YELLOWSTONE COUNTY BOARD OF PLANNING

City of Billings and
Yellowstone County, Montana

AGENDA

JUNE 24, 2025 MEETING TIME: 6:00 p.m.
City Council Chambers, 5th Floor
316 N 26th St, Billings MT

NOTICE TO THE PUBLIC

Citizens are invited to:

- Review the Agenda Packet on the City's website at: https://ci.billings.mt.us/117/Agendas-Minutes

Public comment will be taken only during the Public Comment periods as indicated on the agenda and during the Public Hearings, if any are scheduled, under the Regular agenda. Comments may be sent to the Board via email before 12:00 pm on the meeting date. All emails received prior to this time will be entered into the record for the public hearing. Comments may be submitted by:

- Mail: City/County Planning Division PO Box 1178, Billings MT 59103
- Email: plnonline@billingsmt.gov
- NOTICE: All meetings and official activities of the MPO are held in buildings and locations that comply with accessibility standards according to the Americans with Disabilities Act (ADA). A TTY number for the hearing impaired, 406-657-3079, is available upon request. Special arrangements for participation in the public hearings by individuals with hearing, speech, or vision impairment may be made upon request at least three days prior to the hearing. Please notify Brenda Berns, Planning Clerk at bernsb@billingsmt.gov or call 406-247-8610.

1. **CALL TO ORDER - Planning Board President:** Welcome and Introduction Board Members and Staff.

2. **APPROVAL OF AGENDA*** - including any additions or deletions to agenda. The agenda for a regular meeting will be closed at 5:00 p.m. three (3) working days prior to the date of the meeting.

3. **Approval of Meeting Minutes for June 10, 2025**

4. **PUBLIC COMMENT PERIOD** -- As required (3 minute maximum per person). *Any member of the public may be heard on any subject that is not on the agenda. The Planning Board will not take any action on these items at this time, but could choose to add an item to the next meeting's agenda for discussion.*
   4a) Comments on items not on agenda and requests to add items to future agendas
   4b) Comments on items on the non-public hearing agenda items

5. **DISCLOSURE OF CONFLICT OF INTEREST**

6. **DISCLOSURE OF EX PARTE COMMUNICATION**

   a. **PUBLIC HEARINGS/PUBLIC HEARING PARTICIPATION GUIDELINES**. The County Planning Board welcomes public input on matters brought before the Board. To ensure a fair and effective public comment process, we ask that you consider the following guidelines when presenting your comments: Address the Planning Board directly. You must state your name and address before commenting. This is an opportunity to explain how you will be affected by the decision and why that is an important consequence. By state law, the Planning Board must consider only certain criteria when reviewing subdivisions (76-3-608(a), MCA). Please see the attached guidelines for the criterion.

   b. **OLD BUSINESS**

   c. **Public Hearing and Recommendation. Maplewood County Major Subdivision**. Presented by Dave Green, Planner II

d. **Public Hearing and Recommendation. Transportation Alternatives Applications.** Presented by Lora Mattox, Transportation Planning Coordinator

e. **Public Hearing and Recommendation. FY26 Draft Unified Planning Work Program**. Presented by Lora Mattox, Transportation Planning Coordinator

8. **NEW BUSINESS**

9. **OTHER BUSINESS**

a. (Standing Item) Long Range Strategic Issues and an overview of future City and County issues and projects.

10. **ADJOURNMENT**

FUTURE AGENDA ITEMS

CITY/COUNTY PLANNING BOARD
City Council Chambers, 5th Floor
316 N 26th St, Billings MT

Public Hearing Participation Guidelines

NOTICE: All meetings and official activities of the MPO are held in buildings and locations that comply with accessibility standards according to the Americans with Disabilities Act (ADA). A TTY number for the hearing impaired, 406-657-3079, is available upon request. Special arrangements for participation in the public hearings by individuals with hearing, speech, or vision impairment may be made upon request at least three days prior to the hearing. Please notify the Planning Division Office, at 406-247-8610.

The County Planning Board welcomes public input on matters brought before the Board. To ensure a fair and effective public comment process, we ask that you consider the following guidelines when presenting your comments: **Address the Planning Board directly. You must state your name and address before commenting.** This is an opportunity to explain how you will be affected by the decision and why that is an important consequence. Be informed of the process and the requirements of the Board. If you are commenting about a subdivision, please limit your comments to the review criteria.

By state law, the Planning Board must consider only certain criteria when reviewing subdivisions (76-3-608(a), MCA). These criteria include:
-Effect on agriculture and agricultural water user facilities; Effect on local services; -Effect on the natural environment; Effect on wildlife and wildlife habitat; Effect on public health and safety

Provide specific information about why you are concerned about the pending application, how the decision will impact the review criteria listed above, and provide suggestions on how to minimize or eliminate the impact.

Respect the right of others to participate. Wait until the previous speaker has completed their comments before making your own comments. Do not talk over the person commenting or with other people in attendance.

The public hearing is not an opportunity to question or accuse the applicant or their agent. If you have questions of the Board, the applicant or the agent, ask questions directly to the Board during the public hearing portion of the meeting. The Board will respond or request the applicant or agent to respond after the public comment portion of the hearing is closed.

After the public comment portion of the hearing is closed, no further comments are allowed unless you are addressed directly by a Board member.

You should expect the Board to make a balanced recommendation in accordance with its statutory responsibilities. The Board's ability to make reasonable and thoughtful recommendations is dependent on a fair consideration of everyone's interests.

Thank you for participating.

Date:	06/24/2025
Title:	
Presented by:	
Department:	Planning & Community Services
Presentation:	

Information

RECOMMENDATION
MEETING MINUTES: June 10, 2025

BACKGROUND (Consistency with Adopted Plans and Policies, if applicable)

ALTERNATIVES
City Council may:

- Approve; or,
- Not Approve

FISCAL EFFECTS

Attachments

Minutes of June 10, 2025

CITY/COUNTY PLANNING BOARD

TUESDAY, JUNE 10, 2025 at 6:00pm

	Position	01/14/2025	01/28/2025	02/11/2025	02/25/2025	03/11/2025	03/26520025	04/082025	04/22/2025	05/13/2025	05/28/2025	06/10/2025	06/24/2027	07/08/2025	07/22/2025	08/12/2025	08/26/2025	09/09/2025	09/23/2025	10/14/2025	10/28/2025	11/12/2025	11/26520025	12/09/2025	12/23/2025
Jim Ronquillo	Billings Ward I	1	A	1	1	A	1	1	1	A	1	A													
Roger Gravgaard **President**	Billings Ward II	1	1	1	1	1	1	1	1	1	1	1													
Dennie Stephenson	Billings Ward III	1	1	1	1	1	1	1	1	1	1	1													
John Staley **Vice President**	Billings Ward IV	V	1	1	1	1	1	1	1	1	1	A													
David Nordel	Billings Ward V	A	V	V	A	V	A	1	V	1	1	1													
Troy Boucher	YC District 1	A	A	A	A	A	A	A	A	A	A	A													
Dennis Cook	YC District 2	A	1	1	1	1	1	1	1	1	1	1													
Vacant	YC District 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Vacant	YC District 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Woody Woods	YC District 5	1	1	1	1	1	1	1	A	1	1	1													
Alexis Bonogofsky	YC District 6	1	1	V	1	V	1	1	1	A	1	1													
Morgan Tuss	YC District 7	A	A	A	A	A	A	A	A	A	A	A													
Vacant	YC Cons. District	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Scott Reiter	Ex-Officio SD2	A	A	A	A	A	A	A	A	A	A	1													

Please note: “A” stands for excused absence, “1” stands for present, “V” stands for Zoom participation, “C” stands for Canceled

Call the Meeting to Order: President Gravgaard called the meeting to order at 6:00 p.m.

Introduction of Planning Board Members and Planning Department Staff
President Gravgaard called for introductions of the members of the Planning Board and staff.

Attending Staff: Dave Green, Planner; Brenda Berns, Planning Clerk.
Virtual: Wyeth Friday, Planning & Community Services Director

1. Others in Attendance: Scott Worthington, In Site Engineering; Lee Hanson

2. Approval of Agenda

Motion
Motion made by Board member Stephenson, seconded by Board member Nordel to approve the agenda as submitted. Motion passed unanimously.

3. Approval of Minutes: May 28, 2025

Motion
Motion made by Board member Stephenson, seconded by Board member Nordel to approve the meeting minutes of May 28, 2025. Motion passed unanimously.

4. Public Comment: As required (3 minutes maximum per person). Any member of the public might be heard on any subject that is not on the agenda. The Planning Board will not take any action on these items at this time but could choose to add an item to the next meeting agenda for discussion. There were no comments from the public.

5. Disclosure of Outside (Ex-Parte) Communication – There were no outside communications.

6. Disclosure of Conflicts of Interest – There were no conflicts of interests.

7. Old Business – There is no Old Business

8**. New Business:**

a. Plat Review and Board Discussion. Maplewood County Major Subdivision. Presented by Dave Green, Planner II.

Dave Green provided an overview of the Maplewood County major subdivision. The subject property is located south of O'Donnell Lane and east of South 72nd Street West and lies outside the county zoning jurisdiction. The land has historically been used for agricultural purposes. The proposed subdivision will create 78 lots intended for residential development.

The applicant has submitted a variance request from Section 4.6.B.1 of the Yellowstone County Subdivision Regulations, which pertains to required connections to adjacent undeveloped or underdeveloped land. The regulations specify a maximum spacing of 600 feet between such connections. Staff is recommending approval of the variance request.

The Traffic Impact Study (TIS) is based on the parameters that are in TIS requirements. Traffic studies are based on impacts that the subdivisions will create. If they do not impact an intersection more than 2%, they are not subject to cost participation. None of the intersections studied would experience a high enough critical-movement volume increase due to the project to require participation in the cost of future improvements.

Parkland dedication required is 3.988 acres. The applicant proposes to provide 3.193 acres with a cash-in-lieu contribution for the remaining amount. A Park Maintenance District will be established with the final plat. County Parks have stated they are satisfied with the parkland as proposed and in the location as shown.

Staff Recommendation

Staff is recommending the Planning Board forward a recommendation to the Board of County Commissions (BOCC) to conditionally approve the plat of the Maplewood Subdivision, adopt the Findings of Fact as presented in the staff report, and approve the variance request.

Planning Board Public Hearing June 24, 2025
Board of County Commissioners action July 22, 2025

Questions

A board member noted the increasing number of subdivisions being developed in the west end area and mentioned that there had been an expectation for a follow-up report on groundwater recharge and water supply concerns in that region. They shared that some residents have reported needing to drill deeper for wells, with water sources shifting westward toward Laurel. It was suggested that alternative water solutions may need to be considered in the future.

Another board member asked for clarification on the location of a nearby fire station and whether it was Station No. 7. Staff confirmed the location at 4th Avenue and Grand Avenue. The board member then inquired about the age of development on the north side of O'Donnell Lane and expressed concern that this area may be on the edge of acceptable response times for emergency services. They emphasized the importance of considering fire protection and insurance implications as growth continues westward and suggested reviewing ISO (Insurance Services Office) ratings with the fire department.

A question was raised about whether there were any plans to make the eastern portion of O'Donnell Lane a public road. Staff responded that it was unlikely due to opposition from private property owners, lack of maintenance, and the road not meeting public standards.

It was also noted that Mapleleaf Trail ends in a three-point turnaround because it connects to a private road. A previous plan to extend a nearby subdivision to O'Donnell Lane had been met with opposition from existing residents, preventing the connection.

Applicant's Agent

Scott Worthington, In Site Engineering – Mr. Worthington stated that there will be 77 residential lots, the average size being 2/3 acre.

Mr. Worthington acknowledged that staff is recommending approval of the variance request and was appreciative.

Second, he addressed the discussion regarding parkland—specifically Proposed Condition of Approval #5, which requires two 10-foot pedestrian access points across the irrigation ditch along O'Donnell Lane. Mr. Worthington believes this condition was proposed to help mitigate the presence of the irrigation ditch in that area.

As part of the development, we will be piping a portion of that ditch. If you look at Lots 1 through 5, they front the public portion of O'Donnell Lane, which was petitioned to become public with the Sky Crest development. That section of the ditch is scheduled to be piped to comply with DEQ standards, which require a 100-foot setback from wells or drain fields when adjacent to an open irrigation ditch. Piping the ditch provides an acceptable alternative to meet that requirement.

If you measure the park frontage—including the section where the ditch will be piped—it totals about 160 feet as it curves around the corner. That includes approximately 62 feet along 71st Street West and just under 100 feet where the piping will occur along O'Donnell Lane. This configuration meets the required frontage for the parkland.

Board Discussion

A board member suggested that for the upcoming public hearing, it would be helpful to clearly identify the location of the culvert, as discussions around frontage may be confusing without that context. Mr. Worthington agreed to include that detail.

Another board member asked where the public portion of O'Donnell Lane ends. Mr. Worthington clarified that the public road ends at a gate located on the east side of South 71st Street West, beyond which it becomes a private road.

There was also an inquiry about whether development is planned to the south of the current project area. Mr. Worthington responded that while future development is anticipated, there is no master plan in place at this time for the 62 acres located to the south. However, Lot 5, Block 5 is expected to be part of a new major subdivision application. Mr. Worthington also stated that there are two access points required, however they are providing three, providing good traffic circulation.

In response to a board member's question regarding the purpose of the variance, Mr. Worthington explained that the Subdivision Improvements Agreement (SIA) includes a provision limiting block lengths to a maximum of 600 feet. In the proposed subdivision, there are three blocks with an average length of 778 feet. This exceeds the standard, which is roughly equivalent to the length of one lot and is the basis for the variance request.
A question was also raised regarding sidewalks. Mr. Worthington noted that sidewalks are not required for this project, but 5-foot-wide sidewalks are proposed to be installed by individual homeowners. Final details are still being determined.

Board members expressed appreciation that sidewalks are being proposed and noted that the overall development plan appears well thought out.

President Gravgaard stated the board will be acting on this agenda item at the next Planning Board meeting scheduled for June 24, 2025.

9. Other Business.

Wyeth Friday informed the board that the annual Unified Planning Work Program (UPWP) process is underway. The first meeting will take place on June 24, 2025, followed by a public hearing and action meeting on July 8, 2025.
He explained that the discussion will include a review of the current work program, which aligns with the federal fiscal year cycle tied to the MPO and Transportation Planning funds. The new program year will begin on October 1, 2025.
The review will cover what has been accomplished to date as well as what is proposed for the upcoming cycle. There will also be opportunities for further conversation with the board to discuss how the UPWP aligns with the City's Capital Improvement Plan (CIP). Coordination is also underway with County Public Works to ensure alignment across jurisdictions.
Scott Reiter, the Ex-Officio representative for School District 2, requested that the board approve the option for the Facilities Coordinator to attend meetings in his absence. Mr. Friday expressed support for the idea, stating that it would be a valuable addition to ongoing conversations and a good way to share updates on relevant projects and initiatives.
Board member Woods requested a follow-up with the Bureau of Mines and inquired about the expected timeline for the aquifer update. Wyeth explained that the Public Works Environmental representative recently retired, and staff is currently coordinating with the new individual in that role to get the updated schedule.

10. Future Agenda Items

ADJOURNMENT: 6:44PM

Brenda J Berns, Planning Clerk

Planning Board

Date:	06/24/2025
Title:	Maplewood Subdivision - Preliminary County Major Plat
Presented by:	David Green
Department:	Planning & Community Services
Presentation:	Yes

Information

RECOMMENDATION

Staff is recommending the Planning Board forward a recommendation to the Board of County Commissioners to conditionally approve the plat of Maplewood Subdivision, adopt the Findings of Fact as presented in the staff report, and approve the variance request.

BACKGROUND (Consistency with Adopted Plans and Policies, if applicable)

On May 1, 2025, In Sight Engineering, for Regal Land Development, applied for preliminary major plat approval of Maplewood Subdivision. The subdivision will create 78 lots for residential development. The subject property is generally located south of O'Donnell Lane and east of South 72nd Street West. This parcel of land is outside county zoning. The land has been used for farming.

VARIANCES REQUESTED

The applicant has requested a variance from Section 4.6.B.1, of the Yellowstone County Subdivision Regulations, which outlines connections to undeveloped land surrounding the proposed subdivisions. The maximum distance between those connections is 600 feet.

Staff is recommending approval of the variance request.

Further explanation and analysis can be found in Attachment A.

PROPOSED CONDITIONS OF APPROVAL

Pursuant to Section 76-3-608(4), MCA, the following conditions are recommended to reasonably minimize potential adverse impacts identified within the Findings of Fact.

1. To protect public health and safety, prior to final plat approval, the applicant will receive approval from the MDEQ for the proposed water systems, septic systems, and the proposed storm water management.
2. To protect public health and safety and provide maintenance for a shared water system, prior to final plat approval, the applicant shall submit to be recorded with the final plat a maintenance agreement and easement for the shared water system.
3. To provide a maintenance mechanism for the new public roads within the subdivision and to protect public health and safety, prior to final plat approval, the applicant will petition to create an RSID for the future maintenance of the roads.
4. To protect public health and safety with proper fire suppression, prior to final plat approval, the applicant will submit construction drawings of the dry hydrant system to Billings Fire Department for review and approval. Once installed, the applicant will request Billings Fire Department test the system to ensure it works correctly and get a sign off from Billings Fire Department. The applicant will also create an RSID for the dry hydrant system.
5. To protect public health and safety with access to the parkland over a lateral irrigation ditch from The Big Ditch, prior to final plat approval, the applicant will provide a 200-foot access by putting the lateral ditch in a pipe. Or the applicant will provide two pedestrian accesses across the lateral ditch from O'Donnell Lane to the park. The accesses will be a minimum of 10 feet wide.
6. To minimize the effects on local service, prior to final plat approval, the applicant will coordinate with the USPS for locating and providing the correct amount of space for safely delivering the mail lot owners.
7. Restrictions on Conveyances documents associated with the phases in the subdivision shall be filed with the final plat. The subdivision improvement agreement (SIA) shall be updated to reflect the date associated with the opening of each phase of the subdivision.
8. To minimize the effects on the natural environment, prior to final plat, a copy of the approved weed management plan shall be submitted.
9. Minor changes may be made in the SIA and final documents, as requested by the Planning, Legal, or Public Works Departments to clarify the documents and bring them into the standard acceptable format.
10. The final plat shall comply with all requirements of the Yellowstone County Subdivision Regulations, rules, policies, and resolutions of Yellowstone County, and the laws and Administrative Rules of the State of Montana.

PROCEDURAL HISTORY

- Pre-application meeting January 23, 2025
- Preliminary plat application submitted to Planning Division on May 1, 2025
- Departmental Review Meeting May 15, 2025
- Re-submittal of proposed plat May 22, 2025
- Planning Board plat review meeting June 10, 2025
- Planning Board public hearing meeting June 24, 2025
- Preliminary plat to Board of County Commissioners, July 22, 2025
- 60 working-day preliminary plat review period ends July 28, 2025

PLAT INFORMATION

General location:	South of O'Donnell Lane and east of South 72nd Street West
Legal Description:	SW ¼, SECTION 18, TOWNSHIP 1 SOUTH, RANGE 25 EAST
Owner/Subdivider:	Regal Land Development Inc.
Engineer and Surveyor:	In Site Engineering
Existing Zoning:	No zoning
Existing land use:	Agricultural
Proposed land use:	Residential
Gross and Net area:	128.7 acres / 49.956 acres
Proposed number of lots:	78
Lot size:	Max: 61.793 acres Min: 0.45 acres

Parkland requirements: Parkland dedication required is 3.988 acres. The applicant is proposing to provide 3.193 acres with a cash-in-lieu contribution for the remaining amount.

TRAFFIC IMPACT STUDY OVERVIEW

INTERSECTION COST PARTICIPATION

The net new trips identified in this report are subject to examination under Yellowstone County's cost participation program to the extent that they would travel through studied intersections. Cost participation has been estimated for the three public-street intersections in this study under the assumptions that (a) the peak with the highest percentage of trips added to the intersection's critical volume governs contribution and (b) site traffic must result in an increase of 2% in total critical-movement volume, after project trips are considered, to be subject to cost participation. Once it is demonstrated that an intersection is eligible, the applicant pays the entire percentage, not just the marginal part above 2%, unless another arrangement is made with the County. Exhibit 15 shows the intersection cost participation summary for project trips.

Exhibit 15. Intersection Cost Participation

Intersection	AM	PM	Value in Higher Peak, if 2% or Greater
1. 72nd at King	0.5%	1.3%	-%
2. 72nd at O'Donnell	1.3%	1.6%	-%
2. 72nd at Hesper	1.3%	1.5%	-%
4. 68th at Hesper	1.1%	1.3%	-%
5. 64th at Hesper	0.8%	1.1%	-%
	Total Participation %:		0%
	x $500,000		$0

None of the intersections studied would experience a high enough critical-movement volume increase due to the project to require participation in the cost of future improvements.

CONCLUSIONS AND RECOMMENDATIONS

The Maplewood Estates Subdivision project has been studied in accordance with Yellowstone County TIS guidelines and the latest traffic engineering industry standards and references for traffic impact analysis. Because no traffic impacts are

indicated with respect to the County's LOS C standard for peak hour intersection operations, no mitigations for traffic operations are recommended as a result of this project. All intersections with two-way stop control were examined with respect to MDT warrants for auxiliary turn lanes, and no turn lanes were found to be warranted with or without this project in the study timeframe. Under the background traffic growth assumptions used here, a southbound left turn lane on 72nd at Hesper Road has been shown to be warranted a few years after this subdivision opens, and is therefore recommended for the County's independent consideration. No intersection cost participation is indicated by the traffic analysis documented in this report.

PARKLAND OVERVIEW:

The parkland requirement for this subdivision is 3.988 Acres. The parkland requirement is met by a dedication of 3.193 acres of public parkland with the remainder to be met by cash-in-lieu of parkland. A Park Maintenance District will be established with the final plat. County Parks have stated they are satisfied with the parkland as proposed and in the location it is shown.

STAKEHOLDERS

Planning Board Discussion Meeting - June 10, 2025

At the Planning Board discussion meeting held June 10, 2025, staff gave a brief overview of the proposed subdivision. After the presentation, members of the board asked staff a couple of questions. Board member Woods asked if the west end geologic study had been completed so we would have more information about the groundwater in the area and the effects more development will have on the aquifer. The staff present did not know if the study had been completed and when we would have the information. Board member Nordel asked about the amount of time it would take for a fire truck to get to the site. Staff stated they would ask the fire chief to find out what the estimated time would be. There was a question about O'Donnell Lane and would there ever be a chance the entire length would be public? Staff responded the road has had no maintenance on it and it is very narrow. They would have to bring it up to county standard paved road to then dedicate it to the public. Also, the people that live on the private length of O'Donnell Lane have never been open to any others using the road.

Scott Worthington, agent for the applicant, stood to speak about the proposed subdivision. Mr Worthington expressed his belief that condition #5, about access to the park, was not necessary. He stated they will be putting a length of the ditch in a pipe and that will provide the required access lineal feet for park access. He also felt that condition #2 was not necessary as the Aquanet company was a public utility and the need for the documentation required by that condition was not necessary. Board member Woods asked the agent to provide a drawing showing how they meet the requirements of required footage for the parkland at the time of the public hearing. The agent stated he would do that. There were other questions about where O'Donnell Lane public road ends and will there be development to the south? Mr. Worthington described where the public portion of O'Donnell Lane ends and, yes, sometime in the future the southern portion of the land will be developed.

There were no further questions.

Stakeholder input will be received at a public hearing scheduled for this subdivision on June 24, 2025.

ALTERNATIVES

In accordance with state law, the Board of County Commissioners has 60 working days to act upon this major preliminary plat. The 60 working day review period for the proposed plat ends on July 28, 2025. State and County subdivision regulations also require that preliminary plats be reviewed using specific criteria, as stated within this report. The County may not unreasonably restrict an owner's ability to develop land if the subdivider provides evidence that any identified adverse effects can be mitigated. Within the 60 working day review period, the Board of County Commissioners are required to:

1. Approve;
2. Conditionally Approve; or
3. Deny the Preliminary Plat

FISCAL EFFECTS

This plat will have no fiscal impacts on the Planning Division.

SUMMARY

One of the purposes of the County's subdivision review process is to identify potential negative effects of property being subdivided. Negative effects that are identified become the subdivider's responsibility to mitigate. Various County departments, private service/utility providers and the affected school district/s, have reviewed this application and provided input on effects and mitigation. The Findings of Fact, which are presented as an attachment, discuss potential negative impacts of the subdivision and conditions of approval are recommended as measures to further mitigate any impacts. In this case, there were found to be minimal impacts from this proposed subdivision.

Attachments

Findings of Fact
Proposed Plat
Draft SIA
Traffic Study
Variance request from applicant
Attachment A Variance Criteria

FINDINGS OF FACT

The City-County Planning Division Staff has prepared the Findings of Fact for Maplewood Subdivision. These findings are based on the preliminary plat application and supplemental documents addressing the review criteria required by the Montana Subdivision and Platting Act (76-3-608, MCA) and the Yellowstone County Subdivision Regulations (YCSR).

A. What are the effects on agriculture, local services, the natural environment, wildlife and wildlife habitat and public health and safety (76-3-608 (3) (a) MCA) (Section 3.2 (H) (2) YCSR)

1. Effect on agriculture and agricultural water users' facilities

The subject property has been used for farming purposes. No water rights or shares will be transferred to individual lot owners. Irrigation ditches that exist on the perimeter of this development are for the benefit of other properties. Perimeter ditches and drains shall remain in place and shall not be altered by the Subdivider or subsequent owners. There will be no effect on the water users downstream from this property.

2. Effect on local services

a. **Water** – The proposed subdivision is not located within any public water district. The subdivision will be served by shared wells as approved by the Montana Department of Environmental Quality, or its designee. These wells will be owned and maintained by Aquanet. Aquanet will install wells, pumps, and service lines and then bill monthly for water usage. Usually a flat fee plus usage-based rate. They are also the entity that will hold the water right. Water systems will be installed meeting the requirements outlined in Section 4.9 of the Yellowstone County Subdivision Regulations and the MDEQ. **(Condition #1)** The operation and maintenance of approved water system will be the responsibility of Aquanet. The applicant shall record a maintenance agreement for the shared wells with the final plat. **(Condition #2)**

b. **Septic -** The proposed subdivision is not located within any public sewer district. The subdivision will be served by wastewater disposal systems as submitted to and approved by Montana Department of Environmental Quality. These systems shall be located and installed as approved by Montana Department of Environmental Quality, or its designee.

The Subdivision is proposed to be served by individual septic systems on each lot. Septic systems will be installed meeting the requirements outlined in Section 4.8 of the Yellowstone County Subdivision Regulations and the MDEQ. **(Condition #1)** The operation and maintenance of the septic system will be the responsibility of individual lot owners.

All private utilities, power, telephone, gas and cable television will be installed in the public right of way or easements identified on the plat.

c. **Streets and roads** – Access to the Subdivision shall be from proposed approaches on

the public portion of O'Donnell Lane, South 72nd Street West, South 71st West and South 68th Street West as approved by the Yellowstone County Public Works Department. Roads within the subdivision, will be built to the County standard paved surface road. They be in a 60-foot-wide rights of way and be built with a 24-foot paved surface. An RSID will be created to maintain the roads within the subdivision. **(Condition #3)**

A TIS has been submitted for this proposed subdivision. The traffic study showed the impacts would be minimal to the studied intersections and do not meet the threshold for contributions to the County for intersection improvements. In the future should there be more development, then this subdivision can be assessed proportional cost through the Waiver of Right to Protest.

d. **Fire and Police services** – The property is within the BUFSA boundary. This subdivision will be provided fire service from the Billings Fire Department. The subdivision will have a dry hydrant tank installed alongside the road Maple Leaf Trail on the edge of the park land, as shown on the plat. The applicant will submit drawings for the tank to the Billings Fire Department for review and approval. When the tank is installed the applicant will have the system tested and signed off by the Billings Fire Department. **(Condition #4)**

Fire Marshal Fender explained that the current ISO rating regulations are based on distance from fire station. Anywhere within 5 road miles, with a water source would be a 2 rating. Anything over 5 road miles from a fire station, even with a water source, is a 10 rating.

The Yellowstone County Sheriff's Department will provide law enforcement services to this subdivision.

e. **Solid Waste disposal** – The Billings Landfill has capacity for solid waste disposal. Solid waste will be collected and disposed of by a private garbage collection company. Each lot owner will be responsible for arranging for collection.

f. **Storm water drainage** – The storm water drainage will be collected onsite using a combination of swales and the natural slope of the land. Proposed storm water drainage shall be submitted to the MDEQ for review and approval prior to final plat. All proposed stormwater systems shall meet the requirements of Section 4.7 of Yellowstone County Subdivision Regulation's and the requirements of MDEQ. **(Condition #1)**

g. **School facilities** – The proposed subdivision is located within Elder Grove School District for K through 8. Elder Grove School recently built a new building to accommodate the additional students moving into the area. They have the ability to accommodate more students. West High School will provide school for grades 9 through 12. West High School is currently over capacity.

h. **Parks and recreation** – Parkland dedication required for this subdivision is 3.988 acres. The applicant is proposing to provide 3.193 acres with a cash in lieu contribution

for the remaining amount. There is an existing 3.84-acre park in the subdivision to the north of this proposed subdivision. It is off Skycrest Drive approximately ½ road mile away.

The proposed park meets the requirement for street frontage for parkland but, the majority of that frontage has a ditch, a lateral from The Big Ditch, along the edge of the road, O'Donnell Lane. To improve the access to the park the applicant will provide a 200-foot access by putting the lateral in a pipe or provide two pedestrian accesses across the lateral ditch from O'Donnell Lane to the park. The accesses will be a minimum of 10 feet wide. **(Condition #5)**

i. **Postal Service –** The applicant will be required to coordinate with the USPS to ensure they are providing a safe location for the postal worker to deliver the mail and the residents to retrieve their mail. **(Condition #6)**

j. **Historic features** – No known historic or cultural assets exist on the site.

k. **Phasing of Development** - The applicant is proposing to develop this subdivision in phases. Phase 1 and Phase 2. The applicant will provide the correct paperwork to be recorded with the final plat, restriction on conveyances. The subdivision improvement agreement shall be updated to reflect the date associated with the opening of each phase of the subdivision. **(Condition #7)**

- Phase 1 consists of Lots 1-19, Block 1; Lots 1-5, Block 2; Lot 1 and Lots 6-13, Block 3; and Lots 1-11, Block 4.
- Phase 2 consists of Lots 2-5 and Lots 14-21, Block 3; Lots 12-28, Block 4; and Lots 1-4, Block 5.
- Public improvements will be constructed by way of a private contract with each phase.

3. Effects on the natural environment

The development will use noxious weed control measures to prevent the spread of noxious weeds to adjacent developed or agricultural land. As required by County Subdivision Regulations Section 4.15 all county subdivisions are required to apply for and obtain a weed management plan with the County Weed Department. Any subdivision that has an existing Weed Management Plan is required to get an updated Weed Management Plan. A weed management plan will be completed and a copy will be submitted with final plat. **(Condition #8)**

There are no apparent or known natural hazards on the property.

4. Effects on wildlife and wildlife habitat

Impacts on Significant, Important, and Critical Habitat:
Because this land has been cultivated for farming for so long, there is very little wildlife inhabiting the area with the exception of some rodents and racoons. An occasional deer may wander through the area, but it provides no cover or natural food sources for them. No other wildlife has been observed nesting or frequenting the subdivision site,

and this site is not in sage grouse habitat. There are no threatened or endangered species known to inhabit the area.

This site is well-suited for development of a residential neighborhood. The development will be done in a responsible, orderly manner, and in accordance with Yellowstone County Subdivision Regulations, Administrative Rules of Montana, and DEQ, DNRC, and all other state and local development standards. By so doing, this subdivision will create no significant negative impact to the environment or community but will, instead, be an asset to the area.

There are no known endangered or threatened species on the property. A paragraph in the 'Conditions that Run with the Land' section of the SIA warns future lot owners of the likely presence of wildlife in the area and their potential to damage residential landscaping.

5. Effects on public health and safety

Plans and designs for the water and septic system will be reviewed and approved by MDEQ prior building construction on each lot to ensure public health and safety.

Fire and emergency services are provided for this proposed subdivision from Billings Fire Department and the Yellowstone County Sheriff's department.

B. Was an environmental assessment required? If yes, what, if any, significant adverse impacts were identified? (76-3-603 MCA) (Chapter 9, YCSR)

A summary of impacts was required for this subdivision pursuant Section 9.2 of the County Subdivision Regulations.

C. Does the subdivision conform to the Yellowstone County 2008 Growth Policy, the 2018 Urban Area Transportation Plan and the Billings Area Bikeway and Trail Master Plan Update? [BMCC 23-302.H.4.]

1. **Yellowstone County - 2008 Growth Policy**

The subdivision is consistent with the following goals of the Growth Policy:

- Goal: Predictable land use decisions that are consistent with neighborhood character and land use patterns. (p. 6)

The subdivision is consistent with the type of residential development in the surrounding area. There is residential development to the north and to the south.

- Goal: Controlled weed populations. (p. 9)

The developer shall complete a weed management plan and shall provide a re-vegetation plan for any ground disturbed by development.

2. 2023 Billings Urban Area Long Range Transportation Plan

The subject property maintains the road study area of the Transportation Plan. As proposed, the internal streets are neighborhood streets associated with this subdivision.

3. Billings Area Bikeway and Trail Master Plan (BABTMP)

This subdivision is inside the BABTMP boundaries for trails. There is future trail shown on South 72nd Street. At a future time when this road is widened the trails will be installed. This subdivision will not be required to install any trails at this time.

D. Does the subdivision conform to the Montana Subdivision and Platting Act (MSPA) and to local subdivision regulations? [MCA 76-3-608 (3) (b) and Section 3.2 (3) (a) YCSR]

The proposed subdivision meets the requirements of the MSPA and the YCSR. The subdivider and the local government have complied with the subdivision review and approval procedures that are set forth by local and state subdivision regulations.

E. Does the subdivision conform to sanitary requirements? [Section 4.8 (C) and 4.9 (C), YCSR]

The subdivision must receive approval from the MDEQ prior to any building construction on each lot. The new parcels will be connected to the subdivision community septic system. This system will be approved by MDEQ before final plat.

F. Does the proposed subdivision meet any applicable Zoning Requirements? [Section 3.2 (H) (3) (e), YCSR]

The proposed subdivision is outside the County Zoning Jurisdiction.

G. Does the subdivision provide for necessary planned utilities? [MCA 76-3-608 (3) (c) and Section 3.2 (H) (3) (b), YCSR]

The applicant will coordinate with private utility companies to provide the required easements.

H. Does the proposed subdivision provide for Legal and Physical Access to all lots? [MCA 76-3-608 (3) (d) and Section 3.2 (H) (3) (c) (d), YCSR]

Legal and physical access will be provided from South 72nd Street, South 71st Street West and Maplewood Lane. Access to each lot will be from the internal roads of the subdivision.

CONCLUSIONS OF FINDINGS OF FACT

- This subdivision does not create adverse impacts that warrant denial of the subdivision.
- Impacts to agriculture, agriculture water user facilities, local services, public health and safety, the natural environment, and wildlife should be minimal, and can be mitigated by reasonable conditions of final plat approval.
- The subdivision conforms to some of the goals of the Growth Policy.
- The applicant has complied with the MSPA and YCSR processes and the subdivision conforms to the law requirements.

RECOMMENDATION

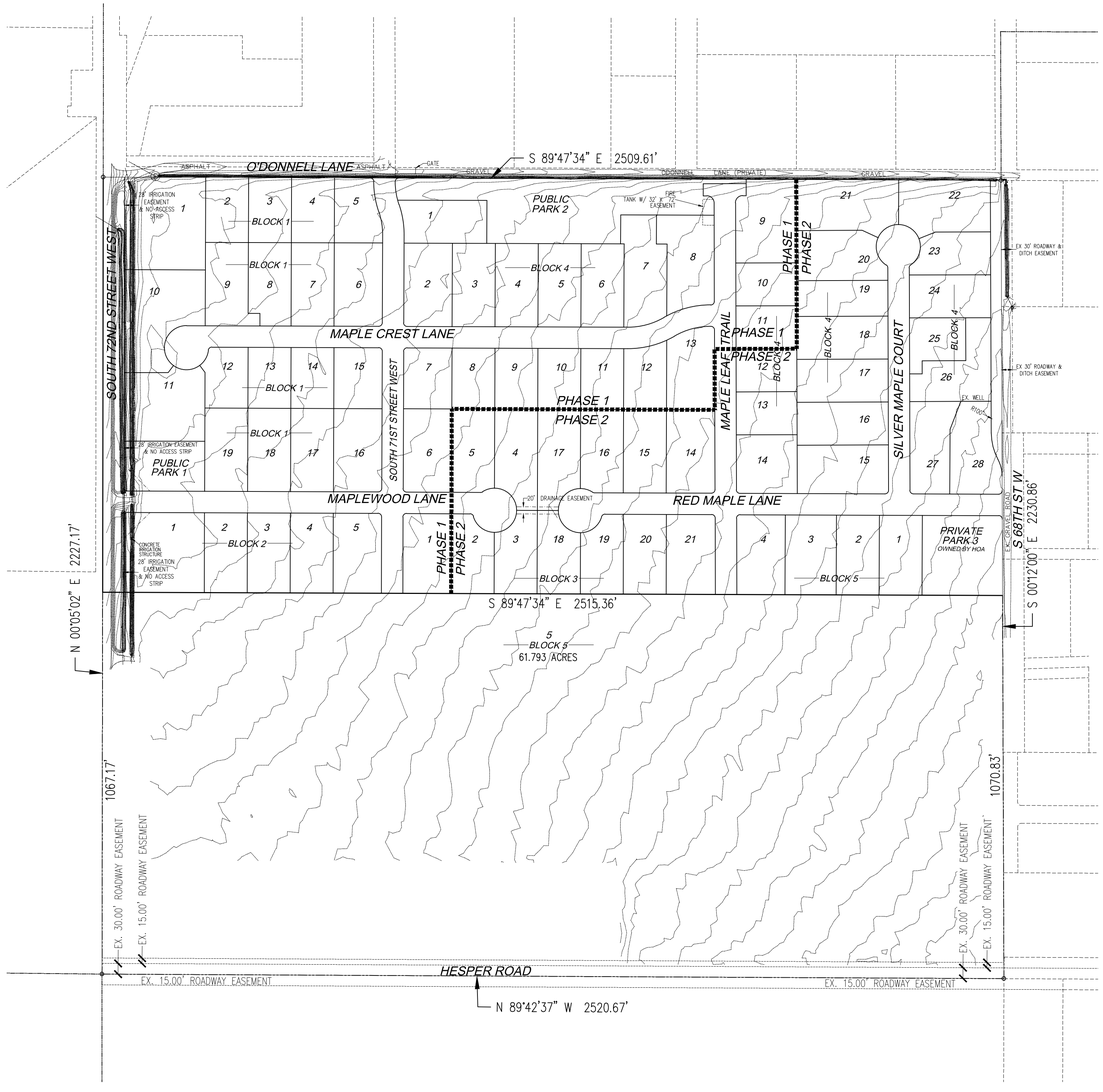
Staff recommends to the Planning Board that they forward a recommendation of conditional approval to the Board of County Commissioners for the preliminary plat of Maplewood Subdivision, approve the variance request and adopt the Findings of Fact as presented in the staff report.

