sum set forth on the face of this Bond. Payment of the penal sum is the extent of Bidder's and Surety's liability. Recovery of such penal sum under the terms of this Bond shall be Owner's sole and exclusive remedy upon default of Bidder.

2. Default of Bidder shall occur upon the failure of Bidder to deliver within the time required by the Bidding Documents (or any extension thereof agreed to in writing by Owner) the executed Agreement required by the Bidding Documents and any performance and payment bonds required by the Bidding Documents.

3. This obligation shall be null and void if:

3.1 Owner accepts Bidder's Bid and Bidder delivers within the time required by the Bidding Documents (or any extension thereof agreed to in writing by Owner) the executed Agreement required by the Bidding Documents and any performance and payment bonds required by the Bidding Documents, or

3.2 All Bids are rejected by Owner, or

3.3 Owner fails to issue a Notice of Award to Bidder within the time specified in the Bidding Documents (or any extension thereof agreed to in writing by Bidder and, if applicable, consented to by Surety when required by Paragraph 5 hereof).

4. Payment under this Bond will be due and payable upon default of Bidder and within 30 calendar days after receipt by Bidder and Surety of written notice of default from Owner, which notice will be given with reasonable promptness, identifying this Bond and the Project and including a statement of the amount due.

5. Surety waives notice of any and all defenses based on or arising out of any time extension to issue Notice of Award agreed to in writing by Owner and Bidder, provided that the total time for issuing Notice of Award including extensions shall not in the aggregate exceed 120 days from Bid due date without Surety's written consent.

6. No suit or action shall be commenced under this Bond prior to 30 calendar days after the notice of default required in Paragraph 4 above is received by Bidder and Surety and in no case later than one year after Bid due date.

7. Any suit or action under this Bond shall be commenced only in a court of competent jurisdiction located in the state in which the Project is located.

8. Notices required hereunder shall be in writing and sent to Bidder and Surety at their respective addresses shown on the face of this Bond. Such notices may be sent by personal delivery, commercial courier, or by United States Registered or Certified Mail, return receipt requested, postage pre-paid, and shall be deemed to be effective upon receipt by the party concerned.

9. Surety shall cause to be attached to this Bond a current and effective Power of Attorney evidencing the authority of the officer, agent, or representative who executed this Bond on behalf of Surety to execute, seal, and deliver such Bond and bind the Surety thereby.

10. This Bond is intended to conform to all applicable statutory requirements. Any applicable requirement of any applicable statute that has been omitted from this Bond shall be deemed to be included herein as if set forth at length. If any provision of this Bond conflicts with any applicable statute, then the provision of said statute shall govern and the remainder of this Bond that is not in conflict therewith shall continue in full force and effect.

The term "Bid" as used herein includes a Bid, offer, or proposal as applicable.

THIS PAGE WAS INTENTIONALLY LEFT BLANK

THE CINCINNATI INSURANCE COMPANY
THE CINCINNATI CASUALTY COMPANY

Fairfield, Ohio

POWER OF ATTORNEY

KNOW ALL MEN BY THESE PRESENTS: That THE CINCINNATI INSURANCE COMPANY and THE CINCINNATI CASUALTY COMPANY, corporations organized under the laws of the State of Ohio, and having their principal offices in the City of Fairfield, Ohio (herein collectively called the "Companies"), do hereby constitute and appoint **Jennifer Martinez Ibarra** its true and legal Attorney-in-Fact to sign and deliver on behalf of the Companies as Surety, at any place within the United States, the following surety bond:

Surety Bond Number: Bid Bond
Principal: MDM Construction Group, Inc.
Obligee: City of Post Falls

This appointment is made under and by authority of the following resolutions adopted by the Boards of Directors of The Cincinnati Insurance Company and The Cincinnati Casualty Company, which resolutions are now in full force and effect, reading as follows:

RESOLVED, that the President or any Senior Vice President be hereby authorized, and empowered to appoint Attorneys-in-Fact of the Company to execute any and all bonds, policies, undertakings, or other like instruments on behalf of the Corporation, and may authorize any officer or any such Attorney-in-Fact to affix the corporate seal; and may with or without cause modify or revoke any such appointment or authority. Any such writings so executed by such Attorneys-in-Fact shall be binding upon the Company as if they had been duly executed and acknowledged by the regularly elected officers of the Company.

RESOLVED, that the signature of the President or any Senior Vice President and the seal of the Company may be affixed by facsimile on any power of attorney granted, and the signature of the Secretary or Assistant Vice-President and the Seal of the Company may be affixed by facsimile to any certificate of any such power and any such power of certificate bearing such facsimile signature and seal shall be valid and binding on the Company. Any such power so executed and sealed and certified by certificate so executed and sealed shall, with respect to any bond or undertaking to which it is attached, continue to be valid and binding on the Company.

IN WITNESS WHEREOF, the Companies have caused these presents to be sealed with their corporate seals, duly attested by their President or any Senior Vice President this 16th day of March, 2021.

THE CINCINNATI INSURANCE COMPANY
THE CINCINNATI CASUALTY COMPANY

STATE OF OHIO)SS:
COUNTY OF BUTLER)

On this 16th day of March, 2021 before me came the above-named President or Senior Vice President of The Cincinnati Insurance Company and The Cincinnati Casualty Company, to me personally known to be the officer described herein, and acknowledged that the seals affixed to the preceding instrument are the corporate seals of said Companies and the corporate seals and the signature of the officer were duly affixed and subscribed to said instrument by the authority and direction of said corporations.

Keith Collett, Attorney at Law
Notary Public – State of Ohio
My commission has no expiration date.
Section 147.03 O.R.C.

I, the undersigned Secretary or Assistant Vice-President of The Cincinnati Insurance Company and The Cincinnati Casualty Company, hereby certify that the above is the Original Power of Attorney issued by said Companies, and do hereby further certify that the said Power of Attorney is still in full force and effect.

Given under my hand and seal of said Companies at Fairfield, Ohio, this 24th day of March , 2026 .

BN-1457-S (3/21)

City of Post Falls
Kootenai County, Idaho
Seltice Way Rehabilitation & Pipeline Project

Contractor's Non-Collusion Affidavit

State of IDAHO

County of KOOTENAI

Bid for DENNIS O'HAGAN, being first duly sworn, deposes, and says that he is PRESIDENT [sole owner, a partner, president, secretary, etc.] of, MDM CONSTRUCTION GROUP, INC. [Bidder],

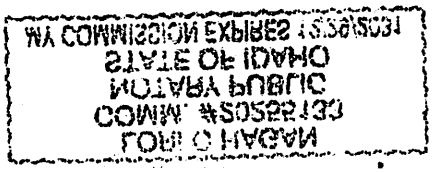
The party making the foregoing Bid; that such Bid is not made in the interest of or on behalf of any undisclosed person, partnership, company, association, organization or corporation; that such Bid is genuine and not collusive or sham; that said Bidder has not directly or indirectly induced or solicited any other Bidder to put in a false or sham Bid and has not directly or indirectly colluded, conspired, connived or agreed with any Bidder or anyone else to put in a sham Bid, nor that anyone shall refrain from bidding; that said Bidder has not in any manner, directly or indirectly, sought by agreement, communication or conference with anyone to fix the Bid Price of said Bidder or of any other Bidder, nor to fix any overhead, profit or cost element of such Bid Price, nor of that of any other Bidder, nor to secure any advantage against the public body awarding the Contract or anyone interested in the proposed Contract; that all statements contained in such Bid are true; and, further, that said Bidder has not directly or indirectly submitted his Bid Price or any breakdown thereof, nor the contents thereof, nor divulged information or data relative thereto, nor paid and will not pay any fee in connection therewith to any corporation, partnership, company, association, organization, bid depository, nor to any member or agent thereof, nor to any other individual except to such person(s) as has/have a partnership or other financial interest with said Bidder in his general business.

Signed: _____
DENNIS O'HAGAN
Title: PRESIDENT

Subscribed and sworn to before me this 24TH day of MARCH, 2026.

(NOTARY SEAL)
LORI O HAGAN
COMM. #20255133
NOTARY PUBLIC
STATE OF IDAHO
MY COMMISSION EXPIRES 12/29/2031

Notary Public _____
State of IDAHO
My Commission Expires 12/29/2031


NOTARY PUBLIC
STATE OF IDAHO

City of Post Falls
Kootenai County, Idaho
Seltice Way Rehabilitation & Pipeline Project

Anti-Discrimination Affidavit

STATE OF IDAHO

COUNTY OF KOOTENAI

The Bidder hereby covenants, stipulates and agrees that no person shall be discriminated against in the bidding of the services and/or materials herein under and that the Bidder shall not refuse to hire any person therefore because of such person's race, creed, sex, color, or national origin, unless based on a bona fide occupational qualification. Also, the Bidder will in no manner discriminate against any person because of such person's race, creed, sex, color, or national origin. Any such discrimination shall be deemed a violation of this Bid and shall render this Bid subject to forfeiture.

Contractor's Signature DENNIS O'HAGAN - PRESIDENT

Subscribed and sworn to before me this 24TH day of MARCH, 2026.

(NOTARY SEAL)

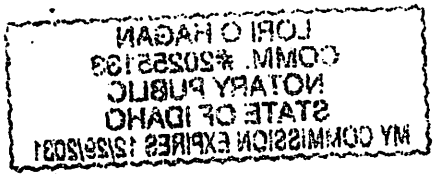
LORI O HAGAN
COMM. #20255133
NOTARY PUBLIC
STATE OF IDAHO
MY COMMISSION EXPIRES 12/29/2031

Notary Public

State of IDAHO

Residing at KOOTENAI

My Commission Expires 12-29-2031


LORI O HAGAN
COMM. #20258139
NOTARY PUBLIC
STATE OF IDAHO
MY COMMISSION EXPIRES 12/29/2021

City of Post Falls
Kootenai County, Idaho
Seltice Way Rehabilitation & Pipeline Project

Naming of Subcontractors Form

Per Idaho Code, 67-2310, Bidder shall include in his or her Bid the names and address, and Idaho Public Works Contractor License Number of the Subcontractors who shall, in the event the Bidder secures the Contract, subcontract the plumbing, heating and air-conditioning work, and electrical work under the general Contract. Failure to name Subcontractors as required shall render any Bid submitted by the Bidder unresponsive and void. Bidder shall indicate "Not Applicable" if subcontractors for plumbing, heating and air-conditioning, and/or electrical work are not necessary.