PRELIMINARY PLAT OF MAPLEWOOD ESTATES - A RESIDENTIAL SUBDIVISION

LOCATED IN THE SOUTHWEST $\frac{1}{4}$ OF SECTION 18, T01 S, R25 E, P.M.M.
PREPARED FOR: REGAL LAND DEVELOPMENT, INC.
PREPARED BY: IN SITE ENGINEERING
APRIL 2025

LEGAL DESCRIPTION

LOT 4 SESW FRAC LOT 3 & FRAC NESW, (LESS HWY)
CONTAINING: 128.700 ACRES



200 0 200 400 600

SCALE 1" = 200' (24 x 36)
SCALE 1" = 400' (11 x 17)

DEVELOPMENT
Maplewood Estates Residential Subdivision

DEVELOPER
REGAL LAND DEVELOPMENT, INC.
P.O. BOX 80205
BILLINGS, MT 59108

CIVIL ENGINEER
IN SITE ENGINEERING, P.C.
4231 CREEKWOOD DR
BILLINGS, MT 59106
IN SITE ENGINEERING

NO.	DATE	DESCRIPTION
1	4/1/2025	Submit for C&S Rev.
2	4/19/2025	Shared Wells Rev.
3	5/1/2025	Submit Prelim. Plat
4	5/21/2025	Resubmit Prelim. Plat
5		
6		
7		

DATE
5/21/2025

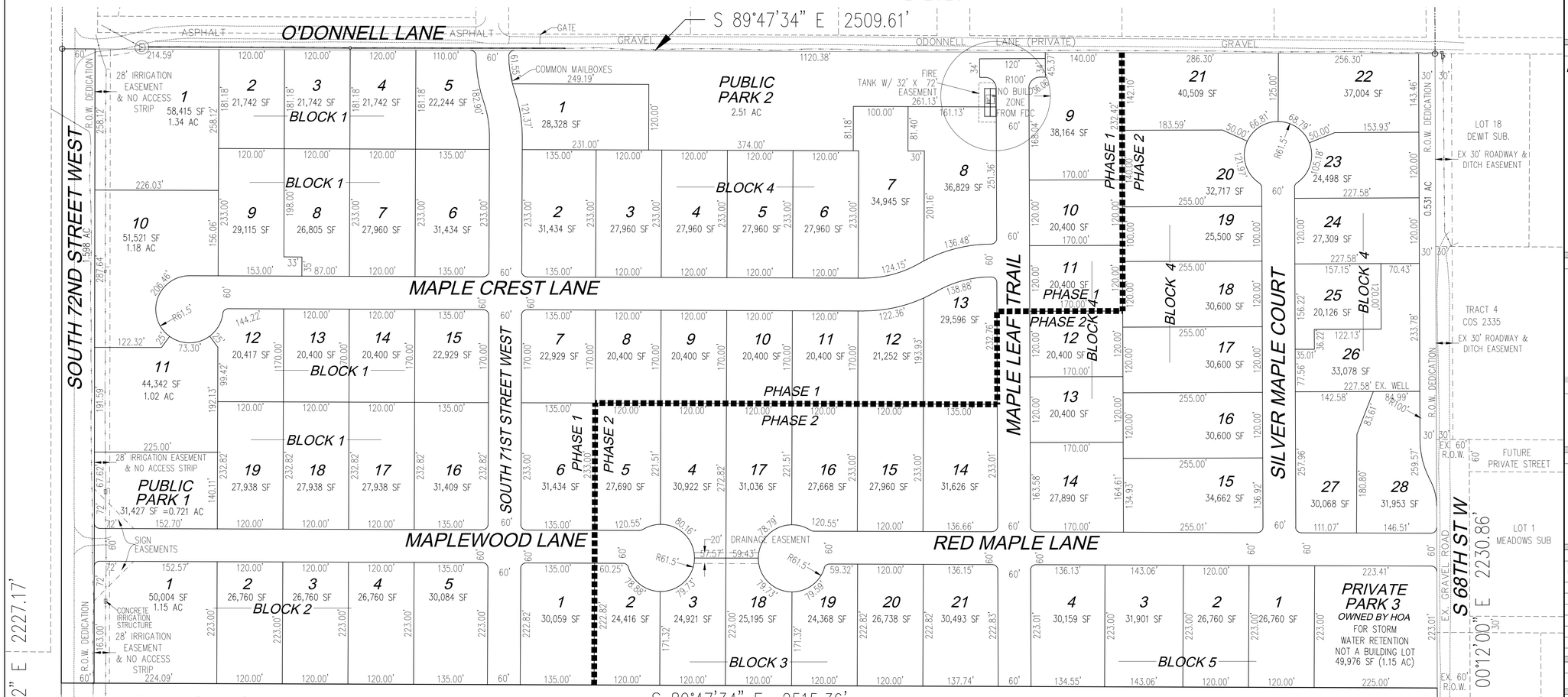
PROJECT
Maplewood Estates

DESCRIPTION
PRELIMINARY PLAT

SHEET NAME: Prelim.
SHEET NUMBER: 1

PRELIMINARY PLAT OF MAPLEWOOD ESTATES - A RESIDENTIAL SUBDIVISION

LOCATED IN SECTION 18, T01 S, R25 E, P.M.M. YELLOWSTONE COUNTY, MONTANA
PREPARED FOR: REGAL LAND DEVELOPMENT, INC.
PREPARED BY: IN SITE ENGINEERING
APRIL 2025



PHASING

NUMBER OF RESIDENTIAL LOTS IN PHASE 1 = 44 (57%)
NUMBER OF RESIDENTIAL LOTS IN PHASE 2 = 33 (43%)
TOTAL NUMBER OF RESIDENTIAL LOTS: 77

5
BLOCK 5
61.793 ACRES

TABULATIONS

GROSS AREA:	128.700 AC
TOTAL # OF LOTS:	78
LOT 78 (AGRICULTURAL):	61.793 AC
GROSS RESIDENTIAL AREA:	66.907 AC
R.O.W. DEDICATION FOR EX. ROADS:	2.129 AC
SUBTOTAL (GROSS EXCL. 72ND & 68TH):	64.778 AC
AREA OF INTERNAL ROADS: (15% OF GROSS RESIDENTIAL AREA EXCL. 72ND & 68TH)	9.837 AC
LENGTH OF INTERNAL ROADS:	7,142 LF
PRIVATE PARK 3 (STORM DRAIN POND)	1.15 AC
PUBLIC PARKLAND PROVIDED (PARKS 1 & 2)	3.231 AC
NET AREA OF RESIDENTIAL LOTS:	50.56 AC
NUMBER OF RESIDENTIAL LOTS:	77
AVERAGE LOT SIZE:	0.657 AC = 28,619 SF

PARKLAND CALCULATIONS

PARKLAND REQUIREMENT:
11% OF AREA SUBDIVIDED INTO LOTS LESS THAN ½ AC
(0.11)(7.599 AC) = 0.836 AC
7.5% OF AREA SUBDIVIDED INTO LOTS BETWEEN ½ AND 1 AC
(0.075)(39.292 AC) = 2.947 AC
5% OF AREA SUBDIVIDED INTO LOTS BETWEEN 1 AC & 3 AC
(0.05)(3.672 AC) = 0.184 AC
TOTAL PARKLAND REQUIRED: 3.967 AC
PARKLAND PROVIDED (PARKS 1 & 2): 3.231 AC
CASH-IN-LIEU OF PARKLAND: 0.736 AC

100 0 100 200 300
SCALE 1" = 100' (24 x 36)
SCALE 1" = 200' (11 x 17)

DEVELOPMENT
Maplewood Estates Residential Subdivision

DEVELOPER
REGAL LAND DEVELOPMENT, INC.
P.O. BOX 80205
BILLINGS, MT 59108

CIVIL ENGINEER
IN SITE ENGINEERING, P.C.
4231 CREEKWOOD DR
BILLINGS, MT 59106
IN SITE ENGINEERING

NO.	DATE	DESCRIPTION
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2	4/19/2025	Shared Wells Rev.
3	5/1/2025	Submit Prelim. Plat
4	5/21/2025	Resubmit Prelim. Plat
5		
6		
7		

DATE
5/21/2025

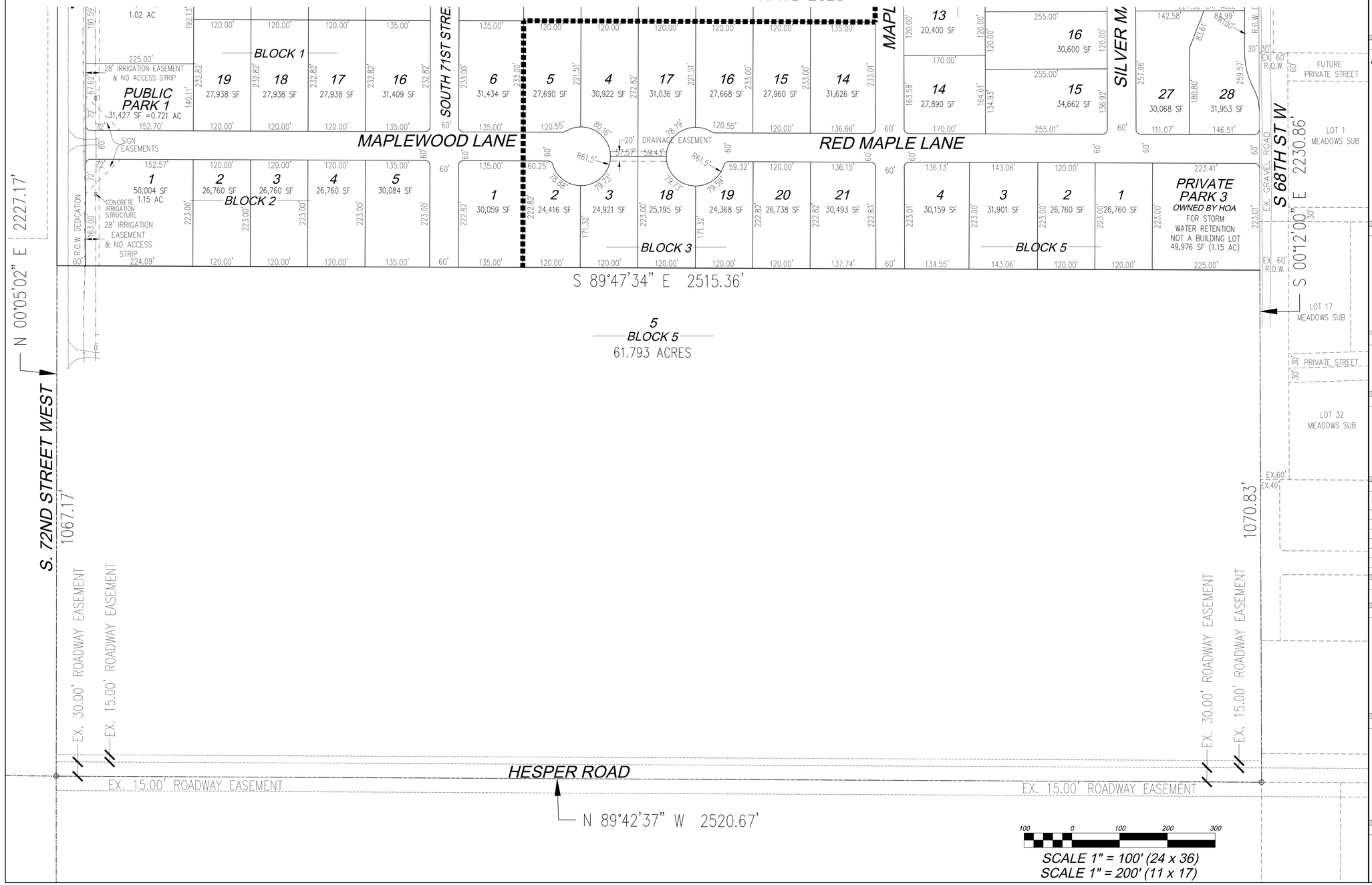
PROJECT
Maplewood Estates

DESCRIPTION
PRELIMINARY PLAT

SHEET NAME: Prelim.
SHEET NUMBER: 2

PRELIMINARY PLAT OF MAPLEWOOD ESTATES - A RESIDENTIAL SUBDIVISION

LOCATED IN SECTION 18, T01 S, R25 E, P.M.M. YELLOWSTONE COUNTY, MONTANA
PREPARED FOR: REGAL LAND DEVELOPMENT, INC.
PREPARED BY: IN SITE ENGINEERING
APRIL 2025



DEVELOPMENT

Maplewood Estates Residential Subdivision

DEVELOPER

REGAL LAND DEVELOPMENT, INC.
P.O. BOX 80205
BILLINGS, MT 59108

CIVIL ENGINEER

IN SITE ENGINEERING, P.C.
4231 CREEKWOOD DR
BILLINGS, MT 59106
IN SITE ENGINEERING

NO.	DATE	DESCRIPTION
1	4/1/2025	Submit for C&S Rev.
2	4/19/2025	Shared Wells Rev.
3	5/1/2025	Submit Prelim. Plat
4	5/21/2025	Resubmit Prelim. Plat
5		
6		
7		

DATE: 5/21/2025

PROJECT: Maplewood Estates

DESCRIPTION: PRELIMINARY PLAT

SHEET NAME	SHEET NUMBER
Prelim.	3

SUBDIVISION IMPROVEMENTS AGREEMENT

Maplewood Estates

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SUBDIVISION IMPROVEMENTS AGREEMENT

Maplewood Estates

This agreement is made and entered into this ____ day of _____, 20__, by and between *(Regal Land Development, Inc.)*, whose address for the purpose of this agreement is P.O. Box 80445, Billings, Mt 59108, hereinafter referred to as "Subdivider," and YELLOWSTONE COUNTY, Montana, hereinafter referred to as "County."

WITNESSETH:

WHEREAS, the plat of *Maplewood Estates*, located in Yellowstone County, Montana, was submitted to the Yellowstone County Board of Planning; and

WHEREAS, at a regular meeting conducted on _____ day of _____, 20__, the Board of Planning recommended conditional approval of a preliminary plat of *Maplewood Estates*; and

WHEREAS, at a regular meeting conducted on _____ day of _____, 20__, the Yellowstone County Board of County Commissioners conditionally approved a preliminary plat of *Maplewood Estates*; and

WHEREAS, a Subdivision Improvements Agreement is required by the County prior to the approval of the final plat.

WHEREAS, the provisions of this agreement shall be effective and applicable to *Maplewood Estates* upon the filing of the final plat thereof in the office of the Clerk and Recorder of Yellowstone County, Montana. The Subdivision shall comply with all requirements of the Yellowstone County Subdivision Regulations, the rules, regulations, policies, and resolutions of Yellowstone County, and the laws and administrative rules of the State of Montana.

THEREFORE, THE PARTIES TO THIS AGREEMENT, for and in consideration of the mutual promises herein contained and for other good and valuable consideration, do hereby agree as follows:

I. VARIANCES

A. Subdivider has requested, and the County hereby grants, the following variance by the Board of County Commissioners from the strict interpretation of the County's Subdivision Regulations (Chapter 11, Yellowstone County Subdivision Regulations):

1. A variance from Section 4.6.B.1 is requested to allow 2 accesses to the undeveloped Lot 78 instead of the 3 that would be required. See Variance Request.

II. CONDITIONS THAT RUN WITH THE LAND

A. Lot owners should be aware that this subdivision is being built in close proximity to prime deer and antelope habitat and it is likely that homeowners will experience problems with damage to landscaped shrubs, flowers, and gardens. The Montana Fish, Wildlife, and Parks Department does not provide damage assistance unless there is damage to commercial crops and/or a threat to public health and safety.

B. Lot owners should be aware that soil characteristics within the area of this subdivision, as described in the 1972 Yellowstone County Soil Survey, indicate that there could be potential limitations for proposed construction on the lots, which may require a geotechnical survey prior to construction.

C. No water rights have been transferred to the lot owners; Irrigation ditches that exist on the perimeter of this development are for the benefit of other properties. Perimeter ditches and drains shall remain in place and shall not be altered by the Subdivider or subsequent owners.

D. There is attached hereto a Waiver waiving the right to protest the creation of the special improvement district or districts which by this reference is expressly incorporated herein and made as much a part hereof as though fully and completely set forth herein at this point. The Waiver will be filed with the plat, shall run with the land, and shall constitute the guarantee by the Subdivider and property owner or owners of the developments described herein. Said Waiver is effective upon filing and is not conditioned on the completion of the conditions set forth in this Agreement. The Subdivider and owner specifically agree that they are waiving valuable rights and do so voluntarily.

E. Culverts and associated drainage swales shall not be filled in or altered by the subdivider or subsequent lot owners.

F. When required by road improvements, all fences and irrigation ditches in the public right-of-way adjacent to this subdivision shall be removed or relocated outside of the public right-of-way at no cost to the County and any relocation outside of the public right-of-way shall be subject to securing and recording easements.

G. Future maintenance of all public (or common) improvements shall be done through RSID(s) created as part of the SIA for this subdivision.

H. Lot 5, Block 5 (61.793 acres) shall have sanitary restrictions that shall be lifted by application to the MDEQ with future development review (subdivision, site plan, or condominium).

I. Lot owners or their agent will obtain an Access Permit from County Public Works prior to any construction on any lot within the subdivision. The application will include a site plan showing the desired location of the access and show that it meets the requirements outlined by the DEQ storm water requirements for the subdivision. Failure to do so will result in the lot owner or their agent removing what has been installed and locating the access in an approved location at the owner's expense.

III. TRANSPORTATION

The subdivider agrees to guarantee all improvements for a period of one (1) year from the date of final acceptance by Yellowstone County.

A. Streets

- Streets shall be public and have Right-of-way widths of 60 feet.
- Streets shall be paved with 24 feet of asphalt with a 2-foot gravel shoulder along each edge of asphalt
- A Rural Special Improvements District (RSID) for maintenance of the public streets will be established with the Final Plat.

B. Traffic Control Devices

- Stop signs shall be installed at the 2 places of egress from the subdivision onto South 72nd Street West and onto South 68th Street West.
- Stop signs shall be installed at Maple Crest Lane's approaches to S. 71st Street West.
- A stop sign shall be installed at Maple Crest Lane's approach to Maple Leaf Trail
- Stop signs shall be installed at Maplewood Lane's approaches to S. 71st Street West.
- Stop signs shall be installed at Red Maple Lane's approaches to Maple Leaf Trail
- A Stop sign shall be installed at Silver Maple Court's approach to Red Maple Lane

C. Access

- A minimum of 2 accesses shall be provided for this subdivision.
- One access shall be by way of a connection to South 72nd Street West, a public street.
- One access shall be by way of a connection to South 68th Street West, a public street.

D. Billings Area Bikeway and Trail Master Plan

- The Billings Area Bikeway and Trail Masterplan show no elements within the property being subdivided.
- No improvements are required or proposed at this time.

E. Sidewalks

- Sidewalks are not required since this property is located outside of the Yellowstone County zoning boundaries; however,
- Sidewalks 5' in width shall be installed by homeowners at the time of lot development and shall be maintained by homeowners.
- Sidewalks shall be installed within a 14' wide sidewalk and utility easement along all street frontages, aligned specifically so that the front of the 5-foot wide sidewalk is setback 1 foot behind the front property line/street right-of-way-line.

IV. EMERGENCY SERVICE

- Fire protection facilities shall be provided via a dry hydrant system installed in the first phase of development with a capable 30,000 gallon underground water storage tank. The system shall be capable of providing a minimum of 1,000 gallons per minute at draft.
- The Subdivider shall submit plans and specifications of the dry hydrant system to the Billings Fire Department for review and approval prior to installation of the system. The tank shall be installed within a dry hydrant easement with access from the adjacent public street. The dry hydrant system shall be inspected, acceptance tested, and approved by the Billings Fire Department prior to construction of any buildings in the subdivision. An RSID will be created for maintenance of the dry hydrant with the final plat.
- Internal streets will be paved to county standards and provide emergency access.
- This subdivision is not located within an Urban Wildland Interface Area.

V. STORM DRAINAGE

All drainage improvements shall comply with the provisions of Section 4.7, Yellowstone County Subdivision Regulations, and a stormwater management plan shall be submitted to and approved by the Montana Department of Environmental Quality (MDEQ), or its designee.

- Storm water runoff shall be conveyed by roadside drainage swales to a retention pond

VI. UTILITIES

A. Water

In accordance with Section 4.9 Yellowstone County Subdivision Regulations, all proposed water systems must obtain approval by the MDEQ, or its designee.

- Water will be supplied by shared wells, owned and maintained by Aquanet, a public utility company.
- MDEQ approval of the shared wells shall be submitted with the final plat.

B. Septic System

In accordance with Section 4.8 Yellowstone County Subdivision Regulations, all proposed sanitary sewer systems must obtain approval by the MDEQ, or its designee.

- Wastewater will be handled with individual septic systems.
- MDEQ approval letter shall be submitted with the final plat.

C. Power, Telephone, Gas, and Cable Television

- Power, telephone, gas, and cable television utility service will be provided to all lots within an 8' wide utility easement along all street frontages and behind the sidewalks of all internal public roads.

VII. PARKS/OPEN SPACE

- The parkland requirement for this subdivision is 3.967 Acres.
- The parkland requirement is met by a dedication of 3.231 Acres of public parkland with the remainder to be met by cash-in-lieu of parkland.
- A Park Maintenance District will be established with the final plat to maintain the public parkland (Park 1 and Park 2).
- Park 3 shall be owned and maintained by HOA for the purpose of storm water retention. For this reason, Park 3 does not count toward fulfillment of the parkland requirement for this subdivision.

VIII. IRRIGATION

- The Big Ditch Irrigation District provides water to the ditch along the westerly and northerly boundaries of this subdivision. No water rights or ditch shares will be used by this residential development.

IX. WEED MANAGEMENT

All noxious weeds on the latest Yellowstone County Noxious Weed List shall be controlled on all properties in the subdivision.

- A Weed Management Plan must be filed and updated as needed for approval by the Yellowstone County Weed Department. Said weed management plan shall contain the noxious weeds being addressed and the plan for the control of those weeds. All associated cost for noxious weed control is the responsibility of the owner of record.

- A revegetation plan shall be submitted as part of the management plan. A seeding recommendation can be obtained from the Yellowstone County Weed Department pursuant to Section 7-22-2152, MCA. The Yellowstone County Weed Department reserves the right to revise these recommendations based on the required site inspection.

X. SOILS/GEOTECHNICAL STUDY

- No geotechnical study is required.
- Lot owners shall obtain their own geotechnical study for recommendations pertinent to their lot.

XI. PHASING OF IMPROVEMENTS

- Subdivision will be completed in 2 phases.
- Phase 1 consists of Lots 1-19, Block 1; Lots 1-5, Block 2; Lot 1 and Lots 6-13, Block 3; and Lots 1-11, Block 4.
- Phase 2 consists of Lots 2-5 and Lots 14-21, Block 3; Lots 12-28, Block 4; and Lots 1-4, Block 5.
- Public improvements will be constructed by way of a private contract with each phase.

XII. FINANCIAL GUARANTEES

Except as otherwise provided, Subdivider shall install and construct said required improvements by private contracts secured by bonds, irrevocable letters of credit, sequential development, or any other method that may be acceptable to the Planning Board and Board of County Commissioners. All engineering and legal work in connection with such improvements shall be paid by the contracting parties pursuant to said private contract, and the improvements shall be designed by and constructed under the supervision of a professional engineer competent in civil engineering, licensed in the state of Montana. Upon completion of the improvements, the consulting Engineer shall file with the Public Works Department, a statement certifying that the improvements have been completed in accordance with approved, seal stamped, record drawings, along with all required post-construction certification per Section 4.6.C. of the Yellowstone County Subdivision Regulations.

XIII. LEGAL PROVISIONS

A. Subdivider agrees to guarantee all public improvements for a period of one year from the date of final acceptance by Yellowstone County.

B. The owners of the properties involved in this proposed Subdivision by signature subscribed herein below agree, consent, and shall be bound by the provisions of this Agreement.

C. The covenants, agreements, and all statements in this Agreement apply to and shall be binding on the heirs, personal representatives, successors and assigns of the respective parties.

D. In the event it becomes necessary for either party to this Agreement to retain an attorney to enforce any of the terms or conditions of this Agreement or to

give any notice required herein, then the prevailing party or the party giving notice shall be entitled to reasonable attorney fees and costs.

E. Any amendments or modifications of this Agreement or any provisions herein shall be made in writing and executed in the same manner as this original document and shall after execution become a part of this Agreement.

F. Subdivider shall comply with all applicable federal, state, and local statutes, ordinances, and administrative regulations during the performance and discharge of its obligations. Subdivider acknowledges and agrees that nothing contained herein shall relieve or exempt it from such compliance.

G. Subdivider agrees to create any required (or expansion of existing) RSID(s) for future maintenance of all public (or common) constructed improvements prior to final plat approval.

IN WITNESS WHEREOF, the parties hereto have set their hands and official seals on the date first above written.

"SUBDIVIDER" *Dan Wells as President of Regal Land Development, Inc.*

_____

STATE OF MONTANA)
: ss
County of Yellowstone)

On this _____ day of _____, 20__, before me, a Notary Public in and for the State of Montana, personally appeared _____, *(Subdivider)*, who executed the foregoing instrument and acknowledged to me that he/she executed the same.

_____
Notary Public in and for the State of Montana
Printed Name: _____
Residing at: _____
My commission expires: _____

This agreement is hereby approved and accepted by Yellowstone County, this ____ day of _____, 20__.

"COUNTY"
COUNTY OF YELLOWSTONE
MONTANA

County of Yellowstone
Board of County Commissioners

By: _____
Chairman

_____
Commissioner

_____
Commissioner

Attest: _____
County Clerk and Recorder

STATE OF MONTANA)
: ss
County of Yellowstone)

On this ____ day of _____, 20__, before me, a Notary Public in and for the State of Montana, personally appeared _____, _____, and _____, known to me to be the Board of County Commissioners and the County Clerk and Recorder, respectively, of Yellowstone County, Montana, whose names are subscribed to the foregoing instrument in such capacity and acknowledged to me that they executed the same on behalf of Yellowstone County, Montana.

_____
Notary Public in and for the State of Montana
Printed Name: _____
Residing at: _____
My commission expires: _____

Waiver of Right to Protest

FOR VALUABLE CONSIDERATION, the undersigned, being the Subdivider and all of the owners of the hereinafter described real property, do hereby waive the right to protest the formation of one or more Rural Special Improvement Districts (RSID's), which Yellowstone County may require for a period of twenty years from the date of this document's recording.

This Waiver and Agreement is independent from all other agreements and is supported by sufficient independent consideration to which the undersigned are parties, and shall run with the land and shall be binding upon the undersigned, their successors and assigns, and the same shall be recorded in the office of the County Clerk and Recorder of Yellowstone County, Montana.

The real property hereinabove mentioned is more particularly described as follows:

Maplewood Estates

Signed and dated this _____ day of _____, 20__.

Subdivider/Owner: *Dan Wells as President of Regal Land Development, Inc.*

_____

STATE OF MONTANA)
: ss
County of Yellowstone)

On this ____ day of _____, 20__, before me, a Notary Public in and for the State of Montana, personally appeared _____, the person who executed the forgoing instrument and acknowledged to me that he/she executed the same.

IN WITNESS WHEROF, I have hereunto set my hand and affixed my Notarial Seal the day and year hereinabove written.

_____
Notary Public in and for the State of Montana

Printed name: _____
Residing in Billings, Montana
My commission expires: _____

Staley Property
Residential Subdivision

Traffic Impact Study

Prepared on behalf of:

In Site Engineering P.C.

March 2025

TRAFFIC & TRANSPORTATION CONSULTING

Traffic Impact Study

Prepared for submittal to:

for the project:

Staley Property Residential Subdivision

on behalf of:

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March 2025

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Cover Photos by 406 Traffic:

Upper right: Intersection signage, 72nd at Hesper
Bottom: Site as of Winter 2025, panoramic centered on southeast view from 72nd at O'Donnell

1 INTRODUCTION

This report documents the Traffic Impact Study conducted for the Staley Property Residential Subdivision project in unincorporated Yellowstone County, west of Billings. It is situated on multiple existing lots in Section 18, Township 01 S, R25 E. The study documented here was conducted as required by Yellowstone County Subdivision Regulations Section 4.6.C.4.B, in concert with In Site Engineering, P.C.

1.1 PROJECT SITE AND STUDY AREA

The site location is shown in **Exhibit 1** along with the intersections studied. The study intersections were identified in direct coordination with County staff. The five existing study intersections for this project are:

1. S 72nd St W at King Avenue West
2. S 72nd St W at O'Donnell Lane
3. S 72nd St W at Hesper Road
4. S 68th St W at Hesper Road
5. S 64th St W at Hesper Road

The project's proposed new access to S 72nd Street West was also studied with respect to intersection operations after the project is open. The other two proposed access points will be at the existing intersection of S 71st Street West with O'Donnell Lane and a new intersection with 68th Street. These local intersections are not examined separately in this study for two reasons. First, O'Donnell Lane and 68th Street are largely private and unlikely to carry significant non-project through traffic. Second, all traffic from this proposed subdivision is expected to use those intersections (and the project's new primary access south of O'Donnell) to access the arterial network directly. To that end, project-generated traffic was assigned to the existing 72nd at O'Donnell and 68th at Hesper intersections, respectively.

From here forward in this report, study intersections are generally referred to only by their distinguishing street names (e.g., "72nd at Hesper") for the sake of brevity.

1.2 ZONING AND LAND-USE CONTEXT

The project site and all study intersections are outside of the existing city limits and planning jurisdictions of both Laurel and Billings. The proposed development is to be located on what is currently rural, non-qualified agricultural land. Being outside of any city limits, no zoning restrictions are in place for this area. All of the adjacent land uses are either agricultural or rural residential, though the nearby Elder Grove School and Yellowstone Boys and Girls Ranch lie to the southeast and southwest of the project site respectively. These educational facilities are likely to attract some site traffic, but most project trips will come from the greater Billings area to the east, the city of Laurel to the southwest, and Interstate 90 to the east and the south.

1.3 PROJECT DESCRIPTION

The proposed project is a new single-family residential subdivision west of Billings. New local streets, as yet unnamed, will be built completely within the project site, and they will connect to one new site access onto S 72nd Street West, one existing access east of the 72nd at O'Donnell intersection, and one existing access north of the 68th at Hesper intersection. There are no plans to implement any turning restrictions at any of the proposed site access points. No access will be provided to the parts of either O'Donnell or 68th that are private.

A total of 93 lots will be platted. While these lots are expected to be sold and developed in two phases, this study considers only the full buildout of the project. The private park on the eastern part of the site is for Staley subdivision residents and their guests, and will not generate outside traffic at site access points. **Exhibit 2** shows the site plan and proposed access point locations for the proposed subdivision.

Exhibit 1. Overall Site Location and Study Intersections

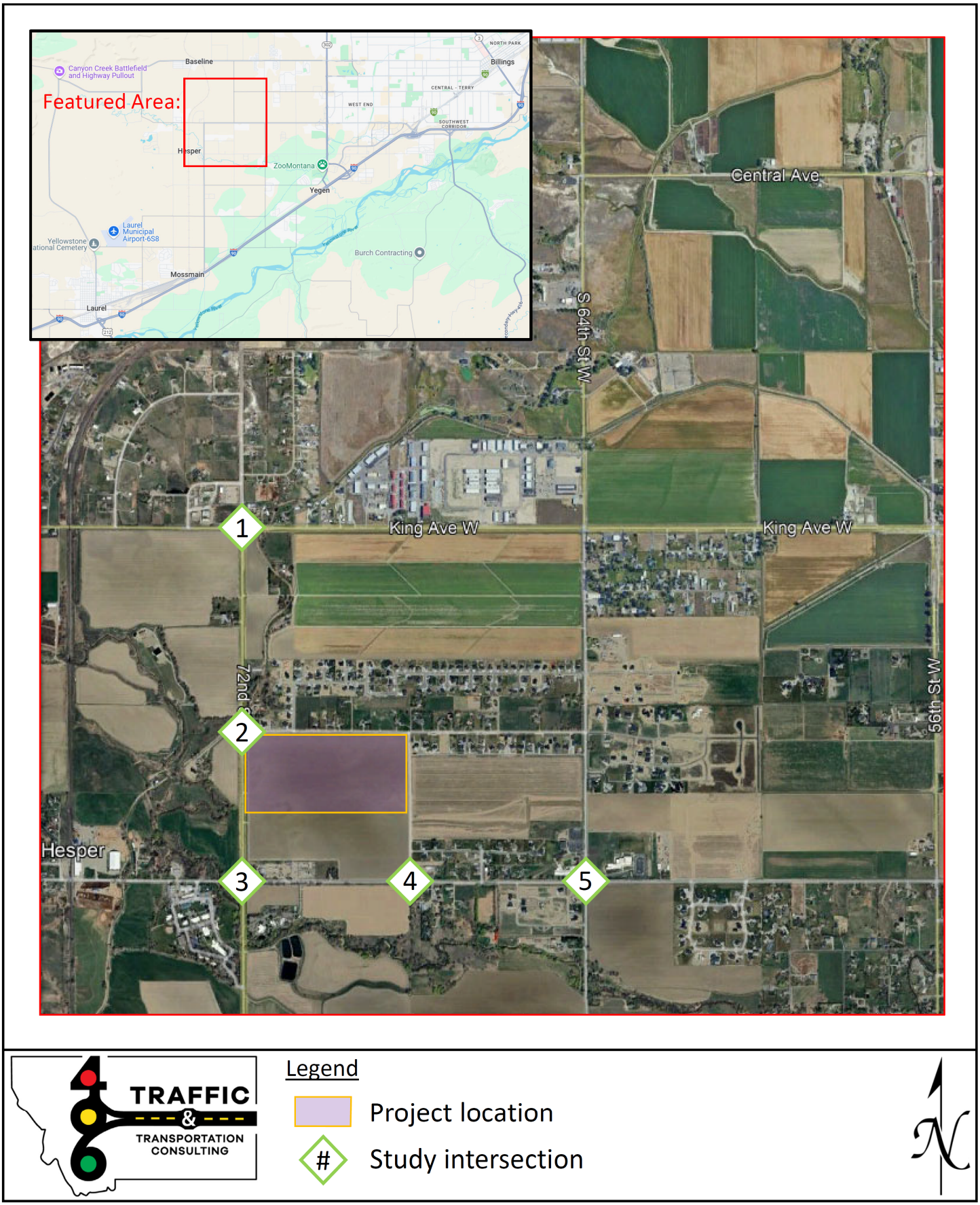
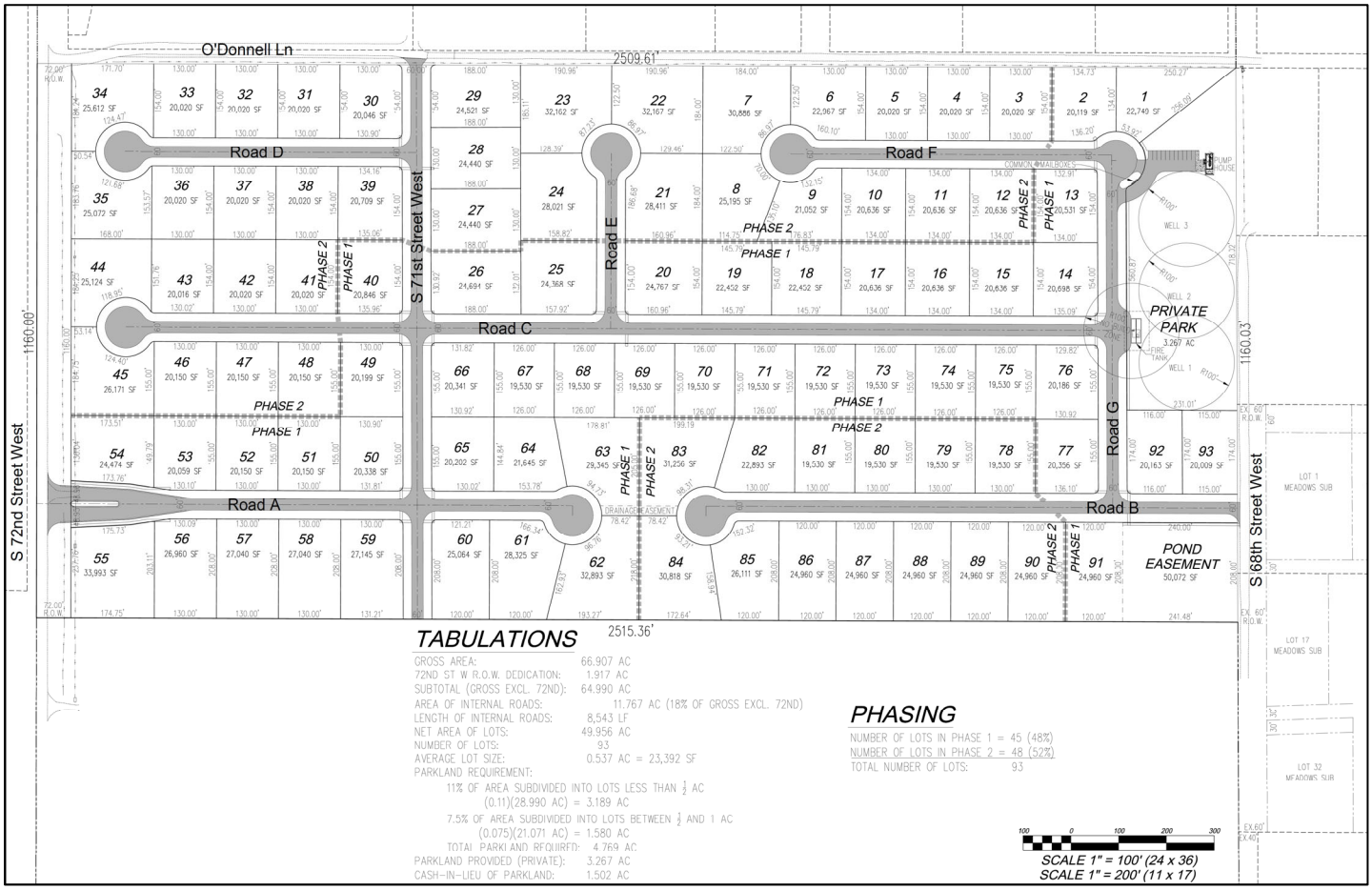


Exhibit 2. Site Plan



Source: In Site Engineering, 2/27/2025

1.4 ANALYSIS METHODS AND REFERENCES

Operational performance was analyzed at the study intersections using the industry-standard methods presented in the USDOT's Highway Capacity Manual (HCM), published in its modern form as Transportation Research Board Special Report 209. The Synchro software package, version 12, was employed as both a data repository and a capacity analysis tool. Reports for each intersection were generated using Synchro's application of the assumptions of the HCM's 7th edition, which is the most recent at the time of this study. The HCM methodology for intersection capacity analysis produces delay estimates for each turning movement (or "lane group", when multiple turning movements operate from the same lane). As indicated in **Exhibit 3**, these delay estimates are assigned Level of Service (LOS) grades that range from A (best) to F (worst). It's also important to note that for unsignalized intersections with only side-street stop sign control, LOS for the intersection is represented by the LOS for the worst lane group, which are most often on the stop-controlled side street approach. "T" intersections with side-street stop control also fall under this category.

Exhibit 3. LOS Definitions

LOS	Delay, seconds per vehicle
A	0 - 10.0
B	10.1 - 15.0
C	15.1 - 25.0
D	25.1 - 35.0
E	35.1 - 50.0
F	50.1 or more

Source: HCM 7th Edition

Operations impacts are determined by whether LOS relates to acceptability standards. According to the Yellowstone County subdivision regulations, the County employs a peak hour intersection LOS standard of C or better. If the future LOS at any intersection or approach is predicted to be lower than C, traffic mitigation measures such as turning lanes, roundabouts, all-way stops, or traffic signals may be required. Yellowstone County has required a signal warrant analysis for the 64th at Hesper intersection to be included in this study (see Appendix E).

2 EXISTING AND BASE CONDITIONS

2.1 STREETS AND INTERSECTIONS

S 72nd Street West is a rural north-south major collector with one travel lane in each direction. Its speed limit is 55 mph near its intersection with Hesper Road, 45 mph to the north of King Avenue West, and 60 mph elsewhere in the study area. For those not using Interstate 90 to the south, it serves as part of the primary "backroad" route between Laurel and Billings, connecting to King Avenue West and to Neibauer Road to the south of the study area. At its southern terminus after crossing over railroad tracks, it turns into Old US 10, which in turn connects to Interstate 90 and Laurel's Main Street. There is an exclusive right-turn lane at its intersection with King Avenue West, where right-turning vehicles only need to yield to eastbound traffic, unlike left-turning or through moving vehicles which are required to stop. There are no sidewalks or other multimodal facilities on 72nd.

Hesper Road is an east-west local road with one travel lane in each direction. Its default speed limit is 45 mph to the west of 64th and 50 mph to the east of it, but school zones mandate that these speed limits be lower on weekdays. The speed limit is 15 mph from 7:30 a.m. to 5 p.m. on school days near its intersection at 64th because Elder Grove School and Elder Grove Middle School are nearby. Its speed limit is 25 mph to the west of a bridge over Canyon Creek from 8 a.m. to 5 p.m. on school days due to its proximity to the Yellowstone Boys and Girls Ranch, which is at the southwest corner of the intersection with 72nd at Hesper. It connects these education facilities, local farms and residential neighborhoods, and the unincorporated Hesper community to Shiloh Road and Gabel Road in the southwestern Billings area. Short sidewalk segments connect the two schools on either side of 64th, but no other multimodal facilities are located on Hesper in the study area.

S 64th Street West is a rural north-south local road with one travel lane in each direction, though it was analyzed as a collector in this study. Its default speed limit is 50 mph within the study area, but the school zone near Elder Grove School calls for nearby speed limits to be lower. For traffic approaching the school zone from the north and from the south, the speed limit is gradually lowered from 50 mph to 45 mph, then to 35 mph, and finally to 15 mph from 7:30 a.m. to 5 p.m. on school days to the north of Hesper Road. The school zone's 15 mph signs are equipped with solar-augmented dynamic speed displays. 64th St W connects Elder Grove School and local farms and neighborhoods to east-west routes such as King Avenue West, Grand Avenue at its northern terminus, and Neibauer Rd, which turns into Shiloh Road to the east. S 64th St W turns into Laurel Airport Road at its southern terminus. It is usually not part of the preferred non-interstate route between Billings and Laurel because of its lower speed limits, particularly in the school zone near Elder Grove School. A pedestrian crosswalk crosses the northern leg of its Hesper intersection, but no other multimodal facilities are located on 64th in the study area.

King Avenue West, in the study area, is an east-west rural major collector with one travel lane in each direction and a speed limit of 60 mph. From 88th St eastward, it collects traffic from north-south routes between Billings and Laurel. It connects small residential neighborhoods, farms, and some industrial developments with the greater Billings area where it becomes one of the city's busiest commercial corridors before intersecting Interstate 90 and transitioning to Mullowney Lane. There are no sidewalks or other multimodal facilities on King Avenue in the study area.

O'Donnell Lane is an east-west local road with unmarked travel lanes and no posted speed limit. It becomes narrow and unpaved to the east of its intersection with S 71st St W. Presently, it largely serves as an access road linking the Skycrest Estates subdivision and a few other private residences to 72nd. It also intersects 64th to the east of the study area, but this unpaved road segment is for private residents only and is not intended for through traffic. It is gated and signed as such at both 71st and 64th.

S 68th Street West is an unpaved north-south local road with no posted speed limit. It currently serves as an access road for the Lackman subdivision. It intersects Elder Grove Lane and O'Donnell Lane to the north, but

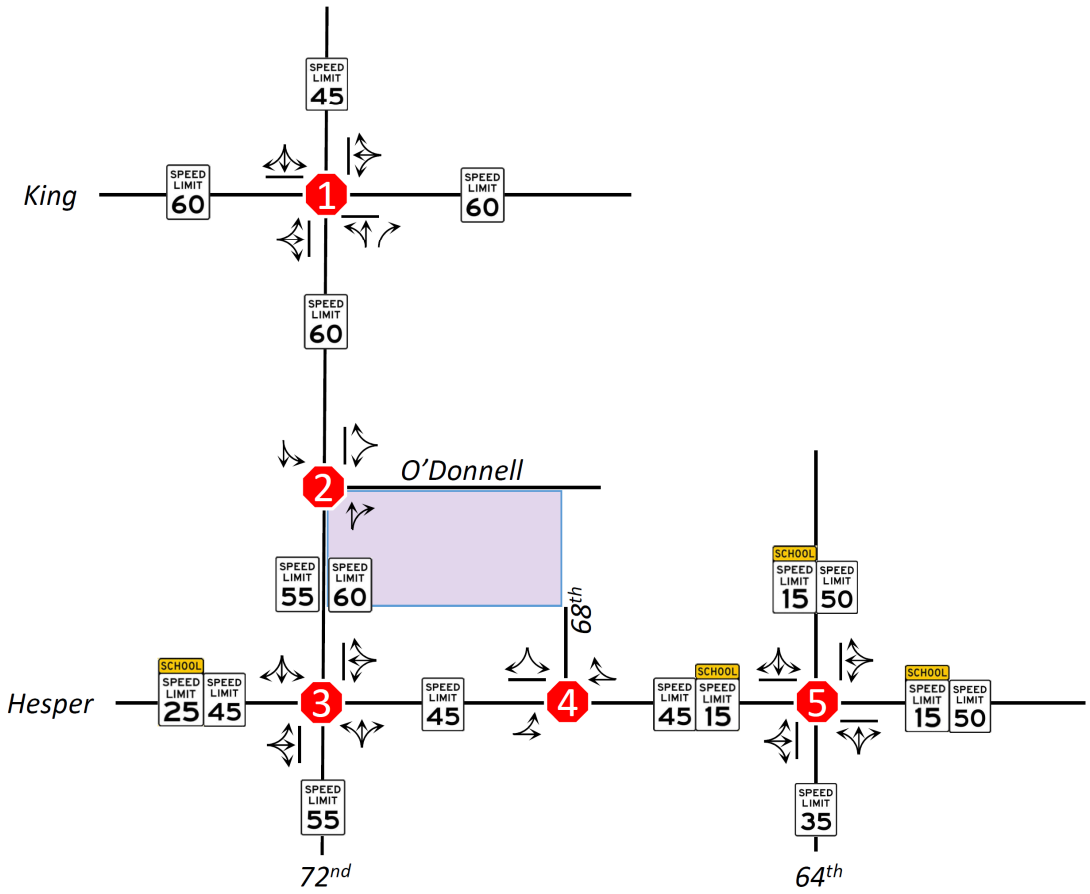
access to the adjacent private properties north of the vicinity of this subdivision's proposed site access was blocked by a farm gate until recently.

No signal-controlled intersections currently exist within the study area; all five study intersections are currently stop-controlled. The intersections of 72nd at King and 64th at Hesper are all-way stop-controlled, while the other three study intersections are two-way stop-controlled. There are suspended flashing signal heads at both all-way stop-controlled intersections, as well as at the intersection of 72nd at Hesper. Note that T-intersections with a stop sign at only one leg of the intersection are also considered two-way stop-controlled. **Exhibit 4** shows traffic control and lane arrangements schematically at each existing intersection, as well as posted speed limits on selected road segments.

2.2 HISTORICAL TRAFFIC VOLUMES

Daily traffic information was gathered from the Montana Department of Transportation's (MDT's) public-facing data resource, the Transportation Data Management System. The MDT either collects or estimates traffic counts at multiple locations in the study area from which their annualized average daily traffic (AADT) data was used in this study. Three locations provided meaningful traffic information, but for two of them, MDT has only reported data starting with 2018 counts, and those counts showed some outlying values. For this reason, volumes were examined over the past six years available (2019 through 2024) for a historical perspective. These locations are on 72nd south of King, on King east of 72nd, and on 64th north of Hesper. The historical AADT volumes at these locations are shown in **Exhibit 5**.

Exhibit 4. Road and Intersection Basics



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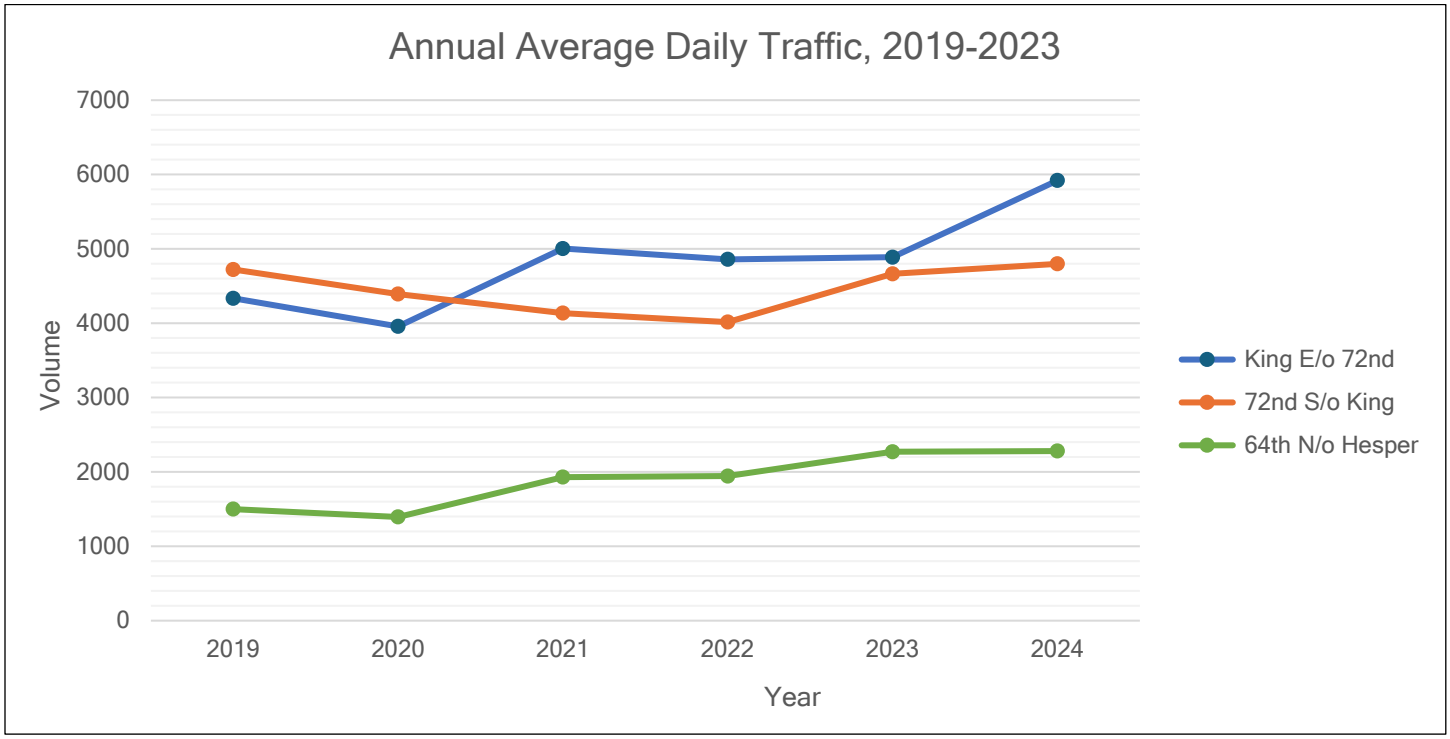
Legend

- # Study intersection (stop)
- Lane group with stop sign
- Lane group without stop sign
- Project Site
- SPEED LIMIT 50 Speed Limit (Selected Locations)

Exhibit 5. Historical AADT



Source: MDT Transportation Data Management System: retrieved 2/25/2025

A few trends can be discerned from these data. The COVID-19 pandemic caused a slight decrease in traffic in 2020, but at two of the three locations traffic levels rebounded in 2021 to exceed pre-pandemic levels. Recovery has taken longer at the 72nd count location. Based on these counts, an annual average traffic growth rate of 4.25% per year was used for this project's traffic. This growth rate was applied to all existing volumes in order to estimate short-term future traffic and assess potential project impacts to intersection operations.

2.3 Recent Traffic Counts

The study intersections were counted for this project from 7-9 a.m. and from 4-6 p.m. at four of the five study intersections on Wednesday, February 13, 2025 using Miovision cameras. The fifth, 64th at Hesper, was counted from 7 a.m. to 7 p.m. to support the required examination of traffic signal warrants there. Counts were summarized for analysis in 15-minute increments. Based on total entering volume (TEV), the AM peak hour was identified from these counts as starting at 7:15 a.m. The PM peak hour started at 4 p.m. for most intersections and at 3 p.m. for the 64th at Hesper intersection, where the Elder Grove schools are located. This finding is consistent with the school release time occurring about an hour before the traditional afternoon commute traffic peak. The raw count data for each intersection is provided in **Appendix A**.

Counts at all three study intersections were adjusted for seasonal variation using the MDT's 2023 seasonal adjustment factors for a February Thursday on (a) urban rural collectors and (b) rural minor arterial/major collectors in MDT financial district 5, which are 1.026 and 1.262, respectively. Existing annualized traffic volumes based on these counts are shown in **Exhibit 6**. (MDT's 2024 AADT counts are grown by one year to match this study's existing 2025 traffic counts.)

2.4 Projected Traffic Without the Proposed Development

Using the aforementioned 4.25% annual growth rate, existing peak hour traffic was projected four years into the future (2029). This future study year was chosen to reflect the time needed for permitting, site preparation, utility work, lot sales, and the construction and occupancy of the homes themselves, along with an additional year to account for traffic generated by the project to stabilize. **Exhibit 7** shows 2029 Background traffic.

Exhibit 6. Existing Annualized Traffic Volumes

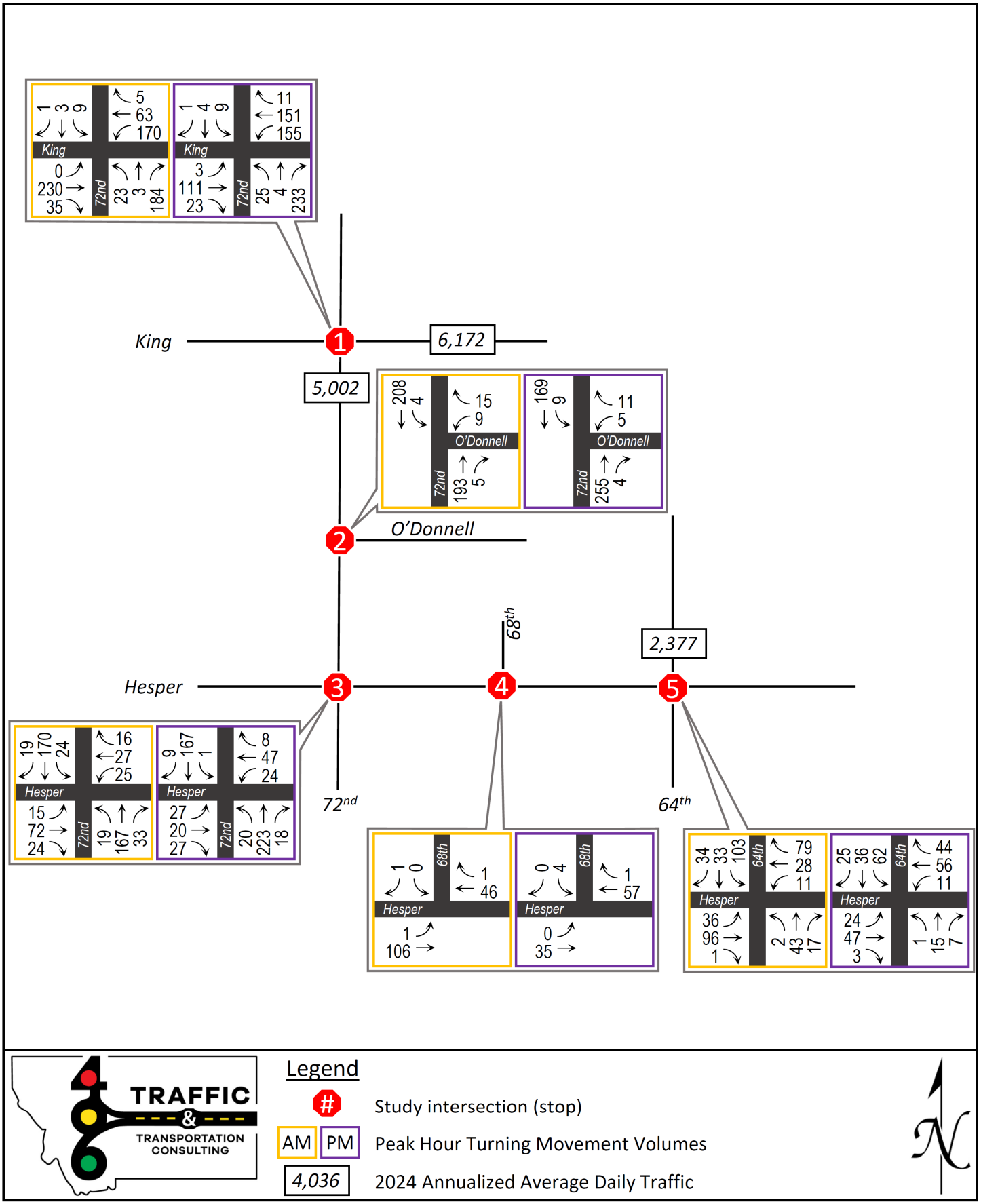
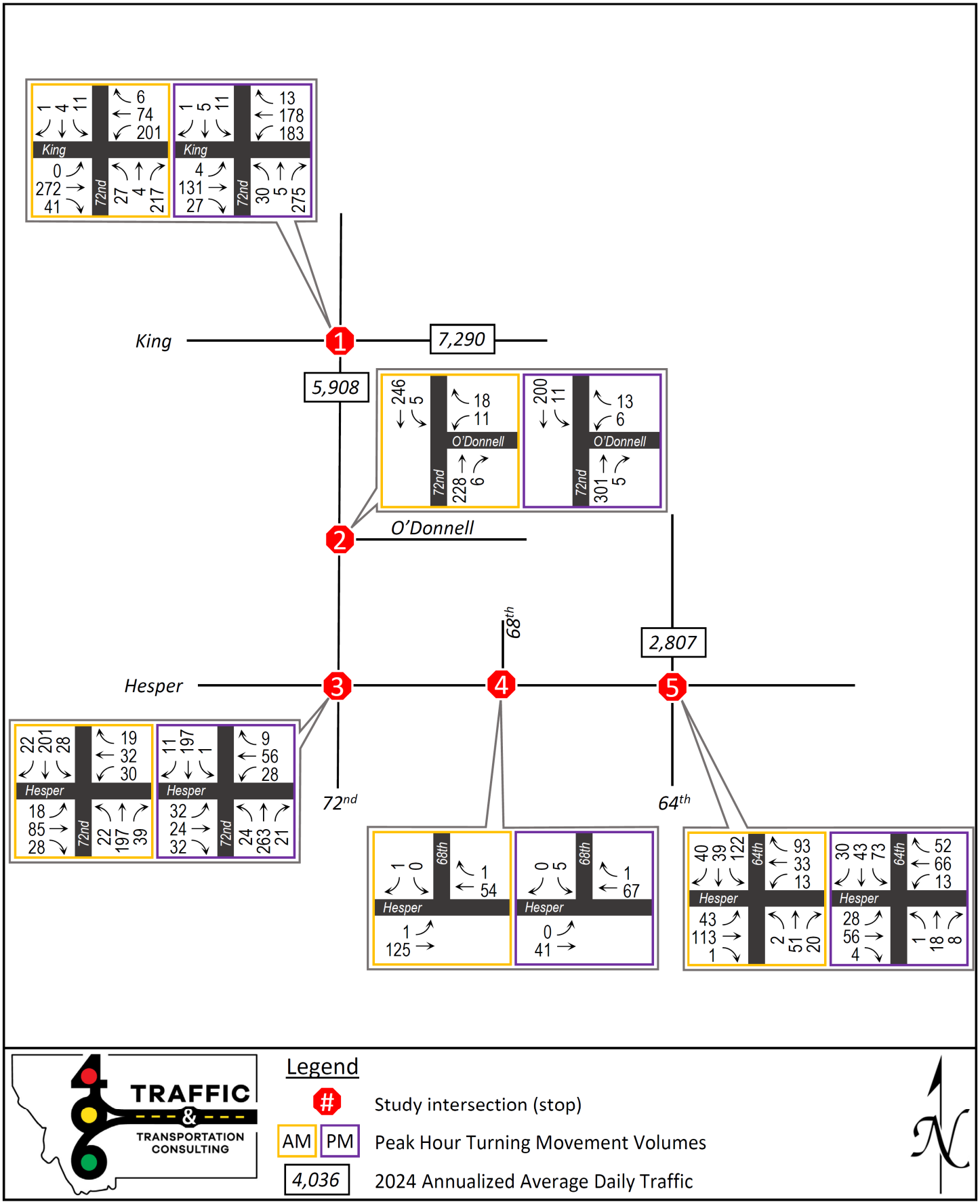


Exhibit 7. Projected 2029 Background Traffic Volumes



3 TRIP GENERATION AND DISTRIBUTION

3.1 TRIP GENERATION

Trip generation rates, or equations as applicable, are from the Institute of Transportation Engineers (ITE) Trip Generation package's 11th edition. ITE trip generation data, when aggregated across enough varied sites, produce both simple average rates and best-fit equations, either linear or logarithmic, to help the analyst derive proper estimates for their situation. Equations are generally preferred over rates when both are available, especially for larger sites where trip generation per unit of land use can diminish with increasing project size.

Three types of adjustments to trip generation were evaluated for this project. First, a discount is sometimes taken to reflect internal capture where multiple uses are present in a single project site. All of the project site's lots will be for homes, so no such discount is taken for this single-use project. Second, modal reductions are sometimes taken where facilities and services for walking, cycling, and transit are more robust than in a "general urban/suburban" environment in which most ITE uses are studied. No such facilities exist near the project site, so no modal reductions are applied. Finally, some land uses attract trips that were already using the adjacent or nearby road network by virtue of improved convenience over a similar site that would have been used before. These are called "pass-by" and "diverted-linked" trips. Pass-by trips are those on streets bordering the site, while diverted-linked trips are those that might go slightly out of their way to stop at the establishment on their way to their destination. These reductions do not apply to this project because peak-hour travelers do not tend to make discretionary stops at residences like these on their way to somewhere else.

The summary of projected trip generation for the project is provided in **Exhibit 8**. Note that in/out splits are only meaningful for peak hour traffic.

Exhibit 8. Trip Generation

ITE 210: Single-Family	Daily	AM Peak Hour		PM Peak Hour	
Detached Home	**Equation**/rate	**Equation**/rate	In / Out	**Equation**/rate	In / Out
X = 93 Dwelling Units	Ln(T)=0.92Ln(X)+2.68	Ln(T)=0.91Ln(X)+0.12	25%/75%	Ln(T)=0.94Ln(X)+0.27	63%/37%
Trips (T):	944	70	18 / 52	93	59 / 34

Source: Equations from ITE Trip Generation, 11th Edition.

3.2 TRIP DISTRIBUTION AND ASSIGNMENT

Trip distribution has been estimated for the roads surrounding the project site in percentages that add to 100%. Trip distribution and assignment estimates were developed by considering the site's location relative to regional roadways and other major trip generators. Farther from the site, traffic eventually disperses in smaller percentages to other routes. No project trips were assigned to Hesper Road east of 72nd or to 64th south of Hesper Road because there are no major trip generators in those directions. Trip distribution percentages are shown in **Exhibit 9**.

The project-generated trips presented as peak hour intersection turning movement volumes are shown in **Exhibit 10**, and the estimated total intersection volumes with the project are shown in **Exhibit 11**. These total intersection volumes were calculated by adding the new project trips to the 2029 background trips.

Exhibit 9. Distribution of Project Trips

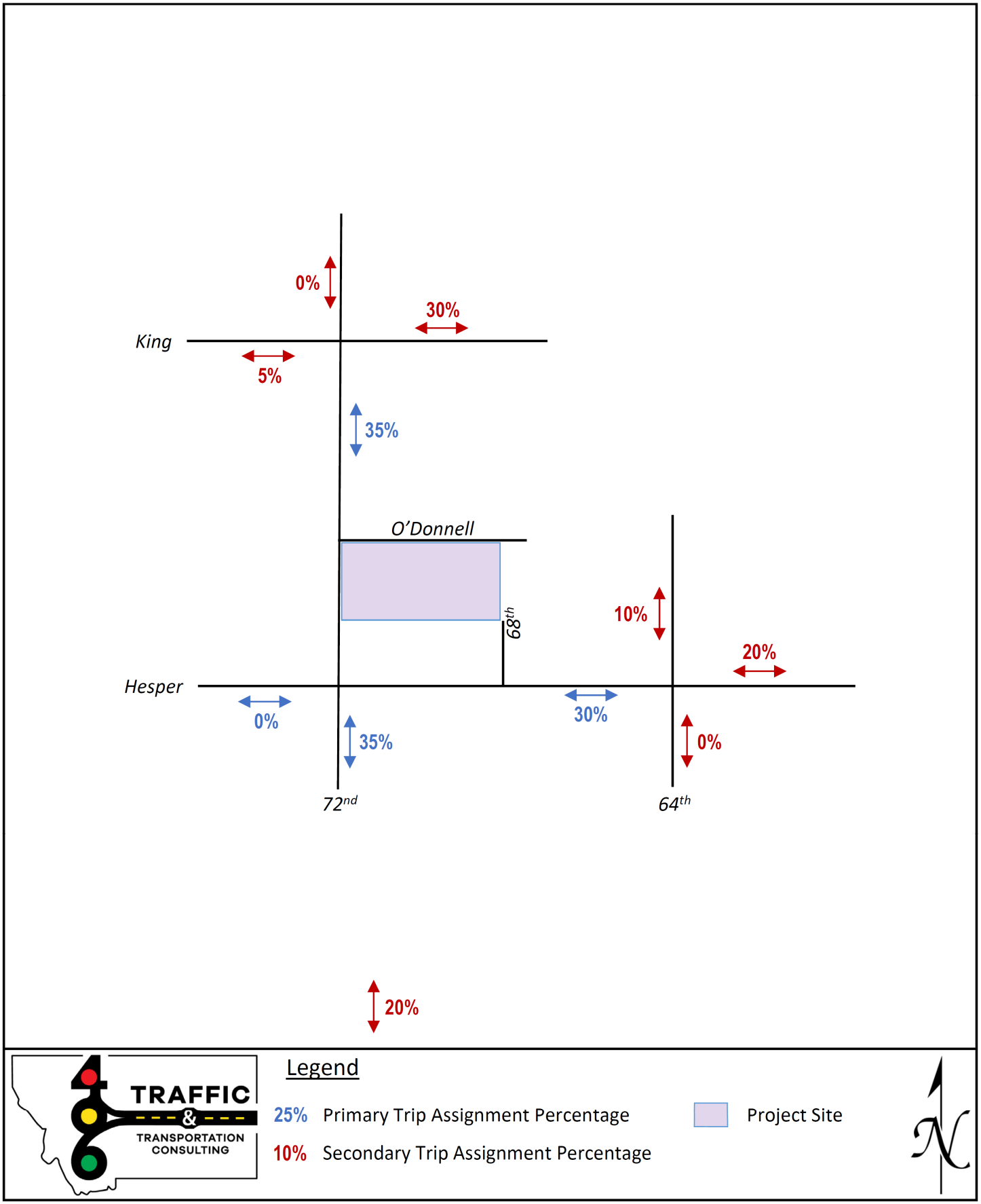


Exhibit 10. Project Trip Assignment

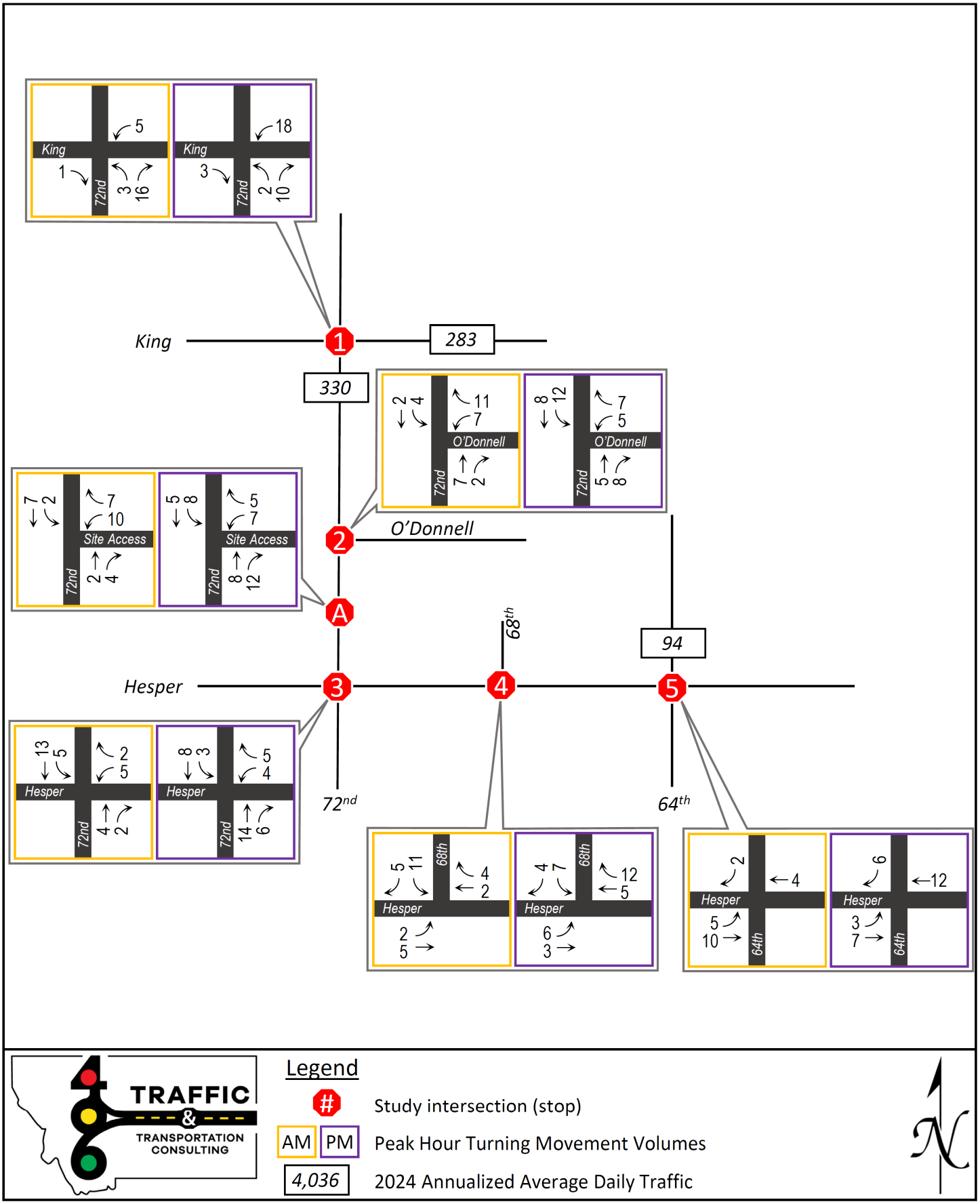
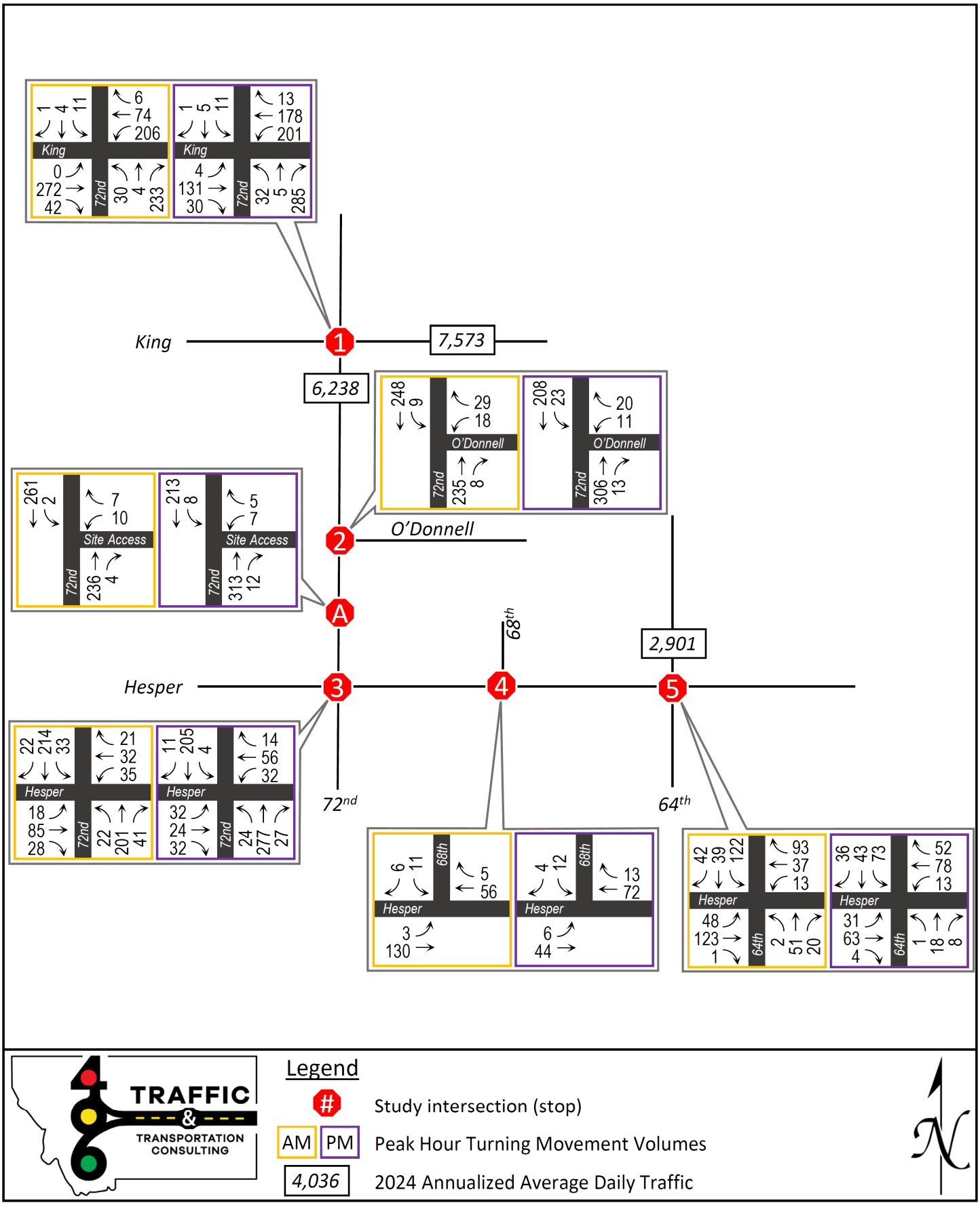


Exhibit 11. 2029 Total Traffic with Project



4 TRAFFIC ANALYSIS RESULTS

4.1 INTERSECTION OPERATIONS

As mentioned earlier, all study intersections operate with stop control in all scenarios. The peak hour intersection Level of Service (LOS) and delay results with and without the project are shown in **Exhibit 12**. Analysis software results are provided in Appendix B.

Exhibit 12. Intersection LOS and Delay Results

	Intersection	Traffic Control	LOS (delay, seconds/vehicle) Existing	Future Background	Future With Project	*TWSC Worst Lane Group**
AM Peak	1. 72nd at King	AWSC	B (11.8)	B (14.3)	B (14.8)	-
	2. 72nd at O'Donnell	TWSC	B (10.4)	B (10.9)	B (11.3)	WB
	3. 72nd at Hesper	TWSC	C (15.5)	C (18.8)	C (20.3)	EB/WB**
	4. 68th at Hesper	TWSC	A (8.6)	A (8.7)	A (9.7)	SB
	5. 64th at Hesper	AWSC	B (12.3)	C (16.0)	C (17.2)	-
	6. 72nd at New Access	TWSC	-	-	B (11.5)	WB
PM Peak	1. 72nd at King	AWSC	B (11.3)	B (13.8)	B (14.7)	-
	2. 72nd at O'Donnell	TWSC	B (10.6)	B (11.2)	B (11.7)	WB
	3. 72nd at Hesper	TWSC	B (14.7)	C (17.0)	C (18.0)	WB
	4. 68th at Hesper	TWSC	A (9.2)	A (9.3)	A (9.5)	SB
	5. 64th at Hesper	AWSC	A (9.6)	A (9.9)	B (10.3)	-
	6. 72nd at New Access	TWSC	-	-	B (12.0)	WB

* *Worst lane group is the one that determines the intersection LOS at a Two-Way Stop Controlled intersection.*
*** In the AM peak for 72nd at Hesper, the EB approach is worst for both conditions without the project, while WB is worst with the project.*

The results in the table indicate that traffic generated by the project would result in peak intersection delays of LOS C or better. The highest-delay result found is projected to occur in the AM peak hour for the 72nd at Hesper intersection, where multiple traffic movements would see slightly increased volumes from the project. However, estimated future-year delay is still well within the LOS range. With all intersections projected to operate within the peak hour LOS standard documented previously in Section 1.4, no mitigations are necessary to reduce the delay impacts of project-generated traffic.

4.2 AUXILIARY TURN LANES

MDT turn lane analysis was conducted for all turning movements with 40 or more right turning vehicles or 20 or more left turning vehicles on the free-flowing legs of public roads at study intersections and site access points. This analysis was conducted in accordance with the MDT *Traffic Engineering Manual*, Section 28.4.1, using the peak hour total traffic volumes shown previously in Exhibit 10 of this report. For left turn analysis, the MDT chart for a 60 mph design speed was used despite some roadway segments in the study area having current 50 mph posted speed limits because posted speed can vary from design speed. The turning movement conditions that qualified and were subject to this analysis are indicated in **Exhibit 13**, as defined by their peak hour and approach direction.

Exhibit 13. Locations Qualified for Auxiliary Turn Lane Analysis

	Right Turns (40+ vph)		**Left Turns** (20+ vph)	
Intersection	**AM Peak**	**PM Peak**	**AM Peak**	**PM Peak**
2. 72nd at O'Donnell	-	-	-	SB
3. 72nd at Hesper	NB	-	NB, SB	NB
4. 68th at Hesper	-	-	-	-
6. (A) New Access to 72nd	-	-	-	-

None of the six total AM inbound movements at the site access points (considered for this analysis as intersections 2, 4, and 6) qualified for turn lane analysis, and in the PM only one, the SB left at O'Donnell would exhibit a qualifying volume. None of them met MDT's standard for consideration of new turn lanes. The remainder of the qualifying turn lane conditions in the future would occur for the 72nd at Hesper intersection, and none of those would meet the standard for new turn lanes either. However, the AM peak hour SB left turn would be close, and with additional future growth in non-project, would be expected to warrant consideration in 6-7 years. Completed charts for these auxiliary right- and left-turn lane analyses are provided in Appendix C.

5 CRASH HISTORY ANALYSIS

Information reported in this crash history analysis includes the total number of reported crashes, injuries, and fatalities, the crash frequencies, crash rates, and severity indices, and the types of collisions at each of the five study intersections. Crash data were acquired from MDT for the 5-year time frame from January 1, 2019 through December 31, 2023, the most recent such period for which crash data were available at the time of this study.

5.1 CRASH FREQUENCY

The following formula was used to calculate crash frequencies for each of the five study intersections, where CF = crash frequency measured in crashes per year:

$$CF = \frac{Total\ Crashes\ within\ time\ period}{Time\ Period}$$

5.2 CRASH RATE

Crash rates, measured in crashes per million entering vehicles, were computed using the following formula, where CF = crash frequency measured in crashes per year, and DEV = daily entering volume:

$$Crash\ Rate = \left(\frac{CF}{365} \div DEV\right) \times 1{,}000{,}000$$

The crash frequency is divided by 365 days per year to approximate the average number of crashes per day.

In order to calculate the crash rate, the project's field data for peak hour entering volume needed to be converted to a daily average. The average daily entering volumes for the study period were calculated using the following formula, where DEV = daily entering volume, Peak Hour TEV = the total entering volume during the study's current highest peak hour, GrowthFactor = the estimated average annual growth rate assumed for this study based on MDT historical data, and k = an average K-Factor from MDT's public-facing traffic count database system for the same three locations where historic AADT is reported:

$$DEV = \frac{Peak\ Hour\ TEV \times k}{GrowthFactor^3}$$

Because of the unusually high portion of daily trips taking place during the peak hour at the intersection of 64th at Hesper, and because of the intersection's close proximity to the traffic counting location on 64th, the K-factor used in calculating the daily entering volume at this intersection is derived solely from the traffic counting location on 64th.

The Peak Hour TEV is divided by the annual growth rate cubed (to represent three years of growth) and multiplied by a K-Factor to estimate the average daily entering volumes across the five-year period from which crash data is available. For this calculation, the average DEV is assumed to have occurred in 2021, the middle year of that period.

5.3 CRASH SEVERITY INDEX

The formula below was used to calculate the crash severity index for each of the five study intersections, where K = the number of fatal crashes, ABC = the number of crashes involving an injury of any severity, and PDO = the number of property damage only crashes:

$$Severity\ Index = \frac{(8 \times K) + (3 \times ABC) + (1 \times PDO)}{Total\ Crashes}$$

This formula assigns a weight to each crash severity. For example, an injury crash is considered three times as severe as a PDO crash in this calculation. These weighting coefficients are used by MDT and were provided by a Yellowstone County designee for use in this study.

5.4 CRASH ANALYSIS SUMMARY

Exhibit 14 tabulates the results of the study area crash history analysis.

Exhibit 14. Crash History Analysis Results

Reported Crash Types, Injuries, and Fatalities:					
Study Intersection	72nd at King	72nd at O'Donnell	72nd at Hesper	68th at Hesper	64th at Hesper
Right angle	2		7		1
Fixed Object	4		1		
Roll Over	1		1		
Wild Animal		1	1		
Rear-End			1		
Left Turn, Opposite Direction			1		
Total Reported Crashes	7	1	12	0	1
Total Number of Fatalities	0	0	0	0	0
Total Number of Injuries	0	0	5	0	0
Crash Severities, Frequencies, and Rates:					
Study Intersection	72nd at King	72nd at O'Donnell	72nd at Hesper	68th at Hesper	64th at Hesper
Property Damage Only Crashes	7	1	8		1
Suspected Minor Injury Crashes			3		
Suspected Serious Injury Crashes					
Fatal Crashes					
Unknown			1		
Crash Frequency (crashes/year)	1.4	0.2	2.4	-	0.2
Daily Entering Volume, crash study midpoint year	5744	3565	4808	1228	2320
Crash Rate (crashes per million entering vehicles)	0.67	0.15	1.37	-	0.24
Severity Index	1.0	1.0	1.5	0.0	1.0

The highest crash frequency, crash rate, and severity index occurred at the intersection of 72nd at Hesper. It is the only study intersection where crashes involving injuries occurred, and it is where the most PDO crashes occurred during the 5-year study period. Right-angle crashes were the most frequent type of collision to occur at this intersection. These collisions are often related to the failure of a side-street driver to properly yield the right of way when facing a stop sign. Two of the crashes that involved minor injuries were right-angle collisions, while the other was a left-turn, opposite direction collision. The crash of unknown severity at the intersection of 72nd at Hesper was also a right-angle collision and was treated as a PDO crash because no recorded injuries or fatalities were associated with it. The only crash that occurred at the intersection of 72nd at O'Donnell involved a wild animal, so it was not directly related to an intersection conflict. No crashes were reported at the intersection of 68th at Hesper, and no fatal crashes or serious injuries were reported at any of the five study intersections during the 5-year time period.

6 INTERSECTION COST PARTICIPATION

The net new trips identified in this report are subject to examination under Yellowstone County's cost participation program to the extent that they would travel through studied intersections. Cost participation has been estimated for the three public-street intersections in this study under the assumptions that (a) the peak with the highest percentage of trips added to the intersection's critical volume governs contribution and (b) site traffic must result in an increase of 2% in total critical-movement volume, after project trips are considered, to be subject to cost participation. Once it is demonstrated that an intersection is eligible, the applicant pays the entire percentage, not just the marginal part above 2%, unless another arrangement is made with the County. **Exhibit 15** shows the intersection cost participation summary for project trips.

Exhibit 15. Intersection Cost Participation

Intersection	AM	PM	Value in Higher Peak, if 2% or Greater
1. 72nd at King	0.7%	1.7%	-%
2. 72nd at O'Donnell	1.6%	1.9%	-%
2. 72nd at Hesper	1.5%	1.8%	-%
4. 68th at Hesper	1.4%	1.6%	-%
5. 64th at Hesper	0.8%	1.3%	-%
	Total Participation %:		**0%**
		x $500,000	**$0**

None of the intersections studied would experience a high enough critical-movement volume increase due to the project to require participation in the cost of future improvements. The detailed cost participation calculations for project trips are provided in Appendix D.

7 CONCLUSIONS AND RECOMMENDATIONS

The Staley Property Residential Subdivision project has been studied in accordance with Yellowstone County TIS guidelines and the latest traffic engineering industry standards and references for traffic impact analysis. Because no traffic impacts are indicated with respect to the County's LOS C standard for peak hour intersection operations, no mitigations for traffic operations are recommended as a result of this project. All intersections with two-way stop control were examined with respect to MDT warrants for auxiliary turn lanes, and no turn lanes were found to be warranted with or without this project in the study timeframe. Under the background traffic growth assumptions used here, a southbound left turn lane on 72nd at Hesper Road has been shown to be warranted a few years after this subdivision opens, and is therefore recommended for the County's independent consideration. No intersection cost participation is indicated by the traffic analysis documented in this report.

This concludes the Staley Residential Traffic Impact Study.

Appendix A: Raw Traffic Count Data

Study Name **72nd Street & King Avenue**
Start Date **2/13/2025**
Start Time **7:00 AM**
Site Code
Project **406 Yellowstone County Counts**

Type **Road**
Classification **Totals**

	72nd St W Southbound				King Avenue W Westbound				72nd St W Northbound				King Avenue W Eastbound			
Start Time	Right	Thru	Left	U	Right	Thru	Left	U	Right	Thru	Left	U	Right	Thru	Left	U
7:00 AM	0	0	2	0	0	5	20	0	30	0	4	0	5	48	0	0
7:15 AM	0	1	2	0	1	5	31	0	33	0	3	0	11	46	0	0
7:30 AM	0	0	3	0	0	11	41	0	47	1	1	0	8	64	0	0
7:45 AM	0	0	0	0	0	13	34	0	38	1	8	0	5	46	0	0
8:00 AM	1	1	2	0	3	21	29	0	28	0	6	0	4	26	0	0
8:15 AM	0	2	2	0	1	15	21	0	26	0	1	0	4	27	0	0
8:30 AM	0	0	2	0	0	25	25	0	27	0	1	0	4	28	0	0
8:45 AM	0	0	0	0	0	13	15	0	23	0	3	0	3	24	0	0
4:00 PM	1	0	3	0	2	27	25	0	54	0	5	0	6	28	0	0
4:15 PM	0	2	1	0	3	31	31	0	49	0	7	0	6	28	2	0
4:30 PM	0	1	1	0	2	24	29	0	39	2	4	0	4	18	0	0
4:45 PM	0	0	2	0	2	38	38	0	43	1	4	0	2	14	0	0
5:00 PM	0	0	1	0	1	27	45	0	26	1	3	0	6	22	0	0
5:15 PM	0	0	4	0	2	38	38	0	34	0	6	0	1	20	0	0
5:30 PM	0	0	1	0	3	31	27	0	41	0	3	0	7	12	0	0
5:45 PM	1	1	0	0	1	28	36	0	35	0	5	0	3	15	0	0

Study Name **72nd St & O'Donnell Lane**
Start Date **2/13/2025**
Start Time **7:00 AM**
Site Code
Project **406 Yellowstone County Counts**

Type **Road**
Classification **Totals**

	72nd St W Southbound				O'Donnell Lane Westbound				72nd St W Northbound				O'Donnell Lane Eastbound			
Start Time	Right	Thru	Left	U	Right	Thru	Left	U	Right	Thru	Left	U	Right	Thru	Left	U
7:00 AM		25	1	0	0		4	0	0	37		0				
7:15 AM		41	2	0	5		2	0	1	37		0				
7:30 AM		52	0	0	3		1	0	1	39		0				
7:45 AM		37	0	0	3		2	0	2	45		0				
8:00 AM		35	1	0	1		2	0	0	32		0				
8:15 AM		25	2	0	0		1	0	1	23		0				
8:30 AM		28	2	0	0		0	0	1	34		0				
8:45 AM		18	0	0	2		0	0	1	20		0				
4:00 PM		29	0	0	3		2	0	2	66		0				
4:15 PM		37	2	0	3		0	0	0	47		0				
4:30 PM		35	1	0	1		1	0	1	41		0				
4:45 PM		33	4	0	2		1	0	0	48		0				
5:00 PM		52	0	0	0		3	0	2	29		0				
5:15 PM		35	0	0	1		2	0	2	39		0				
5:30 PM		33	0	0	0		1	0	1	46		0				
5:45 PM		36	4	0	0		3	0	2	33		0				

Study Name **Hesper Road & 72nd Street**
Start Date **2/13/2025**
Start Time **7:00 AM**
Site Code
Project **406 Yellowstone County Counts**

Type **Road**
Classification **Totals**

	S 72nd St W Southbound				Hesper Road Westbound				S 72nd St W Northbound				Hesper Road Eastbound			
Start Time	Right	Thru	Left	U	Right	Thru	Left	U	Right	Thru	Left	U	Right	Thru	Left	U
7:00 AM	1	27	1	0	2	5	4	0	5	27	0	0	3	17	8	0
7:15 AM	1	34	4	0	2	2	4	0	5	28	1	0	5	11	6	0
7:30 AM	7	39	7	0	1	2	2	0	10	36	3	0	4	20	3	0
7:45 AM	4	33	6	0	5	9	8	0	8	37	4	0	5	20	2	0
8:00 AM	3	29	2	0	5	8	6	0	3	31	7	0	5	6	1	0
8:15 AM	4	26	0	0	0	6	1	0	0	21	10	0	4	4	4	0
8:30 AM	5	19	1	0	0	2	1	0	7	28	3	0	5	5	5	0
8:45 AM	4	14	1	0	0	1	2	0	1	17	5	0	2	8	2	0
4:00 PM	2	22	0	0	2	10	7	0	4	58	2	0	8	10	7	0
4:15 PM	1	41	0	0	0	9	3	0	5	42	2	0	8	0	6	0
4:30 PM	1	33	1	0	4	10	5	0	1	35	6	0	2	4	3	0
4:45 PM	3	36	0	0	0	8	4	0	4	42	6	0	3	2	5	0
5:00 PM	6	46	0	0	0	7	7	0	4	29	6	0	2	7	3	0
5:15 PM	1	35	1	0	3	11	3	0	1	38	3	0	3	2	2	0
5:30 PM	1	30	3	0	1	5	7	0	6	35	5	0	2	3	4	0
5:45 PM	6	29	1	0	1	7	2	0	5	36	4	0	5	0	2	0

Study Name **Hesper Road & 68th Street**
Start Date **2/13/2025**
Start Time **7:00 AM**
Site Code
Project **406 Yellowstone County Counts**

Type **Road**
Classification **Totals**

	S 68th St W Southbound				Hesper Road Westbound				S 68th St W Northbound				Hesper Road Eastbound			
Start Time	Right	Thru	Left	U	Right	Thru	Left	U	Right	Thru	Left	U	Right	Thru	Left	U
7:00 AM	1		0	0	0	10	0						22	0	0	
7:15 AM	0		0	0	0	6	0						20	0	0	
7:30 AM	0		0	0	0	5	1						31	1	0	
7:45 AM	0		0	0	1	24	0						30	0	0	
8:00 AM	1		0	0	0	15	0						9	0	0	
8:15 AM	0		0	0	0	8	0						5	0	0	
8:30 AM	0		0	0	0	2	0						7	1	0	
8:45 AM	0		0	0	0	3	0						7	1	0	
4:00 PM	0		1	0	0	20	0						13	0	0	
4:15 PM	0		3	0	0	9	0						8	0	0	
4:30 PM	0		0	0	1	13	0						7	0	0	
4:45 PM	0		0	0	0	14	0						6	0	0	
5:00 PM	0		0	0	0	10	0						9	0	0	
5:15 PM	0		0	0	0	18	0						6	0	0	
5:30 PM	1		0	0	0	11	0						11	0	0	
5:45 PM	0		0	0	0	10	0						7	0	0	

Study Name **Hesper Road & 64th Street**
Start Date **2/13/2025**
Start Time **7:00 AM**
Site Code
Project **406 Yellowstone County Counts**

Type **Road**
Classification **Totals**

	64th St W Southbound				Hesper Road Westbound				64th St W Northbound				Hesper Road Eastbound			
Start Time	Right	Thru	Left	U	Right	Thru	Left	U	Right	Thru	Left	U	Right	Thru	Left	U
7:00 AM	0	3	11	0	3	11	1	0	1	4	0	0	0	21	1	0
7:15 AM	2	2	12	0	6	4	4	0	4	3	0	0	0	21	3	0
7:30 AM	3	4	14	0	12	3	2	0	6	11	1	0	1	26	9	0
7:45 AM	14	13	50	0	54	14	3	0	5	19	0	0	0	34	21	0
8:00 AM	14	13	24	0	5	6	2	0	2	9	1	0	0	13	2	0
8:15 AM	1	5	4	0	3	8	2	0	0	6	0	0	0	5	1	0
8:30 AM	1	4	3	0	2	1	1	0	3	4	0	0	1	4	2	0
8:45 AM	2	6	4	0	1	2	0	0	2	5	0	0	0	6	3	0
3:00 PM	5	6	10	0	13	10	2	0	2	7	0	0	1	14	13	0
3:15 PM	15	19	42	0	18	24	6	0	2	2	0	0	2	5	4	0
3:30 PM	2	5	5	0	7	11	2	0	3	3	0	0	0	11	3	0
3:45 PM	2	5	3	0	5	10	1	0	0	3	1	0	0	16	3	0
4:00 PM	4	7	6	0	6	20	1	0	2	9	1	0	1	16	1	0
4:15 PM	3	5	3	0	5	9	6	0	2	1	0	0	1	7	1	0
4:30 PM	2	11	4	0	7	12	0	0	2	5	1	0	0	4	3	0
4:45 PM	1	7	3	0	9	14	2	0	2	4	1	0	0	7	3	0
5:00 PM	4	6	2	0	7	12	4	0	0	8	2	0	1	9	1	0
5:15 PM	3	4	5	0	13	19	3	0	4	4	1	0	2	3	4	0
5:30 PM	4	6	2	0	5	8	1	0	2	11	0	0	0	9	3	0
5:45 PM	2	5	5	0	3	16	2	0	2	3	0	0	1	8	2	0

Appendix B: Analysis Software Output

Scenario Order:

Existing AM

Existing PM

Future Background AM

Future Background PM

Future With Project AM

Future With Project PM

Intersection	
Intersection Delay, s/veh	11.8
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	230	35	170	63	5	23	3	184	9	3	1
Future Vol, veh/h	0	230	35	170	63	5	23	3	184	9	3	1
Peak Hour Factor	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82
Heavy Vehicles, %	2	2	2	3	3	3	4	4	4	0	0	0
Mvmt Flow	0	280	43	207	77	6	28	4	224	11	4	1
Number of Lanes	0	1	0	0	1	0	0	1	1	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	2	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	1	1	1
HCM Control Delay, s/veh	12.2	12.2	10.9	9.4
HCM LOS	B	B	B	A

Lane	NBLn1	NBLn2	EBLn1	WBLn1	SBLn1
Vol Left, %	88%	0%	0%	71%	69%
Vol Thru, %	12%	0%	87%	26%	23%
Vol Right, %	0%	100%	13%	2%	8%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	26	184	265	238	13
LT Vol	23	0	0	170	9
Through Vol	3	0	230	63	3
RT Vol	0	184	35	5	1
Lane Flow Rate	32	224	323	290	16
Geometry Grp	5	5	2	2	4a
Degree of Util (X)	0.058	0.34	0.455	0.427	0.027
Departure Headway (Hd)	6.621	5.461	5.071	5.3	6.184
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	542	660	714	679	578
Service Time	4.354	3.194	3.071	3.329	4.232
HCM Lane V/C Ratio	0.059	0.339	0.452	0.427	0.028
HCM Control Delay, s/veh	9.8	11	12.2	12.2	9.4
HCM Lane LOS	A	B	B	B	A
HCM 95th-tile Q	0.2	1.5	2.4	2.1	0.1

Intersection	
Int Delay, s/veh	0.6

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	9	15	193	5	4	208
Future Vol, veh/h	9	15	193	5	4	208
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	90	90	90	90	90	90
Heavy Vehicles, %	5	5	3	3	3	3
Mvmt Flow	10	17	214	6	4	231

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	457	217	0	0	220	0
Stage 1	217	-	-	-	-	-
Stage 2	240	-	-	-	-	-
Critical Hdwy	6.45	6.25	-	-	4.13	-
Critical Hdwy Stg 1	5.45	-	-	-	-	-
Critical Hdwy Stg 2	5.45	-	-	-	-	-
Follow-up Hdwy	3.545	3.345	-	-	2.227	-
Pot Cap-1 Maneuver	556	815	-	-	1343	-
Stage 1	812	-	-	-	-	-
Stage 2	793	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	554	815	-	-	1343	-
Mov Cap-2 Maneuver	554	-	-	-	-	-
Stage 1	812	-	-	-	-	-
Stage 2	790	-	-	-	-	-

Approach	WB	NB	SB
HCM Ctrl Dly, s/v	10.41	0	0.15
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	693	34	-
HCM Lane V/C Ratio	-	-	0.039	0.003	-
HCM Ctrl Dly (s/v)	-	-	10.4	7.7	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	0.1	0	-