Subcontractor Name and Address	Classification	Public Works License Number
N/A	Plumbing	N/A
N/A	HVAC	N/A
Thorco Inc.	Electrical	PWC-C-10130-UNLIMITED-1-4

THIS FORM MUST BE INCLUDED FOR ALL BIDS

Filing Type	General Business Corporation (D)
Status	Active-Good Standing
Formed In	IDAHO
Term of Duration	Perpetual
Mailing Address	MDM CONSTRUCTION GROUP, INC. PO BOX 2006 HAYDEN, ID 83835-2006
Initial Filing Date	06/18/2019
AR Due Date	06/30/2026
Registered Agent	Noncommercial 0231919 WBM CORPORATE SERVICES LLC 6500 N MINERAL DR STE 103 COEUR D ALENE, ID 83815

0006263701

STATE OF IDAHO

Office of the secretary of state, Phil McGrane

ANNUAL REPORT

Idaho Secretary of State
PO Box 83720
Boise, ID 83720-0080
(208) 334-2301
Filing Fee: $0.00

For Office Use Only

-FILED-

File #: 0006263701

Date Filed: 5/22/2025 5:36:32 PM

Entity Name and Mailing Address:

Entity Name:	MDM Construction Group, Inc.
The file number of this entity on the records of the Idaho Secretary of State is:	0003541197
Address	MDM CONSTRUCTION GROUP, INC. PO BOX 2006 HAYDEN, ID 83835-2006

Entity Details:

Entity Status	Active-Good Standing
This entity is organized under the laws of:	IDAHO
If applicable, the old file number of this entity on the records of the Idaho Secretary of State was:	

The registered agent on record is:

Our records indicate that the previously-selected Registered Agent is no longer valid. Please select a new Registered Agent.

No Agent	No Agent Assigned or Agent Invalid

The name and street address of the new registered agent and office in Idaho is:

Registered Agent	WBM CORPORATE SERVICES LLC Registered Agent Physical Address 6500 N MINERAL DR SUITE 103 R0BERT J. BURNETT COEUR D'ALENE, ID 83815 Mailing Address 6500 N MINERAL DR STE 103 R0BERT J. BURNETT COEUR D ALENE, ID 83815

☒ I affirm that the registered agent appointed has consented to serve as registered agent for this entity.

Corporate Officers and Directors:

Name	Title	Business Address
Dennis O'Hagan	President	PO BOX 2006 HAYDEN, ID 83835-2006
Kevin Vedder	Treasurer	PO BOX 2006 HAYDEN, ID 83835-2006
Jesse O'Hagan	Vice President	PO BOX 2006 HAYDEN, ID 83835-2006
Kevin Vedder	Secretary	PO BOX 2006 HAYDEN, ID 83835-2006

The annual report must be signed by an authorized signer of the entity.

Job Title: President

Page 1 of 2

B1016-4903 05/22/2025 5:36 PM Received by Office of the Idaho Secretary of State

DENNIS O'HAGAN	05/22/2025
Sign Here	Date

B1016-4904 05/22/2025 5:36 PM Received by Office of the Idaho Secretary of State

Page 2 of 2

WAIVER AND CONSENT
TO ACTIONS IN LIEU OF
2025 ANNUAL MEETING
OF THE
SHAREHOLDERS
AND DIRECTORS OF
MDM CONSTRUCTION GROUP, INC.

The undersigned, being the Shareholders and members of the Board of Directors (the "Board") of MDM Construction Group, Inc. (the "Corporation"), by signature hereunder, do hereby waive notice of and attendance at the organizational meeting of the Incorporator, Shareholders and Board, and further consent to the actions described and adoption of the resolutions set forth below.

This waiver and consent shall have the same effect as a unanimous vote, as if a duly convened meeting of the shareholders and the Board was held at the principal place of business of the Corporation, pursuant to RCW 23B.07 and RCW 23B.08.

ELECTION OF DIRECTORS

WHEREAS, nominations for directors have been presented to the Shareholders; now, therefore, it is hereby

RESOLVED, that the following directors are unanimously elected to serve until the next annual meeting and until their respective successors are elected and qualified:

Dennis O'Hagan
Kevin Vedder
Jesse O'Hagan

APPOINTMENT OF OFFICERS

WHEREAS, nominations for officers have been presented to the Board; now, therefor, it is hereby

RESOLVED, that the following officers are unanimously appointed to serve until the next annual meeting and until their respective successors are appointed and qualified:

President:	Dennis O'Hagan
Secretary:	Kevin Vedder
Treasurer:	Kevin Vedder
Vice President:	Jesse O'Hagan

RATIFICATION OF ACTIONS

WHEREAS, the Board has reviewed the Corporation's business activities that have taken place since the last annual meeting and have deemed all such actions to be in the best interest of the company; no, therefore, it is hereby

RESOLVED, that the Board ratifies and confirms all actions of the Corporations, its officers, directors and agents regarding the conduct of business since the last annual meeting.

CONSENTED TO as of the 20th day of June, 2025

DIRECTOR AND SHAREHOLDER: Dennis O'Hagan

DIRECTOR AND SHAREHOLDER: Kevin Vedder

DIRECTOR AND SHAREHOLDER: Jesse O'Hagan



Division of Occupational and Professional Licenses
11341 W Chinden Blvd. Boise, ID 83720-0063
dopl.idaho.gov

The person, firm, or corporation whose name appears on this certificate has complied with the provisions of the Idaho statutes and/or rules and regulations and is hereby authorized to engage in the activity as indicated below.

MDM CONSTRUCTION GROUP INC

Public Works Contractor - Class Unlimited License
047150

Issued: 09-Jun-2025 Expires: 30-Jun-2026

Renewal Required

Russell S. Barron
Administrator

Printed: 06-Oct-2025

MDM CONSTRUCTION GROUP INC
Public Works Contractor - Class Unlimited License
047150

Expires: 30-Jun-2026

Russell S. Barron
Administrator

Division of Occupational and Professional Licenses
11341 W Chinden Blvd. Boise, ID 83720-0063
dopl.idaho.gov

The person, firm, or corporation whose name appears on this certificate has complied with the provisions of the Idaho Contractors Board statutes and/or rules and regulations and is hereby authorized to engage in the activity as indicated below.

MDM CONSTRUCTION GROUP INC

General Contractor Registration
RCE-53111

Issued: 08-Sep-2025 Expires: 05-Nov-2026

Renewal Required

Russell S. Barron
Administrator

Printed: 08-Sep-2025

Contractors Board

MDM CONSTRUCTION GROUP INC
General Contractor Registration
RCE-53111
Expires: 05-Nov-2026

Russell S. Barron
Administrator

CITY OF POST FALLS

Legal Services
Phone: (208) 773-0215
Fax: (208) 773-0214

Memorandum of Legal Counsel

To: Jaxon Fleshman, Project Manager
From: Field K. Herrington, City Attorney
Date: April 6, 2026
Re: March 24, 2026, Bid Opening – Seltice Way Rehab & Pipeline Project

---

My review and analysis are based purely on the legal aspects of the bid as authorized by the Idaho purchasing statutes, particularly Idaho Code § 67-2805, and the required information contained in the notice inviting bids. On or about March 24th, 2026, I received copies of seven (7) bids that were received and opened by the Deputy City Clerk, Rhiannon O'Neill, at or about 2:00 p.m. on March 24th, 2026.

The bids consisted of submissions from MDM Construction Group, Inc. ($4,936,253.00), Interstate Concrete & Asphalt ($5,376,888.67), LaRiviere, Inc. ($5,451,437.55), North Fork Enterprises, LLC ($5,503,477.80), Apollo, Inc. ($6,221,384.50), Selland Construction ($6,508,400.00), and Halme Construction, Inc. ($6,554,003.65).

I have reviewed the submittal from the apparent low bidder, MDM Construction Group, Inc. ("MDM"). Based on the bid total sheet, MDM appears to be the lowest responsive bidder. I did a cursory review of the other bids as well, but they have not been thoroughly reviewed, and no analysis is presented here. However, if such a review is needed, I will be glad to accommodate.

My review of the MDM bid leads me to conclude, on a purely legal level, that MDM is the lowest responsive bidder, and if the City intends to award the bid, it should be awarded to MDM Construction Group, Inc. My conclusion is based upon the following information:

1. I have reviewed the Bid Total Sheet and bid submittals from the Deputy City Clerk. The submittal by MDM appears timely.
2. The submittal was provided on the required form and with the required attachments:
    a. Completed proposal;
    b. 5% Bid Bond;
    c. Bidder information identifying MDM Construction Group, Inc. as an Idaho corporation;
    d. List of subcontractors, including identification of an electrical subcontractor (Thorco, Inc.) and indication that plumbing and HVAC subcontractors were not applicable;

e. Executed Non-Collusion Affidavit;
f. Executed Anti-Discrimination Affidavit;
g. The attestations and documents were executed by Dennis O'Hagan, President of the corporation.

3. I researched the Public Works License of MDM to confirm the validity of the license, the level of the license, and the approved types of work. MDM is a licensed Public Works Contractor with an "Unlimited" license No. 041750-U-1-2. I have attached a copy of the license information for your records.
4. I also reviewed the business status of MDM Construction Group, Inc. with the Idaho Secretary of State. The entity is listed as Active & Good Standing, and its corporate officers include Dennis O'Hagan as President.

Based on my review, MDM is compliant with Idaho Law and the City of Post Falls Procurement standards, and is the lowest responsive bidder at $4,936,253, which is approximately $440,365.67 lower than the next-lowest bidder, Interstate Concrete & Asphalt.

I did not review the details of the plans or specifications and did not see any proposed alternates or modifications. I will defer to you on the technical aspects of the bid, as I lack the requisite knowledge and skills to opine on the technical aspects.

Should you have any questions, please feel free to contact me.

Very Truly Yours,

Field K. Herrington
City Attorney

Enclosures

License

License Number
047150

Type
Public Works Contractor - Class Unlimited License

Status
Active

Original Issue Date
26-May-2020

Expiration
30-Jun-2026

Name

Business Name
MDM CONSTRUCTION GROUP INC

DBA

Address

Street
PO BOX 2006

Street 2

City
HAYDEN

State
ID

Zip Code
83835-2006

Country
USA

License Status History

Date	Status
02-Nov-2024	This account pre-dates DOPL's OASIS system. Click here to view legacy status history.
26-May-2020	Active

Discipline

Action Date	Case Number	Action	Attachment

There are no discipline.