Intersection	
Int Delay, s/veh	5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	15	72	24	25	27	16	19	167	33	24	170	19
Future Vol, veh/h	15	72	24	25	27	16	19	167	33	24	170	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	-	-	-	-	-	-	-	-	-	-	-	-
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, %	5	5	5	2	2	2	4	4	4	2	2	2
Mvmt Flow	17	84	28	29	31	19	22	194	38	28	198	22

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	519	541	209	553	533	213	220	0	0	233	0	0
Stage 1	265	265	-	258	258	-	-	-	-	-	-	-
Stage 2	254	277	-	295	276	-	-	-	-	-	-	-
Critical Hdwy	7.15	6.55	6.25	7.12	6.52	6.22	4.14	-	-	4.12	-	-
Critical Hdwy Stg 1	6.15	5.55	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.15	5.55	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.545	4.045	3.345	3.518	4.018	3.318	2.236	-	-	2.218	-	-
Pot Cap-1 Maneuver	463	444	824	444	453	827	1338	-	-	1335	-	-
Stage 1	734	684	-	747	695	-	-	-	-	-	-	-
Stage 2	744	676	-	713	682	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	403	425	824	332	433	827	1338	-	-	1335	-	-
Mov Cap-2 Maneuver	403	425	-	332	433	-	-	-	-	-	-	-
Stage 1	717	668	-	733	681	-	-	-	-	-	-	-
Stage 2	680	663	-	588	666	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	15.51	15.15	0.67	0.87
HCM LOS	C	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	151	-	-	471	434	199	-	-
HCM Lane V/C Ratio	0.017	-	-	0.274	0.182	0.021	-	-
HCM Ctrl Dly (s/v)	7.7	0	-	15.5	15.1	7.8	0	-
HCM Lane LOS	A	A	-	C	C	A	A	-
HCM 95th %tile Q(veh)	0.1	-	-	1.1	0.7	0.1	-	-

Intersection	
Int Delay, s/veh	0.1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	1	106	46	1	0	1
Future Vol, veh/h	1	106	46	1	0	1
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	69	69	69	69	69	69
Heavy Vehicles, %	1	1	4	4	0	0
Mvmt Flow	1	154	67	1	0	1

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	68	0	-	0	224	67
Stage 1	-	-	-	-	67	-
Stage 2	-	-	-	-	157	-
Critical Hdwy	4.11	-	-	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	2.209	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	1539	-	-	-	769	1002
Stage 1	-	-	-	-	960	-
Stage 2	-	-	-	-	877	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1539	-	-	-	768	1002
Mov Cap-2 Maneuver	-	-	-	-	768	-
Stage 1	-	-	-	-	959	-
Stage 2	-	-	-	-	877	-

Approach	EB	WB	SB
HCM Ctrl Dly, s/v	0.07	0	8.6
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	17	-	-	-	1002
HCM Lane V/C Ratio	0.001	-	-	-	0.001
HCM Ctrl Dly (s/v)	7.3	0	-	-	8.6
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0

Intersection	
Intersection Delay, s/veh	12.3
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	36	96	1	11	28	79	2	43	17	103	33	34
Future Vol, veh/h	36	96	1	11	28	79	2	43	17	103	33	34
Peak Hour Factor	0.52	0.52	0.52	0.52	0.52	0.52	0.52	0.52	0.52	0.52	0.52	0.52
Heavy Vehicles, %	8	8	8	3	3	3	3	3	3	1	1	1
Mvmt Flow	69	185	2	21	54	152	4	83	33	198	63	65
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	11	10.1	13.8
HCM LOS	B	B	B	B

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	3%	27%	9%	61%
Vol Thru, %	69%	72%	24%	19%
Vol Right, %	27%	1%	67%	20%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	62	133	118	170
LT Vol	2	36	11	103
Through Vol	43	96	28	33
RT Vol	17	1	79	34
Lane Flow Rate	119	256	227	327
Geometry Grp	1	1	1	1
Degree of Util (X)	0.189	0.406	0.333	0.497
Departure Headway (Hd)	5.719	5.72	5.282	5.468
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	624	627	678	657
Service Time	3.785	3.775	3.338	3.516
HCM Lane V/C Ratio	0.191	0.408	0.335	0.498
HCM Control Delay, s/veh	10.1	12.7	11	13.8
HCM Lane LOS	B	B	B	B
HCM 95th-tile Q	0.7	2	1.5	2.8

Intersection	
Intersection Delay, s/veh	11.3
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	3	111	23	155	151	11	25	4	233	9	4	1
Future Vol, veh/h	3	111	23	155	151	11	25	4	233	9	4	1
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
Heavy Vehicles, %	5	5	5	1	1	1	2	2	2	9	9	9
Mvmt Flow	3	123	26	172	168	12	28	4	259	10	4	1
Number of Lanes	0	1	0	0	1	0	0	1	1	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	2	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	1	1	1
HCM Control Delay, s/veh	9.6	12.7	10.6	9.2
HCM LOS	A	B	B	A

Lane	NBLn1	NBLn2	EBLn1	WBLn1	SBLn1
Vol Left, %	86%	0%	2%	49%	64%
Vol Thru, %	14%	0%	81%	48%	29%
Vol Right, %	0%	100%	17%	3%	7%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	29	233	137	317	14
LT Vol	25	0	3	155	9
Through Vol	4	0	111	151	4
RT Vol	0	233	23	11	1
Lane Flow Rate	32	259	152	352	16
Geometry Grp	5	5	2	2	4a
Degree of Util (X)	0.056	0.365	0.216	0.485	0.026
Departure Headway (Hd)	6.218	5.074	5.112	4.958	6.05
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	571	702	693	719	595
Service Time	4.007	2.862	3.211	3.038	4.05
HCM Lane V/C Ratio	0.056	0.369	0.219	0.49	0.027
HCM Control Delay, s/veh	9.4	10.8	9.6	12.7	9.2
HCM Lane LOS	A	B	A	B	A
HCM 95th-tile Q	0.2	1.7	0.8	2.7	0.1

Intersection	
Int Delay, s/veh	0.5

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	5	11	255	4	9	169
Future Vol, veh/h	5	11	255	4	9	169
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	88	88	88	88	88	88
Heavy Vehicles, %	0	0	2	2	1	1
Mvmt Flow	6	13	290	5	10	192

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	505	292	0	0	294	0
Stage 1	292	-	-	-	-	-
Stage 2	213	-	-	-	-	-
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	531	752	-	-	1273	-
Stage 1	762	-	-	-	-	-
Stage 2	828	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	526	752	-	-	1273	-
Mov Cap-2 Maneuver	526	-	-	-	-	-
Stage 1	762	-	-	-	-	-
Stage 2	820	-	-	-	-	-

Approach	WB	NB	SB
HCM Ctrl Dly, s/v	10.58	0	0.4
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	663	91	-
HCM Lane V/C Ratio	-	-	0.027	0.008	-
HCM Ctrl Dly (s/v)	-	-	10.6	7.9	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	0.1	0	-

Intersection	
Int Delay, s/veh	3.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	27	20	27	24	47	8	20	233	18	1	167	9
Future Vol, veh/h	27	20	27	24	47	8	20	233	18	1	167	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	88	88	88	88	88	88	88	88	88	88	88	88
Heavy Vehicles, %	3	3	3	0	0	0	2	2	2	1	1	1
Mvmt Flow	31	23	31	27	53	9	23	265	20	1	190	10

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	534	528	195	524	523	275	200	0	0	285	0	0
Stage 1	197	197	-	320	320	-	-	-	-	-	-	-
Stage 2	337	331	-	203	202	-	-	-	-	-	-	-
Critical Hdwy	7.13	6.53	6.23	7.1	6.5	6.2	4.12	-	-	4.11	-	-
Critical Hdwy Stg 1	6.13	5.53	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.13	5.53	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.527	4.027	3.327	3.5	4	3.3	2.218	-	-	2.209	-	-
Pot Cap-1 Maneuver	455	454	844	467	462	769	1372	-	-	1283	-	-
Stage 1	802	736	-	696	656	-	-	-	-	-	-	-
Stage 2	675	644	-	803	738	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	389	445	844	419	452	769	1372	-	-	1283	-	-
Mov Cap-2 Maneuver	389	445	-	419	452	-	-	-	-	-	-	-
Stage 1	802	735	-	682	643	-	-	-	-	-	-	-
Stage 2	600	631	-	749	737	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	13.53	14.71	0.57	0.04
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	131	-	-	506	460	10	-	-
HCM Lane V/C Ratio	0.017	-	-	0.166	0.195	0.001	-	-
HCM Ctrl Dly (s/v)	7.7	0	-	13.5	14.7	7.8	0	-
HCM Lane LOS	A	A	-	B	B	A	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0.6	0.7	0	-	-

Intersection	
Int Delay, s/veh	0.4

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	35	57	1	4	0
Future Vol, veh/h	0	35	57	1	4	0
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	70	70	70	70	70	70
Heavy Vehicles, %	3	3	0	0	0	0
Mvmt Flow	0	50	81	1	6	0

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	83	0	-	0	132	82
Stage 1	-	-	-	-	82	-
Stage 2	-	-	-	-	50	-
Critical Hdwy	4.13	-	-	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	2.227	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	1508	-	-	-	867	983
Stage 1	-	-	-	-	946	-
Stage 2	-	-	-	-	978	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1508	-	-	-	867	983
Mov Cap-2 Maneuver	-	-	-	-	867	-
Stage 1	-	-	-	-	946	-
Stage 2	-	-	-	-	978	-

Approach	EB	WB	SB
HCM Ctrl Dly, s/v	0	0	9.18
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1508	-	-	-	867
HCM Lane V/C Ratio	-	-	-	-	0.007
HCM Ctrl Dly (s/v)	0	-	-	-	9.2
HCM Lane LOS	A	-	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0

Intersection	
Intersection Delay, s/veh	9.2
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	24	47	3	11	56	44	1	15	7	62	36	25
Future Vol, veh/h	24	47	3	11	56	44	1	15	7	62	36	25
Peak Hour Factor	0.58	0.58	0.58	0.58	0.58	0.58	0.58	0.58	0.58	0.58	0.58	0.58
Heavy Vehicles, %	6	6	6	3	3	3	13	13	13	3	3	3
Mvmt Flow	41	81	5	19	97	76	2	26	12	107	62	43
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	9	9	8.3	9.6
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	4%	32%	10%	50%
Vol Thru, %	65%	64%	50%	29%
Vol Right, %	30%	4%	40%	20%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	23	74	111	123
LT Vol	1	24	11	62
Through Vol	15	47	56	36
RT Vol	7	3	44	25
Lane Flow Rate	40	128	191	212
Geometry Grp	1	1	1	1
Degree of Util (X)	0.055	0.173	0.239	0.278
Departure Headway (Hd)	4.964	4.877	4.503	4.724
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	718	734	794	759
Service Time	3.019	2.923	2.546	2.767
HCM Lane V/C Ratio	0.056	0.174	0.241	0.279
HCM Control Delay, s/veh	8.3	9	9	9.6
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.2	0.6	0.9	1.1

Intersection	
Intersection Delay, s/veh	14.3
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	272	41	201	74	6	27	4	217	11	4	1
Future Vol, veh/h	0	272	41	201	74	6	27	4	217	11	4	1
Peak Hour Factor	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82
Heavy Vehicles, %	2	2	2	3	3	3	4	4	4	0	0	0
Mvmt Flow	0	332	50	245	90	7	33	5	265	13	5	1
Number of Lanes	0	1	0	0	1	0	0	1	1	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	2	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	1	1	1
HCM Control Delay, s/veh	15.3	15	12.6	10.1
HCM LOS	C	B	B	B

Lane	NBLn1	NBLn2	EBLn1	WBLn1	SBLn1
Vol Left, %	87%	0%	0%	72%	69%
Vol Thru, %	13%	0%	87%	26%	25%
Vol Right, %	0%	100%	13%	2%	6%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	31	217	313	281	16
LT Vol	27	0	0	201	11
Through Vol	4	0	272	74	4
RT Vol	0	217	41	6	1
Lane Flow Rate	38	265	382	343	20
Geometry Grp	5	5	2	2	4a
Degree of Util (X)	0.073	0.427	0.568	0.535	0.037
Departure Headway (Hd)	6.971	5.815	5.353	5.616	6.737
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	513	617	672	641	528
Service Time	4.728	3.571	3.401	3.665	4.824
HCM Lane V/C Ratio	0.074	0.429	0.568	0.535	0.038
HCM Control Delay, s/veh	10.3	12.9	15.3	15	10.1
HCM Lane LOS	B	B	C	B	B
HCM 95th-tile Q	0.2	2.1	3.6	3.2	0.1

Intersection	
Int Delay, s/veh	0.7

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	11	18	228	6	5	246
Future Vol, veh/h	11	18	228	6	5	246
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	5	5	3	3	3	3
Mvmt Flow	12	20	253	7	6	273

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	541	257	0	0	260	0
Stage 1	257	-	-	-	-	-
Stage 2	284	-	-	-	-	-
Critical Hdwy	6.45	6.25	-	-	4.13	-
Critical Hdwy Stg 1	5.45	-	-	-	-	-
Critical Hdwy Stg 2	5.45	-	-	-	-	-
Follow-up Hdwy	3.545	3.345	-	-	2.227	-
Pot Cap-1 Maneuver	497	775	-	-	1299	-
Stage 1	779	-	-	-	-	-
Stage 2	757	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	494	775	-	-	1299	-
Mov Cap-2 Maneuver	494	-	-	-	-	-
Stage 1	779	-	-	-	-	-
Stage 2	753	-	-	-	-	-

Approach	WB	NB	SB
HCM Ctrl Dly, s/v	10.95	0	0.16
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	638	36	-
HCM Lane V/C Ratio	-	-	0.051	0.004	-
HCM Ctrl Dly (s/v)	-	-	10.9	7.8	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	0.2	0	-

Intersection	
Int Delay, s/veh	6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	18	85	28	30	32	19	22	197	39	28	201	22
Future Vol, veh/h	18	85	28	30	32	19	22	197	39	28	201	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	-	-	-	-	-	-	-	-	-	-	-	-
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, %	5	5	5	2	2	2	4	4	4	2	2	2
Mvmt Flow	21	99	33	35	37	22	26	229	45	33	234	26

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	610	637	247	651	627	252	259	0	0	274	0	0
Stage 1	312	312	-	303	303	-	-	-	-	-	-	-
Stage 2	299	326	-	348	324	-	-	-	-	-	-	-
Critical Hdwy	7.15	6.55	6.25	7.12	6.52	6.22	4.14	-	-	4.12	-	-
Critical Hdwy Stg 1	6.15	5.55	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.15	5.55	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.545	4.045	3.345	3.518	4.018	3.318	2.236	-	-	2.218	-	-
Pot Cap-1 Maneuver	402	391	785	382	400	787	1294	-	-	1289	-	-
Stage 1	692	652	-	706	664	-	-	-	-	-	-	-
Stage 2	704	643	-	668	649	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	336	370	785	258	379	787	1294	-	-	1289	-	-
Mov Cap-2 Maneuver	336	370	-	258	379	-	-	-	-	-	-	-
Stage 1	672	633	-	690	648	-	-	-	-	-	-	-
Stage 2	629	628	-	524	630	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	18.83	18.5	0.67	0.88
HCM LOS	C	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	149	-	-	411	360	197	-	-
HCM Lane V/C Ratio	0.02	-	-	0.371	0.262	0.025	-	-
HCM Ctrl Dly (s/v)	7.8	0	-	18.8	18.5	7.9	0	-
HCM Lane LOS	A	A	-	C	C	A	A	-
HCM 95th %tile Q(veh)	0.1	-	-	1.7	1	0.1	-	-

Intersection	
Int Delay, s/veh	0.1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	1	125	54	1	0	1
Future Vol, veh/h	1	125	54	1	0	1
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	69	69	69	69	69	69
Heavy Vehicles, %	1	1	4	4	0	0
Mvmt Flow	1	181	78	1	0	1

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	80	0	-	0	263	79
Stage 1	-	-	-	-	79	-
Stage 2	-	-	-	-	184	-
Critical Hdwy	4.11	-	-	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	2.209	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	1525	-	-	-	730	987
Stage 1	-	-	-	-	949	-
Stage 2	-	-	-	-	852	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1525	-	-	-	730	987
Mov Cap-2 Maneuver	-	-	-	-	730	-
Stage 1	-	-	-	-	948	-
Stage 2	-	-	-	-	852	-

Approach	EB	WB	SB
HCM Ctrl Dly, s/v	0.06	0	8.65
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	14	-	-	-	987
HCM Lane V/C Ratio	0.001	-	-	-	0.001
HCM Ctrl Dly (s/v)	7.4	0	-	-	8.7
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0

Intersection	
Intersection Delay, s/veh	16
Intersection LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	43	113	1	13	33	93	2	51	20	122	39	40
Future Vol, veh/h	43	113	1	13	33	93	2	51	20	122	39	40
Peak Hour Factor	0.52	0.52	0.52	0.52	0.52	0.52	0.52	0.52	0.52	0.52	0.52	0.52
Heavy Vehicles, %	8	8	8	3	3	3	3	3	3	1	1	1
Mvmt Flow	83	217	2	25	63	179	4	98	38	235	75	77
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	16.2	13.4	11.6	19.2
HCM LOS	C	B	B	C

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	3%	27%	9%	61%
Vol Thru, %	70%	72%	24%	19%
Vol Right, %	27%	1%	67%	20%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	73	157	139	201
LT Vol	2	43	13	122
Through Vol	51	113	33	39
RT Vol	20	1	93	40
Lane Flow Rate	140	302	267	387
Geometry Grp	1	1	1	1
Degree of Util (X)	0.25	0.527	0.436	0.642
Departure Headway (Hd)	6.411	6.285	5.877	5.978
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	559	574	612	603
Service Time	4.464	4.328	3.924	4.017
HCM Lane V/C Ratio	0.25	0.526	0.436	0.642
HCM Control Delay, s/veh	11.6	16.2	13.4	19.2
HCM Lane LOS	B	C	B	C
HCM 95th-tile Q	1	3.1	2.2	4.6

Intersection	
Intersection Delay, s/veh	13.8
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	4	131	27	183	178	13	30	5	275	11	5	1
Future Vol, veh/h	4	131	27	183	178	13	30	5	275	11	5	1
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
Heavy Vehicles, %	5	5	5	1	1	1	2	2	2	9	9	9
Mvmt Flow	4	146	30	203	198	14	33	6	306	12	6	1
Number of Lanes	0	1	0	0	1	0	0	1	1	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	2	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	1	1	1
HCM Control Delay, s/veh	10.7	16.3	12.5	9.8
HCM LOS	B	C	B	A

Lane	NBLn1	NBLn2	EBLn1	WBLn1	SBLn1
Vol Left, %	86%	0%	2%	49%	65%
Vol Thru, %	14%	0%	81%	48%	29%
Vol Right, %	0%	100%	17%	3%	6%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	35	275	162	374	17
LT Vol	30	0	4	183	11
Through Vol	5	0	131	178	5
RT Vol	0	275	27	13	1
Lane Flow Rate	39	306	180	416	19
Geometry Grp	5	5	2	2	4a
Degree of Util (X)	0.071	0.463	0.277	0.611	0.034
Departure Headway (Hd)	6.606	5.46	5.542	5.291	6.523
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	543	660	648	682	547
Service Time	4.344	3.197	3.583	3.323	4.582
HCM Lane V/C Ratio	0.072	0.464	0.278	0.61	0.035
HCM Control Delay, s/veh	9.9	12.8	10.7	16.3	9.8
HCM Lane LOS	A	B	B	C	A
HCM 95th-tile Q	0.2	2.5	1.1	4.2	0.1

Intersection	
Int Delay, s/veh	0.6

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	6	13	301	5	11	200
Future Vol, veh/h	6	13	301	5	11	200
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	88	88	88	88	88	88
Heavy Vehicles, %	0	0	2	2	1	1
Mvmt Flow	7	15	342	6	13	227

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	597	345	0	0	348	0
Stage 1	345	-	-	-	-	-
Stage 2	252	-	-	-	-	-
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	469	703	-	-	1217	-
Stage 1	722	-	-	-	-	-
Stage 2	794	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	463	703	-	-	1217	-
Mov Cap-2 Maneuver	463	-	-	-	-	-
Stage 1	722	-	-	-	-	-
Stage 2	785	-	-	-	-	-

Approach	WB	NB	SB
HCM Ctrl Dly, s/v	11.18	0	0.42
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	604	94	-
HCM Lane V/C Ratio	-	-	0.036	0.01	-
HCM Ctrl Dly (s/v)	-	-	11.2	8	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	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	32	24	32	28	56	9	24	263	21	1	197	11
Future Vol, veh/h	32	24	32	28	56	9	24	263	21	1	197	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	88	88	88	88	88	88	88	88	88	88	88	88
Heavy Vehicles, %	3	3	3	0	0	0	2	2	2	1	1	1
Mvmt Flow	36	27	36	32	64	10	27	299	24	1	224	13

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	618	610	230	605	604	311	236	0	0	323	0	0
Stage 1	232	232	-	365	365	-	-	-	-	-	-	-
Stage 2	385	377	-	240	239	-	-	-	-	-	-	-
Critical Hdwy	7.13	6.53	6.23	7.1	6.5	6.2	4.12	-	-	4.11	-	-
Critical Hdwy Stg 1	6.13	5.53	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.13	5.53	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.527	4.027	3.327	3.5	4	3.3	2.218	-	-	2.209	-	-
Pot Cap-1 Maneuver	400	408	807	413	415	734	1331	-	-	1243	-	-
Stage 1	768	710	-	658	627	-	-	-	-	-	-	-
Stage 2	636	614	-	768	712	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	325	397	807	358	404	734	1331	-	-	1243	-	-
Mov Cap-2 Maneuver	325	397	-	358	404	-	-	-	-	-	-	-
Stage 1	768	710	-	642	611	-	-	-	-	-	-	-
Stage 2	548	598	-	705	711	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	15.46	16.95	0.6	0.04
HCM LOS	C	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	138	-	-	443	406	9	-	-
HCM Lane V/C Ratio	0.02	-	-	0.225	0.26	0.001	-	-
HCM Ctrl Dly (s/v)	7.8	0	-	15.5	17	7.9	0	-
HCM Lane LOS	A	A	-	C	C	A	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0.9	1	0	-	-

Intersection	
Int Delay, s/veh	0.4

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	41	67	1	5	0
Future Vol, veh/h	0	41	67	1	5	0
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	70	70	70	70	70	70
Heavy Vehicles, %	3	3	0	0	0	0
Mvmt Flow	0	59	96	1	7	0

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	97	0	-	0	155	96
Stage 1	-	-	-	-	96	-
Stage 2	-	-	-	-	59	-
Critical Hdwy	4.13	-	-	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	2.227	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	1490	-	-	-	841	965
Stage 1	-	-	-	-	932	-
Stage 2	-	-	-	-	969	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1490	-	-	-	841	965
Mov Cap-2 Maneuver	-	-	-	-	841	-
Stage 1	-	-	-	-	932	-
Stage 2	-	-	-	-	969	-

Approach	EB	WB	SB
HCM Ctrl Dly, s/v	0	0	9.32
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1490	-	-	-	841
HCM Lane V/C Ratio	-	-	-	-	0.008
HCM Ctrl Dly (s/v)	0	-	-	-	9.3
HCM Lane LOS	A	-	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0

Intersection	
Intersection Delay, s/veh	9.9
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	28	56	4	13	66	52	1	18	8	73	43	30
Future Vol, veh/h	28	56	4	13	66	52	1	18	8	73	43	30
Peak Hour Factor	0.58	0.58	0.58	0.58	0.58	0.58	0.58	0.58	0.58	0.58	0.58	0.58
Heavy Vehicles, %	6	6	6	3	3	3	13	13	13	3	3	3
Mvmt Flow	48	97	7	22	114	90	2	31	14	126	74	52
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	9.5	9.7	8.7	10.5
HCM LOS	A	A	A	B

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	4%	32%	10%	50%
Vol Thru, %	67%	64%	50%	29%
Vol Right, %	30%	5%	40%	21%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	27	88	131	146
LT Vol	1	28	13	73
Through Vol	18	56	66	43
RT Vol	8	4	52	30
Lane Flow Rate	47	152	226	252
Geometry Grp	1	1	1	1
Degree of Util (X)	0.067	0.213	0.293	0.342
Departure Headway (Hd)	5.194	5.058	4.674	4.887
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	682	704	763	730
Service Time	3.281	3.128	2.737	2.951
HCM Lane V/C Ratio	0.069	0.216	0.296	0.345
HCM Control Delay, s/veh	8.7	9.5	9.7	10.5
HCM Lane LOS	A	A	A	B
HCM 95th-tile Q	0.2	0.8	1.2	1.5

Intersection	
Intersection Delay, s/veh	14.8
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	272	42	206	74	6	30	4	233	11	4	1
Future Vol, veh/h	0	272	42	206	74	6	30	4	233	11	4	1
Peak Hour Factor	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82
Heavy Vehicles, %	2	2	2	3	3	3	4	4	4	0	0	0
Mvmt Flow	0	332	51	251	90	7	37	5	284	13	5	1
Number of Lanes	0	1	0	0	1	0	0	1	1	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	2	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	1	1	1
HCM Control Delay, s/veh	15.8	15.6	13.2	10.2
HCM LOS	C	C	B	B

Lane	NBLn1	NBLn2	EBLn1	WBLn1	SBLn1
Vol Left, %	88%	0%	0%	72%	69%
Vol Thru, %	12%	0%	87%	26%	25%
Vol Right, %	0%	100%	13%	2%	6%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	34	233	314	286	16
LT Vol	30	0	0	206	11
Through Vol	4	0	272	74	4
RT Vol	0	233	42	6	1
Lane Flow Rate	41	284	383	349	20
Geometry Grp	5	5	2	2	4a
Degree of Util (X)	0.081	0.462	0.579	0.553	0.037
Departure Headway (Hd)	7.021	5.858	5.445	5.705	6.848
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	509	614	659	631	519
Service Time	4.781	3.617	3.499	3.759	4.944
HCM Lane V/C Ratio	0.081	0.463	0.581	0.553	0.039
HCM Control Delay, s/veh	10.4	13.6	15.8	15.6	10.2
HCM Lane LOS	B	B	C	C	B
HCM 95th-tile Q	0.3	2.4	3.7	3.4	0.1

Intersection	
Int Delay, s/veh	1.1

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	18	29	235	8	9	248
Future Vol, veh/h	18	29	235	8	9	248
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	90	90	90	90	90	90
Heavy Vehicles, %	5	5	3	3	3	3
Mvmt Flow	20	32	261	9	10	276

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	561	266	0	0	270	0
Stage 1	266	-	-	-	-	-
Stage 2	296	-	-	-	-	-
Critical Hdwy	6.45	6.25	-	-	4.13	-
Critical Hdwy Stg 1	5.45	-	-	-	-	-
Critical Hdwy Stg 2	5.45	-	-	-	-	-
Follow-up Hdwy	3.545	3.345	-	-	2.227	-
Pot Cap-1 Maneuver	484	766	-	-	1288	-
Stage 1	772	-	-	-	-	-
Stage 2	748	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	479	766	-	-	1288	-
Mov Cap-2 Maneuver	479	-	-	-	-	-
Stage 1	772	-	-	-	-	-
Stage 2	741	-	-	-	-	-

Approach	WB	NB	SB
HCM Ctrl Dly, s/v	11.3	0	0.27
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	623	63	-
HCM Lane V/C Ratio	-	-	0.084	0.008	-
HCM Ctrl Dly (s/v)	-	-	11.3	7.8	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	0.3	0	-

Intersection	
Int Delay, s/veh	6.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	18	85	28	35	32	21	22	201	41	33	214	22
Future Vol, veh/h	18	85	28	35	32	21	22	201	41	33	214	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	-	-	-	-	-	-	-	-	-	-	-	-
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, %	5	5	5	2	2	2	4	4	4	2	2	2
Mvmt Flow	21	99	33	41	37	24	26	234	48	38	249	26

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	642	671	262	684	660	258	274	0	0	281	0	0
Stage 1	338	338	-	309	309	-	-	-	-	-	-	-
Stage 2	303	333	-	375	351	-	-	-	-	-	-	-
Critical Hdwy	7.15	6.55	6.25	7.12	6.52	6.22	4.14	-	-	4.12	-	-
Critical Hdwy Stg 1	6.15	5.55	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.15	5.55	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.545	4.045	3.345	3.518	4.018	3.318	2.236	-	-	2.218	-	-
Pot Cap-1 Maneuver	383	374	770	363	383	781	1277	-	-	1281	-	-
Stage 1	670	635	-	701	660	-	-	-	-	-	-	-
Stage 2	700	639	-	646	632	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	315	352	770	239	361	781	1277	-	-	1281	-	-
Mov Cap-2 Maneuver	315	352	-	239	361	-	-	-	-	-	-	-
Stage 1	646	612	-	685	644	-	-	-	-	-	-	-
Stage 2	623	624	-	501	610	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	19.96	20.33	0.66	0.97
HCM LOS	C	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	145	-	-	391	336	217	-	-
HCM Lane V/C Ratio	0.02	-	-	0.39	0.305	0.03	-	-
HCM Ctrl Dly (s/v)	7.9	0	-	20	20.3	7.9	0	-
HCM Lane LOS	A	A	-	C	C	A	A	-
HCM 95th %tile Q(veh)	0.1	-	-	1.8	1.3	0.1	-	-

Intersection	
Int Delay, s/veh	0.9

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	3	130	56	5	11	6
Future Vol, veh/h	3	130	56	5	11	6
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	69	69	69	69	69	69
Heavy Vehicles, %	1	1	4	4	0	0
Mvmt Flow	4	188	81	7	16	9

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	88	0	-	0	282	85
Stage 1	-	-	-	-	85	-
Stage 2	-	-	-	-	197	-
Critical Hdwy	4.11	-	-	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	2.209	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	1514	-	-	-	712	980
Stage 1	-	-	-	-	944	-
Stage 2	-	-	-	-	841	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1514	-	-	-	710	980
Mov Cap-2 Maneuver	-	-	-	-	710	-
Stage 1	-	-	-	-	941	-
Stage 2	-	-	-	-	841	-

Approach	EB	WB	SB
HCM Ctrl Dly, s/v	0.17	0	9.72
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	41	-	-	-	787
HCM Lane V/C Ratio	0.003	-	-	-	0.031
HCM Ctrl Dly (s/v)	7.4	0	-	-	9.7
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0.1

Intersection	
Intersection Delay, s/veh	17.2
Intersection LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	48	123	1	13	37	93	2	51	20	122	39	42
Future Vol, veh/h	48	123	1	13	37	93	2	51	20	122	39	42
Peak Hour Factor	0.52	0.52	0.52	0.52	0.52	0.52	0.52	0.52	0.52	0.52	0.52	0.52
Heavy Vehicles, %	8	8	8	3	3	3	3	3	3	1	1	1
Mvmt Flow	92	237	2	25	71	179	4	98	38	235	75	81
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	18.1	14.2	12	20.5
HCM LOS	C	B	B	C

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	3%	28%	9%	60%
Vol Thru, %	70%	72%	26%	19%
Vol Right, %	27%	1%	65%	21%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	73	172	143	203
LT Vol	2	48	13	122
Through Vol	51	123	37	39
RT Vol	20	1	93	42
Lane Flow Rate	140	331	275	390
Geometry Grp	1	1	1	1
Degree of Util (X)	0.258	0.586	0.46	0.664
Departure Headway (Hd)	6.614	6.374	6.025	6.127
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	540	566	597	589
Service Time	4.681	4.425	4.08	4.177
HCM Lane V/C Ratio	0.259	0.585	0.461	0.662
HCM Control Delay, s/veh	12	18.1	14.2	20.5
HCM Lane LOS	B	C	B	C
HCM 95th-tile Q	1	3.8	2.4	4.9

Intersection	
Int Delay, s/veh	0.4

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	10	7	236	4	2	261
Future Vol, veh/h	10	7	236	4	2	261
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	88	88	88	88	88	88
Heavy Vehicles, %	0	0	4	4	3	3
Mvmt Flow	11	8	268	5	2	297

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	572	270	0	0	273	0
Stage 1	270	-	-	-	-	-
Stage 2	301	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.13	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.227	-
Pot Cap-1 Maneuver	485	773	-	-	1285	-
Stage 1	780	-	-	-	-	-
Stage 2	755	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	484	773	-	-	1285	-
Mov Cap-2 Maneuver	484	-	-	-	-	-
Stage 1	780	-	-	-	-	-
Stage 2	754	-	-	-	-	-

Approach	WB	NB	SB
HCM Ctrl Dly, s/v	11.51	0	0.06
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	572	14	-
HCM Lane V/C Ratio	-	-	0.034	0.002	-
HCM Ctrl Dly (s/v)	-	-	11.5	7.8	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	0.1	0	-

Intersection	
Intersection Delay, s/veh	14.7
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	4	131	30	201	178	13	32	5	285	11	5	1
Future Vol, veh/h	4	131	30	201	178	13	32	5	285	11	5	1
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
Heavy Vehicles, %	5	5	5	1	1	1	2	2	2	9	9	9
Mvmt Flow	4	146	33	223	198	14	36	6	317	12	6	1
Number of Lanes	0	1	0	0	1	0	0	1	1	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	2	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	1	1	1
HCM Control Delay, s/veh	10.9	17.8	13.1	10
HCM LOS	B	C	B	A

Lane	NBLn1	NBLn2	EBLn1	WBLn1	SBLn1
Vol Left, %	86%	0%	2%	51%	65%
Vol Thru, %	14%	0%	79%	45%	29%
Vol Right, %	0%	100%	18%	3%	6%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	37	285	165	392	17
LT Vol	32	0	4	201	11
Through Vol	5	0	131	178	5
RT Vol	0	285	30	13	1
Lane Flow Rate	41	317	183	436	19
Geometry Grp	5	5	2	2	4a
Degree of Util (X)	0.076	0.487	0.286	0.648	0.035
Departure Headway (Hd)	6.687	5.537	5.624	5.355	6.647
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	536	649	638	675	536
Service Time	4.43	3.279	3.672	3.391	4.716
HCM Lane V/C Ratio	0.076	0.488	0.287	0.646	0.035
HCM Control Delay, s/veh	10	13.5	10.9	17.8	10
HCM Lane LOS	A	B	B	C	A
HCM 95th-tile Q	0.2	2.7	1.2	4.8	0.1

Intersection	
Int Delay, s/veh	0.9

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	11	20	306	13	23	208
Future Vol, veh/h	11	20	306	13	23	208
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	88	88	88	88	88	88
Heavy Vehicles, %	0	0	2	2	1	1
Mvmt Flow	13	23	348	15	26	236

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	644	355	0	0	363	0
Stage 1	355	-	-	-	-	-
Stage 2	289	-	-	-	-	-
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	441	693	-	-	1202	-
Stage 1	714	-	-	-	-	-
Stage 2	765	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	430	693	-	-	1202	-
Mov Cap-2 Maneuver	430	-	-	-	-	-
Stage 1	714	-	-	-	-	-
Stage 2	746	-	-	-	-	-

Approach	WB	NB	SB
HCM Ctrl Dly, s/v	11.74	0	0.8
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	569	179	-
HCM Lane V/C Ratio	-	-	0.062	0.022	-
HCM Ctrl Dly (s/v)	-	-	11.7	8.1	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	0.2	0.1	-

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	32	24	32	32	56	14	24	277	27	4	205	11
Future Vol, veh/h	32	24	32	32	56	14	24	277	27	4	205	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	88	88	88	88	88	88	88	88	88	88	88	88
Heavy Vehicles, %	3	3	3	0	0	0	2	2	2	1	1	1
Mvmt Flow	36	27	36	36	64	16	27	315	31	5	233	13

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	649	648	239	640	639	330	245	0	0	345	0	0
Stage 1	248	248	-	385	385	-	-	-	-	-	-	-
Stage 2	401	400	-	256	255	-	-	-	-	-	-	-
Critical Hdwy	7.13	6.53	6.23	7.1	6.5	6.2	4.12	-	-	4.11	-	-
Critical Hdwy Stg 1	6.13	5.53	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.13	5.53	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.527	4.027	3.327	3.5	4	3.3	2.218	-	-	2.209	-	-
Pot Cap-1 Maneuver	381	388	797	391	396	716	1321	-	-	1219	-	-
Stage 1	753	699	-	642	615	-	-	-	-	-	-	-
Stage 2	623	600	-	753	700	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	303	376	797	336	385	716	1321	-	-	1219	-	-
Mov Cap-2 Maneuver	303	376	-	336	385	-	-	-	-	-	-	-
Stage 1	750	696	-	626	599	-	-	-	-	-	-	-
Stage 2	531	584	-	688	697	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	16.22	18	0.57	0.14
HCM LOS	C	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	129	-	-	420	392	32	-	-
HCM Lane V/C Ratio	0.021	-	-	0.238	0.296	0.004	-	-
HCM Ctrl Dly (s/v)	7.8	0	-	16.2	18	8	0	-
HCM Lane LOS	A	A	-	C	C	A	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0.9	1.2	0	-	-

Intersection	
Int Delay, s/veh	1.3

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	6	44	72	13	12	4
Future Vol, veh/h	6	44	72	13	12	4
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	70	70	70	70	70	70
Heavy Vehicles, %	3	3	0	0	0	0
Mvmt Flow	9	63	103	19	17	6

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	121	0	-	0	192	112
Stage 1	-	-	-	-	112	-
Stage 2	-	-	-	-	80	-
Critical Hdwy	4.13	-	-	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	2.227	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	1460	-	-	-	801	946
Stage 1	-	-	-	-	918	-
Stage 2	-	-	-	-	948	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1460	-	-	-	796	946
Mov Cap-2 Maneuver	-	-	-	-	796	-
Stage 1	-	-	-	-	912	-
Stage 2	-	-	-	-	948	-

Approach	EB	WB	SB
HCM Ctrl Dly, s/v	0.9	0	9.46
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	216	-	-	-	829
HCM Lane V/C Ratio	0.006	-	-	-	0.028
HCM Ctrl Dly (s/v)	7.5	0	-	-	9.5
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0.1

Intersection	
Intersection Delay, s/veh	10.3
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	31	63	4	13	78	52	1	18	8	73	43	36
Future Vol, veh/h	31	63	4	13	78	52	1	18	8	73	43	36
Peak Hour Factor	0.58	0.58	0.58	0.58	0.58	0.58	0.58	0.58	0.58	0.58	0.58	0.58
Heavy Vehicles, %	6	6	6	3	3	3	13	13	13	3	3	3
Mvmt Flow	53	109	7	22	134	90	2	31	14	126	74	62
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	9.9	10.1	8.8	10.9
HCM LOS	A	B	A	B

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	4%	32%	9%	48%
Vol Thru, %	67%	64%	55%	28%
Vol Right, %	30%	4%	36%	24%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	27	98	143	152
LT Vol	1	31	13	73
Through Vol	18	63	78	43
RT Vol	8	4	52	36
Lane Flow Rate	47	169	247	262
Geometry Grp	1	1	1	1
Degree of Util (X)	0.07	0.241	0.325	0.361
Departure Headway (Hd)	5.423	5.125	4.751	4.962
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	665	694	750	718
Service Time	3.423	3.209	2.829	3.041
HCM Lane V/C Ratio	0.071	0.244	0.329	0.365
HCM Control Delay, s/veh	8.8	9.9	10.1	10.9
HCM Lane LOS	A	A	B	B
HCM 95th-tile Q	0.2	0.9	1.4	1.6

Intersection	
Int Delay, s/veh	0.4

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	7	5	313	12	8	213
Future Vol, veh/h	7	5	313	12	8	213
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	88	88	88	88	88	88
Heavy Vehicles, %	0	0	2	2	1	1
Mvmt Flow	8	6	356	14	9	242

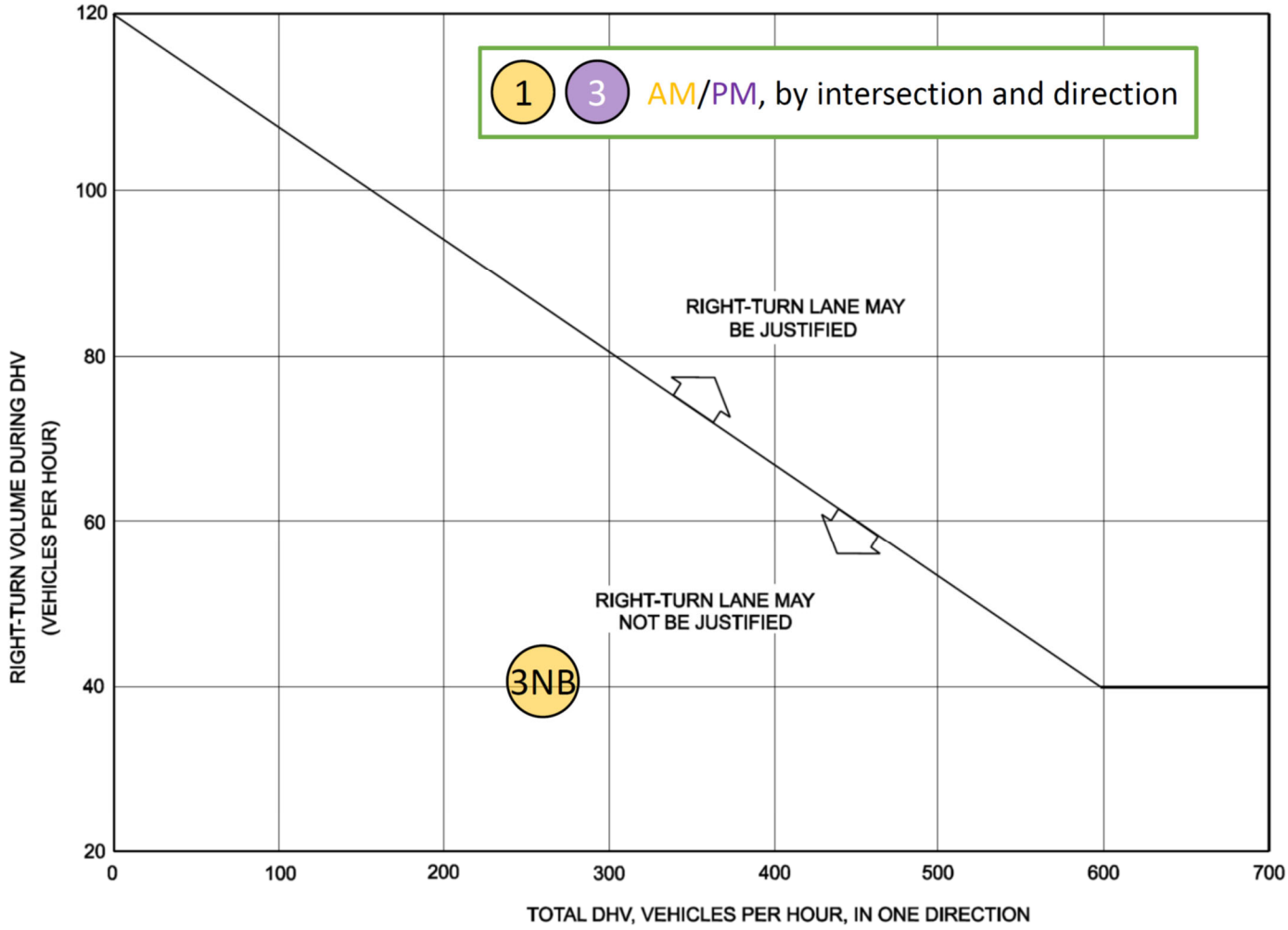
Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	623	363	0	0	369	0
Stage 1	363	-	-	-	-	-
Stage 2	260	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.11	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.209	-
Pot Cap-1 Maneuver	453	687	-	-	1195	-
Stage 1	709	-	-	-	-	-
Stage 2	788	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	449	687	-	-	1195	-
Mov Cap-2 Maneuver	449	-	-	-	-	-
Stage 1	709	-	-	-	-	-
Stage 2	781	-	-	-	-	-

Approach	WB	NB	SB
HCM Ctrl Dly, s/v	12.04	0	0.29
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	525	65	-
HCM Lane V/C Ratio	-	-	0.026	0.008	-
HCM Ctrl Dly (s/v)	-	-	12	8	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	0.1	0	-

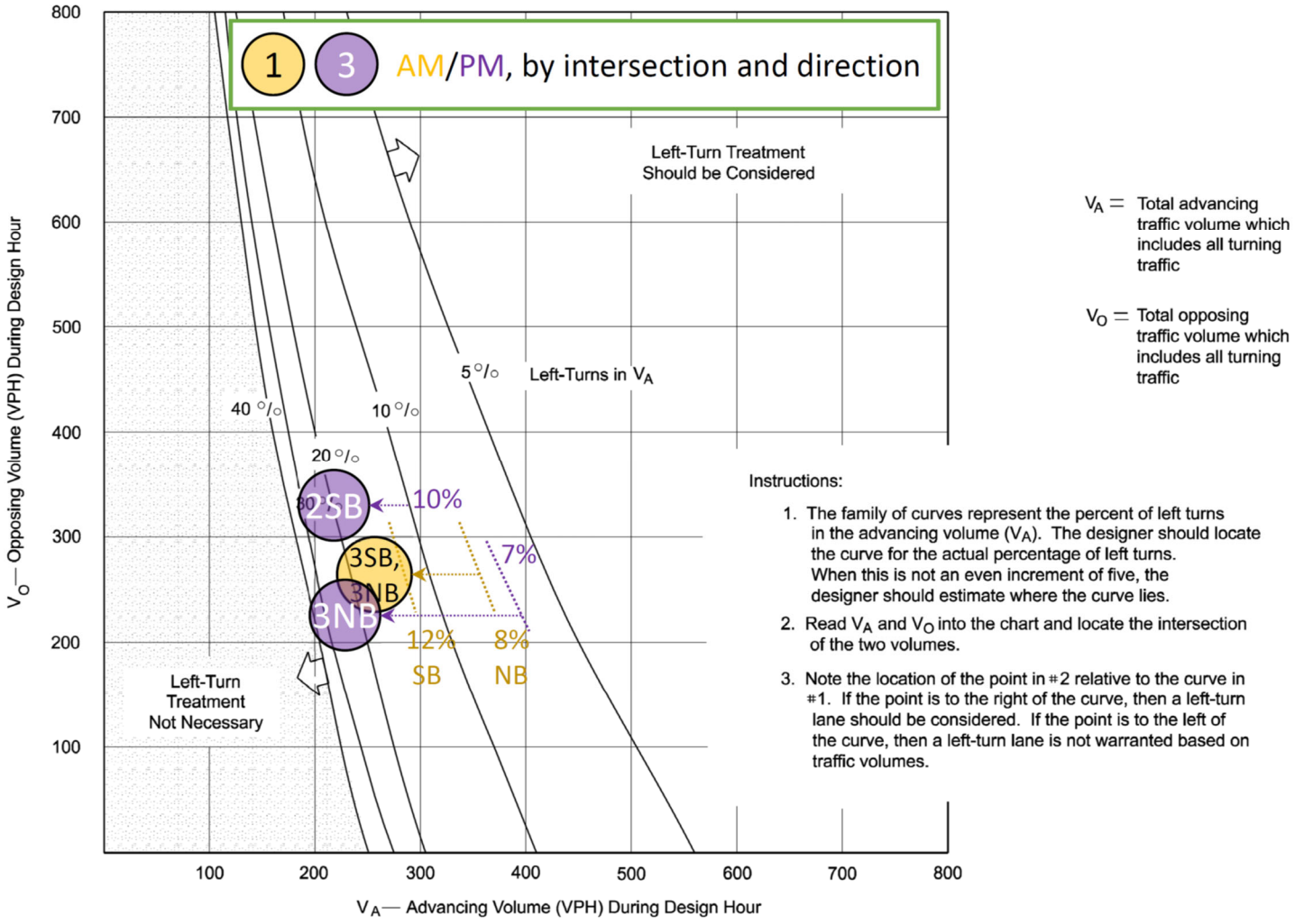
Appendix C: Auxiliary Turn Lane Analysis Charts

Right Turn Lane Analysis Chart (using MDT Design Manual, Figure 28.4A)



Note: For highways with a design speed below 50 mph (80 km/h) with a DHV < 300 and where right turns are > 40, an adjustment should be used. To read the vertical axis of the chart, subtract 20 from the actual number of right turns.

Left Turn Lane Analysis Chart (using MDT Design Manual, Figure 28.4C)



Appendix D: Intersection Cost Participation Calculations

Yellowstone County Cost Participation Worksheet: Staley Residential

Whether a movement pair is **critical** is based on Project traffic

1: 72nd at King

Lane Group		AM Peak Hour		PM Peak Hour	
(**critical**)	Lanes	Vproject	Per Lane	Vproject	Per Lane
EB T	1	No project traffic in this movement			
WB L	1	**5**	**5**	**18**	**18**
WB T	1	No project traffic in these movements			
EB L	1				
NB T	1	No project traffic in these movements			
SB L	1				
SB T	1				
NB L	1	**3**	**3**	**2**	**2**
Project **Critical** Lane Volume			**8**		**20**
Critical Lane Capacity			1200		1200
% Increase			0.7%		1.7%
Max % Increase			1.7%		

2: 72nd at O'Donnell

Lane Group		AM Peak Hour		PM Peak Hour	
(**critical**)	Lanes	Vproject	Per Lane	Vproject	Per Lane
EB T	1	No project traffic in this movement			
WB L	1	**7**	**7**	**5**	**5**
WB T	1	No project traffic in these movements			
EB L	1				
NB T	1	**7**	**7**	**5**	**5**
SB L	1	**4**	**4**	**12**	**12**
SB T	1	2	2	8	8
NB L	1	No project traffic in this movement			
Project **Critical** Lane Volume			**18**		**22**
Critical Lane Capacity			1140		1140
% Increase			1.6%		1.9%
Max % Increase			1.9%		

(does not meet the 2% threshold)

3: 72nd at Hesper

Lane Group		AM Peak Hour		PM Peak Hour	
(**critical**)	Lanes	Vproject	Per Lane	Vproject	Per Lane
EB T	1	No project traffic in this movement			
WB L	1	**5**	**5**	**4**	**4**
WB T	1	No project traffic in these movements			
EB L	1				
NB T	1	4	4	**14**	**14**
SB L	1	5	5	**3**	**3**
SB T	1	**13**	**13**	8	8
NB L	1	No project traffic in this movement			
Project **Critical** Lane Volume			**18**		**21**
Critical Lane Capacity			1200		1200
% Increase			1.5%		1.8%
Max % Increase			1.8%		

4: 68th at Hesper

Lane Group		AM Peak Hour		PM Peak Hour	
(**critical**)	Lanes	Vproject	Per Lane	Vproject	Per Lane
EB T	1	**5**	**5**	3	3
WB L	1	No project traffic in this movement			
WB T	1	2	2	**5**	**5**
EB L	1	2	2	**6**	**6**
NB T	1	No project traffic in this movement			
SB L	1	**11**	**11**	**7**	**7**
SB T	1	No project traffic in these movements			
NB L	1				
Project **Critical** Lane Volume			**16**		**18**
Critical Lane Capacity			1140		1140
% Increase			1.4%		1.6%
Max % Increase			1.6%		

5: 64th at Hesper

Lane Group		AM Peak Hour		PM Peak Hour	
(**critical**)	Lanes	Vproject	Per Lane	Vproject	Per Lane
EB T	1	**10**	**10**	7	7
WB L	1	No project traffic in this movement			
WB T	1	4	4	**12**	**12**
EB L	1	5	5	**3**	**3**
NB T	1	No project traffic in these movements			
SB L	1				
SB T	1				
NB L	1				
Project **Critical** Lane Volume			**10**		**15**
Critical Lane Capacity			1200		1200
% Increase			0.8%		1.3%
Max % Increase			1.3%		

Appendix E: Traffic Signal Warrant Analysis for 64th at Hesper

Traffic signal warrant analysis of the 2029 "With Project" condition was conducted using the procedures documented in the 11th edition of the Manual on Uniform Traffic Control Devices, the most recent available at the time of this study. Traffic data informing this analysis was collected at the same time as counts for the rest of this study, and covered 12 consecutive hours (7 a.m. through 7 p.m.) on a Thursday when both schools at the intersection were fully open and no road use restrictions, such as those due to construction or maintenance, were observed on the approaching or surrounding roadways. Of the nine warrants available, none were met. A summary of the data, thresholds, and determinations is provided on the following page. Additional details and highlights include:

- MUTCD warrant analysis relies heavily on the concept of "major" and "minor" streets, and is generally (though not explicitly) geared toward examining whether two-way stop controlled (TWSC) intersections might be operating under conditions where a traffic signal should be considered. This intersection has already met warrants for all-way stop control (AWSC) and has been controlled that way for some time. To that end, both vehicles and pedestrians seeking to cross the "major" street at this intersection do not experience the delays and potential dangers that would be present at a TWSC intersection.
- For Warrant 2, Four-Hour Volume, the major street (Hesper) volume is too low to graph the relationship between it and the minor volume. If the graph were to be extended to capture lower volumes, the estimated minor street volume is far below the approximate minor-street minimum to meet the warrant.
- Warrant 3, Peak Hour, is specifically indicated in the MUTCD as being applicable "only in unusual cases, such as office complexes, manufacturing plants, industrial complexes, or [HOV] facilities that attract or discharge large numbers of vehicles over a short time." While the definition of "large" in the context of such uses could render it debatable here due to the rural, low-volume nature of the study area, we believe that the location of the Elder Grove schools on the northwest and northeast corners of this intersection justifies the inclusion of this warrant in the analysis. Both vehicular and pedestrian activity at the intersection are very clearly and heavily dependent on school hours.
- Warrant 4, Pedestrian Volume, "is intended for application where the traffic volume on a major street is so heavy that pedestrians experience excessive delay in crossing the major street," per the MUTCD. AWSC removes this delay by requiring all vehicles to stop at the intersection and yield to pedestrians crossing. In addition, 95% of pedestrian activity observed in the 12-hour count period is in the north crosswalk, crossing 64th, which is the minor street.
- Warrant 5, School Crossing, "is intended for application where the fact that schoolchildren cross the major street is the principal reason to consider installing a traffic control signal," per the MUTCD. As with Warrant 4, most if not all schoolchildren here are already using a crossing that is governed by the existing intersection traffic control, and that crossing is, by the definition of the MUTCD, a crossing of the minor street rather than the major one. The MUTCD also indicates that "[b]efore a decision is made to install a traffic control signal, consideration should be given to the implementation of other remedial measures, such as warning signs and flashers, school speed zones, school crossing guards, or a grade-separated crossing." Warning signs, overhead flashing beacons, crossing guards during school start/end periods, and school speed zones are already in use at the intersection.
- Warrant 7, Crash Experience, was examined in detail using the five-year crash history data received for this TIS from MDT. Only one crash was reported at this intersection during those five years. It was a right-angle collision, which qualifies it in part for consideration under this warrant, but it occurred during construction when a 'flagger, law enforcement, crossing guard, etc.' was present, and the crash did not include either injuries or pedestrians. We believe that the scarcity of crashes indicates the effectiveness of the traffic control and supplemental warning device regime in place at the intersection now.

While no signal warrants are projected to be met using the information in this TIS, further engineering study of this intersection could be warranted if changes occur in the assumptions employed.

Traffic Signal Needs Analysis Summary: S 68th Street West at Hesper Road

Scenario: Future (2029) with Staley Residential Subdivision	
Analysis Date: 3/21/2025	Conducted by: 406 Traffic & Transportation Consulting
Major Street: Hesper Road (E/W), has 1 lane	Minor Street 1: S. 64th Street West (N/S), has 1 lane
Speed Limit: 45 mph	Number of Approaches: 4

Traffic Volumes

Hour:	1	2	3	4	5	6	7	8	9	10	11	12
Start Time:	7:00 AM	8:00 AM	9:00 AM	10:00 AM	11:00 AM	12:00 PM	1:00 PM	2:00 PM	3:00 PM	4:00 PM	5:00 PM	6:00 PM
Hesper EB:	164	44	43	30	32	34	43	52	86	53	52	35
Hesper WB:	140	40	25	37	55	70	64	101	131	109	111	68
64th NB:	65	38	26	22	35	31	23	30	28	36	44	19
64th SB:	153	97	30	38	47	55	34	32	143	67	58	22
Total Entering Volume:	522	219	124	127	169	190	164	215	388	265	265	144
TEV Rank:	**1**	5	12	11	**8**	7	9	6	2	**3**	**3**	10
Use for:	Warrant 3				Warrant 1					Warrant 2		
Major, Both Directions:	304	84	68	67	87	104	107	153	217	162	163	103
Minor, Higher Direction:	153	97	30	38	47	55	34	32	143	67	58	22

Warrants

		Met?
1 Eight-Hour Vehicular Volume *(either condition)*	*Condition A: Large Volume of Intersecting Traffic* — Major (Both Dir.) Value: 87, Minimum: 350[c]; Minor (Higher Dir.) Value: 47, Minimum: 105[c]; Met?: No. *or Condition B: Interruption of Continuous Traffic* — Major (Both Dir.) Value: 87, Minimum: 525[c]; Minor (Higher Dir.) Value: 47, Minimum: 53[c]; Met?: No	No
2 Four-Hour Vehicular Volume	*MUTCD Figure 4C-2 for speed over 40 mph* — Major (Both Dir.) Value: 162, Minimum: N/A; Minor (Higher Dir.) Value: 67, Minimum: N/A; Met?: No. *Major Street volume too low to appear on Figure 4C-2*	No
3 Peak Hour* *(either condition)*	*Condition A (must meet all three subconditions)*: 1. Veh-Hrs of Delay — Value: 1.2, Minimum: 4, Met?: No; 2. Minor Volume — Value: 153, Minimum: 75, Met?: Yes; 3. Total Ent. Volume — Value: 522, Minimum: 800, Met?: No. *or Condition B (MUTCD Figure 4C-4)* — Major (Both Dir.) Value: 304, Minimum: N/A; Minor (Higher Dir.) Value: 153, Minimum: ~310; Met?: No	No
4 Pedestrian Volume *(either criterion)*	*Criterion A: Four-hour (MUTCD Figure 4C-7)* — Major (Both Dir.) Value: 162, Minimum: N/A; Pedestrians Value: 0 Peds, Minimum: N/A; Met?: No. *or Criterion B: One Hour (MUTCD Figure 4C-8)* — Major (Both Dir.) Value: 304, Minimum: N/A; Pedestrians Value: 7 Peds, Minimum: N/A; Met?: No	No
5 School Crossing	Very few (if any) students cross the major street. The minor street crossing used is already stop-controlled. All intersection approaches are already well-signed with school zone speed restrictions.	No
6 Coordinated Signal System	No signals in the roadway network nearby.	No
7 Crash Experience ** Condition A not evaluated *(all conditions)*	*Condition B, 1-year Period (Table 4C-4)* — Angle+Ped Crashes Value: 1, Minimum: 4; or Fatal+Injury A+P Value: 1, Minimum: 3; Met?: No. *and Condition C, 80% of Warrant 1 [Condition A]* — Major (Both Dir.) Value: 87, Minimum: 400; Minor (Higher Dir.) Value: 47, Minimum: 120; Met?: No. *or Condition B, 3-year Period (Table 4C-5)* — Angle+Ped Crashes Value: 1, Minimum: 6; or Fatal+Injury A+P Value: 1, Minimum: 4; Met?: No. *or Condition C, 80% of Warrant 1 [Condition B]* — Major (Both Dir.) Value: 87, Minimum: 600; Minor (Higher Dir.) Value: 47, Minimum: 60; Met?: No. *or Condition C, 80% of Warrant 4* — Four Hour Ped Value: 0 Peds, Minimum: N/A; One Hour Ped Value: 7 Peds, Minimum: N/A; Met?: No	No
8 Roadway Network	No second major route present and no need indicated to concentrate traffic at this location.	No
9 Intersection Near Grade Xing	No railroad grade crossing nearby.	No
	Warrants Met:	0
	Recommendation:	**No Signal**

Notes:

c: Warrant 1 minimum values used for "70%" to account to reflect major-street speed over 40 mph

* Warrant 3, Peak Hour, is indicated by the MUTCD as follows: "This signal warrant should be applied only in unusual cases, such as office complexes, manufacturing plants, industrial complexes, or high-occupancy vehicle facilities that attract or discharge large numbers of vehicles over a short time."

** No trial of alternatives with observance and enforcement has been attempted at this location.

IN SITE
ENGINEERING
4231 Creekwood Dr
Billings, MT 59106
(406) 591-4355

Application for Variance from the Yellowstone County Subdivision Regulations' Requirement to Provide an Additional Stub Street to the Adjacent Undeveloped Land South of the Residential Area at Maplewood Estates (Section 4.6.B.1)

A. A variance is requested to allow two stub street accesses to the undeveloped Lot 5, Block 5 (61.793 acres) on the Preliminary Plat of Maplewood Estates instead of the three that would be required by the Yellowstone County Subdivision Regulations. The section of the regulations from which a variance is requested is 4.6.B.1, which reads: "The maximum distance between connections to undeveloped lands shall not exceed 600 feet." The length of the northern boundary of the undeveloped parcel, Lot 5, Block 5, that is adjacent to the residential lot area within Maplewood Estates is 2443 feet. If 3 stub streets were provided to Lot 5, Block 5, each being 60 feet in right-of-way width, 4 blocks would be created with an average of 565.75 feet between connections. This variance is to request that two stub streets be allowed instead of three, which creates the following distances between connections to Lot 5, Block 5: 707 feet between 72nd Street West and 71st Street West, 874 feet from 71st Street West to Maple Leaf Trail, and 743 feet from Maple Leaf Trail to S. 68th Street West. Providing two accesses as proposed accomplishes the intended purpose of the cited section of the Subdivision Regulations, which is to encourage grid connectivity, and the resultant block lengths are not unreasonably long. Because Lot 5, Block 5 is within and a part of Maplewood Estates, and because it will be able to access South 72nd Street West along its entire frontage, and because it will also be able to access South 68th Street West along its entire frontage, another stub street is not deemed necessary besides the two proposed on the preliminary plat (S. 71st Street West & Maple Leaf Trail).

1. The granting of this variance will not be detrimental to public health, safety, or general welfare or injurious to other adjoining properties. The undeveloped parcel has more than adequate access and grid connectivity as described above and will provide adequate traffic circulation in the future.

2. A unique condition to this specific site that presents an undue hardship to the owner if the strict interpretation of the cited section of the Subdivision Regulations were followed to the letter is the topography of the site. The land slopes downward to the southeast. Since storm runoff is not allowed to be stored within the public road right-of-way, a retention pond is needed in the southeast corner of the proposed residential area. This retention pond takes 225 feet of the frontage adjacent to the undeveloped land on Lot 5, Block 5, which otherwise could be developed into 2 buildable lots. At the same time, the retention pond provides open space connectivity, which is a mitigating factor in that it reduces the effective block length between Maple Leaf Trail and S. 68th Street West to 517.6 feet. Another hardship is having a principal arterial street, South

72nd Street West, running along the entire west boundary of the subdivision. This requires greater right-of-way dedication than a local street would require while at the same time restricting access to all lots along the west boundary of the subdivision. This results in a much greater cost, due to both the additional land given up for the dedication itself and the cost of constructing an additional parallel internal road necessitated by the access restriction. If another stub street were required to the south above the 2 proposed, it would either cause the loss of a buildable lot or a narrowing of the lots along the south boundary to accommodate the additional stub. For these reasons, along with those stated in the first paragraph above, another stub street to the south is not warranted. The two proposed stub street accesses provide adequate grid connectivity to the adjacent undeveloped land in this case.

3. This variance will not result in any increase in taxpayer burden.
4. This variance will not place the subdivision in nonconformance with any adopted zoning regulations or Growth Policy. This subdivision is outside the MPO zoning area.
5. Because the objective of neighborhood connectivity is still satisfied by the two proposed stub street accesses provided to the undeveloped adjacent land (Lot 5, Block 5), and because the resulting three block lengths are not unreasonably long, the design of the preliminary plat as shown is equally effective.

Thank you for your consideration of this variance.

Scott A. Worthington

Scott Worthington
In Site Engineering

Attachment A

Maplewood Subdivision is a proposed major subdivision in Yellowstone County. The applicant is requesting a variance from Section 4.6.B.1 which requires a connection to undeveloped land from this subdivision every 600 feet.

1. The granting of the variance will not be detrimental to the public health, safety, or general welfare or injurious to other adjoining properties.
The applicant is proposing to provide two (2) future connections to the vacant land to the south. The Yellowstone County Subdivision Regulations requires one (1) connection every 600 feet maximum. With this requirement the applicant would be required to have three (3) connections but none of them would be 600 feet apart. As outlined in the variance request the proposed two connections are 707 feet from 72nd Street to 71st Street. From 68th Street to Maple Leaf Trail is 743 feet. With 874 feet between Maple Leaf Trail and 71st Street. With one less connection than what is required will not have a strong negative impact of future movements between this subdivision and development to the south.

2. Because of the particular physical surroundings, shape, or topographical conditions of the specific property involved, an undue hardship to the owner would result if the strict letter of the regulation was enforced.
There are no topographical conditions that would impact the ability to make connections to the south. The land has been used as a farm field and this development only uses half of the land for the project.

3. The variance will not result in an increase in taxpayer burden.
The variance will not result in an increase in taxpayer burden. There will be one less section of road to maintain.

4. The variance will not in any manner place the subdivision in nonconformance with any adopted zoning regulations or Growth Policy.
The proposed development is outside of the Yellowstone County zoning jurisdiction and so will not create any non-conformance with zoning.

5. The subdivider must prove that the alternative design is equally effective, and the objectives of the improvements are satisfied.
The proposed connections to the south will meet the intent of the regulations, to have connections for future development and not create subdivision islands.

Planning Board

Date:	06/24/2025
Title:	Public Hearing and Recommendation for Transportation Alternatives Grant Funding
Presented by:	Elyse Monat
Department:	Planning & Community Services
Presentation:	Yes

Information

RECOMMENDATION

Staff recommends the Planning Board review the submitted Transportation Alternatives (TA) applications, conduct a public hearing, consider testimony from the public, and recommend funding for the two received TA applications to the PCC.

BACKGROUND (Consistency with Adopted Plans and Policies, if applicable)

The Transportation Alternatives Program (TA) is a set-aside program from the Surface Transportation Block Grant (STBG) program. Eligible uses of the funds include projects and activities that were previously eligible under the Transportation Alternatives Program under the Moving Ahead for Progress in the 21st Century Act (MAP-21). This includes a variety of pedestrian and bicycle facilities, recreational trails, Safe Routes to School projects, and other community improvement projects. See the Billings Metropolitan Planning Organization (MPO) TA Instructions for eligible projects. The Billings MPO has been allocated $1,784,111 in Transportation Alternative Funds in 2025.

The Bipartisan Infrastructure Law (BIL) allows for MPOs to administer their own competitive application process with approval and oversight from the Montana Department of Transportation (MDT).

Projects submitted must meet Federal and State guidelines for eligibility and must identify a local, Federal or State sponsoring agency. Private individuals and organizations may recommend a project if the project is sponsored by the government agency in which the project is located. Examples of a sponsoring agency may include, but are not limited to, City, County, Tribal, etc.

The MPO received two eligible applications for the Transportation Alternatives funds. The applications included:

- City of Billings Safe Routes to School 2025 TA sponsored by the City of Billings
  - Total Project Cost: $1,492,297.23
  - Federal TA Request: $1,292,030.94
  - Local Matching Funds: $200,266.29
  - *Since the last time the Planning Board saw this agenda item, this budget has been updated slightly to better match the Indirect Cost Rate and recommended inflation rate.*

- Johnson Lane Sidewalk Connector Project sponsored by Yellowstone County via the Lockwood Pedestrian Safety District (LPSD)
  - Total Project Cost: $250,660.00
  - Federal TA Request: $217,021.43
  - Local Matching Funds: $33,638.57

TAC, the body that reviews the applications, requested additional clarification on the cost estimate for the Lockwood project after they first reviewed the applications in May. Erin Claunch, consultant for the Lockwood Pedestrian Safety District, reviewed the costs and made several updates/provided clarification to the cost, including:

- Removed the Indirect Cost Rate from construction and applied it only to preliminary engineering.
- Changed the preliminary engineering and construction engineering from 35% and 25% of the costs respectively (based on the description in the TA application) to $50,000 for PE and $30,000 for CE.
- Did not change the raw cost estimate, now shown at $165,000 without the Indirect Cost Rate. Erin noted he modified a typo for the 6" sidewalk (6 feet) from SY to SF. Prior to contingency and inflation, the raw construction cost is $111, 214.15. This comes to approximately $256/LF of sidewalk. In summer 2024, Lockwood Pedestrian Safety District (LPSD) constructed a similar sidewalk project approximately 125 feet in length. This project was built for approximately $28,000, which equates to $224/LF of sidewalk. This project also had to be re-bid multiple times as the LPSD received multiple bids over $50,000.

Together, these two projects request a total of $1,509,051.37 in federal TA funds, which is less than the $1,784,111 in funds the MPO has available. As a result, if the projects rank high enough, both projects could be funded with the available

funding.

The Technical Advisory Committee (TAC/Committee) is responsible for evaluating and scoring Transportation Alternatives (TA) applications. The scores from TAC will be translated into a list of recommended projects. While TAC had not met (meeting 6/11/25) by the time this Planning Board memo was due, staff will share the results of the scoring form TAC at the Planning Board meeting.

The MPO will present the list of the recommended projects to the local governing bodies that make up the Policy Coordinating Committee (PCC). The PCC is made up of a representative of the Billings City Council, Yellowstone County Commissioners, Billings-Yellowstone County Planning Board, and MDT. Each entity (besides MDT) will review the projects recommended by TAC and can either approve the recommendation and forward to PCC or take a different action and forward that onto PCC. PCC will take into consideration each recommendation, with MDT providing their recommendation at the PCC meeting, and make the final decision on which applications to fund.

The following procedure will be used by the MPO and review Committee for the scoring and selection of TA projects:

1. At the outset of the scoring process, all applicants will be screened for eligibility by the local TA Coordinator. Projects that do not meet the eligibility requirements will be identified and marked as ineligible. Reason(s) for ineligibility will be noted and the applicant informed. The ineligible project will not move forward in the scoring process.
2. Individual members of the Committee will score each application independently prior to the selection committee meetings. Scoring will be based on a total of 100 points, 10 points for Project Description, 45 points for Project Benefits and 45 points for Project Risk Analysis. The TA Coordinator will review the scores and provide an average ranking based on individual scores.
3. The Committee will convene as often as necessary to come to a consensus. Each member can adjust their score based on discussion with the Committee.
4. For each application, all final individual member scores will be added together and averaged to arrive at the final total application score.
5. After being scored, applications will be entered into a ranked list and the Committee will develop the final list of selected projects to recommend to PCC. Recommended projects will be selected up to the amount available to the MPO, less any amount the MPO would like to reserve for project cost increases.
6. After the PCC approves, the MPO TA Coordinator will then share the list of the PCC approved TA projects from the MPO to the MDT TA Program Manager for MDT approval and subsequently Transportation Commission approval.

TAC discussed these applications during their May TAC meeting. Comments on both projects were favorable, but TAC wanted to postpone a vote on the project recommendations to get clarification on the details of the cost estimate for the Yellowstone County/Lockwood application. At their meeting on June 12, 2025, TAC members voted to recommend both applications for funding. At their May 13, 2025 meeting, the Planning Board held a public hearing on this item, as the public hearing was already scheduled and advertised. No members of the public spoke during the public hearing. During their June 24, 2025 meeting, staff requests that the Planning Board conduct another public hearing to receive comments on the updated applications.

STAKEHOLDERS

At their meeting on June 12, 2025, TAC members voted to recommend both project applications for funding. Ultimately, the traveling public within the MPO Urban Area will all benefit from the TA projects as they will add safety and access for many pedestrians, school students and others to safely navigate the transportation corridors in the MPO area.

ALTERNATIVES

Planning Board may:

- Forward a recommendation of approval of the Transportation Alternatives grant applications to the PCC
- Not forward a recommendation of approval of the Transportation Alternatives grant applications to the PCC
- Forward an alternate funding option for the applications

FISCAL EFFECTS

If both applications are approved, $1,509,052.37 in TA funds will be allocated. TA funds are generally for non-motorized transportation projects, so this would be an appropriate use of these funds.

- A $200,266.29 in match for the City of Billings Safe Routes to School 2025 TA project will come from the City's annual Safe Routes to School allocation.
- A $33,638.57 in matching funds for the Johnson Lane Sidewalk Connector Project will come from the Lockwood Pedestrian Safety District's funds.

A total of $275,058 would be left after allocation to these projects, which could be used for future projects or to address project overages.

Attachments

City of Billings TA application
LPSD application updated budget
Johnson Lane Budget Justification

BILLINGS - YELLOWSTONE COUNTY
MPO
METROPOLITAN PLANNING ORGANIZATION

Billings Metropolitan Planning Organization (MPO)
Transportation Alternatives (TA) Program
2025 Project Application

Review the **instructions** prior to filling out this application for a Capital Improvement Project. Fill in all the sections and do not leave any blank.

1. Project Name: City of Billings Safe Routes to School 2025 TA

2. Project Sponsor: City of Billings

3. Project Contact: Mac Fogelsong, PE

City Engineer, City of Billings, 316 North 26th, 5th Floor, Billings MT 59101

fogelsongm@billingsmt.gov; 406-657-8232

4. Project Cost Estimate

	Total Cost of Phase	Federal/State Funds Share (TA) 86.58%	Local Matching Funds 13.42%	Additional Contribution
Preliminary Engineering (PE)	**$163,046.39**	**$141,165.56**	**$21,880.82**	
PE Local (100%)	**$163,046.39**	**$141,165.56**	**$21,880.82**	
Construction (CN)	**$1,220,553.25**	**$1,056,755.00**	**$163,798.25**	
Construction Engineering (CE)	**$108,697.59**	**$94,110.37**	**$14,587.22**	
CE Local (100%)	**$108,697.59**	**$94,110.37**	**$14,587.22**	
Right-of-Way (RW)	**$0.00**	**$0.00**	**$0.00**	
RW Local	**$0.00**	**$0.00**	**$0.00**	

	Total Cost of Phase	Federal/State Funds Share (TA) 86.58%	Local Matching Funds 13.42%	Additional Contribution
Incidental Construction (Utility involvement) (IC)	**$0.00**	**$0.00**	**$0.00**	
Total	**$1,492,297.23**	**$1,292,030.94**	**$200,266.29**	

As a reminder, the cost split between Federal Share TA and Matching funds is 86.58% Federal Share TA and 13.42% Match

5. Project Administration: Please provide information regarding which entity is proposed to administer the project. Is this project going to be administered as a local (LAG) project or are you requesting MDT to administer the project. If requesting MDT administration, please explain.

The City of Billings will administer the project as a local (LAG) project, through the Engineering Division.

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MPO
METROPOLITAN PLANNING ORGANIZATION

6. Description of Project (10 points):

The 2025 Safe Routes to School TA application will complete high priority projects from a large list of remaining Safe Routes to school projects totaling about $25,000,000. This funding would accelerate the completion of the projects that are first and foremost safety-based for school children and pedestrians.

Seven project focus areas are proposed that are recommended in the Safe Routes to School Plans, Phase I and Phase II:

- Jackson Street Pedestrian Crossings and Curb Extensions (Bulb-outs)
- Riverside School Zone Improvements
- South Billings Boulevard School Crossing and Pedestrian Refuge Island
- Governors Boulevard Intersection Improvements for Castlerock School
- Central Avenue and 24th Street West--High Visibility Crossing and Leading Pedestrian Interval
- Parkhill Drive and 17th Street--High Visibility Crossing
- Poly Drive and Hoover Avenue Pedestrian Crossing--RRFB and Curb Extensions

These projects are in close proximity and benefit Newman Elementary School, Riverside Middle School, Castlerock Middle School, Mount Olive Lutheran School/Billings West High School, and Rose Park Elementary School.

The project locations were identified in the Safe Routes to School Plans, Phase I and Phase II and are shown in the appendix. A letter of support is provided from School District #2 in the appendix.

The project improvements are substantially surface type improvements, requiring minimal underground excavation and do not require additional right-of-way. These projects will not impact driveways or parking lots or negatively impact existing storm drainage systems.

7. Project Eligibility:

The proposed project is eligible for Transportation Alternatives and strongly meets several categories:

1) Category b. Construction, planning, and design of infrastructure-related projects and systems that provide safe routes for non-drivers, including children, older adults, and individuals with disabilities to access daily needs.
2) Category f. Safe Routes to School Projects. Projects must be identified in a locally, adopted Safe Routes to School Plan.
3) The safe routes to school program under section 1404 of the SAFETEA-LU. A. Infrastructure-related projects.-planning, design, and construction of infrastructure-related projects on any public road or any bicycle or pedestrian pathway or trail in the vicinity of schools that will substantially improve the ability of students to walk and bicycle to school, including sidewalk improvements, traffic calming and speed reduction improvements, pedestrian and bicycle crossing improvements, on-street bicycle facilities, off-street bicycle and pedestrian facilities, secure bicycle parking facilities, and traffic diversion improvements in the vicinity of schools.

The project areas discussed in this application are all recommended projects from the 2021 and 2022 Safe Routes to School Plans, Phase I and II that were locally adopted by the MPO and the Billings City Council.

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8. Project Benefits (45 points):

a. Safety

The project addresses safety concerns raised in the Safe Routes to School Plans, Phase I and Phase II by implementing the recommended projects therein. The project locations utilize tools and design elements that promote safety by improving the physical and visual environment.

The techniques and design elements used to improve safety are the following:

- Creation of a school zone with reduced speed and additional awareness through flashing school zone. The reduced speed and associated signage alerts drivers that there will be students walking and biking in the area.
- Leading Pedestrian Intervals (LPI)—allows pedestrians time to cross the street ahead of traffic, especially turning vehicles, by allowing increased visibility
- Pedestrian Refuge—reduces crossing lengths and allows more visibility of pedestrians. Allows pedestrians to use gaps in traffic by crossing only one direction of traffic. Also creates a visual notice of the crossing and slows traffic speeds by narrowing the traveled way
- Increased level of Striping—High visibility striping at crossings creates improved awareness of crossings
- Curb Extensions (bulb-outs)—Curb extensions shorten pedestrian crossing distances and allow pedestrians to more easily be seen prior to crossing the street
- Rectangular Rapid Flashing Beacons—Makes presence of pedestrian know to drivers

b. Accessibility

The project improves accessibility from an ADA standpoint, but also from accessibility and comfort level of pedestrians and bicyclists, particularly school children going to and from school. Many of the street crossing improvements improve accessibility by adding ADA ramps where none exist today (e.g. Morgan Avenue, Orell Drive, Vaughn Lane, Poly Drive/Hoover Avenue). The benefits of the safety elements discussed in section b. apply to all persons with disabilities as well. All the improvements will be constructed to ADA and PROWAG guidelines.

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c. Connectivity

One of the primary benefits of the project is connectivity through better connecting routes to school. A primary goal of the SRTS is to promote safety within a certain radius of the school –these projects promote connectivity within those spheres used by school-aged children walking and biking to those elementary and middle schools. The proposed project elements clearly make the connections from the student's place of residence to school more direct, safe and noticeable. Inherently, the project elements also improve connections across existing streets for other pedestrians and bicyclists as well.

9. Project Risk Analysis (45 points):

a. Budget

The project budget was developed for each project element and location using recent construction costs at a conceptual planning level through staff experience with costs of Safe Routes to School type improvements. Further, these costs were compared with cost estimates proposed in the Safe Routes to School plans. Contingencies were applied for design and construction unknowns, and inflation of construction costs were added.

A detailed construction cost estimate is provided in the appendix.

b. Matching Funds

Local matching funds in the amount of 13.42% are proposed by the City Public Works Department and are included in the FY 2026 capital budget that requires approval by City Council in June 2025. Historically, these funds are allocated under a specific budget line for Safe Routes to School and have been approved by the City Council.

c. Project Ownership and Maintenance

The City of Billings is responsible for operation and maintenance of the project facilities through annual O&M funds, including sweeping and re-striping faded striping. The City has staff to maintain electrical components of the Leading Pedestrian Interval and Rectangular Rapid Flashing Beacons (RRFBs). The City has the necessary personnel, equipment and budget to maintain these facilities.

d. Project Right-of-Way and Railroad

The project elements will be constructed within existing right-of-way and there are no anticipated right-of-way needs. There are no significant challenging elements within the right-of-way. None of the project elements are involved with the railroad.

e. Project Utility Impacts

City staff has reviewed the project locations and there are minimal impacts to existing utilities with the proposed improvements. Most of the infrastructure are surface improvements and should not require any utility relocations. Any pedestrian push button poles, RRFB poles, or signs will be placed out of the way of existing utilities. During preliminary design and after surveying of existing utilities, the City will coordinate with various utility companies. At this conceptual stage, there are no apparent, critical utility impacts.

10. Appendix (add attachments): Letter of Support, Project Map, Construction Cost Estimate

March 31, 2025

Mac Fogelsong
City of Billings
316 North 26th Street
Billings, MT 59101

Reference: Letter of Support for 2025 Transportation Alternatives Grant Application.

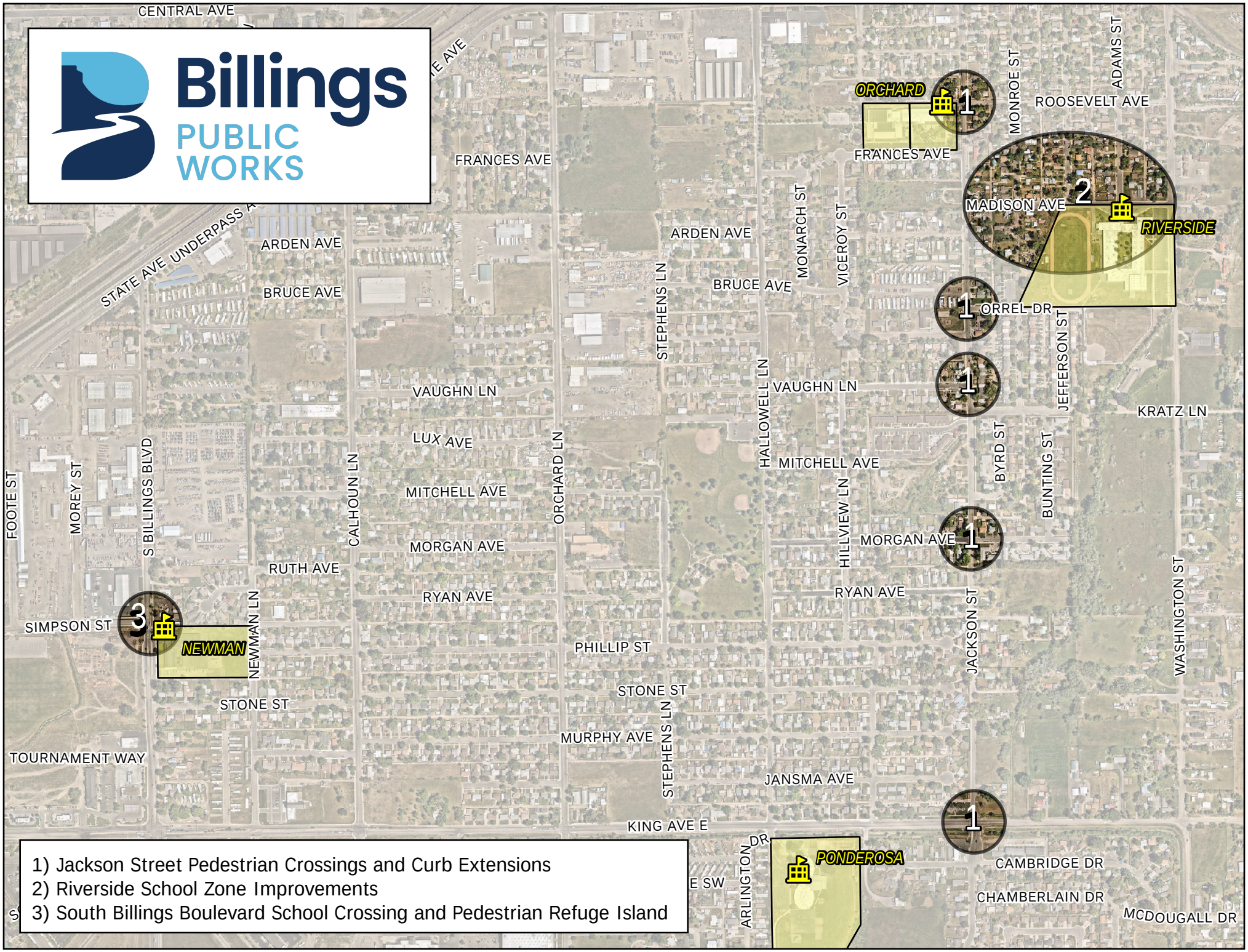
Dear Mac:

School District 2 is pleased to support the City of Billings in its Transportation Alternatives 2025 grant application. The grant application is exclusively focused on Safe Routes to School projects identified and prioritized from the Safe Routes to School Phase I and II plans.

We understand there are about seven main project areas serving elementary and middle schools based on priorities identified in the plans. As you know, we were a partner in developing those Safe Routes to School plans and look forward to seeing these projects implemented to improve the safety of school children getting to and from school.