Relationships

Relationship Typ	Relationship Star	Name	License	License Number	License Status	License Expiratio
General Contract	09-Jun-2025	MDM CONSTRU	General Contract	RCE-53111	Active	05-Nov-2026

CITY OF POST FALLS
AGENDA REPORT
UNFINISHED BUSINESS/RETURNING ORDINANCES AND RESOLUTIONS
MEETING DATE: 4/21/2026

TO: HONORABLE MAYOR AND CITY COUNCIL

FROM: Jaxon Fleshman, Project Manager, Andrew Arbini, Projects Divison Manager

SUBJECT: Seltice Way Rehabilitation and Pipeline Project, Construction Management Services Amendment

---

ITEM AND RECOMMENDED ACTION:

City Council approves the CMS (Construction Management Services) contract amendment with J-U-B Engineers and authorizes the Mayor to sign the amendment.

DISCUSSION:

In July 2024, City Council approved the design services contract with JUB Engineers for the design of the Seltice Way Rehabilitation and Pipeline project. The contract included design services only. Construction support services are necessary to ensure construction of the project conforms to the contract requirements. Adding the support services at this phase of the project allows the design to inform the level of construction support and provides a more accurate reflection of consultant services. The attached scope of work reflects the construction support services anticipated for the multiple phases of work over two construction seasons. Due to the extent of the project, an onsite observer is expected to staff the project during most construction hours. This amendment also includes public outreach and coordination with businesses and residents impacted by the project.

The pavement condition of Seltice Way between McGuire and Chase Road is in poor condition. Interim repairs by city crews have extended the current life of the pavement surface; However, ongoing repairs are ineffective in the long-term preservation of the existing pavement surface. This project will reconstruct the road structure from the base up, resulting in a road designed to last 20+ years.

The proposed project on Seltice Way presents an opportunity to include below ground piping infrastructure identified in the City's master planning documents. Additionally, the scope of work includes improvements to pedestrian facilities, stormwater collection and dry utility installation. Including the underground improvements in the project will avoid duplicate projects in the future.

In July 2024, City Council approved the design contract with J-U-B Engineers. Early in the design, the City of Rathdrum requested a section of their future forcemain be constructed with the Seltice Way project. The City of Rathdrum's sewer system pumps wastewater to the City of Post Falls Water Reclamation Facility. City Council approved a Memorandum of Understanding (MOU) whereby the City of Post Falls will be reimbursed by the City of Rathdrum for the design and construction costs of this new pipeline. Constructing this pipeline at the same time as the Post Falls work decreases the likelihood of future projects in this corridor and will decrease the potential for conflicts within the construction zone. Overall, this is anticipated to save both entities on the construction work and will decrease the long-term impact to the public.

This project will occur in multiple phases over the next two construction seasons
and includes a winter shutdown in the project schedule. Project completion anticipated by Fall 2027.

City Staff will provide a brief presentation of this item to City Council.

ITEM / PROJECT PREVIOUSLY REVIEWED BY COUNCIL ON:

Engineering Services Agreement – July 16, 2024
Memorandum of Understanding with East Greenacres Irrigation District – March 18, 2025
Contract Amendment with JUB Engineers – May 6, 2025

APPROVED OR DIRECTION GIVEN:

Council approved the items noted above.

FISCAL IMPACT OR OTHER SOURCE OF FUNDING:

City Council approval authorizes the Mayor to sign the CMS amendment with JUB Engineers in the amount of $1,230,700 and authorizes a 10% contingency in the amount of $123,070 for potential change orders for unforeseen conditions or changes that would benefit the project related to utilities and streets infrastructure. Contract changes utilizing contingency funds will require authorization of the Public Works Director or his designee. Council approval is for the requested amount of $1,353,770. Change orders of greater than the Director's delegated signing authority threshold (currently $50,000) will be brought to Council for approval. In cases of an emergency or where delay would incur significant risk or expense to the City, the Public Works Director may authorize change orders of a greater amount, within the approved contingency, and will provide a report as to the decision at the next scheduled City Council meeting. Funding for this project will come from the Seltice Way Rehabilitation Streets Construction and Seltice Way Force Mains Budget Codes. The City of Rathdrum's proportionate share is approximately 16% of this contract amendment, which represents the amount eligible for reimbursement to the City of Post Falls.

BUDGET CODE:

001-431.0000.95040 and 652-463.3229.95520

ATTACHMENTS:

1. J-U-B CMS Amendment

J-U-B ENGINEERS, INC.

J-U-B ENGINEERS, Inc.
AGREEMENT FOR PROFESSIONAL SERVICES

Authorization for Contract Amendment

CLIENT: City of Post Falls

Project Name: Seltice Way Rehabilitation and Pipeline Project (Chase Rd. to McGuire Rd.)

J-U-B Project Number: 20- -

1. *Amendments.* The following amendments to Attachment 1 – Scope of Services, Basis of Fee and Schedule to the project referenced above have been or will be performed by J-U-B ENGINEERS, Inc. (J-U-B). These Amendments are a supplement to the scope of services contained in J-U-B's existing Agreement for Professional Services for this Project, dated 6/28/24. All other TERMS AND CONDITIONS of said Agreement remain in full force and effect.

   As detailed on the Attachment 1 – Scope of Services – Construction Phase Services

2. *Verbal Authorization by CLIENT, if Applicable.* J-U-B was verbally authorized by the CLIENT to provide these Amendments by:

   _____ _____
   Name *Date*

3. *Payment for* Amendments. Unless otherwise noted below, J-U-B will provide these Amendments on a time and materials basis, using J-U-B's standard billing rates or, if applicable, the billing rates established in the initial Agreement for Professional Services.

   Other Basis for Payment:

   As detailed on the Attachment 1 – Scope of Services – Construction Phase Services

4. *Schedule of Services.* Due to the Amendments, the Schedule of Services to be performed under the original Agreement for Professional Services is modified as follows:

   As detailed on the Attachment 1 – Scope of Services – Construction Phase Services

Dated this _____ day of _____, _____,

CLIENT

By: _____
Project Representative or Authorized Signatory for CLIENT

_____
Print or Type Name and Title

J-U-B ENGINEERS, Inc.

By: _____
Project Representative or Authorized Signatory for J-U-B

Cory R. Brune, COO
Print or Type Name and Title

J·U·B ENGINEERS, INC.

J-U-B ENGINEERS, Inc.
AGREEMENT FOR PROFESSIONAL SERVICES

Attachment 1 – Scope of Services, Basis of Fee, and Schedule

PROJECT NAME: Seltice Way Rehabilitation and Pipeline Project (Chase Rd. to McGuire Rd.)
CLIENT: City of Post Falls
J-U-B PROJECT NUMBER: _____
CLIENT PROJECT NUMBER: NA
ATTACHMENT TO:

☐ **AGREEMENT DATED: NA; or**

☒ **AUTHORIZATION FOR CONTRACT AMENDMENT #5; DATED: _____**

The referenced Agreement for Professional Services executed between J-U-B ENGINEERS, Inc. (J-U-B) and the CLIENT is amended and supplemented to include the following provisions regarding the Scope of Services, Basis of Fee, and/or Schedule:

PART 1 - PROJECT UNDERSTANDING

J-U-B's understanding of this project's history and CLIENT's general intent and scope of the project are described as follows:

The City of Post Falls (CLIENT) is seeking continued professional engineering services from J-U-B ENGINEERS, Inc. (J-U-B or ENGINEER) for wastewater engineering. The scope of work will include engineering services for the CLIENT's wastewater utility and roadway. Improvements to the wastewater collection system leading to the Water Reclamation Facility (WRF), roadway, and stormwater drainage are included in this scope of work.

PART 2 - SCOPE OF SERVICES BY J-U-B

J-U-B's Services under this Agreement are limited to the following tasks. Any other items necessary to plan and implement the project, including but not limited to those specifically listed in PART 3, are the responsibility of CLIENT.

A. **Task 100: Construction Phase Services**

1. Subtask 010 – Administration (Management)
    a. Communicate and coordinate J-U-B team activities with kickoff and progress meetings as required.
    b. Project management to monitor and report project stats, budget, and schedule.
    c. During periods of project activity, provide a regular report to CLIENT on project status, budget and schedule.
    d. Provide a monthly invoice including budget status.
        i. J-U-B will attach a cost sharing breakout to each invoice for Rathdrum, Wastewater, Streets, Stormwater that allows CLIENT to request reimbursement from Rathdrum per the MOA between the City of Post Falls/City of Rathdrum as well manage their internal City budgets. The City of Rathdrum percent of this agreement is 16% (derived by Contractor's Bid values).
    e. Provide ongoing document handling and filing.
    f. Assumptions: Construction duration is anticipated 11.5 months, occurring over multiple construction seasons.
2. Subtask 020 – Construction Management Services (CMS)
    a. Coordinate and manage a pre-construction meeting with City Staff, Contractor, Subcontractors, and utility providers.

b. Coordinate and manage a pre-pave meeting with City Staff, Contractor, Subcontractors, and utility providers.
c. Coordinate and manage one substantial completion walk through and punchlist, and one final completion walk through for each of the four phases of work with applicable City Staff, Contractor, Subcontractors, and utility providers.
d. Phase 1 – Construction management (CMS) for weekly construction meetings, assuming 2.5 months of active construction.
    i. Phase 1 work is from Station 160+50 to 212+00: This work generally includes the reconstruction of the northern half of Seltice Way, concrete driveway reconstruction, sideroad reconstruction, and one 20-inch and one 8-inch reuse line. This phase includes the demolition of existing asphalt and subsurface concrete pavement, followed by the installation of new concrete and asphalt paving, stormwater drainage systems, and improvements to pedestrian ramps, sidewalks, and multi-use trail. The excavation and new asphalt extents will generally include gutter lip line to roadway centerline.
e. Phase 2 – Construction management (CMS) for weekly construction meetings, assuming 5 months of active construction.
    i. Phase 2 work is from Station 160+50 to 212+00: This work generally includes the installation of two 20-inch, one 16-inch, and one 12-inch force main. Additionally, this phase involves construction of the southern half of Seltice Way, including the demolition of the existing asphalt and subsurface concrete pavement, concrete driveway reconstruction, and sideroad reconstruction, followed by the installation of new paving, stormwater drainage systems, and improvements to pedestrian ramps, sidewalks, and multi-use trail.
f. Phase 3 – Construction management (CMS) for weekly construction meetings, assuming 2 months of active construction.
    i. Phase 3 work is from Station 158+60 to 160+50 (McGuire Intersection): This phase generally consists of work within the McGuire Rd. and Seltice Way intersection, extending north along McGuire Rd. to project limits. Work includes demolition of existing asphalt and concrete pavement, installation and capping of two 20-inch force mains, extending two 16-inch force mains north connecting one to the existing City of Rathdrum, followed by new paving, pedestrian ramp and sidewalk improvements.
g. Phase 4 – Construction management (CMS) for weekly construction meetings, assuming 2 months of active construction.
    i. Phase 4 work is from Station 212+00 to 213+25 (Chase Intersection): This phase generally consists of work within the Chase Rd. and Seltice Way intersection and extends north along Chase Rd to the project limits. Work includes demolition of existing asphalt and concrete pavement, installation and capping of 12-inch and 16-inch force mains and one 20-inch reuse pipe, followed by new paving, pedestrian ramp, and sidewalk improvements.
h. Coordination and review of change orders, requests for information, and correspondence with the contractor and observers.
    i. Assumes change orders (8), requests for information (30), and correspondence with the contractor and observers.
i. Review of wet utility submittals.
j. Review of transportation submittals.
k. Review and coordination of pay requests and recommendations to Owner, including administrative tracking, assuming 12 months of construction.