Sincerely,

Scott Reiter
Executive Director of Facilities
Billings Public Schools
101 10th Street West
Billings, MT 59102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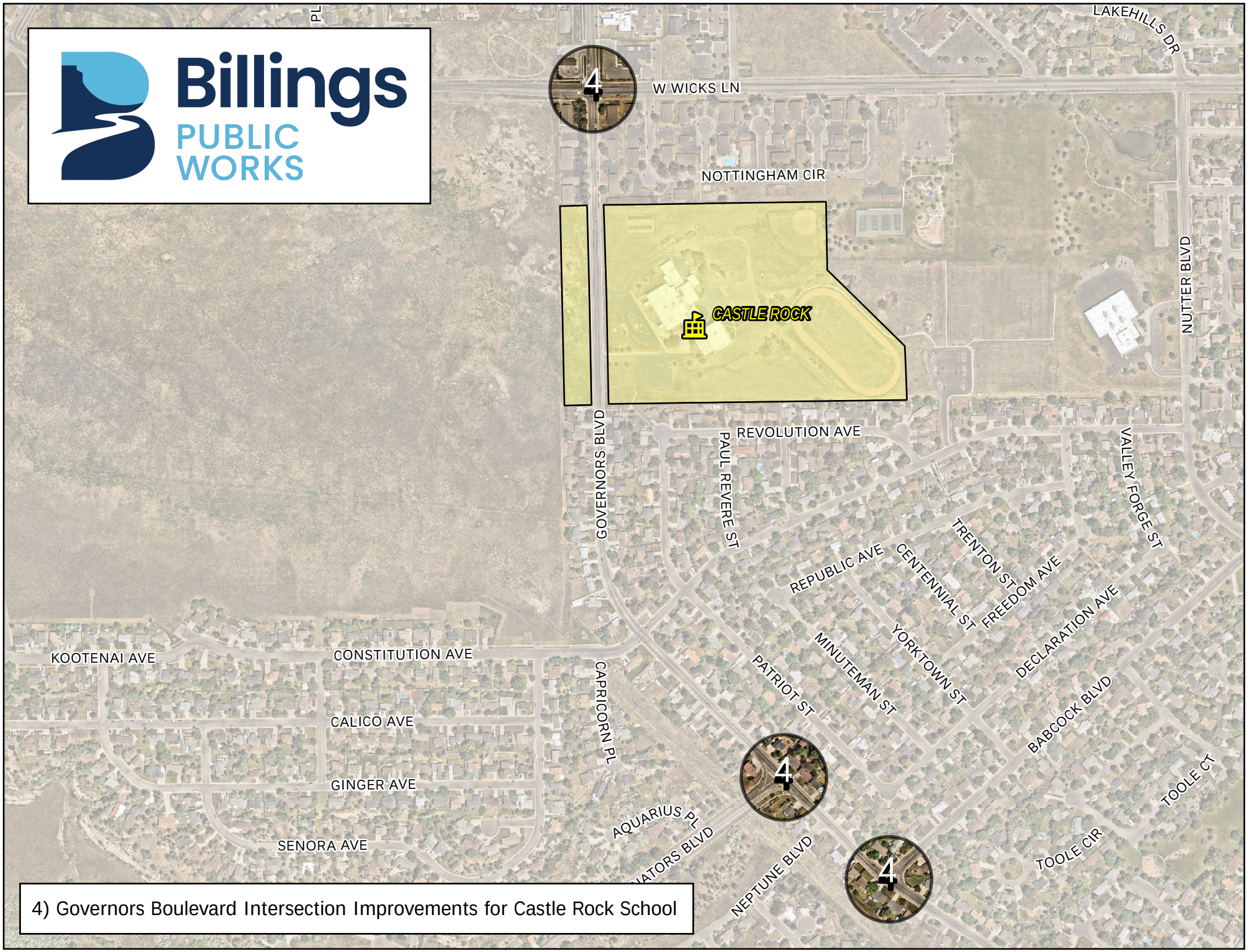
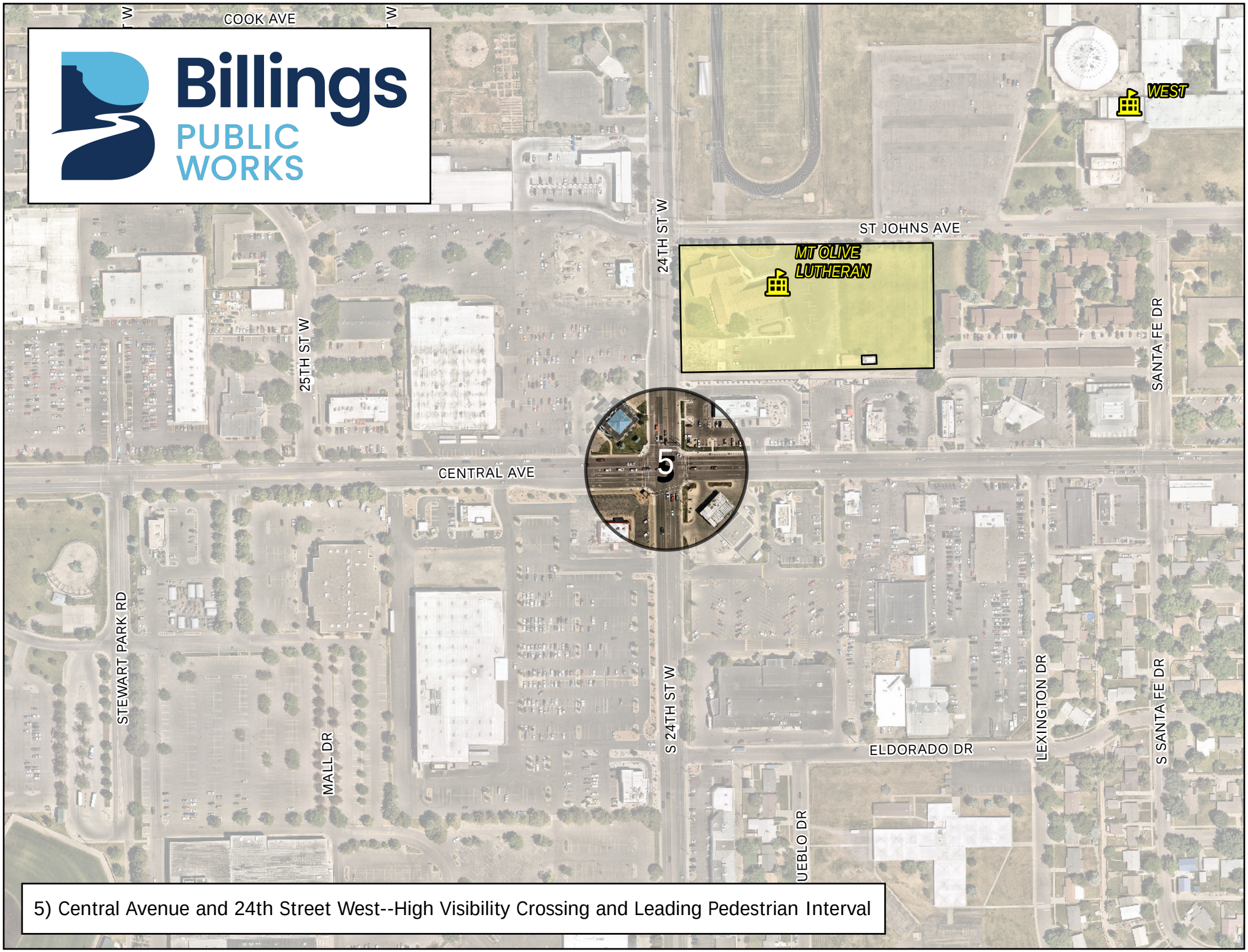
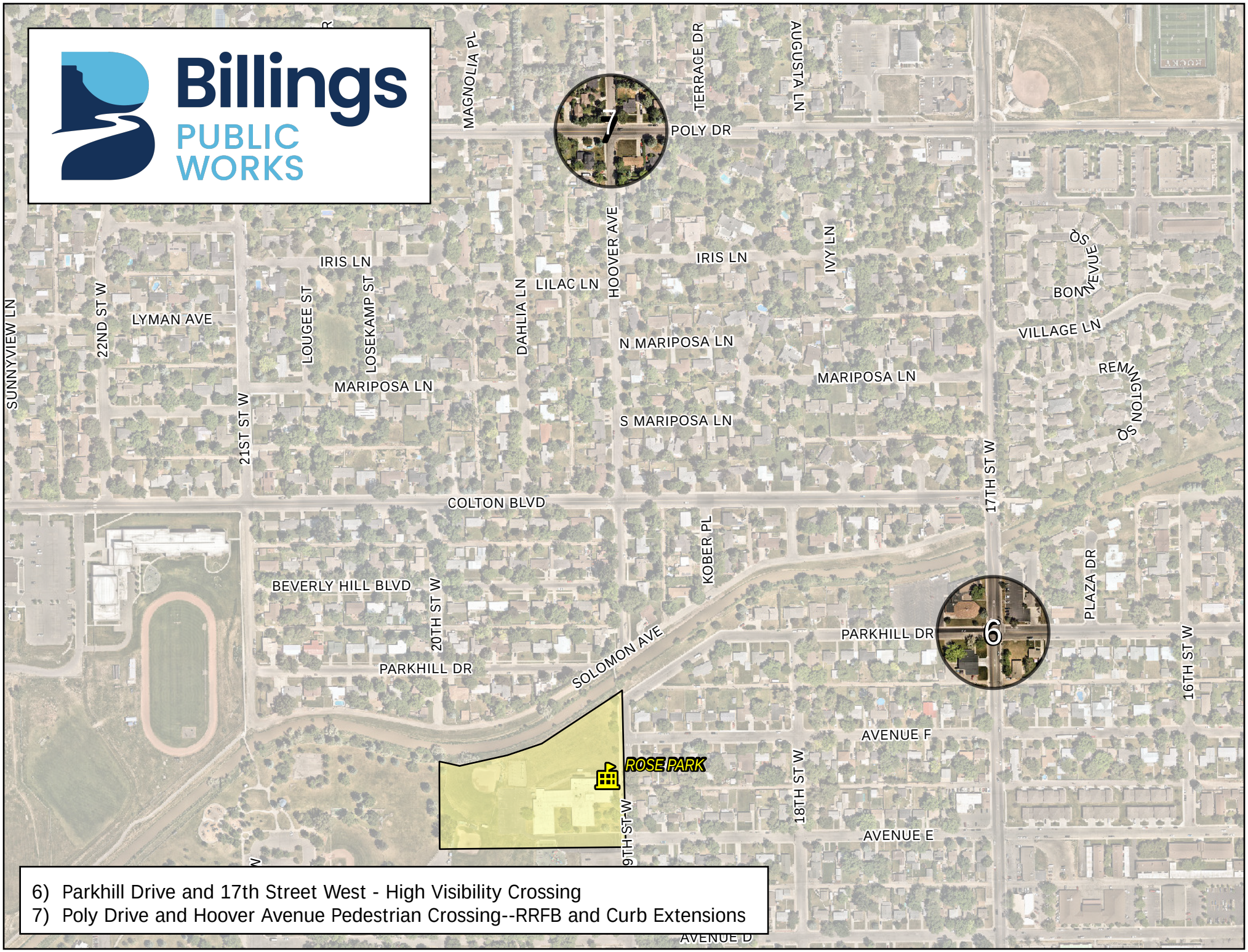
CAMBRIDGE DR
CHAMBERLAIN DR
MCDOUGALL DR
1) Jackson Street Pedestrian Crossings and Curb Extensions
2) Riverside School Zone Improvements
3) South Billings Boulevard School Crossing and Pedestrian Refuge Island



4) Governors Boulevard Intersection Improvements for Castle Rock School



5) Central Avenue and 24th Street West--High Visibility Crossing and Leading Pedestrian Interval



6) Parkhill Drive and 17th Street West - High Visibility Crossing
7) Poly Drive and Hoover Avenue Pedestrian Crossing--RRFB and Curb Extensions

TA Grant Application Projects
Summary Of Costs

1. Jackson Street	$317,625.00
2. Riverside School Zone	$283,250.00
3. South Billings Boulevard	$67,100.00
4. Governors Boulevard	$182,050.00
5. Central Ave & 24th Street West	$34,100.00
6. Parkhill Drive and 17th Street West	$23,100.00
7. Poly Drive and Hoover Avenue	$118,450.00
Total Construction Estimate	**$1,025,675.00**
15% Construction Contingency	$153,851.25
Inflation Contingency (4%)	$41,027.00
Total Construction Estimate, with Contingency	**$1,220,553.25**
Engineering Design, Construction Observation, Staking, and Administration (20%)	$244,110.65
MDT Indirect Cost (11.32% of Engineering & Construction Administration)	$27,633.33
Total, Engineering Cost	**$271,743.98**
Total Project Cost	**$1,492,297.23**
Local Match (13.42%)	$200,266.29
Federal Share (86.58%)	$1,292,030.94

	Total Cost of Phase	Federal Share (86.58%)	Local match (13.42%)	Additional Contribution
Preliminary Engineering (PE)	**$163,046.39**	**$141,165.56**	**$21,880.82**	**$0.00**
PE Local (100%)	$163,046.39	$141,165.56	$21,880.82	$0.00
Construction (CN)	**$1,220,553.25**	**$1,056,755.00**	**$163,798.25**	**$0.00**
Construction Engineering (CE)	**$108,697.59**	**$94,110.37**	**$14,587.22**	**$0.00**
CE Local (100%)	$108,697.59	$94,110.37	$14,587.22	$0.00
Right of Way (RW)	**$0.00**	**$0.00**	**$0.00**	**$0.00**
Incidental Construction (Utility Involvement) (IC)	**$0.00**	**$0.00**	**$0.00**	**$0.00**
Total	**$1,492,297.23**	**$1,292,030.94**	**$200,266.29**	**$0.00**

1. Jackson Street

Pedestrian Crossings, High Visibility Crosswalks, Curb Extensions

	Unit	Qty	Unit Cost	Total Cost
General Requirements (Taxes, Bonds, Mob, etc.)	LS	1	$28,875.00	$28,875.00
Construction Traffic Control	LS	1	$15,000.00	$15,000.00
Remove Existing Surface and Utility Features (Per Intersection)	EA	5	$4,000.00	$20,000.00
Curb Extension Including ADA Ramp, Per Corner (Assumes 50 LF New Curb, 200 SF New Concrete, 2 ADA Ramps, and 4 Truncated Dome Panels)	EA	24	$6,500.00	$156,000.00
Storm Drain or Drainage Improvements (Per Intersection)	EA	5	$8,000.00	$40,000.00
Pre-Formed Thermo (White) (Per Crosswalk)	EA	11	$4,000.00	$44,000.00
New Sign(s), Post, and Foundation	EA	22	$625.00	$13,750.00

Construction Estimate - Jackson Street Curb Extensions	$317,625.00

2. Riverside School Zone

Streets Surrounding Riverside Middle School

	Unit	Qty	Unit Cost	Total Cost
General Requirements (Taxes, Bonds, Mob, etc.)	LS	1	$25,750.00	$25,750.00
Construction Traffic Control	LS	1	$15,000.00	$15,000.00
Madison Ave Traffic Calming	LS	1	$50,000.00	$50,000.00
Washington Street Traffic Calming	LS	1	$150,000.00	$150,000.00
School Zone Flasher	EA	4	$7,500.00	$30,000.00
New Sign(s), Post, Foundation	EA	20	$625.00	$12,500.00
Construction Estimate - Riverside Middle School - School Zone				$283,250.00

3. South Billings Boulevard
School Crossing and Pedestrian Refuge Island

	Unit	Qty	Unit Cost	Total Cost
General Requirements (Taxes, Bonds, Mob, etc.)	LS	1	$6,100.00	$6,100.00
Construction Traffic Control	LS	1	$15,000.00	$15,000.00
Remove / Sawcut Existing Surface and Utility Features	LS	1	$5,000.00	$5,000.00
Concrete Median (Pedestrian Refuge Island) (Includes Type A Median Curb, 3-in Median Cap, ADA Ramps, Delineators, Concrete Patching)	LS	1	$30,000.00	$30,000.00
Relocate Existing RRFB Assembly	EA	2	$1,500.00	$3,000.00
Pre-Formed Thermo (White) (Per Crosswalk)	EA	2	$4,000.00	$8,000.00
Construction Estimate - South Billings Boulevard				$67,100.00

4. Governors Boulevard

Intersection Improvements for Castlerock Middle School

	Unit	Qty	Unit Cost	Total Cost
General Requirements (Taxes, Bonds, Mob, etc.)	LS	1	$16,550.00	$16,550.00
Construction Traffic Control	LS	1	$20,000.00	$20,000.00
Remove / Sawcut Existing Surface and Utility Features (Per Intersection)	EA	3	$5,000.00	$15,000.00
Curb and Gutter	LF	900	$30.00	$27,000.00
Asphalt Restoration	SY	800	$50.00	$40,000.00
6-inch Concrete	SF	1,500	$15.00	$22,500.00
4-inch Concrete	SF	1,000	$12.00	$12,000.00
Landscape Restoration	LS	1	$5,000.00	$5,000.00
Pre-Formed Thermo (White) (Per Crosswalk)	EA	4	$6,000.00	$24,000.00
Construction Estimate - Governors Boulevard				$182,050.00

5. Central Ave & 24th Street West

High Visibility Crossing and Leading Pedestrian Interval

	Unit	Qty	Unit Cost	Total Cost
General Requirements (Taxes, Bonds, Mob, etc.)	LS	1	$3,100.00	$3,100.00
Construction Traffic Control	LS	1	$2,000.00	$2,000.00
Obliterate Existing Striping	LS	1	$5,000.00	$5,000.00
Pre-Formed Thermo (White) (Per Crosswalk)	EA	4	$6,000.00	$24,000.00
Construction Estimate - Central Ave & 24th Street West				$34,100.00

6. Parkhill Drive and 17th Street West
Pedestrian Crossing Enhancements

	Unit	Qty	Unit Cost	Total Cost
General Requirements (Taxes, Bonds, Mob, etc.)	LS	1	$2,100.00	$2,100.00
Construction Traffic Control	LS	1	$1,000.00	$1,000.00
Obliterate Existing Striping	LS	1	$4,000.00	$4,000.00
Pre-Formed Thermo (White) (Per Crosswalk)	EA	4	$4,000.00	$16,000.00
Construction Estimate - Parkhill Drive and 17th Street West				$23,100.00

7. Poly Drive and Hoover Avenue
Pedestrian Crossing Enhancements

	Unit	Qty	Unit Cost	Total Cost
General Requirements (Taxes, Bonds, Mob, etc.)	LS	1	$8,950.00	$8,950.00
Construction Traffic Control	LS	1	$5,000.00	$5,000.00
Remove / Sawcut Existing Surface and Utility Features	LS	1	$10,000.00	$10,000.00
Curb and Gutter	LF	300	$30.00	$9,000.00
Asphalt Restoration	SY	200	$50.00	$10,000.00
6-inch Concrete	SF	700	$15.00	$10,500.00
4-inch Concrete	SF	2,000	$12.00	$24,000.00
Landscape Restoration	LS	1	$5,000.00	$5,000.00
Pre-Formed Thermo (White) (Per Crosswalk)	EA	4	$4,000.00	$16,000.00
Intersection Lighting	LS	1	$20,000.00	$20,000.00
Construction Estimate - Poly Drive and Hoover Avenue				$118,450.00

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Billings Metropolitan Planning Organization (MPO)
Transportation Alternatives (TA) Program
2025 Project Application

Review the **instructions** prior to filling out this application for a Capital Improvement Project. Fill in all the sections and do not leave any blank.

1. Project Name: JOHNSON LANE SIDEWALK CONNECTOR PROJECT

2. Project Sponsor: YELLOWSTONE COUNTY

3. Project Contact:

ERIN CLAUNCH
SANBELL
1300 N. TRANSTECH WAY
BILLINGS, MT 59102
406-869-3320; eclaunch@sanbell.com

4. Project Cost Estimate

	Total Cost of Phase	Federal/State Funds Share (TA) 86.58%	Local Matching Funds 13.42%	Additional Contribution
Preliminary Engineering (PE)	**$64,750.00**	**$56,060.55**	**$8,689.45**	--
PE MDT (10%)	$6,475.00	$5,606.06	$868.95	--
PE Local (90%)	$58,275.00	$50,454.49	$7,820.50	--
Construction (CN)	**$185,000.00**	**$160,173.00**	**$24,827.00**	--
Construction Engineering (CE)	**$46,250.00**	**$40,043.25**	**$6,206.75**	--
CE MDT (5%)	$2,312.50	$2,002.16	$310.34	--
CE Local (95%)	$43,937.50	$38,041.09	$5,896.41	--
Right-of-Way (RW)	--	--	--	--
RW MDT	--	--	--	--
RW Local	--	--	--	--

BILLINGS - YELLOWSTONE COUNTY MPO METROPOLITAN PLANNING ORGANIZATION

See page below for updated budget

	Total Cost of Phase	Federal/State Funds Share (TA) 86.58%	Local Matching Funds 13.42%	Additional Contribution
Incidental Construction (Utility involvement) (IC)	--	--	--	--
Total	--	--	--	--
Total MDT	--	--	--	--
	$296,000.00	**$256,276.80**	**$39,723.20**	**--**

As a reminder, the cost split between Federal Share TA and Matching funds is 86.58% Federal Share TA and 13.42% Match

5. Project Administration: Please provide information regarding which entity is proposed to administer the project. Is this project going to be administered as a local (LAG) project or are you requesting MDT to administer the project. If requesting MDT administration, please explain.

The intent of this project is to be administered by Yellowstone County Public Works through the Local Agency Guidelines. Yellowstone County is currently administering the Old Hardin Road Connector TA Project and is familiar with the processes and requirements. MDT will not be expected to administer this project. Letters of support from both the Yellowstone County Board of County Commissioners and the Lockwood Pedestrian Safety District Board are included in the Appendix.

Updated Budget

	Total Cost	Federal Share (TA)	Match	Additional Contribution
Preliminary Engineering (PE)	$ 50,000.00	$ 43,290.00	$ 6,710.00	$ -
IDC for PE	$ 5,660.00	$ 4,900.43	$ 759.57	
PE MDT (10%)	$ 5,000.00	$ 4,329.00	$ 671.00	$ -
PE Local (90%)	$ 45,000.00	$ 38,961.00	$ 6,039.00	$ -
Construction (CN)	$ 165,000.00	$ 142,857.00	$ 22,143.00	$ -
Construction Engineering (CE)	$ 30,000.00	$ 25,974.00	$ 4,026.00	$ -
CE MDT (5%)	$ 1,500.00	$ 1,298.70	$ 201.30	$ -
CE Local (95%)	$ 28,500.00	$ 24,675.30	$ 3,824.70	$ -
Right-of-Way (RW)	$ -	$ -	$ -	$ -
Incidental Construction (Utility Involvement) (IC)	$ -	$ -	$ -	$ -
Total	**$ 250,660.00**	**$ 217,021.43**	**$ 33,638.57**	**$ -**

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6. Description of Project (10 points):

Lockwood is a large, unincorporated area under the governance of Yellowstone County with a population of approximately 7,200 people. Johnson Lane is the major north-south principal arterial that runs through the heart of Lockwood and connects the communities two major transportation corridors (Old Hardin Road and Old US Highway 87). As a result, residents have access to Lockwood's main street (Old Hardin Road) and Lockwood High School that resides along Old US Highway 87. Johnson Lane is used as major connecting street for Old Hardin Road and US Highway 87 residents of Lockwood and the surrounding area. Currently, Johnson Lane is a two-lane road with two sections existing sidewalk on the west side of the roadway. It is approximately 2,000 feet from Silverton Street to Old Hardin Road to the north. Currently, the existing sidewalk sections (from Silverton Street to 275 feet north of Rockwood Street and 350 feet of sidewalk in front of Ace Hardware and Treasure State Storage) account for approximately 1,000 feet. Of the remaining 1,000 feet of road without sidewalk, The Montana Department of Transportation has plans to construct sidewalk along the northern section, through their Johson Lane Interchange project. This leaves approximately 500 feet of sidewalk of Johnson Lane from Silverton Street to Old Hardin Road that will be left without sidewalk. This Johnson Lane Sidewalk Connector Project will address two separate gaps in sidewalk facilities between to complete the connection. This TA application will provide the vital portion of sidewalk to be completed and provide safety and connectivity for pedestrians in Lockwood.

The conceptual design of the project is included in the appendix and shows the 6-foot-wide boulevard sidewalk to be constructed in concrete. The intent of the design will maintain all existing driveways and street approaches.

This project was first identified the LPSD's 2023 Non-Motorized Transportation Plan list of Engineering Projects. With completion of this grant project, Johnson Lane will have continuous sidewalk that will connect residents along Johnson Lane to the heart of Lockwood community!

7. Project Eligibility:

The Johnson Lane Sidewalk Connector Project is pivotal to the Lockwood Community as it satisfies multiple categories within the TA guidelines -- specifically Categories A & B (Off-road sidewalk facility and Safe Routes for Non-drivers). The importance of the Johnson Lane Sidewalk Connector Project was determined due to the project being prioritized in the 2023 Lockwood Pedestrian Safety District's Non-Motorized Transportation Plan. Johnson Lane is Lockwood's second busiest road for both vehicular and pedestrian traffic, so this project is critical to separating the two modes of traffic and providing a safe route for pedestrians that are currently being forced to walk in the road's driving paths and unpaved shoulders.

This sidewalk project will provide a facility for pedestrians to travel to and from the intersection of Old Hardin Road and Johnson Lane to the Emerald View Park Subdivision. The intersection offers commercial and convenience store amenities and is a connection to Old Hardin Road pedestrian facilities that serves as a main street for the community and connection to a residences, businesses, and parks.

In addition, the Lockwood Pedestrian Safety District's Non-Motorized Plan has identified a future project as the continuation of this project further to the south to tie into Sunrise Street alignment. This would provide a future Safe Routes to School connection to the Lockwood Elementary, Middle, and High Schools.

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8. Project Benefits (45 points):

a. Safety

Johnson Lane exists as a two-lane roadway classified within the Metropolitan Planning Organization's (MPO's) Long Range Transportation Plan (LRTP) as a major collector. An average AADT for Johnson Lane is approximately 3,600 vehicles per day and the posted speed limit is 35 mph. The lack of pedestrian facilities, high traffic volumes, and relatively high speeds creates a safety hazard for pedestrians.

Currently, Johnson Lane has no reported accidents within the project limits. However, the Federal Highway Administration (FHWA) notes that providing sidewalks results in up to an 89% reduction in pedestrian crashes with motor vehicles and suggests that walkways should be part of every new and renovated roadway facility, and every effort should be made to retrofit streets that currently do not have sidewalks. Both FHWA and the Institute of Transportation Engineers (ITE) recommend a minimum width of 5-feet for a sidewalk or walkway, should be continuous along the street, and should be fully accessible to all pedestrians including those in wheelchairs.

b. Accessibility

As detailed in previous sections, there are sidewalk facility's available along Johnson Lane within the project limits. However, these facilities are noncontinuous and do not serve to connect any pedestrian generating land uses. The Johnson Lane Sidewalk Connector project will connect the gaps in the sidewalk and provide a facility that is compliant with both ADA and PROWAG guidelines. This will allow for a continuous, hard-surfaced route that is ADA accessible by all adjacent land uses.

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c. Connectivity

One of the primary benefits of the Johnson Lane Sidewalk project is connectivity. As described in the previous sections of this application, there is/will be continuous sidewalk from Emerald View Park Subdivision to the intersection of Old Hardin Road and Johnson Lane. Old Hardin Road is the busiest road in Lockwood and contains a two mile stretch of continuous sidewalk. The Old Hardin Road corridor connects residents, commercial businesses (including multiple gas/convenience stores and the grocery store), Lockwood's popular baseball/softball field complex, and future school safe routes along Piccolo Lane. This project would provide connection along Johnson Lane to the Old Hardin Road sidewalk.

The Lockwood Pedestrian Safety District's Non-Motorized Plan also details the extension of the Johnson Lane Sidewalk project further to the south to the Sunrise Street alignment. A future project along Sunrise Street will be able to connect these two projects to the Lockwood Elementary, Middle, and High Schools. This will create a Safe Routes to School connection for a large contingent of Lockwood School's attendance base.

9. Project Risk Analysis (45 points):

a. Budget

The construction budget for this grant project was developed based on a preliminary/conceptual design of the sidewalk connector project, as commissioned by the Lockwood Pedestrian Safety District. Quantities were estimated for sidewalk area, base gravel, geotextile fabric, excavation areas, and hydroseeding. With the quantities estimated, unit costs for these items were applied based on recent similar projects developed in MDT's database. These numbers were then extrapolated to determine the final construction number. As with standard engineering practice for planning level cost estimates, a contingency was applied to account for unforeseen construction items. The cost estimate was then utilized in Item 4 of this application to determine the overall TA application project cost. A detailed breakdown of this cost estimate is included in the Appendix.

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b. Matching Funds

The Lockwood Pedestrian Safety District is a Special Improvement District (SID) that was created by Yellowstone County as allowed under MCA 7-11-1001 through 7-11-1029. A 2014 referendum was presented to voters living within the Lockwood School District, in which they voted 61% to 39% in favor to create the district. Its purpose is to enhance pedestrian safety and provide for alternative means of transportation in the (unincorporated) Lockwood area. Accordingly, the LPSD has an estimated annual revenue of $260,000 per year for use on projects like this one. With Yellowstone County as the sponsor of this project, they are committed to ensuring that the local match is fully secured and in-hand.

c. Project Ownership and Maintenance

As sponsor of this application, Yellowstone County is fully committed, through the LPSD, for operation and maintenance of this project. The LPSD board currently holds contracts with local businesses to remove snow off existing sidewalks within the LPSD boundaries. This grant application project would be included in the snow removal contract. In addition, the LPSD annual budget includes $13,000 for annual maintenance of sidewalks. Through these annual budget items, the LPSD (and thus Yellowstone County) are committed to the ongoing operation and maintenance items for this grant application project.

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d. Project Right-of-Way and Railroad

The intent of the design for the Johnson Lane Sidewalk Connector project is to be fully constructed within the public right-of-way along Johnson Lane. As shown in the Right-of-Way Exhibits in the Appendix, there is currently 120 feet of public right-of-way along the project limits that is all free of conflicts. This will allow for adequate construction of the 6-foot sidewalk and boulevard throughout the project.

This project is free of railroad conflicts and no further action is required from a railroad coordination perspective.

e. Project Utility Impacts

For the Johnson Lane Sidewalk Connector project, the only utilities that could potentially be in conflict are overhead power lines within the vicinity of the proposed sidewalk. However, these power poles are located at the back of right-of-way, and the intent of the design is to place the sidewalk where power pole relocation will not be required. Yellowstone Valley Electric Cooperative has been informed about this potential project.

Also in proximity is a water line along the proposed sidewalk alignment. However, water lines are required to be buried greater than 6.5-feet beneath existing ground, and this will not cause conflicts. The water line is owned and operated by the Lockwood Water & Sewer District.

10. Appendix (add attachments): See enclosed attachments.

Yellowstone County

COMMISSIONERS
(406) 256-2701
(406) 256-2777 (FAX)

P.O. Box 35000
Billings, MT 59107-5000
bocc@yellowstonecountymt.gov

April 1, 2025

Lora Mattox
TA Coordinator/Transportation Planner
City of Billings Planning Division
2825 3rd Avenue North, Suite 400
Billings, MT 59101

Re: Transportation Alternatives Program Application
Johnson Lane Sidewalk Project

Dear Ms. Mattox:

The Yellowstone County Board of County Commissioners is in support of the Transportation Alternatives Program grant application for the Johnson Lane Sidewalk project. The project was identified within the Non-Motorized Transportation Plan produced by the Lockwood Pedestrian Safety District (LPSD).

The vision of the LPSD is to build a vibrant community with thriving industrial, commercial, and residential neighborhoods where people of all ages and physical abilities can travel safely and efficiently without the use of an automobile. The project will help accomplish this vision while also aiding in the mission to effectively eliminate fatalities and serious injuries caused by vehicular and pedestrian conflicts throughout the Lockwood area.

For questions regarding this letter of support please contact the Board of County Commissioners, Yellowstone County.

Sincerely,
BOARD OF COUNTY COMMISSIONERS
YELLOWSTONE COUNTY, MONTANA

Mark Morse, Chair

Michael J. Waters, Member

John Ostlund, Member

LOCKWOOD PEDESTRIAN SAFETY DISTRICT

Lockwood Pedestrian Safety District
Advisory Board to Yellowstone County
PO Box 35000
Billings, MT 59107-5000

April 2, 2025

Lora Mattox
TA Coordinator/Transportation Planner
City of Billings Planning Division
2825 3rd Avenue North, Suite 400
Billings, MT 59101

Re: Transportation Alternatives Program Application
Johnson Lane Sidewalk Project

Dear Ms. Mattox:

The Lockwood Pedestrian Safety District Advisory Board is in support of the Transportation Alternatives Program grant application for the Johnson Lane Sidewalk project. The project is on a segment of roadway deemed a high priority by the district's Non-Motorized Transportation Plan. The project completes segments of existing sidewalk to a commercial center of the community for shopping and dining and connects to a residential subdivision.

The mission of the Lockwood Pedestrian Safety District is to effectively eliminate fatalities and serious injuries caused by vehicular and pedestrian conflicts throughout the Lockwood area. Completing the Johnson Lane Sidewalk at the project's location will offer pedestrians a safe way out of the road where steady residential and commercial vehicle traffic on one of Lockwood's busiest roads. As the Lockwood community continues to develop, the safety of neighbors of all ages and abilities is priority to assure an active, healthy lifestyle is responsibly encouraged and experienced.

For more information, please contact Brandy Dangerfield, Lockwood Pedestrian Safety District Advisory Board Chair.

Respectfully,

Brandy Dangerfield
LPSD Advisory Board Secretary
dangerfield.brandy@gmail.com

Travis Smith
LPSD Advisory Board Chair
travis@cd-mt.com

JOHNSON LANE SIDEWALK CONCEPTUAL DESIGN
(SHEET 1 OF 2)

ROCKWOOD ST TO OLD HARDIN RD
WITHIN
YELLOWSTONE COUNTY

NORTH
30 15 0 30 60
SCALE:1" = 30'

PREPARED FOR : YELLOWSTONE COUNTY, MONTANA
PREPARED BY : sanbell

APRIL 2025
BILLINGS, MONTANA

JOHNSON_LANE_PROPOSED.DWG 22113.03 3/31/25 CMH

JOHNSON LANE SIDEWALK CONCEPTUAL DESIGN
(SHEET 2 OF 2)

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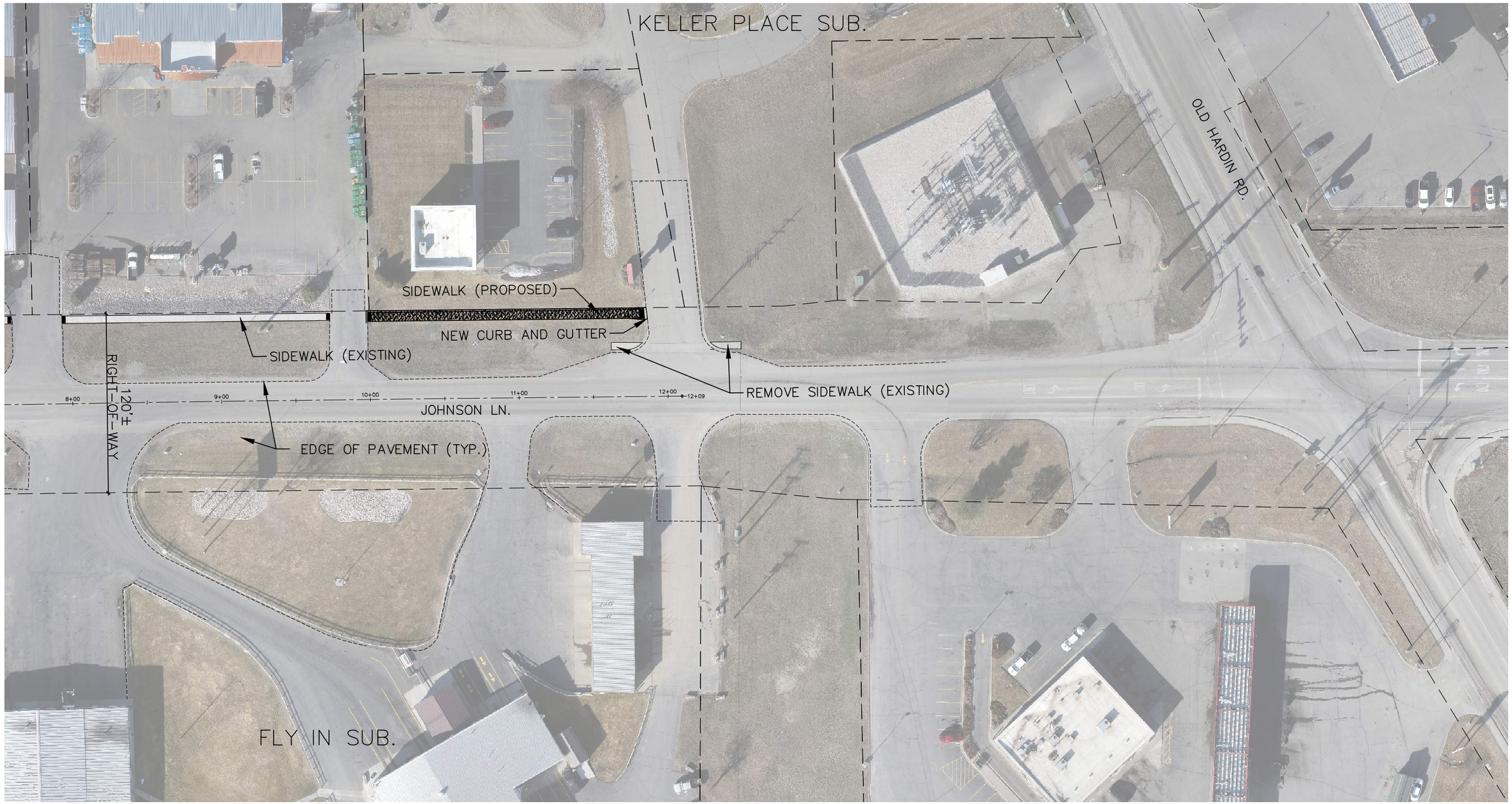


JOHNSON LANE SIDEWALK CONNECTOR COST ESTIMATE				
QUANTITY	DESCRIPTION	UNIT	UNIT PRICE	AMOUNT
2,500	Miscellaneous Work	UNIT	$ 1.00	$ 2,500.00
1	Contractor Survey & Layout	LS	$ 5,000.00	$ 5,000.00
1	Mobilization/Demobilization - 10%	LS	$ 11,000.00	$ 11,000.00
1	Traffic Control	LS	$ 5,000.00	$ 5,000.00
1	Temporary Erosion Control	LS	$ 1,500.00	$ 1,500.00
2,610	Geotextile Fabric	SF	$ 0.50	$ 1,305.00
48	1-1/2" Minus Crushed Base Course	CY	$ 75.00	$ 3,625.00
2,610	6" Sidewalk (6 ft. wide)	SF	$ 20.00	$ 52,200.00
12	Unclassified Excavation	CY	$ 35.00	$ 420.00
30	Truncated Dome Detectable Warning Panel	SF	$ 65.00	$ 1,950.00
1	Clearing & Grubbing	LS	$ 5,000.00	$ 5,000.00
1,305	Hydroseeding	SF	$ 0.50	$ 652.50
145	Over-excavation & Backfill	CY	$ 75.00	$ 10,875.00
3	Removal and Disposal of Small Tree	EA	$ 200.00	$ 600.00
2	Removal and Disposal of Large Tree	EA	$ 2,500.00	$ 5,000.00
50	ADA Ramp-6 foot wide	SF	$ 20.00	$ 1,000.00
5	Street Sign w/ Post	EA	$ 591.33	$ 2,956.65
25	Sawcut Asphalt	LF	$ 8.00	$ 200.00
10	Curb & Gutter Removal	LF	$ 25.00	$ 250.00
15	Concrete Demo and Removal	SY	$ 12.00	$ 180.00
			SUBTOTAL	$ 111,214.15
			30% CONTINGENCY	$ 33,364.25
			SUBTOTAL	$ 144,578.40
			INFLATION 4%/YEAR x 3 YEARS	$ 18,052.64
			SUBTOTAL	$ 162,631.03
			TOTAL	$ 162,631.03

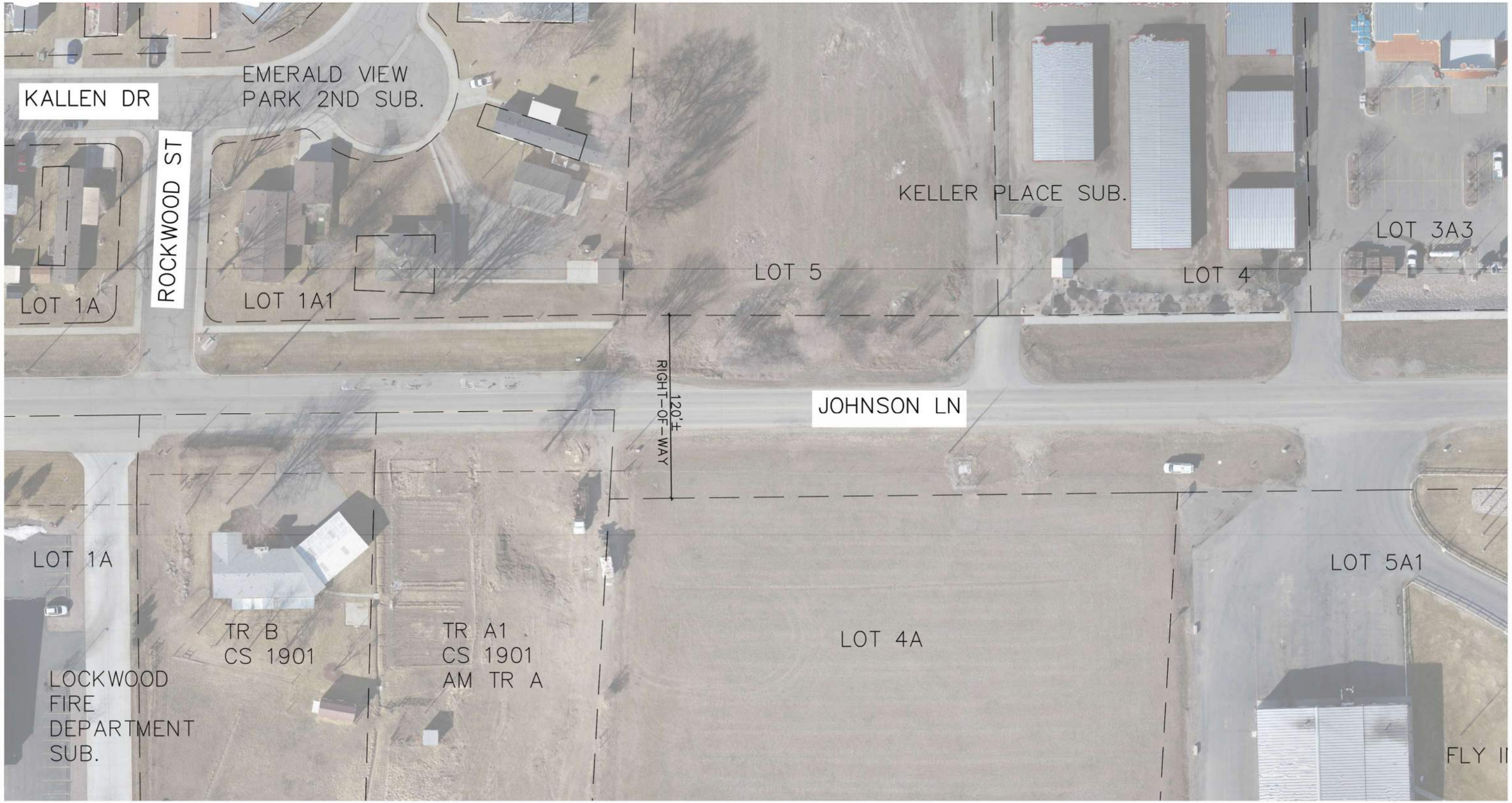
JOHNSON LANE SIDEWALK R/W EXHIBITS
(SHEET 1 OF 2)

ROCKWOOD ST TO OLD HARDIN RD
WITHIN
YELLOWSTONE COUNTY

NORTH
30 15 0 30 60
SCALE:1" = 30'

PREPARED FOR : YELLOWSTONE COUNTY, MONTANA
PREPARED BY : sanbell

APRIL 2025



JOHNSON LANE SIDEWALK R/W EXHIBITS
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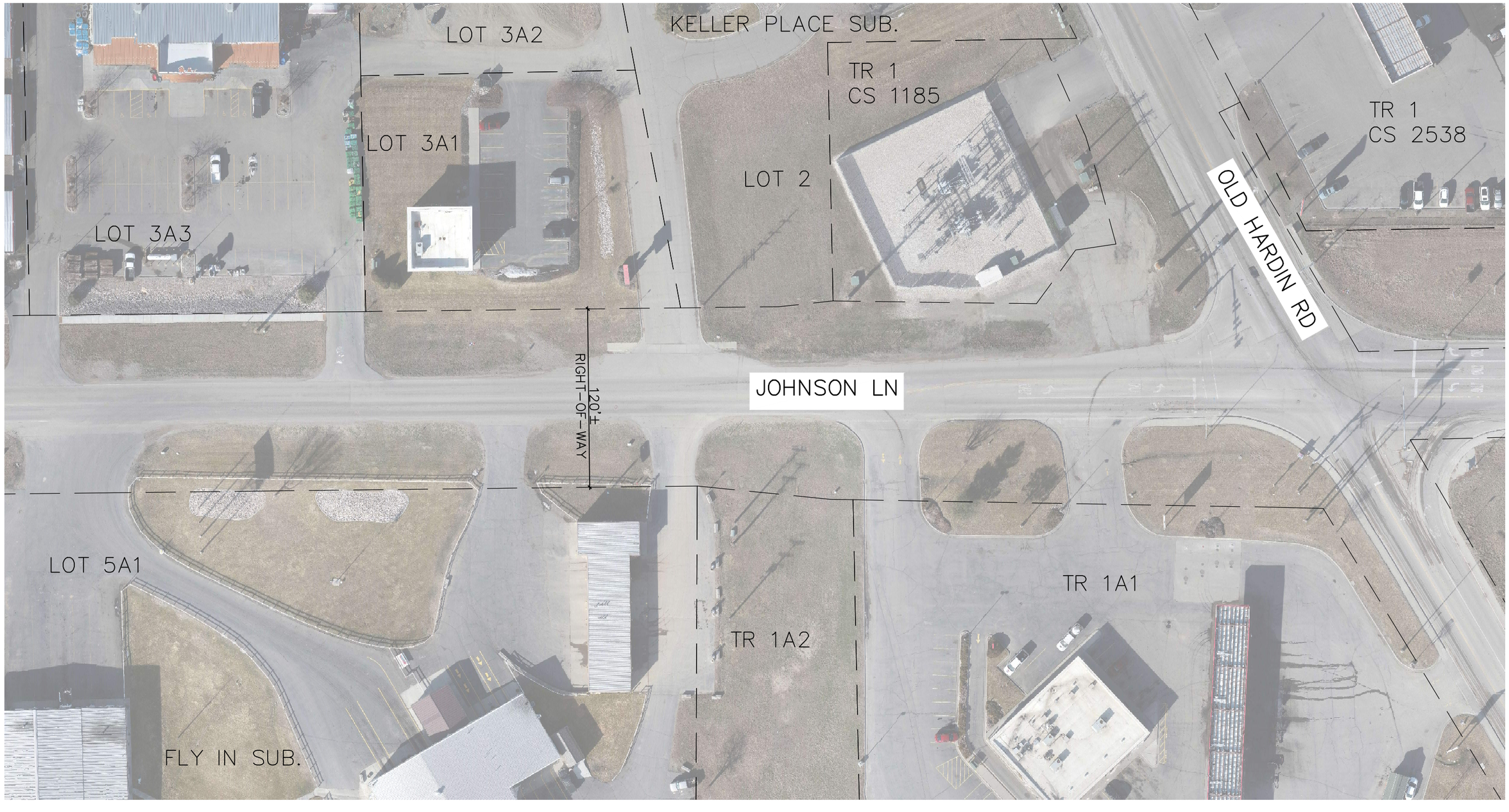

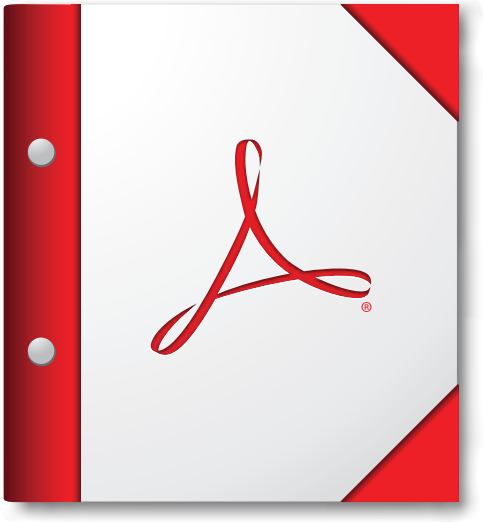

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Planning Board

Date:	06/24/2025
Title:	FY26 Unified Planning Work Program
Presented by:	Lora Mattox
Department:	Planning & Community Services
Presentation:	Yes

Information

RECOMMENDATION

Staff recommends that the Planning Board (PB) receive a presentation on the FY26 Unified Planning Work Program (UPWP) and conduct a public hearing to collect public testimony regarding the Work Program. The Planning Board at the July 8th meeting will take formal action on the UPWP to forward a recommendation to the Policy Coordinating Committee (PCC).

On June 12th, the Technical Advisory Committee met and recommended approval of the FY26 UPWP.

This recommendation is now being forwarded to the governing bodies for consideration.

BACKGROUND (Consistency with Adopted Plans and Policies, if applicable)

The Billings Metropolitan Planning Organization (MPO) is presenting the draft 2026 UPWP for review and recommendation to the Planning Board and governing bodies. The UPWP is primarily for programming federal funds that Billings receives from the Federal Highway Administration (FHWA) for transportation planning and the Federal Transit Administration (FTA) for transit (MET) planning. These funds are passed through the Montana Department of Transportation (MDT). All transportation planning activities are included in the UPWP to represent a comprehensive document for the urban transportation planning program. This UPWP proposes planning activities for Federal Fiscal Year 2026, running from October 1, 2025, through September 30, 2026, and corresponds directly with the Planning Division's annual work plan.

This year the total PL allocation is $1,395,824, which the Planning Division proposes providing local matching funds which are required at a certain percentage per element (a total breakdown of funding is located in Table I Funding Summary on page 52 of the UPWP). Table 3 on page 53 outlines the percentage breakdown per element (note that some transportation planning elements are 100% PL funded). The Planning Division matches these funds through the County-wide Planning Mill Levy, and fees generated through city and county planning applications and processes. This year, with the allocation for staffing and transportation planning activities, the MPO is proposing to use up to $1,142,500 in PL funding. The local match is $757,500 (Planning). The unprogrammed PL funds will not be lost to the MPO; unprogrammed PL funds are carried over and re-allocated to the MPO in a two-year timeframe. This means in FY28, the MPO could receive an additional $253,324 in PL funding.

Projects identified for this year's program include (detailed description of each project in the UPWP):

Under Element 300 -- Transportation System Data -- 100% PL

- Replacement and upgrade of traffic and trail counters as needed. The total cost budgeted for this is $15,000. Proposed by the MPO.
- Support the City of Billings Transportation Corridor Analysis Study by providing Travel Demand Modeling Support as needed. The total cost budgeted for this is $50,000. Proposed by the MPO.
- An update to the 2017 Household Travel Survey. This information assists in the development and upkeep of the Billings Travel Demand Model in preparation for the 2028 Long Range Transportation Plan Update. This data is also applicable as the City conducts the Transportation Corridor Analysis and as MET Transit continues to evaluate its routes and system. The total budget for this is $150,000. Proposed by the MPO.

Under Element 302 -- Planning Studies -- 60% PL/40%

- Feasibility and Planning Study -- Alkali Creek Trail Connection. This project is proposed by the MPO. This project is identified in the FY26-30 CIP and the 2016 Bikeways and Trail Master Plan. Trail alignment and planning level design work is needed for this project to be prepared for a future Transportation Alternatives Program grant or other funding opportunity. The Parks Department supports the completion of this final connection between the trail segments in this area to enable users to remain on a park trail through the area. The total cost budgeted for this project is $20,000.
- Feasibility and Planning Study -- Downtown to Billings Heights Non-Motorized Connection. This project is proposed by the MPO. This project is identified in the FY26-30 CIP and the 2016 Bikeways and Trail Master Plan. Corridor

analysis and planning level design work is needed for this project to be prepared for a future Transportation Alternatives Program grant or other funding opportunity. The Parks Department supports the completion of this connection to provide access from the Downtown to Coulson Park as further park improvements are being made to make Coulson more of a destination. The total cost budgeted for this project is $20,000.

- Feasibility and Planning Study -- Aronson Avenue to Annandale Road Trail Connection. This project is proposed by the Billings City Council. This project is identified in the 2016 Bikeways and Trail Master Plan. Corridor analysis and planning level design work is needed for this project to be prepared for a future Transportation Alternatives Program grant or other funding opportunity. The Parks Department supports the completion of this connection to provide access from Aronson Avenue through several neighborhoods located in the Billings Heights up to Annandale Road, including an elementary, middle and high school. The total cost budgeted for this project is $40,000.
- Additional Evaluation and Public Outreach -- Safe Routes to School - St. Francis Catholic School/Poly Drive Elementary and Medicine Crow Middle School. This project is proposed by the Billings City Council. These projects are identified in the Phase I and Phase II Safe Routes to School Studies completed by the MPO. Both of these projects were identified needing additional evaluation and public outreach to determine feasibility and local support. The total cost budgeted for this project is $75,000.

STAKEHOLDERS

The local review of the UPWP involves public discussion sessions, work sessions, and regular business meetings of the City Council, Yellowstone County Board of County Commissioners, and Yellowstone County Board of Planning (Planning Board). The Planning Board also conducts a legally advertised public hearing at one of its meetings to review the UPWP. The public can provide comments or questions at any of these meetings, as well as formal public testimony at the Planning Board. Below is a list of outreach associated with the development of the FY26 UPWP:

- MPO staff discussed the initial development of the UPWP with the Technical Advisory Committee on May 8 and encouraged City and County Public Works to review potential transportation planning studies or projects that could be beneficial in advancing future capital projects.
- On May 21, MPO staff met with the County Public Works staff. Discussion included a discussion about the types of projects the MPO can assist with. One area of interest is conducting intersection studies at predetermined locations. The MPO also suggested that after the Billings Bypass is completed, an update to the Lockwood Transportation Study could be completed. No specific projects were identified at this meeting.
- MPO staff attended the June 4 Board of County Commissioners meeting to discuss the meeting with County Public Works, discuss proposed MPO projects and continue a dialogue with the Commissioners.
- On June 11th, MPO staff along with City Public Works and MET Transit met with the Legislative and Local Affairs Committee members of the City Council. This opportunity provided a discussion with council representatives on proposed projects and dialogue on council goals.
- On June 12th, the Technical Advisory Committee met and reviewed proposed projects submitted by the MPO, City and County. Based on this information, the TAC recommended the projects identified in this memo for inclusion.
- MPO staff attended the June 16 City Council Work and provided information on the UPWP and proposed projects. The City Council supports the above projects set forth by the MPO.

ALTERNATIVES

No action is requested at this meeting. Staff is requesting that the Planning Board receive a presentation on the FY26 UPWP and conduct a public hearing to collect public input.

FISCAL EFFECTS

Approval of the 2026 UPWP allows the City to access federal funds for transportation planning in the community. Federal and local funds are combined to provide most of the planning work done by the Planning Division for the City and the County. If the UPWP is not approved, there would be a significant loss of resources for community planning, and the community's ability to manage transportation planning projects and programs would be severely limited. The estimated breakdown of funding sources for the FY 2026 UPWP is as follows:

· $274,000 Planning Dept. Fee Revenue (City of Billings)
· $170,000 Planning Dept. Fee Revenue (Yellowstone County)
· $668,000 County-Wide Planning Levy
· $1,395,824 Federal Planning (PL) Allocation
Total Local and Federal Program Funding (UPWP): $2,507,824

SUMMARY

Staff recommend the Planning Board receive a presentation on the FY26 and conduct a public hearing to receive any public comment. The Planning Board at the July 8th meeting will forward a recommendation of the UPWP to the PCC. Approval of

the UPWP grants access to federal funds for transportation planning, combining federal and local funds to support most planning work. Without approval, community planning resources would be significantly reduced, limiting the management of transportation projects.

Attachments

Draft FY26 UPWP

Unified Planning Work Program (UPWP)

Federal Fiscal Year 2026

(October 1, 2025 – September 30, 2026)

Prepared by:

Billings Metropolitan Planning Organization

In cooperation with:

City of Billings, Montana

Yellowstone County, Montana

Yellowstone County Board of Planning

Montana Department of Transportation

Federal Highway Administration

Federal Transit Administration

Approved by:

TAC: June 2, 2025

Yellowstone County: July 8, 2025

Yellowstone County Board of Planning: July 8, 2025

City of Billings: July 14, 2025

Policy Coordinating Committee: July 22, 2025

MDT:

FHWA/FTA:

This report was prepared with funding support from the Federal Highway Administration and the Federal Transit Administration of the U.S. Department of Transportation, provided through the State Planning and Research Program (Section 505) or the Metropolitan Planning Program (Section 104(d)) under Title 23 of the U.S. Code. The work program follows the format outlined in Chapter 2, Part 4 of Federal Transit Administration (FTA) Circular 8100.1D. The content of this report does not necessarily represent the official views or policies of the U.S. Department of Transportation.

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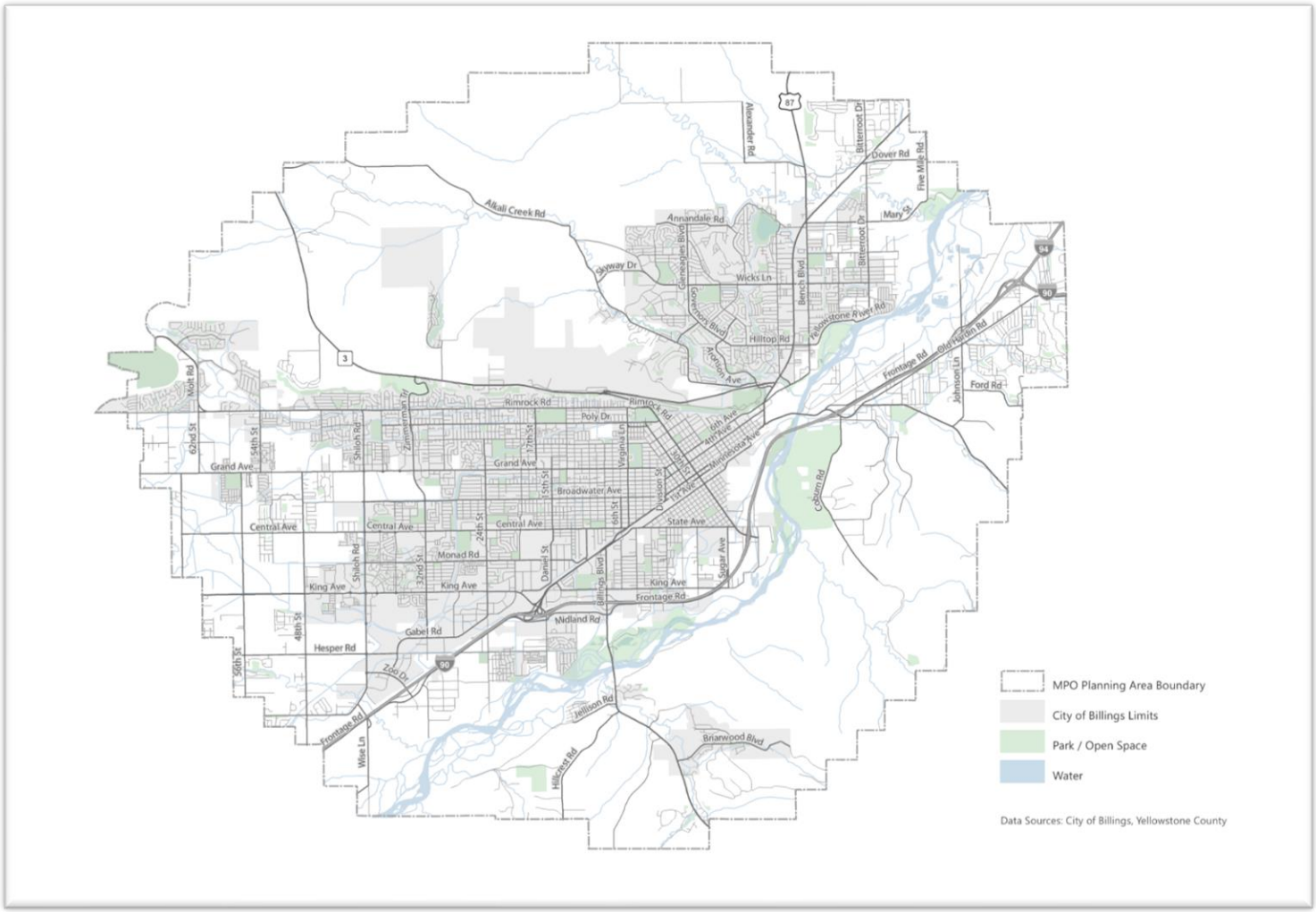
Billings MPO Boundary



CHAPTER 1 – HIGHWAY

SECTION 1 – INTRODUCTION

ABBREVIATIONS & ACRONYMS USED IN THE WORK PROGRAM

ADA	American Disability Act
ACS	American Community Survey
ARP	American Rescue Plan
AVL	Automated Vehicle Locator
BSED	Big Sky Economic Development
BUILD	Better Utilizing Investments to Leverage Development
CAC	Citizen Advisory Committee
CARES	Coronavirus Aid, Relief, and Economic Security
CDL	Commercial Driver's License
CIP	Capital Improvement Plan
CMAQ	Congestion Mitigation Air Quality
CTSP	Community Transportation Safety Plan
EBURD	East Billings Urban Renewal District
ERP	Equipment Replacement Plan
FAST Act	Fixing America's Surface Transportation Act
FHWA	Federal Highway Administration
FTA	Federal Transit Administration
FY	Fiscal Year
FFY	Federal Fiscal Year
GIS	Geographic Information System
GTFS	General Transit Feed Specification
HPMS	Highway Performance Monitoring System
IIJA	Infrastructure Investment and Jobs Act
ITS	Intelligent Transportation Systems
LRTP	Long Range Transportation Plan
MDT	Montana Department of Transportation
MPO	Metropolitan Planning Organization
NTD	National Transit Database

PCC	Policy Coordinating Committee
PEP	Private Enterprise Participation
PL	Planning Funds
PTASP	Public Transit Agency Safety Plan
RAISE	Rebuilding American Infrastructure with Sustainability and Equity
SBBURD	South Billings Boulevard Urban Renewal District
TA	Transportation Alternative Program
TAC	Technical Advisory Committee
TAM	Transit Asset Management
TAZ	Traffic Analysis Zones
TDP	Transit Development Plan
TIP	Transportation Improvement Program
UPWP	Unified Planning Work Program
VMT	Vehicle Miles Traveled
YCBP	Yellowstone County Board of Planning

THE UNIFIED WORK PROGRAM AND ITS PURPOSE

The Unified Planning Work Program (UPWP) outlines transportation planning activities for the Billings Metropolitan area during the Federal Fiscal Year (FFY), which spans October 1 to September 30. The Yellowstone County Board of Planning acts as the designated Metropolitan Planning Organization (MPO) and is charged with the responsibility of administering the planning process. Each year, the Billings (MPO) prepares the UPWP for review and approval by local, state, and federal transportation authorities. The process begins with the Billings MPO Technical Advisory Committee, which conducts an initial review and provides a formal recommendation to the Yellowstone County Board of Planning, Billings City Council, and the Yellowstone Board of County Commissioners. These local agencies then submit their recommendations to the Policy Coordinating Committee (PCC), which gives final local approval before forwarding the UPWP to the Montana Department of Transportation (MDT), the Federal Highway Administration (FHWA), and the Federal Transit Administration (FTA) for final authorization.

The UPWP includes work elements such as administration, public involvement, and long- and short-range planning. Each element outlines objectives, accomplishments from the previous fiscal year, and planned activities for the upcoming year. It also specifies the agency responsible, required resources, including staff hours, funding amounts, and sources, ensuring a comprehensive and transparent planning framework.

FEDERAL GUIDANCE

The Infrastructure Investment and Jobs Act (IIJA) was passed by Congress on November 15, 2021, authorizing funding for Federal transportation programs for federal fiscal years 2022-2026. The IIJA effectively replaced the Fixing America's Surface Transportation (FAST) Act and the prior infrastructure act Moving Ahead for Progress in the 21st Century (MAP-21) Act.

The IIJA retains FAST Act's ten planning factors. The MPO is required, per 23 USC 134(h)(1), to consider these factors when developing transportation plans, programs, and projects:

1. Support the economic vitality of the metropolitan area, especially by enabling global competitiveness, productivity, and efficiency.

2. Increase the safety of the transportation system for motorized and non-motorized users.
3. Increase the security of the transportation system for motorized and non-motorized users.
4. Increase the accessibility and mobility of people and for freight.
5. Protect and enhance the environment, promote energy conservation, improve the quality of life, and promote consistency between transportation improvements and State and local planned growth, housing, and economic development patterns.
6. Enhance the integration and connectivity of the transportation system, across and between modes, people, and freight.
7. Promote efficient system management and operation.
8. Emphasize the preservation of the existing transportation system.
9. Improve resiliency and reliability of the transportation system and reduce or mitigate stormwater impacts of surface transportation.
10. Enhance travel and tourism.

PERFORMANCE MEASURES

The passage of the Infrastructure Investment and Jobs Act (IIJA) reinforces the performance-based planning and programming framework established by MAP-21 and the FAST Act. A key feature of these acts, continued under the IIJA, is the development of a performance- and outcome-based federal-aid program. The MPO will monitor performance measures and report progress to committees, agencies, and the public.

The performance measures address national goal areas, including safety, infrastructure condition, congestion reduction, system reliability, freight movement, environmental sustainability, and minimizing delays in project delivery. Instead of setting independent performance measure targets for the Billings Metropolitan Planning Area, the Yellowstone County Board of Planning and the City of Billings Aviation and Transit adopted the state performance targets established by MDT. This agreement, developed in coordination with Montana MPOs, was formalized through a Cooperative Performance-Based Planning Agreement on May 14, 2018.

SAFE AND ACCESSIBLE TRANSPORTATION OPTIONS (SATO)

IIJA/BIL requires an annual 2.5 percent of an MPO's PL allocation to be set aside for safe and accessible transportation options (SATO). The FY 26 set-aside is projected at $24,141. The MPO will program expenditures of the required set-aside in this year's projects. Those projects will be noted in the Work Program Elements. Note: PCC as a governing body has not formally adopted any policy outside the Federal Mandate for Alternative Modes. Any reference to Complete Streets in this document refers to the City of Billings only.

PUBLIC INVOLVEMENT

The development of the UPWP included multiple opportunities for public review and feedback, culminating in its adoption by the PCC. The MPO facilitated this process by hosting TAC UPWP meetings and posting the draft UPWP on its website for a two-week public review period. The PCC's adoption of the UPWP also took place in a public forum. Below are the outreach efforts and meetings where the public could provide input on the draft UPWP:

- Technical Advisory Committee (TAC): June 12, 2025
- UPWP Posted on MPO Website: June 17, 2025
- Yellowstone County Planning Board: July 8, 2025
- Yellowstone County Commissioners: July 8, 2025
- Billings City Council: July 14, 2025

Final action on the FFY 2026 UPWP occurred during the PCC meeting on July 22, 2025.

Additionally, the MPO welcomed comments and addressed questions in person, by mail, email, and phone as needed following the posting of the draft UPWP. Revisions to the document were made based on feedback received from MDT and the public.

SECTION 2 – WORK PROGRAM

PROGRAM SUPPORT AND ADMINISTRATION

100 Program Administration

Objectives

The role involves administering the transportation planning process and providing support to the Board of Planning, the City Council, and County Commissioners, and other boards and commissions in their decision-making activities related to transportation initiatives. Responsibilities include engaging in administrative and financial actions specific to transportation planning activities and effectively prioritizing those initiatives. Additionally, the position emphasizes enhancing staff skills and ensuring ongoing exposure to state-of-the-art practices and technologies in transportation planning, including relevant software. A key aspect of the role is maintaining contact with, providing input to, and receiving feedback from various local, state, and federal agencies, committees, and groups involved in transportation planning.

Accomplishments – Fiscal Year 2025

Conformance with federal, state, and local administrative and regulatory requirements, as well as maintenance of planning operations was achieved for FY25.

Members of the planning staff attended various professional meetings, workshops, and conferences at which planning, transportation, transit, bicycle/pedestrian and related topics were presented and discussed.

Specifically, the City-County Planning Division (Planning Division) and members of other local, state and federal departments and agencies actively participated in a diverse set of local meetings, including the Billings Technical Advisory Committee (TAC), Policy Coordinating Committee (PCC), Billings & Yellowstone County Zoning Commissions and Boards of Adjustment, Board of Planning, City Annexation Committee, City Development Process Review Committee, Community Development Board, Public Works (formerly the Traffic Control) Board, Bicycle and Pedestrian Advisory Committee, Historic Preservation Board, and others. Staff also participated in meetings with MDT and the other MPOs quarterly to discuss activities and issues. The Billings MPO also meets with MDT to discuss project coordination and issues.

Planning staff worked with GIS staff who updated geographic data in geographic information systems (GIS) including layers such as streets, zoning, addresses, ownership, and environmental

data. This GIS information is vital to provide to consultants for local plan development. Staff regularly utilize an application tracking and project management software system that integrates the existing City building permits with finance and land management software. The software also helps staff provide coordinated subdivision and development project reviews across City and County departments. Additionally, it allows for electronic submittal of building, sign, fence and exempt plats for local review. Staff also reviewed/updated the City Annexation Policy and Limits of Annexation Map and assisted in updates to the City's Capital Improvement Plan (CIP). Implementation of the City of Billings Complete Streets Policy is ongoing with the continued collection of data to be incorporated into the City of Billings Complete Streets Status Report. Implementation of the Billings Community Transportation Safety Plan will continue with reporting to MDT as required.

Proposed Activities - Fiscal Year 2026

All administrative functions of the Planning Division will be performed under this work element. Program management activities will include, but not be limited to the following:

- Correspondence
- Public Relations
- Employee Guidance, Supervision, and Training
- Program Organization and Management
- Consultant Liaison Activities
- Staff Meetings
- Negotiations
- Preparation of Contracts
- Performance Monitoring
- Office Equipment Acquisition
- Budget Management and Administration

Federal regulations require that performance measures and goals be established to monitor the performance of the region's transportation system.

The MPO will work with federal, state and local agencies to improve current performance tracking methods. Performance measures will be tracked on the MPO website and regular reporting will be provided to the Transportation Policy Coordinating Committee, MPO committees, and the general public depending on the availability of related data.

With the refilling of the Planner 1 positions, senior staff has had the ability to undertake a few neighborhood planning efforts this last year and will continue in this next year with the

initiation of the update to the Growth Policy, and land use plan for the newly opened Skyway Drive area. These projects have been identified with local funding.

PL Eligible Activities

The MPO plans to replace five staff computers in the upcoming fiscal year. This aligns with the city's strategic equipment replacement program, which outlines the scheduled replacement of computers and related equipment.

The MPO is proposing to have the current Transportation Planner, Elyse Monat, complete the ITE Professional Transportation Planner Certificate Program. This program is a professional development program offered by the Institute of Transportation Engineers (ITE). It is designed to enhance the knowledge and skills of transportation planners and engineers by providing comprehensive training in transportation planning principles, processes, and best practices. The program includes a series of online courses covering topics such as travel demand forecasting, land use and transportation integration, performance-based planning, and emerging technologies, followed by a certification exam. Participants who complete the required coursework earn a certificate that demonstrates their proficiency and commitment to the field of transportation planning.

In addition, the MPO will:

- As per the MPO's public participation plan and ongoing public outreach efforts, the planning staff will make available the documents and guidelines for transportation planning activities to the community, as well as keep abreast of federal and state requirements as they relate to the overall planning processes. These activities may include distribution of the current Billings Area Tour Map for bicycle and pedestrian users and visitors, distribution and explanation of the latest Billings Urbanized Area Traffic Count Map and Bicycle Count Map, explanation and distribution of the MPO's public participation plan to groups involved or interested in transportation planning processes in the community, and explanation and information dissemination of the TA or other grant programs to possible project applicants in the community.
- Staff will monitor the PL & Memorandum of Agreement as necessary to meet the requirements of the IIJA or any new legislation that may be approved in the upcoming fiscal year.
- Quarterly progress and expenditure reports will be prepared and transmitted to the Montana Department of Transportation (MDT) in order to maintain federal funding support.
- The FY 2026 UPWP will be continually appraised and monitored in terms of content and budget allocations and will be revised when deemed necessary.
- The Fiscal Year 2027 UPWP will be developed under this work element.

- The Board of Planning, Board of County Commissioners and City Council will be kept informed of the activities of the staff and their progress in completing the approved UPWP.
- All planning staff will participate in recognized and approved training programs in order to improve staff skills and capabilities. Planning expertise will be maintained through enrollment in appropriate planning and transportation-related courses at area colleges, workshops, seminars, webinars and conferences.
- Staff will adapt software programs to effectively utilize traffic data and continue computer-training programs.
- The use of PL funds for out-of-state travel and/or registration fees for the above or other purposes will continue to be subject to prior approval of MDT.
- The MPO TA Program administration will be funded through this work element.
- The Infrastructure Investment and Jobs Act (IIJA) will be reviewed so staff may become familiar with changes affecting the metropolitan planning process.
- Planning activities pertaining to Bicycle-Pedestrian in this work element will include:
    - Work field inspections, handle complaints and investigate problem areas of the Bike/Pedestrian system.
    - Presentations as needed.

Locally Funded Activities

- General administrative activities will include maintenance of files, library documents, daily correspondence and preparation of necessary periodic reports.
- Interagency committee participation is included in this work element.
- All staff members will continue to participate in and encourage increased cooperation between state and local agencies, departments and governing bodies.
- The Planning Division will serve both as a coordinator of and a participant in meetings and committees.
- Planning Division involvement will include participation with such agencies as the Housing Authority, Big Sky Economic Development (BSED), Air Pollution Control Board, RiverStone Health (City-County Health Department), Healthy by Design, legislative study committees, and other agencies.
- Staff will continue to implement long-term document storage through virtual servers and cloud storage platforms.

STAFFING

22 Staff Months – City/County Planning

FUNCTIONAL AGENCY RESPONSIBILITY

The Planning Division will be responsible for administering the area-wide planning process for the City and County.

PRODUCT

- An ongoing administrative program focused primarily on effective and expeditious implementation of this UPWP.
- The continual enhancement of the Planning Division staff skills and knowledge.
- Maintenance of a coordinated, comprehensive, and cooperative planning process that is endorsed and supported by the local community.
- The development of the FY27 UPWP.

FUNDING SCHEDULE - ADMINISTRATION

FUNDS PROGRAMMED - FISCAL YEAR 2025

FUNDING SOURCE

AGENCY	PL	LOCAL	TOTAL
MPO	$295,900.00	$242,100.00	$538,000.00
TOTAL	$295,900.00	$242,100.00	$538,000.00

DISBURSEMENT PERCENTAGE

AGENCY	PL	LOCAL	TOTAL
MPO	55	45	100

FUNDS PROGRAMMED - FISCAL YEAR 2026

FUNDING SOURCE

AGENCY	PL	LOCAL	TOTAL
MPO	$171,600.00	$140,400.00	$312,000.00
TOTAL	$171,600.00	$140,400.00	$310,000.00

*The matching ratio is Federal PL--86.58% and State match-13.42%.

** Five computer replacements - $9,500; ITE Transportation Planning Certificate Program - $800.

101 Service

Objectives

To facilitate the sharing of information and the exchange of ideas among planning agencies, the interested public, decision-makers, and other relevant departments, agencies, and organizations associated with the Billings MPO.

Accomplishments – Fiscal Year 2025

The planning staff engaged in a diverse range of service tasks. Their responsibilities included delivering presentations concerning roadways and alternative transportation, addressing citizen inquiries and complaints about streets, subdivision layouts, sight distances, zoning requests, and ensuring alignment with the 2024 Transportation Plan, the 2017 Billings Area Bikeway and Trails Master Plan, the City of Billings 2016 Growth Policy, the Lockwood Growth Policy, and various neighborhood and community plans.

Staff also provided transportation planning information to organizational and agency partners as needed for education and decision-making purposes. Additionally, they shared updates and insights with the community and stakeholders throughout the development of several planning initiatives.

Proposed Activities - Fiscal Year 2026

PL Eligible Activities

- Planner I positions will also be working within this element. These positions will provide transportation and related planning information to the general public and interested organizations.
- Planning Division and Transportation Planning staff continually look at ways to disseminate and provide information on transportation activities, including by creating social media posts addressing transportation safety, and tabling at community events.

Locally Funded Activities

- Staff will continue to develop and use website tools enabling citizens to access information on upcoming planning activities, board and commission meetings, and recent land use applications, as well as interact with various planning processes through email notification and online comment programs. Staff will look at implementing citizen access to the Questys System software for access to historical data related to transportation, zoning and other planning applications.
- Continue increasing community and agency awareness of the interrelationships between land use development and transportation needs through dissemination of information and drafting of planning documents that incorporate both elements together.

STAFFING

7 Staff Months – City/County Planning

FUNCTIONAL AGENCY RESPONSIBILITY

As Assigned.

PRODUCT

- A responsive and flexible planning process utilizing staff capable of providing short-term findings and recommendations, as well as ongoing customer service to the public on all levels of planning projects and regulations.
- Provide transportation-related webinars to staff, local officials and the general public to educate on current transportation issues.

FUNDING SCHEDULE - SERVICE

FUNDS PROGRAMMED - FISCAL YEAR 2025

FUNDING SOURCE

AGENCY	PL	LOCAL	TOTAL
MPO	$32,500.00	$32,500.00	$65,000.00
TOTAL	$32,500.00	$32,500.00	$65,000.00

DISBURSEMENT PERCENTAGE

AGENCY	PL	LOCAL	TOTAL
MPO	50	50	100

FUNDS PROGRAMMED - FISCAL YEAR 2026

FUNDING SOURCE

AGENCY	PL	LOCAL	TOTAL
MPO	$25,000.00	$25,000.00	$50,000.00
TOTAL	$25,000.00	$25,000.00	$50,000.00

*The matching ratio is Federal PL--86.58% and State match-13.42%.

102 Citizen Involvement

Objectives

To gather community input on values and goals while encouraging participation in the development of plans and projects.

Accomplishments – Fiscal Year 2025

Planning staff attended numerous meetings with service clubs, civic groups, and professional organizations to discuss various aspects of local planning. The Planning Board actively sought public input to review and gather feedback on a broad range of planning issues affecting both the City and County. Staff also participated in meetings of neighborhood task force organizations and advisory committees, responding to questions and addressing long-term planning topics, particularly those related to transportation projects and code enforcement concerns.

Proposed Activities - Fiscal Year 2026

PL Eligible Activities

- The City of Billings is undertaking the development of a Land Use Plan and Future Land Use Map to comply with the Montana Land Use Planning Act (MLUPA). The MLUPA legislation is aimed at fostering the well-being of Montana's residents by implementing comprehensive land use planning. Transportation will be very relevant to the development of the future land use map. Significant public outreach and engagement will be involved in this project. The MPO is proposing to allocate $5,000 of PL funding towards this activity to assist in public engagement. This project was kicked off in May of 2025 with the majority of the engagement beginning summer into spring of 2026.
- Outreach to the public and all affected jurisdictions for ongoing transportation projects, including but not limited to several MDT planning and construction projects such as the North Billings Bypass, 1st Avenue North reconstruction, Zoo Drive and several MPO projects. The MPO has several projects that will be completed and initiated this upcoming year including an update to the 2017 Household Travel Survey.
- The staff will continue to support the Bicycle and Pedestrian Advisory Committee. The Committee is responsible for forwarding recommendations to the Planning Board and governing bodies on bicycle safety, bike lanes, pedestrian safety and access, and other matters. The group will be involved in the nomination and review of TA Program eligible projects, bicycle and pedestrian signing and safety projects, grant applications for non-motorized transportation projects, and community education and outreach on bicycle and pedestrian safety within the MPO.

- The MPO has several planning efforts this year and next, as part of its continuous efforts to engage the public in these transportation planning efforts, staff will be actively engaged with City and County Departments and partnering organizations to push information and public participation opportunities to the community.
- TAC and PCC meetings will be held, and meeting information disseminated as necessary.
- Staff will continue to update and maintain the MPO's website to provide the most current up to date information for the community.
- Staff will utilize web-based GIS and web mapping software for assistance in transportation planning.
- Some of the specific projects that will involve community participation include the completion of the update to the 2017 Household Travel Survey, MPO participation in the City of Billings Transportation Corridor Plan, and the significant development of the Billings Comprehensive Plan. These projects will include extensive public participation and solicitation.

Locally Funded Activities

- Meetings with various citizen groups will be coordinated and attended for the purpose of soliciting information and ideas on a broad range of planning issues within the Billings Urban Area and throughout Yellowstone County.
- Community participation using new tools and techniques will also be included in all planning studies proposed within this document.
- Staff will utilize web-based GIS and Web mapping software for assistance in land-use planning.

STAFFING

9.5 Staff Months – City/County Planning

FUNCTIONAL AGENCY RESPONSIBILITY

City/County Planning

PRODUCT

- A comprehensive and coordinated solicitation and collection of public opinions in order to accurately reflect the preferences and priorities of the citizens within the Billings Urban Area.
- An enhanced integrated web-based public participation software that includes MPO and general planning projects and procedures and other pertinent information.

FUNDING SCHEDULE - CITIZEN INVOLVEMENT

FUNDS PROGRAMMED - FISCAL YEAR 2025

FUNDING SOURCE

AGENCY	PL	LOCAL	TOTAL
MPO	$51,000.00	$51,000.00	$102,000.00
TOTAL	$51,000.00	$51,000.00	$102,000.00

DISBURSEMENT PERCENTAGE

AGENCY	PL	LOCAL	TOTAL
MPO	50	50	100

FUNDS PROGRAMMED - FISCAL YEAR 2026

FUNDING SOURCE

AGENCY	PL	LOCAL	TOTAL
MPO	$45,000.00	$45,000.00	$90,000.00
TOTAL	$45,000.00	$45,000.00	$90,000.00

*The matching ratio is Federal PL--86.58% and State match-13.42%. Includes $5,000 for public outreach and engagement activities associated with the City of Billings Land Use Plan and Future Land Use Map development.

GENERAL DEVELOPMENT & COMPREHENSIVE PLANNING

200 Community Planning

Objectives

The planning staff is responsible for maintaining accurate records and projections related to population, dwelling units, land use, employment data, and financial reports. They provide up-to-date information on the quantity of residential, commercial, industrial, and public land within the MPO and across the County. Staff analyze and summarize development trends, offering visual data and insights to the City Council, County Commission, Planning Board, and the public to support informed transportation and land-use decision-making. Additionally, they recommend implementing the goals, policies, and strategies outlined in the 2016 City of Billings and Lockwood Growth Policies and facilitate the implementation of the Long-Range Transportation Plan and related planning studies.

Ten Planning Factors Incorporated into the UPWP:

1. **Economic Vitality:** Support the metropolitan area's economic vitality by fostering global competitiveness, productivity, and efficiency.
2. **Safety:** Enhance the safety of transportation systems for both motorized and non-motorized users.
3. **Security:** Improve the security of transportation systems for all users.
4. **Accessibility and Mobility:** Increase accessibility and mobility for people and freight.
5. **Environmental Protection and Quality of Life:** Protect the environment, promote energy conservation, improve quality of life, and align transportation improvements with State and local growth, housing, and economic development plans.
6. **System Integration and Connectivity:** Improve the integration and connectivity of transportation systems across different modes for both people and freight.
7. **System Efficiency:** Promote efficient management and operation of transportation systems.
8. **Preservation:** Prioritize the preservation and maintenance of existing transportation systems.

9. **Resilience and Reliability:** Enhance the resilience and reliability of transportation systems while reducing or mitigating stormwater impacts from surface transportation.

10. **Travel and Tourism:** Support enhancements to travel and tourism through transportation initiatives.

Accomplishments – Fiscal Year 2025

Staff reviewed and analyzed the most current release of the 2019-2023 Census and American Community Survey (ACS) data. Current ACS data is updated and placed in various databases as it has become available. Data gathered and updated included annual information related to population estimates for city and counties within the State of Montana. This annual information is used by the public and public agencies for planning purposes. The ACS is accessed for review and dissemination, and updated information released by the US Census Bureau in regard to commuting patterns. Other data gathered includes:

- Building Permits, Demolition Permits, Electrical Permits, Subdivision Applications, Zoning Applications, Special Reviews, Variances, temporary use permits, sign permits, zoning compliance permits and zoning clarification documents, annexation data, population trends, land use trends, school enrollment, employment data and general economic indicators.

The planning staff continues to review the most current ACS data and information from the 2020 Census data and estimates for population and demographic data. Census information is made available to various local agencies and organizations and to the general public. The data is used for developing reports, grant applications and planning documents such as Transportation and Land Use Plans and for projects like the Recreational Trails Program Grant and other grants as needed.

The City-County Planning Division, on behalf of the Billings MPO, is responsible for preparing a City of Billings Complete streets (excluding Yellowstone County) Progress Report. This direction was outlined in the City of Billings Complete streets (excluding Yellowstone County) Policy: "The City will periodically collect, review and report performance data and benchmark measurements to demonstrate the effectiveness of the policy." This effort was completed with the first-ever City of Billings Complete Streets (excluding Yellowstone County) Benchmark Report prepared in 2013. This Progress Report includes comparison of various data sets related to motorized and non-motorized transportation.

Numerous other special purpose maps were prepared for meeting purposes including bicycle trail maps, annexation maps, estimated development density maps and tables for the Limits of

Annexation Map area, and other project influence areas. Natural resources, 2020 Census, and jurisdictional boundary information was updated or developed. Traffic count station locations were geo-positioned and linked with the City-County traffic count matrix. The City also upgraded its internal mapping system with an ArcGIS product that makes access to the most current property data and aerial photography better and easier for staff when researching existing conditions of transportation corridors and adjacent property. The new system provides a robust City GIS base map for use in application reviews, transportation planning efforts, and general customer inquiries. Ongoing review and implementation of sub-area neighborhood and transportation plans, and other planning documents were carried out by staff.

While not a part of PL funds, the City of Billings was awarded a Safe Streets for All (SS4A) grant from the US DOT. The Transportation Planner anticipates dedicating a significant amount of time to managing this grant, including coordinating a public education campaign about Safe Routes to School and helping to provide management for the implementation of Safe Routes to School projects.

Proposed Activities - Fiscal Year 2026
PL Eligible Activities

- In FY25, the MPO added an additional employee to the PL formula. In 2008, the recession forced the Planning Division to reorganize staffing and eliminated the Long Range/Neighborhood Planner position. Based on community and City Council goals, this position is needed to complete numerous neighborhood, subarea, and long-range plans. The funding structure is set at a 30-70 split, with 30 percent of the budget provided by the PL and the remaining 70 percent covered by local funding. This collaborative funding approach ensures that the Neighborhood Planner is well-resourced to address local needs while aligning with broader planning objectives. In May of 2025, the Planning Division successfully filled this position with Tate Johnson. Previously working the front lines for the Planning Division and processing numerous planning applications, Tate will be a great addition to the long-range planning activities. The Neighborhood Planner will play a crucial role in the MPO's transportation planning activities, including:
  - Community Engagement.
  - Data Collection and Analysis.
  - Assistance with the development of Transportation Plans.

- The web-based GIS software is compatible with available datasets and utilizes the existing data sets more effectively. The GIS software will be utilized to develop a series of maps, including existing and proposed pedestrian trail routes and projects in the community, maps to implement the Long-Range Transportation Plan, updates to a preferred growth

area map in conjunction with the City's Limits of Annexation Map, mapping of focus areas for implementation of the City's Infill Development Policy, and others. This ability of the GIS program allows for anticipating and planning for the transportation network in areas of annexation and infill. This will assist in the implementation of our LRTP and project planning for future plans and studies.

- The planning staff, under the direction of the Board of Planning, will continue to work on long-range planning projects according to the priorities established by both the City of Billings and Yellowstone County. In particular, the continuing implementation of the 2024 Long Range Transportation Plan Update, and to implement the 2017 Bikeway and Trails Master Plan.

Work related to Bicycle-Pedestrian activities in this work element will include:

- Work with staff to ensure a bike/pedestrian friendly community.
- Review of proposed subdivisions for non-motorized transportation connectivity.

Locally Funded Activities

- Senior staff will be undertaking development of a variety of long-range land use plans this upcoming year that will all include significant public involvement and engagement including as mentioned earlier.
- The Planner I's will continue to undertake the review of:
  - Zoning applications. The development and adoption of Project Re:Code now ties land uses and land patterns to the road and street network.
  - Site development plans to address clear vision and controlled and shared access points.
  - Site development plans address newly implemented build to zones which prevent traffic flow in front of buildings.
  - Site orientations that allow for internal traffic and other services, for example, drive through locations.
- Staff also will continue to work with the Big Sky Economic Development (BSED) to implement the Master Plan for the East Billings Urban Renewal District (EBURD), the Hospitality Corridor Planning Study, the Exposition Gateway Concept Plan and the South Billings Boulevard Urban Renewal District (SBBURD) Master Plan. The plans include detailed analysis of the transportation and land use connections in the area and promote sustainable development projects.
- Staff plans to work with the City, County, BSED, and neighborhood groups to identify planning needs in various parts of the urbanized area.
- Continued maintenance and update of socio-economic and land use data for both transportation and comprehensive planning activities will continue in 2026, with 2020 Decennial Census data and the 2023 American Community Survey data.

- Various GIS databases and layers will continue to be developed and centrally maintained, including information on neighborhoods, community assets, route planning, trail systems and transportation plans.
- The new web-based system tracking and managing projects will include application information on zoning and subdivision applications.
- Neighborhood planning activities will be initiated to identify local issues and strategies to assist neighborhood groups and organizations with neighborhood sustainability, equity, and safety.

STAFFING

21.5 Staff Months – City/County Planning

FUNCTIONAL AGENCY RESPONSIBILITY

City/County Planning

PRODUCT

- Various reports, files, and projections of socio-economic data necessary for current transportation and comprehensive planning activities, as well as support of City/County economic development activities.
- An ongoing GIS database/mapping system for the City of Billings and Yellowstone County.
- Ongoing updates to the preferred growth areas mapping and analysis for the City, implementation of the City Infill Development Policy, SBURD Master Plan, the 2024 Long Range Transportation Plan Update, 2018 Public Participation Plan, the Downtown Area Traffic Circulation and Safety Study, Wayfinding Sign Plan, and the Heritage Trail Tour Map and Application.

FUNDING SCHEDULE – COMMUNITY PLANNING

FUNDS PROGRAMMED - FISCAL YEAR 2025

FUNDING SOURCE

AGENCY	PL	LOCAL	TOTAL
MPO	$104,400.00	$243,600.00	$348,000.00
TOTAL	$104,400.00	$243,600.00	$348,000.00

DISBURSEMENT PERCENTAGE

AGENCY	PL	LOCAL	TOTAL
MPO	30	70	100

FUNDS PROGRAMMED - FISCAL YEAR 2026

FUNDING SOURCE

AGENCY	PL	LOCAL	TOTAL
MPO	$105,000.00	$245,000.00	$350,000.00
TOTAL	$105,000.00	$245,000.00	$350,000.00

*The matching ratio is Federal PL--86.58% and State match-13.42%.

204 Zoning Administration

Objectives

The planning staff is responsible for overseeing, interpreting, and enforcing current City and County zoning regulations. They ensure effective administration of these regulations while providing efficient service to elected officials and the public. Additionally, staff maintain up-to-date zoning and land use information for all zoned properties within the jurisdiction of the Billings Metropolitan Planning Organization, supporting long-range transportation planning studies, traffic analysis, and transportation projects.

Accomplishments – Fiscal Year 2025

Staff continues to see robust applications for zone changes, special reviews, variances, and planned developments. Reports and recommendations were prepared on each case to the various boards, commissions, and governing bodies. Digital photos are now incorporated into all zoning reports and Microsoft PowerPoint presentations are given to all boards and commissions. Staff is in the process of ongoing scanning of historic zoning files in preparation of future citizen access through a new archiving system software. All applications for building permits were also reviewed for compliance with City and County zoning regulations. Special zoning studies and ordinance updates were prepared as requested by the governing bodies. These included making a series of zoning code amendments to bring the regulations into compliance with changes in State Law and changes driven by community interests.

Staff coordinated with the County GIS Department to ensure that all zone changes within the Billings MPO area were reflected on GIS online and printed maps to ensure land use information was current.

A significant amount of time was also spent assisting the public with general zoning questions. The status of all active zoning applications is now posted on the City/County Planning websites.

After 25 years of service, Nicole Cromwell, the City-County Zoning Coordinator, retired at the end of May. Nicole leaves very big shoes to fill. Karen Husman, a long-time planner with City/County Planning, stepped into this role at the end of May.

Proposed Activities - Fiscal Year 2026

PL Eligible Activities

- Zoning, Special Review, and Variance applications will be reviewed for land use compatibility, traffic, access, and overall site design.
- Staff will continue to maintain its zoning maps and land use information so that it is applicable to long-range transportation planning efforts in the Billings MPO. This

information is regularly applied to a variety of MPO functions, including corridor analysis efforts like those involved in the Billings Bypass project, specific road projects, TA program applications and non-motorized grant applications.

- Staff will continue implementing the Zoning Code. Staff continues to review and trouble-shooting inconsistencies or inaccuracies in the code with the intent to make any needed amendments. As stated earlier, the Zoning Code places a higher emphasis on the transportation system, including road classification; safety and connectivity is vital to how the adjacent land uses for residential and commercial development are built. The road system emphasizes location and setting of any structures.
- Planner I's allow senior staff to take a more active role in long range planning. It is anticipated that Planner I's will undertake the review of:
  - Zoning applications. Project Re:Code now ties land uses and land patterns to the road and street network.
  - Site development plans to address clear vision and controlled and shared access points.
  - Site development plans to address newly implemented build to zones which prevent traffic flow in front of buildings.
  - Site orientations that allow for internal traffic and other services, for example, drive through locations.

Locally Funded Activities

- Carrying out the day-to-day activities required to effectively administer the zoning regulations as well as ensure that land use information is current and available for all long-range transportation planning efforts, including Transportation Plan updates, specific road projects, corridor studies and the North Bypass project.
- Activity in 2026 will include ordinance updates as required by State law or requested by the public or governing bodies.
- All zone change applications will be reviewed for compliance with local plans.
- Staff will continue the update to the Zoning Code based on fulfilling policy goals set by the local governing body including Growth Policy, Neighborhood Plans, and by increasing safe and accessible transportation planning options Streets and Infill Policies.

STAFFING

15.5 Staff Months – City/County Planning

FUNCTIONAL AGENCY RESPONSIBILITY

City/County Planning

PRODUCT

- Effective zoning regulations and administration for the City of Billings and Yellowstone County. Effective enforcement of the zoning regulations for Yellowstone County.
- Online submittal capability for certain zoning permits, i.e., sign and fence will increase efficiency and convenience for applicants.

FUNDING SCHEDULE – ZONING ADMINISTRATION

FUNDS PROGRAMMED - FISCAL YEAR 2025

FUNDING SOURCE

AGENCY	PL	LOCAL	TOTAL
MPO	$42,000.00	$168,000.00	$210,000.00
TOTAL	$42,000.00	$168,000.00	$210,000.00

DISBURSEMENT PERCENTAGE

AGENCY	PL	LOCAL	TOTAL
MPO	20	80	100

FUNDS PROGRAMMED - FISCAL YEAR 2026

FUNDING SOURCE

AGENCY	PL	LOCAL	TOTAL
MPO	$24,000.00	$96,000.00	$120,000.00
TOTAL	$24,000.00	$96,000.00	$120,000.00

*The matching ratio is Federal PL--86.58% and State match-13.42%.

205 Subdivision Administration

Objectives

The planning staff is responsible for maintaining current City and County subdivision regulations and updating them as needed to align with changes in State law. They ensure effective administration of these regulations, providing efficient service to developers, engineers, surveyors, elected officials, and the community. Staff work to minimize negative impacts of development on the community, ensuring that subdivisions are designed to be safe and sustainable. When subdivision applications are submitted, they evaluate traffic accessibility studies, general circulation data, and ensure conformity with the Functional Classification Map and elements of the Long-Range Transportation Plan. Additionally, they collect, manage, and apply subdivision development information to support long-range transportation planning activities for the MPO, including updates to the transportation plan and maintenance of traffic modeling inputs.

Accomplishments – Fiscal Year 2025

The Board of Planning and the planning staff reviewed all preliminary major and minor plat applications. Numerous conceptual and pre-application meetings were coordinated and attended by staff. All final plats were reviewed and processed. Also, a significant amount of time was spent assisting the public with general subdivision questions. Updates to the City and County Subdivision Regulations due to legislative changes were drafted and approved.

Staff collected and compiled information on the details of each new subdivision, such as the number of lots and land area slated for development. This information is integral to any transportation plan updates or long-range transportation planning efforts undertaken by the MPO in the community to determine population growth and location of residents and commercial services that affect the transportation system. This involved monthly subdivision activity reporting and periodic reviews of new development locations. This is also considered in relation to the TA program and when the MPO pursues grants for non-motorized transportation projects in the community.