3. Subtask 030 – Observation Services
    a. Construction observation during the contracting phase.
    b. Construction observation for Phase 1 – Sewer Pipeline, during active road construction requiring observation. Services are included through substantial and final completion of Phase 1. Construction observation estimated at approximately 40 hour/week for 3 weeks of active underground utility construction requiring observation.

c. Construction observation for Phase 1 – Transportation, during active road construction requiring observation. Services are included through substantial and final completion of Phase 1. Construction observation estimated at approximately 40 hour/week for 11 weeks of active roadway construction requiring observation (including substantial-final completion).
d. Construction observation for Phase 2 – Sewer Pipeline, during active underground utility installation, requiring observation. Services are included through substantial and final completion of Phase 2. Construction observation is estimated at approximately 40 hour/week for 11 weeks of active underground utility construction requiring observation.
e. Construction observation for Phase 2 – Transportation, during active roadway construction, requiring observation. Services are included through substantial and final completion of Phase 2. Construction observation is estimated at approximately 40 hour/week for 10 weeks of active roadway construction requiring observation.
f. Construction observation for Phase 3 – Sewer Pipeline, during active underground utility installation, requiring observation. Services are included through substantial and final completion of Phase 3. Construction observation is estimated at approximately 40 hour/week for 5 weeks of active roadway construction requiring observation.
g. Construction observation for Phase 3 – Transportation, during active roadway construction, requiring observation. Services are included through substantial and final completion of Phase 3. Construction observation is estimated at approximately 40 hour/week for 4 weeks of active roadway construction requiring observation.
h. Construction observation for Phase 4 – Sewer Pipeline, during active underground utility installation, requiring observation. Services are included through substantial and final completion of Phase 4. Construction observation is estimated at approximately 40 hour/week for 4 weeks of active roadway construction requiring observation.
i. Construction observation for Phase 4 – Transportation, during active roadway construction, requiring observation. Services are included through substantial and final completion of Phase 4. Construction observation is estimated at approximately 20 hour/week for 4 weeks of active roadway construction requiring observation.
j. Additional observation time for potential night work and extended observation hours. Additional observation estimated at approximately 40 hrs/week for 4 weeks.

4. Subtask 040 – Subcon – Geotechnical Engineering
   a. Performance of sewer and reuse pipe quality assurance testing.
   b. Performance of roadway quality assurance testing.
5. Subtask 050 – Project Close Out
   a. Provide project management for 1 months of post-construction administration.
   b. Preparation of project utility and transportation record drawings, includes providing an electronic submission of Record Drawings in CAD or Shapefile format per City Standards.
   c. Establish and Place Parcel property Pin(s), file Record of Survey
   d. Archive the paper and electronic files from construction correspondence, submittals, and all other documents.
   e. Communication of project close-out tasks and documents to the CLIENT.
   f. Provide close-out of financial billing and accounting records.
6. Subtask 060 – Warranty Support
   a. Provide one-year warranty support, including: one-year walkthrough and punch list.
   b. Provide design engineering with project manager support.

B. **Task 200: Construction Staking**

1. Subtask 010 – Construction Staking
   a. Provide construction surveying (3 crew mobilizations, 8 hrs per mob, per phase) for Phase 1 Reuse Pipe Alignment.
   b. Provide construction surveying (4 crew mobilizations, 8 hrs per mob, per phase) for Phase 1 Roadway Alignment Grading.
   c. Provide construction surveying (3 crew mobilizations, 8 hrs per mob, per phase) for Phase 2 Reuse Pipe Alignment.

d. Provide construction surveying (4 crew mobilizations, 8 hrs per mob, per phase) for Phase 2 Roadway Alignment Grading.
e. Provide construction surveying (3 crew mobilizations, 8 hrs per mob, per phase) for Phase 3 Reuse Pipe Alignment.
f. Provide construction surveying (4 crew mobilizations, 8 hrs per mob, per phase) for Phase 3 Roadway Alignment Grading.
g. Provide construction surveying (3 crew mobilizations, 8 hrs per mob, per phase) for Phase 4 Reuse Pipe Alignment.
h. Provide construction surveying (4 crew mobilizations, 8 hrs per mob, per phase) for Phase 4 Roadway Alignment Grading.

C. **Task 300: Public Involvement**

1. Subtask 010 – Public Involvement
   a. Create a half-page flier per phase, informing of the construction location and duration of each phase.
   b. Distribute fliers to surrounding businesses and residents.
   c. Provide stakeholder database maintenance and City comments.
   d. Provide a public involvement summary per phase of the project.

PART 3 - CLIENT-PROVIDED WORK AND ADDITIONAL SERVICES

A. **CLIENT-Provided Work -** CLIENT is responsible for completing, or authorizing others to complete, all tasks not specifically included above in PART 2 that may be required for the project including, but not limited to:

1. None

B. **Additional Services** - CLIENT reserves the right to add future tasks for subsequent phases or related work to the scope of services upon mutual agreement of scope, additional fees, and schedule. These future tasks, to be added by amendment at a later date as Additional Services, may include:

1. None

PART 4 - BASIS OF FEE AND SCHEDULE OF SERVICES

A. CLIENT shall pay J-U-B for the identified Services in PART 2 as follows:

1. For Time and Materials fees:
   a. For all services performed on the project, Client shall pay J-U-B an amount equal to the cumulative hours charged to the Project by each class of J-U-B's personnel times J-U-B's standard billing rates.
   b. Client shall pay J-U-B for J-U-B's Consultants' charges times a multiplier of 1.1.
2. With Owner's Permission, J-U-B may alter the distribution of compensation between individual tasks to be consistent with services actually rendered while not exceeding the total project amount.

B. **Period of Services**

1. Amend Article 3.1 Basis of Compensation of the original agreement dated July 16, 2024 as follows:

   Article 3.1 Basis of Compensation - Add: Consultant will be paid at an hourly rate based on the rates listed in the budget section of the Attached Rate Table Exhibit of the contract amendment for Construction Phase Services dated April 21, 2026. Reimbursement to the Consultant, including reimbursable expenses, will not exceed $1,230,700 without a Contract Amendment approved in writing by both parties. Prices and rates shall remain firm for the duration of this Agreement unless formally amended or changed by Contract Amendment to the Agreement.

If the Term for the services described in attachment 1 of the Construction Phase Services Amendment is extended beyond (20) months from the date of execution, the parties will negotiate an equitable adjustment in compensation to the consultant for the remaining services. In the event the parties are unable to negotiate an equitable adjustment, the compensation for the remaining services will increase by 5%. The scope and fee for new work, out of scope work, or subsequent amendments would be negotiated upon initiation of Additional Services.

C. CLIENT acknowledges that J-U-B's schedule commitments outlined in Part 4 are subject to the standard of care and J-U-B will not be responsible for delays beyond our direct control.

D. The following table summarizes the fees and anticipated schedule for the services identified in PART 2.

Task Number	Task Name	Fee Type	Amount	Anticipated Schedule
100-010	Construction Phase Services Administration (Management)	Time and Materials (Estimated Amount Shown)	$84,100	Concurrent with work progress
100-020	Construction Management Services (CMS)	Time and Materials (Estimated Amount Shown)	$157,400	Concurrent with work progress
100-030	Observation Services	Time and Materials (Estimated Amount Shown)	$515,500	Concurrent with work progress
100-040	Subcon – Geotechnical Engineering - CMS	Time and Materials (Estimated Amount Shown)	$66,000	Concurrent with work progress
100-050	Project Close-Out	Time and Materials (Ceiling Amount Shown)	$46,200	At end of project
100-060	Warranty Support	Time and Materials (Estimated Amount Shown)	$28,600	After project close-out, extending one year.
200-010	Construction Staking	Time and Materials (Estimated Amount Shown)	$302,600	Concurrent with work progress
300-100	Public Involvement	Time and Materials (Estimated Amount Shown)	$30,300	Concurrent with work progress
		Total:	**$1,230,700.00**	

PART 5 - CERTIFICATIONS AND DELIVERABLES

A. Electronic deliverables provided to the CLIENT as part of the work described within this Attachment are subject to the provisions of J-U-B's “electronic document/data limited license” found at edocs.jub.com.

B. The Client understands and agrees that Artificial Intelligence (AI) may be used as a tool on the Project, including but not limited to meeting notes, graphics, document editing (along with AI features that are integral to design and other software). Results of AI and software applications will be reviewed and, if necessary, modified by J-U-B prior to submittal as a Deliverable.

Exhibit(s):

- Standard Exhibit A: Construction Phase Services
- Exhibit B: 2025 Rate Table

For internal J-U-B use only:

PROJECT LOCATION (STATE): Idaho

TYPE OF WORK: City

R&D: Yes or No

DISCIPLINE: Transportation

PROJECT DESCRIPTION(S)**:**

1. Traffic/Transportation (T03)
2. Sewer/Wastewater Collection/Disposal (S04)

J-U-B ENGINEERS, Inc.
AGREEMENT FOR PROFESSIONAL SERVICES

Standard Exhibit A – Construction Phase Services

The Agreement for Professional Services is amended and supplemented to include the following agreement of the parties with respect to Services during the construction phase of the Project.

For the purposes of this exhibit, 'Agreement for Professional Services' and 'the Agreement' shall refer to the document entitled 'Agreement for Professional Services,' executed between J-U-B and CLIENT to which this exhibit and any other exhibits have been attached.

For the purposes of this exhibit, the term 'Contract Documents,' shall be defined as documents that establish the rights and obligations of the parties engaged in construction and include the Construction Agreement between CLIENT and contractor, Addenda (which pertain to the Contract Documents), contractor's bid (including documentation accompanying the bid and any post-bid documentation submitted prior to the notice of award) when attached as an exhibit to the Construction Agreement, the notice to proceed, the bonds, appropriate certifications, the General Conditions, the Supplementary Conditions, the Specifications and the Drawings, together with all Written Amendments, Change Orders, Work Change Directives, Field Orders, and J-U-B's written interpretations and clarifications issued on or after the Effective Date of the Construction Agreement. Shop Drawings and the reports and drawings of subsurface and physical conditions are not Contract Documents.

For the purposes of this exhibit, the term 'Work,' shall be defined as the entire construction or the various separately identifiable parts thereof required to be provided by the construction contractor under the Contract Documents. Work includes and is the result of performing or providing all labor, services, and documentation necessary to produce such construction, and furnishing, installing, and incorporating all materials and equipment into such construction; all as required by the Contract Documents.

For the purposes of this exhibit, the term 'Site,' shall be defined as lands or areas indicated in the Contract Documents as being furnished by CLIENT upon which the Work is to be performed, including rights-of-way and easements for access thereto, and such other lands furnished by CLIENT which are designated for the use of contractor.

CONSTRUCTION PHASE SERVICES

J-U-B shall provide Construction Phase Services as agreed below. There is a "Yes" and "No" box to the left of each Service. If a box is marked "Yes", J-U-B agrees to perform the Service listed. If a box is marked "No", J-U-B undertakes no duty to perform the Service listed. If a duty or a condition of performance is listed below that is a responsibility of CLIENT, CLIENT's agreement to perform the same is assumed.

It is understood and agreed that J-U-B shall not, during the performance of Services, or as a result of observations of the Work in progress, supervise, direct, or have control over contractor(s) Work; nor shall J-U-B have authority over or responsibility for the means, methods, techniques, sequences or procedures of construction selected by contractor(s), for safety precautions and programs incident to the Work of the contractor(s) or for any failure of contractor(s) to comply with laws, rules, regulations, ordinances, codes or orders applicable to contractor(s) furnishing and performing their Work or providing any health and safety precautions required by any regulatory agencies. Accordingly, J-U-B does not guarantee or warrant the performance of the construction contracts by contractor(s) nor assume responsibility of contractor(s) failure to furnish and perform their Work in accordance with the Contract Documents.

The CLIENT agrees that the general contractor shall be solely responsible for jobsite safety, and warrants that this intent shall be carried out in the CLIENT's contract with the general contractor. The CLIENT also agrees that the CLIENT, J-U-B and J-U-B's subconsultants shall be indemnified by the general contractor in the event of general contractor's failure to assure jobsite safety and shall be named as additional insureds under the general contractor's policies of general liability insurance.

Construction Phase

After receiving written authorization from CLIENT to proceed with the construction phase, J-U-B may provide the following Services with respect to this part of the Project:

☒ Yes
☐ No

1. *General Administration of the Contract Documents.* Consult with, advise, and assist CLIENT in J-U-B's role as CLIENT's representative. Relevant J-U-B communications with contractor shall be imputed to the CLIENT. Nothing contained in this Standard Exhibit A creates a duty in contract, tort, or otherwise to any third party; but, instead, the duties defined herein are performed solely for the benefit of the CLIENT. CLIENT shall agree to include this language in any such agreements it executes with contractor, subcontractors or suppliers.

☒ Yes
☐ No

2. *Pre-Construction Conference.* Participate in a pre-construction conference.

3. *Visits to Site and Observation of Construction / Resident Project Representative (RPR) Services.* In connection with observations of the Work while it is in progress:

☒ Yes ☐ No

a. Periodic Site Visits by J-U-B. Make visits to the Site at intervals appropriate to the various stages of construction, as J-U-B deems necessary, to observe as an experienced and qualified design professional the progress and quality of the Work. Such visits and observations, if any, are not intended to be exhaustive or to extend to every aspect of the Work or to involve detailed inspections of the Work beyond the responsibilities specifically assigned to J-U-B in this Agreement, but rather are to be limited to spot checking, coordination of selective sampling done by others, and similar methods of general observation of the Work based on J-U-B's exercise of professional judgment as assisted by the RPR, if any. Based on information obtained during such visits and observations, J-U-B will determine in general, for the benefit of CLIENT, if the Work is proceeding in accordance with the Contract Documents, and J-U-B shall keep CLIENT informed of the progress of the Work.

☒ Yes ☐ No

b. Resident Project Representative ("RPR"). When requested by CLIENT, provide the Services of a RPR at the Site to provide more extensive observation of the Work. Duties, responsibilities, and authority of the RPR, are as set forth in the section entitled Resident Project Representative, herein. Through more extensive observations of the Work and field checks of materials and equipment by RPR, J-U-B shall endeavor to provide further protection to the CLIENT against defects and deficiencies in the Work. The furnishing of such RPR's Services will not extend J-U-B's responsibilities or authority beyond the specific limits set forth elsewhere in this Agreement.

☒ Yes ☐ No

4. *Defective Work.* Recommend to CLIENT that the Work be disapproved and rejected while it is in progress if J-U-B believes that such Work does not conform generally to the Contract Documents or that the Work will prejudice the integrity of the design concept of the completed Project as a functioning whole as indicated in the Contract Documents.

☒ Yes ☐ No

5. *Clarifications and Interpretations; Field Orders.* Recommend to CLIENT necessary clarifications and interpretations of the Contract Documents as appropriate to the orderly completion of the Work. Such clarifications and interpretations will be consistent with the intent of and reasonably inferable from the Contract Documents. Based on J-U-B's recommendations, CLIENT may issue Field Orders authorizing minor variations from the requirements of the Contract Documents.

☒ Yes ☐ No

6. *Change Orders, and Work Change Directives.* Recommend to CLIENT Change Orders or Work Change Directives, as appropriate, and prepare required documents for CLIENT consideration. CLIENT may issue Change Orders or Work Change Directives authorizing variations from the requirements of the Contract Documents.

☒ Yes ☐ No

7. *Shop Drawings and Samples.* Review or take other appropriate action in respect to Shop Drawings, Samples, and other data that contractor is required to submit, but only for conformance with the design concept of the Project and compliance with the information given in the Contract Documents. Such reviews or other action shall not extend to means, methods, techniques, sequences, or procedures of construction or to safety precautions and programs incident thereto.

☒ Yes ☐ No

8. *Substitutes.* Consult with and advise CLIENT concerning, and determine the acceptability of, substitute materials and equipment proposed by contractor.

☒ Yes ☐ No

9. *Inspections and Tests.* Make recommendations to CLIENT concerning special inspections or tests of the Work, and the receipt and review of certificates of inspections, testing, and approvals required by laws and regulations and the Contract Documents (but only to determine generally that the results certified indicate compliance with the Contract Documents).

☒ Yes
☐ No

10. *Disagreements between CLIENT and Contractor.* Assist CLIENT in rendering formal written decisions on claims of CLIENT and contractor relating to the acceptability of the Work or the interpretation of the requirements of the Contract Documents pertaining to the execution and progress of the Work. In assisting in such decisions, J-U-B shall not be liable in connection with any decision rendered in good faith.

☒ Yes
☐ No

11. *Applications for Payment.* Based on J-U-B's on-site observations as an experienced and qualified design professional, and upon written request of CLIENT, review Applications for Payment and the accompanying supporting documentation. Assist CLIENT in determining the amounts owed to contractor and, if requested by CLIENT, recommend in writing to CLIENT that payments be made to contractor in such amounts. Such recommendations of payment will constitute a representation to CLIENT that, to the best of J-U-B's knowledge, information, and belief, the Work has progressed to the point indicated, the quality of such Work is generally in accordance with the Contract Documents (subject to an evaluation of the Work as a functioning whole prior to or upon Substantial Completion, and subject to any subsequent tests called for in the Contract Documents or to any other qualification stated in the recommendation), and the conditions precedent to contractor's being entitled to such payments appear to have been fulfilled insofar as it is J-U-B's responsibility to observe the Work. In the case of unit price Work, J-U-B's recommendation of payment will include final determinations of quantities and classifications of the Work (subject to any subsequent adjustments allowed by the Contract Documents). By recommending any payment and after reasonable inquiry, J-U-B shall not thereby be deemed to have represented that exhaustive, continuous, or detailed reviews or examinations have been made by J-U-B to check the quality or quantity of the Work as it is furnished and provided beyond the responsibilities specifically assigned to J-U-B in this Agreement and the Contract Documents. J-U-B's review of the Work for the purposes of recommending payments will not impose on J-U-B the responsibility to supervise, direct, or control such Work, or for the means, methods, techniques, sequences, or procedures of construction or safety precautions or programs incident thereto, or contractor's compliance with laws and regulations applicable to its furnishing and performing the Work. J-U-B's review will also not impose responsibility on J-U-B to make any examination to ascertain how or for what purposes contractor has used monies paid to contractor by CLIENT; to determine that title to any of the Work, including materials or equipment, has passed to CLIENT free and clear of any lien, claims, security interests, or encumbrances; or that there may not be other matters at issue between CLIENT and contractor that might affect the amount that should be paid.

☒ Yes
☐ No

12. *Contractor's Completion Documents.* Receive and review maintenance and operating instructions, schedules, guarantees, bonds and certificates of inspection, tests and approvals, Shop Drawings, Samples, other data approved, and the annotated record documents which are to be assembled by contractor in accordance with the Contract Documents (such review will only be to determine generally that their content complies with the requirements of, and in the case of certificates of inspection, tests, or approvals indicates compliance with, such Contract Documents); transmit them to CLIENT with written comments.

☒ Yes
☐ No

13. *Substantial Completion.* Promptly after notice from CLIENT that contractor considers the Work for this part of the Project is ready for its intended use, in company with CLIENT and contractor, conduct a site visit to determine if the Work is substantially complete. Provide recommendation to CLIENT relative to issuance of Certificate of Substantial Completion.

☒ Yes
☐ No

14. *Final Notice of Acceptability of the Work.* Assist CLIENT in conducting a final inspection to determine if the completed Work is acceptable so that J-U-B may recommend, in writing, that final payment be made to contractor.

☒ Yes
☐ No

15. *Additional Tasks.* Perform or provide the following additional construction phase tasks or deliverables as delineated in Attachment 1 – Scope of Services and/or Schedule and/or Basis of Fee, which is included with the Agreement.

General Limitation of Responsibilities. J-U-B shall not be responsible for the acts or omissions of any contractor or of any of their subcontractors, suppliers, or any other individual or entity performing or furnishing any of the Work. J-U-B shall not be responsible for failure of any contractor to perform or furnish the Work in accordance with the Contract Documents. CLIENT shall agree to include this language in any such agreements it executes with contractor, subcontractors or suppliers.

J-U-B's Construction Phase Services will be considered complete on the date of Final Notice of Acceptability of the Work.

Post-Construction Phase

After receiving authorization from CLIENT to proceed with the post-construction phase, J-U-B may:

☐ Yes
☒ No

1. *Testing/Adjusting Systems.* Provide assistance in connection with the testing and adjusting of equipment or systems.

☐ Yes
☒ No

2. *Operate/Maintain Systems.* Assist CLIENT in coordinating training for CLIENT's staff to operate and maintain equipment and systems.

☐ Yes
☒ No

3. *Control Procedures.* Assist CLIENT in developing procedures for control of the operation and maintenance of, and recordkeeping for, equipment and systems.

☐ Yes
☒ No

4. *O&M Manual.* Assist CLIENT in preparing operating, maintenance, and staffing manuals.

☐ Yes
☒ No

5. *Defective Work.* Together with CLIENT, visit the Project to observe any apparent defects in the Work, assist CLIENT in consultations and discussions with contractor concerning correction of any such defects, and make recommendations as to replacement or correction of Defective Work, if present.

☐ Yes
☒ No

6. *Record Surveying.* Provide field surveying of readily accessible elements of the final completed construction to supplement the preparation of Record Drawings.

☒ Yes
☐ No

7. *Record Drawings.* Furnish a set of reproducible prints of Record Drawings showing significant changes made during the construction process, based on the annotated record documents for the Project furnished by the contractor.

☒ Yes
☐ No

8. *Warrantee Inspection.* In company with CLIENT or CLIENT's representative, provide an inspection of the Project within one month before the end of the contractor correction period to ascertain whether any portion of the Work is subject to correction.

☐ Yes
☒ No

9. *Additional Tasks.* Perform or provide the following additional post-construction phase tasks or deliverables as listed in Attachment 1 - Scope of Services and/or Schedule and/or Basis of Fee, which is included with the Agreement.

The Post-Construction Phase Services may commence during the construction phase and, if not otherwise modified by the mutual agreement of CLIENT and J-U-B, will terminate at the end of the correction period.

CONSTRUCTION PHASE ADDITIONAL SERVICES

If authorized by CLIENT and expressly agreed by J-U-B; or, if performed by J-U-B with the knowledge of the CLIENT after the signing of the Agreement for Professional Services, J-U-B shall furnish or obtain from others Additional Services of the types listed in this paragraph:

1. Services in connection with Work Change Directives and Change Orders to reflect changes requested by CLIENT if the resulting change in compensation for Construction Phase Services is not commensurate with the Services rendered; Services in making revisions to Drawings and Specifications occasioned by the acceptance of substitutions proposed by contractor and Services after the award of the contract; Services in evaluating and determining the acceptability of an unreasonable or excessive number of substitutions proposed by contractor; and Services resulting from significant delays, changes, or price increases occurring as a direct or indirect result of material equipment, or energy shortages.

2. Services involving out-of-town travel required of J-U-B other than visits to the Site or CLIENT's office.

3. Assistance in connection with bid protests, rebidding, or renegotiating the Construction Agreement.

4. Services in connection with any partial utilization of the Work by CLIENT prior to Substantial Completion.

5. Additional or extended Services during construction of the Work made necessary by (a) emergencies or acts of God endangering or delaying the Work, (b) the discovery of constituents of concern, (c) Work damaged by fire or other cause during construction, (d) a significant amount of defective Work, (e) acceleration of the progress schedule involving Services beyond normal working hours, and (f) default by contractor, including extensions of the construction period.

6. Evaluating an unreasonable number of claims submitted by contractor or others in connection with the Work.

7. Protracted or extensive assistance in refining and adjusting any equipment or system (such as initial startup, testing, adjusting, and balancing).

8. Services or consultations after completion of the construction phase, such as excessive inspections during any correction period and reporting observed discrepancies under guarantees called for in the Construction Agreement for the Work (except as agreed to under Construction Phase Services).

9. Preparing to serve or serving as a consultant or witness for CLIENT in any litigation, arbitration, or other legal or administrative proceeding involving the Project to which J-U-B has not been made a party.

10. Additional Services in connection with the Work, including Services which are to be furnished by CLIENT and Services not otherwise provided for in this Agreement.

RESIDENT PROJECT REPRESENTATIVE

If provided as part of Construction Phase Services, J-U-B shall furnish a Resident Project Representative ("RPR"), assistants, and other field staff to assist J-U-B in observing progress and quality of the Work. The RPR, assistants, and other field staff will provide full-time representation or, if specifically directed by the CLIENT, may provide representation to a lesser degree. RPR is J-U-B's Project Engineer (J-U-B PE) or J-U-B Project Manager (J-U-B PM) representative at the Site, will act as directed by and under the supervision of J-U-B PE or J-U-B PM, and will confer with J-U-B PE or J-U-B PM regarding RPR's actions. The J-U-B PE or J-U-B PM will serve as the official liaison with the CLIENT and the contractor. .

Through such additional observations of the Work and field checks of materials and equipment by the RPR and assistants, J-U-B shall endeavor to identify defects and deficiencies in the Work. It is understood and agreed that J-U-B shall not, during the performance of Services, or as a result of observations of the Work in progress, supervise, direct, or have control over contractor(s)' Work; nor shall J-U-B have authority over or responsibility for the means, methods, techniques, sequences or procedures of construction selected by contractor(s), for safety precautions and programs incident to the Work of the contractor(s) or for any failure of contractor(s) to comply with laws, rules, regulations, ordinances, codes or orders applicable to contractor(s) furnishing and performing their Work or providing any health and safety precautions required by any regulatory agencies. Accordingly, J-U-B does not guarantee or warrant the performance of the construction contracts by contractor(s) nor assume responsibility of contractor(s)' failure to furnish and perform their Work in accordance with the Contract Documents.

The RPR's duties under this Agreement shall be strictly limited to the following:

1. *General.* RPR is J-U-B's agent at the Site, will act as directed by and under the supervision of J-U-B, and will confer with J-U-B regarding RPR's actions.

2. *Schedules.* Review the progress schedule, schedule of Shop Drawing and Sample submittals, and schedule of values prepared by contractor and consult with the J-U-B PE or PM, who will communicate with the CLIENT concerning acceptability of such schedules.

3. *Conferences and Meetings.* Attend meetings with the J-U-B PE or J-U-B PM and contractor, such as preconstruction conferences, progress meetings, job conferences, and other project-related meetings (but not including Contractor's safety meetings).

4. Safety Compliance: Comply with Site safety programs, as they apply to RPR, and if required to do so by such safety programs, receive safety training specifically related to RPR's own personal safety while at the Site.

5. Liaison

   a) Serve as J-U-B PE or J-U-B PM's liaison with Contractor. Working principally through Contractor's authorized representative or designee, assist in providing information regarding the provisions and intent of the Construction Contract Documents.

   b) Assist J-U-B PE or J-U-B PM in serving as CLIENT's liaison with Contractor when Contractor's operations affect CLIENT's on-Site operations.

   c) Assist in obtaining from CLIENT additional details or information, when required for proper execution of the Work.

6. *Interpretation of Contract Documents.* Report to J-U-B PE or J-U-B PM when clarifications and interpretations of the *Contract Documents are needed.*

7. *Shop Drawings and Samples.* Receive and record date of receipt of reviewed Samples and Shop Drawings.

8. *Modifications.* Assist the J-U-B PE or J-U-B PM in the evaluation of contractor's suggestions for modifications to Drawings or Specifications and report to CLIENT. Transmittal to contractor of written decisions as issued by J-U-B will be in writing.

9. *Review of Work and Rejection of Defective Work.*

   a) Conduct on-site observations of the Work to assist J-U-B in determining if the Work is, in general, proceeding in accordance with the Contract Documents.

   b) Report to J-U-B PE or J-U-B PM whenever RPR believes that any part of the Work in progress will not produce a completed Project that conforms generally to the Contract Documents or will prejudice the integrity of the design concept of the completed Project as a functioning whole as indicated in the Contract Documents; has been damaged; or does not meet the requirements of any inspection, test, or approval required to be made. The J-U-B PE or J-U-B PM will then advise CLIENT of that part of the Work that J-U-B believes should be corrected, rejected, or uncovered for observation, or that requires special testing, inspection, or approval.

10. *Inspections, Tests, and System Startups.*

    a) Advise J-U-B PE or J-U-B PM in advance of scheduled major inspections, tests, and system start-ups for important phases of the Work.

    b) Verify that tests, equipment, and system start-ups and operating and maintenance training is conducted in the presence of appropriate personnel (as determined by the CLIENT) and that contractor maintain adequate records thereof.

    c) Observe, record, and report to J-U-B PE or J-U-B PM appropriate details relative to the test procedures and system start-ups.

    d) Accompany visiting inspectors representing public or other agencies having jurisdiction over the Work, record the results of these inspections, and report to J-U-B PE or J-U-B PM.

    Nothing in this Agreement will be construed to require RPR to conduct inspections

11. *Records.*

    a) Maintain orderly files for correspondence, reports of job conferences, reproductions of original Contract Documents including all Change Orders, Field Orders, Work Change Directives, Addenda, additional Drawings issued subsequent to the execution of the Contract, J-U-B's clarifications and interpretations of the Contract Documents, progress reports, Shop Drawing and Sample submittals, and other Project-related documents.

    b) When on site, prepare a daily report or keep a diary or log book, generally documenting contractor's and subcontractors' hours on the Site, weather conditions, data relative to questions of Change Orders, Field Orders, Work Change Directives, or changed conditions, Site visitors, daily activities, decisions, observations in general, and specific observations in more detail as in the case of observing test procedures; furnish copies of such records to J-U-B PE or J-U-B PM.

c) Obtain from the contractor an accurate, up-to-date lists of the names, addresses, e-mail addresses, and telephone numbers of all contractors, subcontractors, and major suppliers of materials and equipment.

d) Maintain records for use in preparing documentation of the Work.

e) Upon completion of the Work with respect to the Project, furnish a complete set of all RPR Project documentation to designated recipients.

12. *Reports.*

a) Furnish to J-U-B PE or J-U-B PM periodic reports as required of progress of the Work and of contractor's compliance with the progress schedule and schedule of Shop Drawing and Sample submittals.

b) Present to J-U-B PE or J-U-B PM proposed Change Orders, Work Change Directives, and Field Orders.

c) Furnish to J-U-B PE or J-U-B PM copies of all inspection, test, and system startup reports.

d) Report immediately to J-U-B PE, J-U-B PM, and CLIENT the occurrence of any Site accidents, emergencies, natural catastrophes endangering the Work, possible force majeure or delay events, property damaged by fire or other causes, and the discovery or presence of any constituents of concern.

13. *Payment Request:* Review Applications for Payment with contractor for compliance with the established procedure for their submission and forward with recommendations to J-U-B PE OR J-U-B PM, noting particularly the relationship of the payment requested to the schedule of values, Work completed, and materials and equipment delivered at the Site, but not incorporated in the Work.

14. *Certificates, Operation and Maintenance Manuals.* During the course of the Work, obtain and collate materials and equipment certificates, operation and maintenance manuals, and other data required by the Contract Documents to be assembled and furnished by contractor are applicable to the items actually installed and in accordance with the Contract Documents, and have these documents delivered to J-U-B PE or J-U-B PM for review.

15. *Completion.*

a) Participate in J-U-B PE or PM's visits to the Site regarding Substantial Completion, assist in the determination of Substantial Completion, and prior to the issuance of a Certificate of Substantial Completion submit a punch list of observed items requiring completion or correction.

b) Participate in J-U-B PE or PM's visit to the Site in the company of CLIENT and Contractor, to determine completion of the Work, and prepare a final punch list of items to be completed or corrected by Contractor.

Observe whether all items on the final punch list have been completed or corrected, and make recommendations to J-U-B PE or PM concerning acceptance and issuance of the Notice of Acceptability of the Work

The RPR shall not:

1. Authorize any deviation from the Contract Documents or substitution of materials or equipment (including "or-equal" items).

2. Exceed limitations of J-U-B's authority as set forth in the Agreement for Professional Services.

3. Undertake any of the responsibilities of contractor, subcontractors, suppliers, or contractor's superintendent.

4. Advise on, issue directions relative to, or assume control over any aspect of the means, methods, techniques, sequences, or procedures of construction or of the Work, unless such advice or directions are specifically required by the Contract Documents.

5. Advise on, issue directions regarding, or assume control over safety practices, precautions, and programs in connection with the activities or operations of CLIENT or contractor.

6. Participate in specialized field or laboratory tests or inspections conducted by others, except as specifically authorized by J-U-B PE or J-U-B PM.

7. Accept Shop Drawing or Sample submittals from anyone other than J-U-B.

8.. Authorize CLIENT to occupy the Work in whole or in part.

CLIENT'S RESPONSIBILITIES

Except as otherwise provided herein or in the Agreement for Professional Services, CLIENT shall do the following in a timely manner so as not to delay the Services of J-U-B and shall bear all costs incident thereto:

1. Provide, as may be required for the Project, such legal services as CLIENT may require or J-U-B may reasonably request with regard to legal issues pertaining to the Project, including any that may be raised by contractor.

2. Attend the pre-bid conference, bid opening, pre-construction conferences, construction progress and other job-related meetings and Substantial Completion, final payment, and other inspections.

3. Give prompt written notice to J-U-B whenever CLIENT observes or otherwise becomes aware of any development that affects the scope or time of performance or furnishing of J-U-B's Services, or any defect or nonconformance in J-U-B's Services or in the Work of any contractor.

4. Render all final decisions related to: 1) changes or modifications to the terms of the construction contract, 2) acceptability of the Work, and 3) claims or Work stoppages.

5. Unless included in J-U-B Scope of Services, provide construction staking and materials testing services for the project.

The Client agrees to require all contractors of any tier to carry statutory Workers Compensation, Employers Liability Insurance and appropriate limits of Commercial General Liability Insurance (CGL). The Client further agrees to require all contractors to have their CGL policies endorsed to name the Client, the Consultant and its sub-consultants as Additional insureds, on a primary and noncontributory basis, and to provide Contractual Liability coverage sufficient to insure the hold harmless and indemnity obligations assumed by the contractors. The Client shall require all contractors to furnish to the Client and the Consultant certificates of insurance as evidence of the required insurance prior to commencing work and upon renewal of each policy during the entire period of construction. In addition, the Client shall require that all contractors will, to the fullest extent permitted by law, indemnify and hold harmless the Client, the Consultant and its sub consultants from and against any damages, liabilities or costs, including reasonable attorneys' fees and defense costs, arising out of or in any way connected with the Project, including all claims by employees of the contractors.

EXHIBIT B

J-U-B ENGINEERS, Inc. ▪ 2025 Rate Table

CONFIDENTIAL

Billing Code	Labor Category	Hourly Rate	Billing Code	Labor Category	Hourly Rate
100	Administrative Support	$58	274	Construction Manager - Senior	$229
102	Administrative Assistant	$66	276	Construction Manager - Discipline Lead	$248
103	Administrative Assistant - Lead	$80	300	Planning Technician	$117
104	Administrative Assistant - Senior	$91	302	Planner	$156
110	Project Accountant	$98	304	Planner - Lead	$180
112	Project Accountant - Lead	$114	306	Planner - Senior	$220
114	Project Accountant - Senior	$129	308	Planner - Discipline Lead	$241
120	Communication Specialist - 1	$91	310	Environmental Scientist - Assistant	$108
121	Communication Specialist - 2	$101	312	Environmental Scientist	$156
122	Communication Specialist - 3	$110	314	Environmental Specialist - Lead	$183
124	Communication Specialist - Lead	$124	316	Environmental Specialist - Senior	$226
126	Communication Specialist - Senior	$137	318	Environmental Specialist - Discipline Lead	$238
128	Communication Specialist - Discipline Lead	$143	320	TLG Assistant	$108
200	Survey Technician	$102	322	TLG Practitioner	$148
202	Survey Technician - Lead	$135	324	TLG Practitioner - Lead	$178
204	Survey Technician - Senior	$160	326	TLG Practitioner - Senior	$223
210	Assistant Surveyor	$129	328	TLG Discipline Lead	$247
212	Assistant Surveyor - Lead	$147	329	TLG Discipline Lead Senior	$275
214	Professional Land Surveyor	$178	330	GIS Technician	$110
216	PLS - Lead	$197	332	GIS Analyst	$134
218	PLS - Senior	$224	334	GIS Dev. Analyst	$145
220	PLS - Discipline Lead	$241	336	GIS Analyst - Senior	$195
228	Assistant Designer	$91	338	GIS Dev. Analyst - Senior	$195
230	CAD Technician - Drafter	$116	340	GIS Discipline Lead	$230
232	CAD Technician - Designer	$139	350	Landscape Designer	$115
234	CAD Designer - Lead	$163	352	Landscape Architect	$148
236	CAD Designer - Senior	$176	354	Landscape Architect - Lead	$166
240	Project Designer	$144	356	Landscape Architect - Senior	$198
242	Project Designer - Lead	$165	358	Landscape Architect - Discipline Lead	$220
244	Project Engineer I	$184	400	Assistant Project Manager	$224
245	Project Engineer II	$202	402	Project Manager	$230
246	Project Engineer - Lead	$214	404	Program Manager	$251
248	Project Engineer - Senior	$244	406	Program Manager - Lead	$265
250	Project Engineer - Discipline Lead	$258	408	Program Manager - Senior	$281
252	Project Engineer - Discipline Lead - Senior	$275	410	Principal (Alternative Category, AM/Officer)	$300
260	Construction Observer	$137			
262	Construction Observer - Lead	$152			
264	Construction Observer - Senior	$180			
270	Construction Management Assistant	$149			
272	Construction Manager	$202			

1) Rates subject to change on a yearly basis.

2) GPS, mileage, per diem, and other direct costs will be specified in Project Scopes of Work and budgets. No direct costs will be charged without Client approval.

3) A 10 percent markup will be applied to Subconsultant fees.

CITY OF POST FALLS
AGENDA REPORT
NEW BUSINESS
MEETING DATE: 4/21/2026

TO: HONORABLE MAYOR AND CITY COUNCIL

FROM: Jason Faulkner, Finance Director, Chris Gabbert, Deputy City Attorney

SUBJECT: Solid Waste Temporary Projects Ordinance Update

ITEM AND RECOMMENDED ACTION:
Staff recommends that the City Council review the proposed ordinance amending Chapter 13.32 of the Post Falls Municipal Code to define “Temporary Project” and allow limited exemptions from municipal franchise requirements for solid waste collection services associated with such projects. Council should provide direction to return the final ordinance for adoption with any changes that the council may request.

DISCUSSION:

The City currently regulates solid waste collection through franchise agreements. These agreements ensure consistent service, public health protections, and system reliability. However, recent changes in state law exclude certain temporary or project-specific waste collection activities from franchise requirements and direct local jurisdictions to define these activities.

The proposed ordinance establishes a definition for “Temporary Project” as an activity lasting 90 days or less that generates refuse requiring containerized collection. This provides clarity for both residents and service providers.

The final ordinance will be brought back to the next available council meeting for adoption.

ITEM / PROJECT PREVIOUSLY REVIEWED BY COUNCIL ON:
This item has not been previously reviewed by council.

APPROVED OR DIRECTION GIVEN:
N/A

FISCAL IMPACT OR OTHER SOURCE OF FUNDING:
N/A

BUDGET CODE:
N/A

ATTACHMENTS:
1. Temporary Project Ordinance

ORDINANCE NO. [Category]

AN ORDINANCE OF THE CITY OF POST FALLS, KOOTENAI COUNTY, A MUNICIPAL CORPORATION OF THE STATE OF IDAHO, PROVIDING FOR AMENDMENT OF POST FALLS MUNICIPAL CODE CHAPTER 13.32 SOLID WASTE COLLECTION AND DISPOSAL BY ADDING A DEFINITION FOR TEMPORARY PROJECTS; PROVIDING FOR EXEMPTIONS FROM MUNICIPAL FRANCHISE REQUIREMENTS; PROVIDING THAT REMAINING SECTIONS OF POST FALLS CITY CODE SHALL REMAIN IN EFFECT; PROVIDING FOR SEVERABILITY; PROVIDING FOR THIS ORDINANCE TO BE IN FULL FORCE AND EFFECT FROM AND AFTER ITS PASSAGE, APPROVAL, AND PUBLICATION ACCORDING TO LAW

WHEREAS, the City of Post Falls regulates the provision of solid waste disposal services in its jurisdiction and contracts for such services through the grant of a franchise agreement; and

WHEREAS, the Idaho legislature has amended law to exclude temporary and project-specific solid wate disposal services from the requirements of local franchise agreements and has directed local jurisdictions to define such services; and

WHEREAS, after the recommendation of the Finance Department, it is deemed by the Mayor and City Council to be in the best interests of the citizens of the City of Post Falls that the following be adopted.

NOW, THEREFORE, BE IT ORDAINED by the Mayor and Council of the City of Post Falls as follows:

SECTION 1. That Post Falls Municipal Code Chapter 13.32.010 is amended to add the following definition in appropriate alphabetical order:

Temporary Project means an activity, ninety (90) days or less in duration that generates refuse and that necessitates use of a container for collection and removal of such materials

SECTION 2. That a new Section 13.32.025, entitled TEMPORARY PROJECTS is added to the Post Falls Municipal Code as follows:

13.32.025. – Temporary Projects.

A person may contract with a refuse collection provider of their choosing for collection services on a *temporary project*, notwithstanding city franchise agreements. This provision is limited to one *temporary project* per property per calendar year.

SECTION 3. All provisions of the current Post Falls Municipal Code or ordinances of the City of Post Falls and parts of ordinances in conflict with this Ordinance are hereby repealed to the extent of such conflict.

SECTION 4. Neither the adoption of this Ordinance nor the repeal of any ordinance shall, in any manner, affect the prosecution for violation of such ordinance committed before the effective date of this Ordinance or be construed as a waiver of any license or penalty due under any such ordinance or in any manner affect the validity of any action previously taken by the City of Post Falls City Council or the validity of any such action to be taken upon matters pending before the City Council on the effective date of this ordinance.

SECTION 5. The city clerk shall cause the Post Falls Municipal Code to be amended as provided by this Ordinance and may renumber, re-letter, and rearrange the codified parts of this Ordinance if necessary to facilitate the finding of the law.

SECTION 6. The city attorney may correct scrivener's errors in this Ordinance by filing a corrected copy with the city clerk.

SECTION 7. The provisions of this Ordinance are severable, and if any provision, clause, sentence, subsection, word, or part thereof is held illegal, invalid, unconstitutional, or inapplicable to any person or circumstance, such illegality, invalidity, unconstitutionality, or inapplicability shall not affect or impair any of the remaining provisions, clauses, sentences, subsections, words or parts of this Ordinance or their application to other persons or circumstances. It is hereby declared to be the legislative intent that this Ordinance would have been adopted if such illegal, invalid, or unconstitutional provision, clause sentence, subsection, word, or part had not been

DRAFT

included therein, and if such person or circumstance to which the Ordinance or part thereof is held inapplicable had been specifically exempt therefrom.

SECTION 8. After its passage and adoption, a summary of this Ordinance, under the provisions of the Idaho Code, shall be published once in the official newspaper of the City of Post Falls, and upon such publication shall be in full force and effect.

Passed under suspension of rules upon which a roll call vote was duly taken and duly enacted an Ordinance of the City of Post Falls at a regular session of the City Council on April ___ 2026.

APPROVED, ADOPTED, and SIGNED this day of April, 2026.

_____
Randy Westlund, Mayor

ATTEST:

_____
Shannon Howard, City Clerk

DRAFT

SUMMARY OF POST FALLS ORDINANCE NO. [Category]

AN ORDINANCE OF THE CITY OF POST FALLS, KOOTENAI COUNTY, A MUNICIPAL CORPORATION OF THE STATE OF IDAHO, PROVIDING FOR AMENDMENT OF POST FALLS MUNICIPAL CODE CHAPTER 13.32 SOLID WASTE COLLECTION AND DISPOSAL BY ADDING A DEFINITION FOR TEMPORARY PROJECTS; PROVIDING FOR EXEMPTIONS FROM MUNICIPAL FRANCHISE REQUIREMENTS; PROVIDING THAT REMAINING SECTIONS OF POST FALLS CITY CODE SHALL REMAIN IN EFFECT; PROVIDING FOR SEVERABILITY; PROVIDING FOR THIS ORDINANCE TO BE IN FULL FORCE AND EFFECT FROM AND AFTER ITS PASSAGE, APPROVAL, AND PUBLICATION ACCORDING TO LAW

The City of Post Falls, Kootenai County, Idaho, hereby gives notice of the adoption of Post Falls Ordinance No. [Category], which adds an exclusion for temporary projects to municipal franchise requirements for solid waste collections; providing repeal of conflicting ordinances and providing severability. The ordinance is effective upon publication of this summary. The full text of Ordinance No. [Category] is available at Post Falls City Hall, 408 N. Spokane Street, Post Falls, ID 83854, in the office of the City Clerk. Dated this ____ day of April, 2026.

_____/s/_____

Shannon Howard, City Clerk

DRAFT

STATEMENT OF LEGAL ADVISOR

I, Field K. Herrington, the legal advisor for the City of Post Falls, I have examined the attached summary of Ordinance No. [Category], which adds an exclusion for temporary projects to municipal franchise requirements for solid waste collections, and find it to be a true and complete summary of said ordinance and provides adequate notice of the contents to the public.

Dated this ____ day of April, 2026.

_____

Field K. Herrington, City Attorney

DRAFT

CITY OF POST FALLS
AGENDA REPORT
NEW BUSINESS
MEETING DATE: 4/21/2026

TO: HONORABLE MAYOR AND CITY COUNCIL

FROM: Kris Ammerman, Parks and Recreation Director

SUBJECT: Community Garden MOU with Post Falls Food Bank

ITEM AND RECOMMENDED ACTION:
Staff recommends the approval and execution of the MOU with the Post Falls Food Bank to partner with the City of Post Falls at the Rick Noordam Community Garden.

DISCUSSION:
The City of Post Falls Parks and Recreation Department provides an opportunity for residents to garden in a city park at the Rick Noordam Community Garden. This location has been developed over the past several years utilizing a variety of funding sources, including donations from non-profit organizations, Park Development Impact Fees, General Fund Expenditures and substantial volunteer-led efforts.

One of the legacy volunteer efforts was lead by the late Mark Jones, who worked with young people enrolled in the Post Falls School District to provide freshly grown produce to the Post Falls Foodbank in various places throughout the community, including the Community Garden. Following his death, there has been a need to identify an appropriate partner to continue this legacy. The Post Falls Food Bank has capable and willing volunteers excited to fulfill this role and City staff presents the attached agreement with a recommendation to accept and approve. Staff will be available to answer any questions you may have or receive direction from the Mayor and Council.

ITEM / PROJECT PREVIOUSLY REVIEWED BY COUNCIL ON:
N/A

APPROVED OR DIRECTION GIVEN:
N/A

FISCAL IMPACT OR OTHER SOURCE OF FUNDING:
N/A

BUDGET CODE:
N/A

ATTACHMENTS:
1. MOUCommunityGarden_3rdAveMarket

MEMORANDUM OF UNDERSTANDING
BETWEEN
CITY OF POST FALLS AND
POST FALLS FOOD BANK
FOR
COMMUNITY GARDEN USE

I. PURPOSE:

This Memorandum of Understanding is between the City of Post Falls ("City") and the 3rd Avenue Marketplace, Post Falls Food Bank ("3rd Avenue Market"), and is intended to document the parties' understanding of, and agreement to cooperate on use of growing spaces at the Rick Noordam Community Garden.

II. RECITALS:

WHEREAS, City is a municipal corporation organized and existing under the laws of the State of Idaho; and

WHEREAS, 3rd Avenue Market is an non-profit organization that provides resources to community members experiencing food insecurity; and

WHEREAS, City has designated growing spaces used for recreational gardening and food production; and

WHEREAS, City and 3rd Avenue Market have worked together to make productive use of unreserved growing spaces at the Rick Noordam Community Garden ("Garden") located at 1115 East 3rd Avenue, Post Falls, Idaho; and

WHEREAS, it is the mutual desire of City and 3rd Avenue Market to memorialize their understanding and agreement for the 3rd Ave Market's use of the City's garden spaces; and

WHEREAS, this MOU creates a mutually beneficial solution for the parties involved.

NOW, THEREFORE, it is hereby agreed as follows:

III. AGREEMENT:

1. Designated Area: The City permits 3rd Ave Market's use of the western portion of the Garden, as illustrated in Figure 1.

2. Expansion & Alterations: The City supports 3rd Ave Market's goal in expanding the growing capacity within the designated area, and other non-reservable areas of the Garden. Expansions

and alternations may be proposed if consistent with the City's design documents, or by separate written approval.

3. Permitted Use: The designated growing area will be used solely for the cultivation of food crops for the benefit of the Post Falls Food Bank and the community food programs of the 3rd Avenue Marketplace.

4. Plot Maintenance & Stewardship: 3rd Ave Market agrees to maintain the designated area in good condition throughout the growing season. Maintenance of the area(s) within the fenced portion of the garden is the responsibility of the 3rd Ave Market, consistent with the Garden's shared community-driven model. This includes, but is not limited to:
    a) Regular weeding using organic and/or regenerative agriculture (no chemical herbicides),
    b) Responsible planting, composting, and end-of-season cleanup,
    c) Keeping pathways and surrounding areas clear of debris,
    d) Maintaining existing garden shed, and
    e) Following posted rules for garden participation

5. Structure Maintenance: 3rd Ave Market is permitted to place and maintain a 8x12 garden shed for the storage of tools and supplies. The 3rd Ave Market will maintain this structure in good condition and will address deficiencies within 72 hours upon notification by City. Upon termination of this MOU, 3rd Ave Market will have 30 calendar days to remove the structure, otherwise the structure will become the property of City.

6. Water & Irrigation: 3rd Ave Market will utilize available water access within the Garden for irrigation. Water delivery improvements may be discussed collaboratively and are subject to City approval and resource availability.

7. Facility Maintenance and Programming: City maintains the demonstration garden spaces located outside the fenced community garden area. City agrees to collaborate with the 3rd Ave Market on potential programming opportunities, including garden chats and other educational or community engagement activities led by 3rd Ave Market volunteers.

8. Duration: This MOU is at-will and may be modified in writing by mutual consent of the parties or terminated by any one of the parties with at least 60 days' written notice.

9. Access: The City of Post Falls retains the right to access the full Garden property at any time for maintenance, safety inspections, or emergency purposes.

10. Contact Information: The 3rd Ave Market will provide the City's Parks and Recreation Director annually with the name and contact information for a primary and secondary contact person.

11. Liability: Each party shall be liable for any and all claims, damages or suits arising from the acts, omissions or negligence of its own officers, agents and employees.

Dated _____

CITY OF POST FALLS

_____
Randy Westlund, Mayor

ATTEST:

_____
Shannon Howard, City Clerk

3rd AVENUE MARKETPLACE/POST FALLS FOOD BANK

_____