The MPO continues to implement and enforce the County Subdivision Regulations that require property currently outside the city limits but within the County Zoning Jurisdiction that may be annexed in the future to develop at city standards for infrastructure such as sidewalk, storm water management and future utility access. This procedure has been positive to residential development in the city fringe areas and contributes to the development of safe and accessible transportation options.

Proposed Activities - Fiscal Year 2026

PL Eligible Activities

- Staff will review all subdivisions for compliance with the Billings Area Long Range Transportation Plan, and for conformity with the Billings Area Bikeway and Trails Master Plan, Lockwood Transportation Plan, Blue Creek Transportation Plan, and other neighborhood and community transportation plans as applicable.
- Staff also will continue to collect information on the details of each new subdivision as an integral data source for long-range transportation planning efforts undertaken by the MPO. The MPO expects to use this data in 2026 for a variety of projects, including the implementation of the Long-Range Transportation Plan, the Bike/Ped Plan and continued analysis for the North Bypass.
- In the last couple of years with the addition of the new Planner I to the UPWP, the Division has additional assistance in reviewing subdivision applications for compliance with the various transportation and planning documents overseeing land use within the MPO and Planning jurisdictional area.

Locally Funded Activities

- All subdivision applications will be reviewed for compliance with local and state subdivision law.
- Staff will continue to carry out the day-to-day activities required to effectively administer the subdivision regulations, and to keep the regulations current.
- Continued implementation of the Suburban Subdivision Regulations within the County Zoning Jurisdiction area.

STAFFING
17 Staff Months – City/County Planning

FUNCTIONAL AGENCY RESPONSIBILITY
City/County Planning

PRODUCT
- An effective subdivision review process regarding local and state law, the Growth Policy, and the Billings Area Transportation Plan.
- Accurately identified and reviewed the street segments proposed in the new subdivision to ensure their alignment with the designated road functional classifications as outlined in the 2023 Transportation Plan Functional Classification Map. This involved a thorough

analysis to verify that each street segment meets the specific criteria and standards set forth in the plan, ensuring consistency with the broader transportation network and supporting the intended flow of traffic. The review process included cross-referencing proposed street layouts with the functional classification map, assessing potential impacts on traffic patterns, and confirming that the street segments will contribute to an efficient and well-coordinated transportation system within the subdivision and its connection to existing infrastructure.

FUNDING SCHEDULE – SUBDIVISION ADMINISTRATION

FUNDS PROGRAMMED - FISCAL YEAR 2025

FUNDING SOURCE

AGENCY	PL	LOCAL	TOTAL
MPO	$63,900.00	$149,100.00	$213,000.00
TOTAL	$63,900.00	$149,100.00	$213,000.00

DISBURSEMENT PERCENTAGE

AGENCY	PL	LOCAL	TOTAL
MPO	30	70	100

FUNDS PROGRAMMED - FISCAL YEAR 2026

FUNDING SOURCE

AGENCY	PL	LOCAL	TOTAL
MPO	$45,000.00	$105,000.00	$150,000.00
TOTAL	$45,000.00	$105,000.00	$150,000.00

*The matching ratio is Federal PL--86.58% and State match-13.42%.

LONG RANGE TRANSPORTATION PLANNING

300 Transportation System Data

Objectives

The planning staff is responsible for developing and maintaining the current transportation system data files and records. They provide transportation planning and data information to City and County staff, elected officials, developers, engineering firms, and the general public to support informed decision-making and project development.

Accomplishments – Fiscal Year 2025

The traffic, trail and bike lane count programs for FY 2025 was completed. Travel times/delay/speed studies were completed, calculations computed, and level-of-service values determined. This data was used for various planning and engineering projects throughout the year. In addition, the public commonly requests this data for land use planning.

Staff participated in the update of the City of Billings Capital Improvement Plan (CIP). Crash information was compiled and analyzed. Crash data is also used in many of the planning studies undertaken by the MPO. The staff also continued to utilize the trail scanners that were purchased and found new and better ways to both use the scanners in more trail locations in the community and display the data for various applications. A couple of years ago, the MPO also took over collection and distribution of the data from the Lockwood sidewalk counters purchased through the Lockwood Pedestrian Safety District.

Proposed Activities - Fiscal Year 2026

PL Eligible Activities

- The traffic count program for the Billings Urban Area as well as the Yellowstone County influence area will be conducted and the appropriate data recorded during FY2025. All traffic count data will be submitted to the MDT by February 1, 2026.
- Staff will update, where appropriate, the City's Capital Improvement Program.
- Continue with the contract position with City Engineering to continue traffic and trail counts.
- Staff will collect and maintain bike/pedestrian information through use of the trail-bike/pedestrian scanners. The information from the bike/pedestrian counts links directly to the development of the LRTP and the MPO's non-motorized planning studies. These counts also contribute to other planning projects such as the City of Billings Complete Streets Progress Report. This activity is in conjunction with MPO region wide planning.

- The traffic count data archive will be maintained and accessible for other agencies and the public.
- Data will also be used during proposed FY26 Planning Studies as needed.
- The Bicycle-Pedestrian activities will continue. Duties will include but are not limited to:
  - Maintain Bike/pedestrian databases in conjunction with MPO region wide planning purposes.
  - Maintain database for easement acquisition.

Proposed Special Activities or Projects

Replacement and Upgrades to Traffic and Trail Counters

To support data-driven planning and performance measurements, the Billings Metropolitan Planning Organization (MPO) utilizes a network of traffic and trail counters to monitor bicycle and pedestrian activity across the region. As these devices age and technology evolve, many of the existing counters have become outdated, unreliable, or incompatible with newer data collection platforms. In response, the MPO proposes the replacement and necessary upgrades of its current counting equipment to ensure the continued accuracy, consistency, and usability of non-motorized traffic data.

Upgrading and replacing the counters will allow for better integration with current data platforms, improved remote access and maintenance, and more precise detection of different travel modes. This effort will also support year-round data collection with weather-resistant and automated systems that reduce manual labor and increase reliability.

Furthermore, high-quality count data is a critical asset in securing competitive state and federal funding. Many grant programs, including Transportation Alternatives, Safe Routes to School, and multimodal safety initiatives—require or strongly recommend supporting data that demonstrates community use and project justification.

Investing in modern, dependable traffic and trail counters will enhance the MPO's ability to make informed decisions, track progress toward mobility and safety goals, and advance a connected, efficient, and inclusive non-motorized transportation network for the Billings region.

The MPO is proposing allocating $15,000 towards the completion of this project.

The expenditure of these funds will occur throughout the federal fiscal year as needed.

Travel Demand Modeling Support for the Billings Transportation Corridor Plan

The City of Billings is in the process of developing a comprehensive Transportation Corridor Analysis Plan to evaluate the existing roadway network and guide the future of transportation infrastructure across the metropolitan area. In support of this effort, the Billings Metropolitan Planning Organization (MPO) proposes the use of Planning (PL) funding to conduct advanced travel demand modeling. This modeling will serve as a critical analytical tool to assess how proposed roadway improvements and alternative development scenarios would impact travel patterns, traffic flow, and overall network performance.

The goal of the modeling effort is to provide data-driven insights that inform long-range transportation planning decisions, prioritize infrastructure investments, and ensure that the evolving transportation network meets the needs of a growing and changing population. By testing various roadway configurations and land use scenarios, the MPO will be able to forecast future conditions, identify potential congestion points, and evaluate the effectiveness of multimodal strategies, including public transit, bicycle, and pedestrian infrastructure.

The MPO plans to continue its successful partnership with Kittelson & Associates, a firm with extensive experience in transportation modeling and planning. Kittelson has previously supported the MPO with travel demand modeling tasks on an as-needed basis and is well-versed in the specific characteristics and needs of the Billings region. Their expertise will help ensure that the modeling is technically sound, consistent with best practices, and tailored to the unique challenges and opportunities facing the community.

This project represents a strategic use of federal planning resources to enhance the technical foundation of the Billings model, support scenario planning, and advance the development of a safe, efficient, and resilient transportation system for the region.

The MPO is proposing allocating $50,000 towards the completion of this project. This project will be initiated at the request of the City of Billings for the project.

Billings MPO Household Travel Survey Update – Project Description

The Billings Metropolitan Planning Organization (MPO) is initiating an update to the 2017 Household Travel Survey to better understand current travel behavior and trends within the Billings urban area. This comprehensive survey will collect data on how, when, and why residents travel throughout the region, providing a critical foundation for transportation planning, modeling, and investment decisions.

The updated Household Travel Survey will incorporate contemporary data collection methods, including digital tools and mobile technology, to ensure broader participation and more accurate representation of daily travel patterns. The information gathered will include trip purposes, modes of travel, trip start and end times, and socio-demographic characteristics of participating households.

This effort is essential to support the development of future transportation plans, including the Billings Long Range Transportation Plan (LRTP), transit planning, corridor studies, and other transportation planning efforts. The updated survey will also help align transportation strategies with the changing needs of the community, promote equity in planning, and guide investments that improve mobility, safety, and accessibility for all users.

The Billings MPO is committed to a transparent and inclusive process, engaging stakeholders and the public throughout the survey's development and implementation phases. The updated data will be a vital tool in ensuring that transportation infrastructure and services continue to meet the needs of a growing and evolving region.

The MPO is proposing allocating $150,000 towards the completion of this project with $10,000 towards safe and accessible transportation options allocated to this project. The MPO will advertise this project in December of 2025 with project start in the spring of 2026.

STAFFING
9.0 Staff Months – City/County Planning
11.0 Staff Months – City of Billings Engineering

FUNCTIONAL AGENCY RESPONSIBILITY
City/County Planning/MDT

PRODUCT

- Documentation as necessary, support of transportation grant programs, transportation system modeling, updated Traffic Count Program, and research and integration of traffic information into planning projects and development review activities.
- Current traffic count data. Traffic counts are vital for any long-range planning efforts and during development of commercial and residential projects. Traffic counts also directly relate to the development of projects in the LRTP and ultimately for programming in the TIP.
- Current bike/pedestrian counts. MPO uses these counts for the development of the non-motorized network. This information is used for the development of the Bikeway and Trails Master Plan as well as for applications for various grants.

- To comply with Federal Guidelines for reporting Performance Measures under the BUILD Grant, the MPO will contract to develop the following performance measure components: Crash rates by type and severity, average daily traffic, and bike and pedestrian count/trips. This information is required at various time frames including a baseline, year 1, year 2, and final report in year 3.
- The City of Billings is developing a Transportation Corridor Plan to evaluate the existing road network and various transportation elements. The Metropolitan Planning Organization (MPO) proposes using PL funding for travel demand modeling to analyze proposed roadway improvements or scenario planning. This modeling will help assess how the proposed roadways would function and their overall impact on the transportation network. The MPO has previously contracted with Kittelson & Associates for modeling assistance with transportation planning projects as needed.
- The proposed update to the 2017 Billings Metropolitan Planning Organization (MPO) Household Travel Survey aims to collect current and comprehensive travel behavior data from a representative sample of households within the Billings metropolitan area. This update will provide critical insights into daily travel patterns, mode choices, trip purposes, and household demographics, reflecting changes in population, land use, transportation infrastructure, and mobility trends since the original survey. The refreshed data will support transportation planning, travel demand modeling, and policy development to ensure an efficient, equitable, and future-ready regional transportation system. The updated survey will also incorporate technological advancements and best practices in data collection, including online and smartphone-based participation options, to improve accuracy and public engagement.

FUNDING SCHEDULE – TRANSPORTATION SYSTEM DATA

FUNDS PROGRAMMED - FISCAL YEAR 2025

FUNDING SOURCE

AGENCY	PL	LOCAL	TOTAL
MPO	$190,000.00	$0.00	$190,000.00
TOTAL	$190,000.00	$0.00	$190,000.00

DISBURSEMENT PERCENTAGE

AGENCY	PL	LOCAL	TOTAL
MPO	100	0	100

FUNDS PROGRAMMED - FISCAL YEAR 2026

FUNDING SOURCE

AGENCY	PL	LOCAL	TOTAL
MPO	$350,000.00	$0.00	$350,000.00
TOTAL	$350,000.00	$0.00	$350,000.00

*The matching ratio is Federal PL--86.58% and State match-13.42%. **This Includes - $15,000 for Traffic Counters, $50,000 for use of the Billings MPO Travel Demand Model for the Billings Transportation Corridor Plan, $150,000 for an update to the 2017 Household Travel Survey (includes $10,000 towards Safe and Accessible Transportation Options),

301 Transportation Plan

Objectives

As part of its ongoing commitment to strategic, data-informed transportation planning, the Billings Metropolitan Planning Organization (MPO) will focus on implementing the goals and objectives outlined in the Billings Long Range Transportation Plan (LRTP). This implementation effort involves translating the vision of the LRTP into actionable strategies that guide policy development, project prioritization, and investment decisions across the urban transportation network. To effectively support this process, the MPO will also work to develop and maintain comprehensive, up-to-date datasets for the Billings urban area. These datasets are essential for monitoring key performance indicators, tracking system performance, and evaluating the continued validity and relevance of the LRTP over time. By collecting and analyzing data on travel behavior, traffic volumes, safety trends, system usage, and demographic shifts, the MPO can ensure that the transportation plan remains aligned with current conditions and future needs. This data-driven approach not only strengthens regional planning efforts but also enhances the MPO's ability to respond to emerging challenges, adapt to growth, and pursue targeted improvements that support a safe, efficient, and equitable transportation system for all users.

Accomplishments – Fiscal Year 2025

Staff implemented the 2023 Long Range Transportation Plan (LRTP). Elements in the LRTP include Goals and Objectives, a Transit section, an analysis of the railroad interface with the community, and a review of current projects listed in the Plan.

The Billings MPO successfully completed the audit and redesign of the project list in the 2023 LRTP, addressing the constructive recommendations provided by FHWA during the FHWA/MDT audit. Several inaccuracies were corrected, and the revised project list was restructured to improve clarity and ease of review. PL funds were effectively utilized to support this effort. In addition, the MPO updated its urban planning boundary in accordance with the 2020 Census review of the urbanized area. These updates were incorporated into a formal modification of the 2023 LRTP, ensuring compliance and enhancing the accuracy and usability of the document.

Trail Mobile Application

The Trail Mobile Application, originally created in 2019 to help residents and visitors easily navigate the bikeway and trail system, was updated to ensure continued compatibility with newer mobile devices and to enhance the user interface. Five years after its initial launch, the app was modernized to improve functionality and user experience.

Proposed Activities - Fiscal Year 2026
PL Eligible Activities

- Projects will continue to be reviewed for future implementation in the City's CIP and the MPO's TIP.
- MPO Staff to meet recommendations from the 2024 Billings MPO FHWA/MDT Audit, will begin compiling a list of MPO processes to develop an internal handbook for MPO staff when implementing various transportation planning procedures.

STAFFING
15 Staff Months – City/County Planning

FUNCTIONAL AGENCY RESPONSIBILITY
City/County Planning/MDT

PRODUCT

- Implementation of transportation projects identified in the Billings Area Bikeway and Trails Master Plan, the Transportation Improvements Program, Transportation Plan and the Capital Improvements Program.
- An internal guidance document for MPO staff to undertake the various transportation planning processes.

FUNDING SCHEDULE – TRANSPORTATION PLAN

FUNDS PROGRAMMED - FISCAL YEAR 2025

FUNDING SOURCE

AGENCY	PL	LOCAL	TOTAL
MPO	$150,000.00	$0.00	$150,000.00
TOTAL	$150,000.00	$0.00	$150,000.00

DISBURSEMENT PERCENTAGE

AGENCY	PL	LOCAL	TOTAL
MPO	100	0	100

FUNDS PROGRAMMED - FISCAL YEAR 2026

FUNDING SOURCE			
AGENCY	**PL**	**LOCAL**	**TOTAL**
MPO	$150,000.00	$0.00	$150,000.00
TOTAL	$150,000.00	$0.00	$150,000.00

*The matching ratio is Federal PL--86.58% and State match-13.42%.

302 Planning Studies

Objectives

The planning staff develops and maintains up-to-date transportation system data files and records. They share this information with City and County staff, elected officials, developers, engineering firms, and the general public to facilitate informed decision-making and support project development.

Accomplishments – Fiscal Year 2025

During the FHWA/MDT audit of the Billings MPO, FHWA provided constructive recommendations on the project list in the 2023 LRTP, highlighting several inaccuracies and noting that the list was confusing to review. In response, the MPO used PL funds to audit and redesign the project list, ensuring accurate funding sources and listings. Additionally, the MPO updated its urban planning boundary to comply with the 2020 Census review of the urbanized area. These updates were incorporated into a modification of the 2023 LRTP to address the identified needs.

The update to the Billings Heights Neighborhood Plan was continued and completed. The plan included a significant MPO-led transportation element, incorporating accident and volume data, as well as considerations for neighborhood mobility, safety, and equity within the transportation system.

Projects will continue to be reviewed for future implementation in the City's CIP and the MPO's TIP.

Proposed Activities - Fiscal Year 2026

PL Eligible Activities

Proposed Special Activities or Projects

Alkali Creek Trail Connection – Feasibility and Planning Study

The Billings Metropolitan Planning Organization (MPO) consulted the City of Billings' Capital Improvement Plan (CIP) and there are several shared use path projects in the Planning Division's section. Several of these ideas are conceptual and need more evaluation of feasibility, definition of scope, and other planning-level pre-work to get them ready for a potential grant application. Grant opportunities come up yearly, but it is hard to complete the application in the allotted time if the groundwork is not laid when the application opens. Besides being listed in the City's CIP, this project is also listed in the 2016 Bikeways and Trail Master Plan.

The Project Narrative

The Alkali Creek Trail Connection connects two sections of existing shared use path. The path would be generally parallel to Airport Road and would run at least partially on private property. Right now, the only way to get between the two existing path segments is the sidewalk on Airport Road which is uncomfortable as it is close to fast moving traffic. The new connector would provide a safer and more pleasant route.

The MPO's project would start with discussions with the property owners to determine feasibility and move into developing a planning-level design and cost estimate, taking into consideration the terrain by the creek while developing a cost-effective plan.

Separately, Billings TrailNet donated funds for work on this project. Funds from Billings TrailNet are more flexible and could be used for developing and obtaining easements from the property owners as well as more in-depth design past the planning-level design.

Getting this project more shovel ready could help it qualify grants like the Recreational Trails Program Grant, Montana Trail Stewardship Grant, and/or Transportation Alternatives, as well as any other grants that come available.

The MPO is scheduling this project to begin in the spring as part of a package of trail feasibility studies that includes this project and the Downtown and Aronson projects. The MPO proposes allocating a budget of $20,000 to the completion of this feasibility and planning study, $5,000 would be allocated towards Safe and Accessible Transportation Planning Options.

Downtown to Billings Heights Non-Motorized Connection – Feasibility and Planning Study

The Billings Metropolitan Planning Organization (MPO) consulted the City of Billings' Capital Improvement Plan (CIP) and there are several shared use path projects in the Planning Division's section. Several of these ideas are conceptual and need more evaluation of feasibility, definition of scope, and other planning-level pre-work to get them ready for a potential grant application. Grant opportunities come up yearly, but it is hard to complete the application in the allotted time if the groundwork is not laid when the application opens. Besides being listed in the City's CIP, this project is also listed in the 2016 Bikeways and Trail Master Plan.

The Project Narrative

The Downtown to Billings Heights Non-Motorized Connection would provide a safer non-motorized connection to the Jim Dutcher Trail, Coulson Park, and the campgrounds in the area,

as well as the Billings Heights. Until the Stagecoach Trail is built, the Jim Dutcher Trail currently provides the only separated non-motorized connection between downtown Billings and the Billings Heights. Building the shared use path would require coordination with local businesses and possibly the railroad. Initial conversations with Phillips 66, one of the property owners in this area, have been positive.

Separately, Billings TrailNet donated funds for work on this project. Funds from Billings TrailNet are more flexible and could be used for developing and obtaining easements from the property owners as well as more in-depth design past the planning-level design.

Getting this project more shovel ready could help it qualify grants like the Recreational Trails Program Grant, Montana Trail Stewardship Grant, and/or Transportation Alternatives, as well as any other grants that come available.

The MPO is scheduling this project to begin in the spring as part of a package of trail feasibility studies that includes this project and the Alkali Creek and Aronson projects. The MPO proposes allocating a budget of $20,000 to the completion of this feasibility and planning study, $5,000 would be allocated towards Safe and Accessible Transportation Planning Options.

Aronson Avenue to Annandale Road Trail Connection – Feasibility and Planning Study

The Billings Metropolitan Planning Organization (MPO) consulted with the Billings City Council on developing transportation planning projects that would benefit the city in advancing desired capital transportation projects. A request was made by the City Council to include a feasibility study on a non-motorized connection from Aronson Avenue to Annandale Road. This project is also listed in the 2016 Bikeways and Trail Master Plan.

The Project Narrative

Completing a non-motorized study of the trail connection between Aronson Avenue and Annandale Road in Billings Heights offers valuable benefits for the community. This study would help identify the most feasible and safe route for pedestrians and bicyclists, improving access to nearby neighborhoods, parks, and schools. It would support efforts to enhance connectivity within the Billings trail system, reduce reliance on motor vehicles, and promote healthier, more active lifestyles. Additionally, the study would help address safety concerns, guide future infrastructure investments, and align with community goals for sustainable, multi-modal transportation options in the growing Heights area.

Getting this project more shovel ready could help it qualify grants like the Recreational Trails Program Grant, Montana Trail Stewardship Grant, and/or Transportation Alternatives, as well as any other grants that come available.

The MPO is scheduling this project to begin in the spring as part of a package of trail feasibility studies that includes this project and the Alkali Creek and Downtown projects. The MPO proposes allocating a budget of $40,000 to the completion of this feasibility and planning study, $5,000 would be allocated towards Safe and Accessible Transportation Planning Options.

St. Francis Catholic School/Poly Drive Elementary Safe Routes to School and Medicine Crow Middle School – Additional Evaluation and Public Input Study

The Billings Metropolitan Planning Organization (MPO) consulted with the Billings City Council on developing transportation planning projects that would benefit the city in advancing desired capital transportation projects. Staff recommended additional evaluation and public input on certain Safe Routes to School (SRTS) projects identified in two SRTS Studies. The City Council approved this request and is recommending two areas of evaluation. The first is the St. Francis Catholic School and Poly Drive SRTS project and the second is the Medicine Crow Middle School.

The Project Narrative

The MPO is scheduling this project to begin in the fall/winter of 2025 and is allocating a budget of $75,000 to the completion of this evaluation and public outreach, $10,000 would be allocated towards Safe and Accessible Transportation Planning Options.

STAFFING
11.5 Staff Months – City/County Planning

FUNCTIONAL AGENCY RESPONSIBILITY
City/County Planning/MDT

PRODUCT

- Implementation of transportation projects identified in the Billings Area Bikeway and Trails Master Plan, the Transportation Improvements Program, Transportation Plan and the Capital Improvements Program. This will include three non-motorized feasibility studies for Alkali Creek, Downtown Connection and Aronson.
- Safe Routes to School additional project evaluation and public input for two projects St. Francis Catholic School/Poly Drive and Medicine Crow Middle School. A completed a

corridor study for Monad Road between Daniel Street and Moore Lane. The study will provide transportation planning-level information to inform future infrastructure projects identified and approved in the City's FY26–30 Capital Improvement Plan (CIP).

FUNDING SCHEDULE – PLANNING STUDIES

FUNDS PROGRAMMED - FISCAL YEAR 2025

FUNDING SOURCE

AGENCY	PL	LOCAL	TOTAL
MPO	$123,000.00	$82,000.00	$205,000.00
TOTAL	$123,000.00	$82,000.00	$205,000.00

DISBURSEMENT PERCENTAGE

AGENCY	PL	LOCAL	TOTAL
MPO	60	40	100

FUNDS PROGRAMMED - FISCAL YEAR 2025

FUNDING SOURCE

AGENCY	PL	LOCAL	TOTAL
MPO	$153,000.00	$102,000.00	$255,000.00
TOTAL	$153,000.00	$102,000.00	$255,000.00

*The matching ratio is Federal PL--86.58% and State match-13.42%.

**Approximately $20,000 for the Alkali Creek Trail Connector Feasibility Study, $20,000 for a Downtown to Billings Heights Non-Motorized Connection Feasibility Study and $40,000 for the Aronson Avenue to Annandale Road Trail Feasibility Study (includes $15,000 towards Safe and Accessible Transportation Options)

TRANSPORTATION IMPROVEMENT PROGRAM

500 Transportation Improvement Program

Objectives

To maintain a viable five-year program of transportation improvements for the Billings Urban Area.

ACCOMPLISHMENTS - FISCAL YEAR 2025

At the time of the development of this UPWP, the MPO completed two TIP amendments and one Administrative Modification in FY25. These updates included updating projects, project costs and project timing. The last amendment was approved on April 15, 2025, by the Policy Coordinating Committee.

PROPOSED ACTIVITIES - FISCAL YEAR 2026

PL Eligible Activities

- The Transportation Improvement Program (TIP) will be evaluated and updated as needed. A certification statement will be included, as appropriate, to conform to the planning regulations. Based on the Transportation Plan, projects will be evaluated and ranked in accordance with the Priority Ranking Procedures, and in accordance with consistency/conformity procedures. Necessary data will be gathered from primary and secondary sources by the planning staff based upon the Memorandum of Understanding with the City of Billings Public Works Department, establishing areas of data responsibility. Conformity determinations will be prepared as necessary to ensure conformity with the Clean Air Act.

STAFFING

2.5 Staff Months – City/County Planning

FUNCTIONAL AGENCY RESPONSIBILITY

City/County Planning

PRODUCT

- A current transportation improvement program which reflects conformity with FHWA, the Clean Air Act, and local priorities.

FUNDING SCHEDULE - TRANSPORTATION IMPROVEMENT PROGRAM

FUNDS PROGRAMMED - FISCAL YEAR 2025

FUNDING SOURCE

AGENCY	PL	LOCAL	TOTAL
MPO	$30,000.00	$0.00	$30,000.00
TOTAL	$30,000.00	$0.00	$30,000.00

DISBURSEMENT PERCENTAGE

AGENCY	PL	LOCAL	TOTAL
MPO	100	0	100

FUNDS PROGRAMMED - FISCAL YEAR 2026

FUNDING SOURCE

AGENCY	PL	LOCAL	TOTAL
MPO	$50,000.00	$0.00	$50,000.00
TOTAL	$50,000.00	$0.00	$50,000.00

*The matching ratio is Federal PL--86.58% and State match-13.42%.

SPECIAL PROJECTS

600 Environmental Considerations

Objectives

The Metropolitan Planning Organization (MPO) is responsible for maintaining up-to-date records of monitored air pollution levels and acquiring additional environmental data as needed within the Metropolitan Planning Area. Additionally, the MPO reviews proposed development projects and transportation system improvements to ensure they align with environmental considerations within its area of influence.

ACCOMPLISHMENTS - FISCAL YEAR 2025

The MPO was notified that in July of 2021 the Billings Urban Area was removed from the Air Quality's "Not Classified" list. The MPO is now designated as an Attainment Area and will move the update of the LRTP from 4-years to 5-years.

The MPO collaborated with MDT on the development MDT Statewide Carbon Reduction Strategy Plan.

Air quality monitoring information was obtained from the County Air Pollution Control Board. Air quality mapping for the State Air Quality Bureau was revised. The Congestion Mitigation Air Quality (CMAQ) program was implemented. Staff continues to monitor carbon monoxide (CO) information in the Urbanized Area.

The Socio-Economic and Environmental (SEE) effects guidelines were used to review proposed developments and transportation system improvements.

PROPOSED ACTIVITIES - FISCAL YEAR 2026

PL Eligible Activities

- Continue to collaborate with MDT on the Carbon Reduction Plan.
- The planning staff will continue to utilize the SEE effects guidelines to evaluate all major development proposals in terms of transportation systems. This would include the CMAQ program.
- Work will continue to maintain the Billings air quality designation.
- Staff will continue to review the MOVES Program and others like it and their relationship to the MPO.

STAFFING

1.5 Staff Months – City/County Planning

FUNCTIONAL AGENCY RESPONSIBILITY

City/County Planning

PRODUCT

Current environmental data as well as a comprehensive planning and transportation planning process that will substantially address the socio-economic and environmental consequences associated with growth and development.

FUNDING SCHEDULE - ENVIRONMENTAL CONSIDERATIONS

FUNDS PROGRAMMED - FISCAL YEAR 2025

FUNDING SOURCE

AGENCY	PL	LOCAL	TOTAL
MPO	$36,000.00	$0.00	$36,000.00
TOTAL	$36,000.00	$0.00	$36,000.00

DISBURSEMENT PERCENTAGE

AGENCY	PL	LOCAL	TOTAL
MPO	100	0	100

FUNDS PROGRAMMED - FISCAL YEAR 2026

FUNDING SOURCE

AGENCY	PL	LOCAL	TOTAL
MPO	$25,000.00	$0.00	$25,000.00
TOTAL	$25,000.00	$0.00	$25,000.00

*The matching ratio is Federal PL--86.58% and State match-13.42%.

OTHER ACTIVITIES

700 Un-Programmed Funds

Objectives
To provide for the accounting of available un-programmed funds in the current UPWP.

ACCOMPLISHMENTS - FISCAL YEAR 2025
N/A

PROPOSED ACTIVITIES - FISCAL YEAR 2026

PL Eligible Activities

- This work element will be utilized for accounting purposes only. No specific work activity will be charged to this work element.

STAFFING
N/A

FUNCTIONAL AGENCY RESPONSIBILITY
N/A

PRODUCT
N/A

FUNDING SCHEDULE - CONTINGENCY

FUNDS PROGRAMMED - FISCAL YEAR 2025

FUNDING SOURCE

AGENCY	PL	LOCAL	TOTAL
MPO	$2,834.00	$118,350.00	$121,184.00
TOTAL	$2,834.00	$118,350.00	$121,184.00

DISBURSEMENT PERCENTAGE

AGENCY	PL	LOCAL	TOTAL
MPO	100	0	100

FUNDS PROGRAMMED - FISCAL YEAR 2026

FUNDING SOURCE			
MPO	$220,324.00	$392,500.00	$607,824.00
TOTAL	$220,324.00	$392,500.00	$607,824.00

*The matching ratio is Federal PL--86.58% and State match-13.42%.

SECTION 3 – FUNDING

TABLE I
FUNDING SUMMARY
FEDERAL FISCAL YEAR 2026

WORK ELEMENT	FUNDING SOURCES FY 2026		
	PL*	LOCAL	EST. COST
100 Administration	$171,600.00	$140,400.00	$312,000.00
101 Service	$25,000.00	$25,000.00	$50,000.00
102 Citizen Involvement	$45,000.00	$45,000.00	$90,000.00
200 Community Planning	$105,000.00	$245,000.00	$350,000.00
204 Zoning	$24,000.00	$96,000.00	$120,000.00
205 Subdivision	$45,000.00	$105,000.00	$150,000.00
300 Transportation System	$350,000.00	$0.00	$350,000.00
301 Transportation Plan	$150,000.00	$0.00	$150,000.00
302 Planning Studies	$153,000.00	$102,000.00	$255,000.00
500 T.I.P.	$50,000.00	$0.00	$50,000.00
600 Environmental	$25,000.00	$0.00	$25,000.00
700 Un-Programmed Funds	$252,224.00	$353,600.00	$605,824.00
Totals	**$1,395,824**	**$1,112,000.00**	**$2,507,824**

*The matching ratio is Federal PL--86.58% and State match-13.42%.

TABLE II
FUNDING COMPARISONS

WORK ELEMENT	FY 2026 ESTIMATED COST	FY 2025 ESTIMATED COST
100 Administration	$312,000.00	$538,000.00
101 Service	$50,000.00	$65,000.00
102 Citizen Involvement	$90,000.00	$102,000.00
200 Community Planning	$350,000.00	$348,000.00
204 Zoning	$120,000.00	$210,000.00
205 Subdivision	$150,000.00	$213,000.00
300 Transportation System	$350,000.00	$190,000.00
301 Transportation Plan	$150,000.00	$150,000.00
302 Planning Studies	$255,000.00	$205,000.00
500 T.I.P.	$50,000.00	$30,000.00
600 Environmental	$25,000.00	$36,000.00
700 Un-Programmed Funds	$605,824.00	$121,184.00
TOTAL	**$2,507,824.00**	**$2,208,184.00**

TABLE III
FUNDING PERCENTAGES FEDERAL FISCAL YEAR 2026

WORK ELEMENT	RECIPIENT	PL	LOCAL	TOTAL
100 Administration	MPO	55	45	100
101 Service	MPO	50	50	100
102 Citizen Inv.	MPO	50	50	100
200 Community Planning	MPO	30	70	100
204 Zoning Administration	MPO	20	80	100
205 Subdivision Admin.	MPO	30	70	100
300 Trans. System Data	MPO	100		100
301 Transportation Plan	MPO	100		100
302 Planning Studies	MPO	60	40	100
500 T.I.P.	MPO	100		100
600 Environmental	MPO	100		100
700 Un-Programmed Funds	MPO	100		100

TABLE IV
STAFF MONTHS BY WORK ELEMENT FISCAL YEAR 2026

Work Element	Director-Friday	MPO Coord.-Mattox-Planner II	Planner I-Husman	Planning Manager-Vickers	Planner II (Trans)-Monat	Clerk-Berns	Planner II-Green	Planner I-Johnson	Planner I-Kelly	Zoning Coord.Planner II-Cromwell	Planner I (Multi-Modal)-Vacant	Planner II (LRP)-Vac	Total M.M.
100	7	1.5	1.5	6	0.5	2	0.5	0.5	0.5	1	0.5	0.5	22
101	0.5	0	2	0	0	1.5	0.5	0.5	0.5	1	0	0.5	7
102	0.5	0	2	0.5	0.5	1.5	1	0.5	0.5	0	0.5	2	9.5
200	1.5	0	2	2	1	2	1	2	2	2	1	5	21.5
204	0	0	2	0.5	0	1	0.5	3	2	6	0	0.5	15.5
205	0	0	1.5	0.5	0	1	7.5	2	3	1	0	0.5	17
300	0	3	0	0.5	2	0.5	0	0	0	0	3	0	9
301	0.5	3	0	0.5	3	0.5	0	2.5	0	0	3	2	15
302	0.5	1.5	0	0.5	3	0.5	0	0	2.5	0	3	0	11.5
500	0.5	1	0	0	0.5	0.5	0	0	0	0	0	0	2.5
600	0	1	0	0	0.5	0	0	0	0	0	0	0	1.5
Total	11	11	11	11	11	11	11	11	11	11	11	11	132

WORK ELEMENT	CITY TRAF. TECHNICIAN
300	11
TOTAL	11

TABLE V
ELIGIBLE SAFE AND ACCESSIBLE TRANSPORTATION OPTIONS
PLANNING ACTIVITY BY WORK ELEMENT FISCAL YEAR 2025

WORK ELEMENT	FY 2026 ELIGIBLE SAFE AND ACCESSIBLE TRANSPORTATION OPTIONS PLANNING ACTIVTY ESTIMATE COST	FY 2025 ELIGIBLE SAFE AND ACCESSIBLE TRANSPORTATION OPTIONS PLANNING ACTIVTY ESTIMATE COST
300 Transportation System Data	$ 15,000.00	
301 Transportation Plan	$ -	$ 10,000.00
302 Planning Studies	$ 20,000.00	$ 10,492.00
TOTAL	$ 35,000.00	$ 20,492.00

The 2.5% PL Funding set-aside for Alternative Modes Planning activities have a match ratio of 86.58% Federal Share/13.42% State Share and are eligible for 100% Federal Share in FFY2024 and FFY2025.

SECTION 4 – INDIRECT COST PLAN

Introduction

The Office of Management and Budget Circular 2 CFR Part 200 is used as governing criteria for establishing the allowed costs.

Identification of Costs

The costs are delineated below by type:

DIRECT	INDIRECT	BENEFITS
Salaries & Wages	Maintenance	FICA
Legal Notices	Reproduction	PERS
Travel	Supplies	Workmen's Compensation
Printing	Postage	Accident Insurance
Training	Subscriptions	Health Insurance
Consultants	Telephone	Sick Leave
Equipment	Utilities	Vacation
Mileage	Rent	Holidays
Moving/Interview	Audit	Maternity
	Messenger	Military
		Life Insurance
		Dental Insurance

Allocation of Costs

Direct costs will be charged to the work program line item to which they apply.

An indirect cost rate of **9%** of the City and County's direct salaries and wages is proposed. The **9%** rate will be applied to the direct wages and salaries of each line item within the work program to cover all indirect expenses.

Benefits will be calculated at a rate of **55%** of the City and County's direct salaries and wages charged to each line item.

Funding Sources

The degree of participation by each funding agency is based on the prorations which have been determined for each line item. Each agency will be billed their share of the total charges made against each line item according to the approved prorations.

Funding sources and amounts contained in the UPWP are as follows:

Planning Dept. Fees (City of Billings)	$274,000
Planning Dept. Fees (Yellowstone Co.)	$170,000
Yellowstone County (Mill)	668,000
PL*	$1,395,824
TOTAL	$2,507,824

*The matching ratio is Federal PL--86.58% and State match-13.42%.

Summary

The indirect cost rate is a predetermined fixed rate which is not subject to adjustment. The base period used in determining the rate is the period from July 1, 2025, through June 30, 2026. The calculated rate is applicable to the grant period, which is October 1, 2025, through September 30, 2026.

CHAPTER 2 – TRANSIT DIVISION

SECTION 1 – UNIFIED PLANNING WORK PROGRAM ELEMENTS

44.21.00 PROGRAM SUPPORT ADMINISTRATION

44.21.01 Administration

OBJECTIVE

The program aims to deliver comprehensive support through general administration and effective grant management, while also offering training to enhance transit planning activities.

ACCOMPLISHMENTS - FISCAL YEAR 2025

Conformance with federal, state, and local administrative and regulatory requirements for maintenance of transit planning and development, as well as execution of developed plans.

Staff remained informed of Federal and State requirements concerning all federal funding sources including, but not limited to, Sections 5303, 5307, 5310, and 5339. Staff programmed, managed, revised, and closed grants from state and federal sources, as needed.

Staff prepared and submitted quarterly progress and expenditure reports to MDT to maintain federal and state funding support.

Staff attended training opportunities to enhance knowledge and skills, including the Spring Montana Transit Association conference focused on grant and budget guidance, American Public Transportation Association Marketing, Communications, and Customer Experience Workshop, Community Transportation Association of America Expo focused on training and system improvements, and other education opportunities and webinars on various safety and federal requirements.

Staff maintained and updated the Transit Asset Management (TAM) Plan with upcoming and in- process capital projects, as well as fleet and facility metrics to ensure accurate capital and asset planning.

Updated the Public Transit Agency Safety Plan for MET Transit for the required annual review; this included additional training program development for operator and dispatch

staff including focuses on transit employee assaults and de-escalation training. Submitted the newly required Safety Management System Report, including planning for future transit safety measures.

Staff managed FTA Section 5303 grant activities and prepared the transit aspect of Unified Planning Work Program.

Staff updated the DBE Program Plan based on newly required Federal updates and prepared the DBE Program semi-annual reports to ensure continued attempts to meet DBE Program goals while planning capital purchases.

Updated the MET Transit Title VI and Public Participation Plans due April 1, 2025.

PROPOSED ACTIVITIES - FISCAL YEAR 2026

All administrative functions necessary in support of transit planning and development will be performed under this work element. Activities will include:

- Quarterly progress and expenditure reports will be prepared and transmitted to the Montana Department of Transportation, Urban Planning Division to maintain funding requirements.
- The FY2026 UPWP will be monitored and revised as necessary.
- Transit activities for the FY2027 UPWP will also be developed within this element.
- Staff will execute grant administrative functions; staff will continue research and development regarding the utilization of FTA funding, including furthering innovative funding practices and partnerships.
- Maintenance of coordination agreements with 5310 providers and, as the lead agency, updates to the Billings Area Human Services Transportation Coordination Plan.
- Research feasibility and make recommendations for capital grants in the 5339 Bus and Bus Facilities programs and other funding opportunities utilizing the TAM plan, as well as the City Equipment Replacement plan.
- Extensive division policy development includes procedures, regulations, codes, and practices to ensure compliance with federal, state, and local requirements as they relate to the transit planning process.
- Participate with the TAC, Transportation Coordination Plan Committee, citizen advisory boards and other committees throughout the community, as needed.
- Staff will continue updating and maintaining the FTA mandated Transit Asset Management Plan.
- Staff will continue to update and implement the required Public Transit Agency

Safety Plan, including annual updates to the PTASP and Safety Management System Reports, as well as further research and development of best practices.

STAFFING

120.00 Asst. Transit Director Staff Hours

280.00 Transit Planner Staff Hours

120.00 Transit Operations Coordinator

40.00 Marketing and Outreach Coordinator Staff Hours

560.00 Total Staff Hours

FUNCTIONAL AGENCY RESPONSIBILITY

City of Billings Transit Division – MET Transit

PRODUCT

- An ongoing administrative program to carry out the transit elements identified within this UPWP.
- Administrative oversight and execution of transit planning and development functions, including federally required plans.
- Enhancement of transit division skills and knowledge.
- Proper maintenance and administration of grant related activities.

FUNDING SCHEDULE - ADMINISTRATION

FUNDS PROGRAMMED - FISCAL YEAR 2025

FUNDING SOURCE

AGENCY	LOCAL	FTA	TOTAL
MET	$9,538	$38,152	$47,690
TOTAL	**$9,538**	**$38,152**	**$47,690**

FUNDS PROGRAMMED - FISCAL YEAR 2026

FUNDING SOURCE

AGENCY	LOCAL	FTA	TOTAL
MET	$ 10,706	$42,825	$53,531
TOTAL	**$ 10,706**	**$42,825**	**$53,531**

44.24.00 SHORT RANGE TRANSPORTATION PLANNING

44.24.01 Future Service Analysis and Enhancements

OBJECTIVE

To facilitate considerations of means to ensure citizens will have acceptable and improved public transportation alternatives in the future.

ACCOMPLISHMENTS - FISCAL YEAR 2025

Members of the transit division updated projections of future revenues and expenses and directed annual budget and financial resources analysis, including multi-year forecasts in response to changes to mill levy structure and funding sources.

Staff arranged for and ensured execution of on-going data gathering and analysis efforts to monitor current system effectiveness and efficiency. This assisted in identification of operating and capital needs required to ensure a reliable and effective system into the future.

Staff updated several fixed routes and bus stops previously implemented through the Transit Development Plan in response to needed and requested changes.

Staff tracked and compiled on-going ridership metrics by route and mode to support planning practices and updated cost of service rates with new routes and budget figures.

Staff completed the Request for Proposals process and awarded SRF Consulting, Inc. the contract to complete the Transit Financial Sustainability and Governance Study; Study meetings and research are still in progress.

Staff provided information and comments related to transit at meetings geared toward development, annexation, and traffic projects. Staff also received and responded to system inquiries, concerns, complaints, and suggestions.

Staff continued evaluating approximately 450 designated bus stop locations for placement, bus stop amenities, and ADA requirements.

Transit members attended and participated in a diverse range of transit-related and general community meetings including the Billings Technical Advisory Committee (TAC), the Policy Coordinating Committee (PCC), City of Billings Transportation Team meetings,

City of Billings Annexation Committees, Bike and Pedestrian, West End and Heights Plan Steering Committees, Yellowstone County Health Improvement Planning Meeting, and Safe Routes to Schools. As the lead agency on the Coordinated Human Services Transportation Plan Committee, staff also provided guidance and updates to the plan.

PROPOSED ACTIVITIES - FISCAL YEAR 2026

Functions necessary in support of future transit planning and development will be performed under this work element, including continuation of activities undertaken in FY2025. These activities necessitate the ongoing cloud-based software costs and run-cutting module, for route development and planning, which is split between this element and current service enhancements. Activities are as follows:

- Continue investigating the feasibility of expanding service beyond existing city limits and engage county stakeholders in discussion regarding potential for service to outlying areas.
- Assess the feasibility of adding additional transfer locations, specifically in growing areas of the City, including the Heights and near the West End Reservoir locations.
- Assess feasibility of a rapid transit line to directly connect Heights, Downtown, and West End to decrease passenger travel time.
- Continue to analyze and evaluate current City and other area government practices for right of way requirements regarding future bus stop locations.
- Assessing ongoing and future capital and operating requirements based upon projected demand and growth. Continue to assess financial and infrastructure requirements of transitioning eligible fleet vehicles to electric or alternative fuel sources.
- Continue research on feasibility of, and make recommendations for additional technology conveniences for passengers, including amenities at transfer centers.
- Continuation of planning efforts regarding public and stakeholder involvement and input opportunities, including recruiting involvement from key partners.
- Facilitation of public meetings to support system improvements, as well as specialized services for seniors and disabled.
- Perform additional analysis of fare structure, including comparisons to similar systems and populations to ensure equitable and sustainable fare generation.
- Analyze, develop, and recommend opportunities for MPO and Transit collaboration on projects eligible for multiple funding sources, including flex funding, to support integration of transit and overall surface transportation structure.

180.00 Asst. Transit Director Staff Hours

160.00 Transit Planner Staff Hours

120.00 Transit Operations Coordinator

80.00 Marketing and Outreach Coordinator Staff Hours

540.00 Total Staff Hours

PRODUCT

- Completed and approved Transit Financial Sustainability and Governance Study.
- Financial and capital analysis for future transit enhancements.
- Identification and assistance in implementation of future system modifications.
- Annual subscription to planning and scheduling software.

FUNCTIONAL AGENCY RESPONSIBILITY

City of Billings Transit Division – MET Transit

FUNDING SCHEDULE – FUTURE SERVICE EVALUATION AND ANALYSIS

FUNDS PROGRAMMED - FISCAL YEAR 2025

FUNDING SOURCE

AGENCY	LOCAL	FTA	TOTAL
MET	$43,400	$173,599	$216,999
TOTAL	**$43,400**	**$173,599**	**$216,999**

FUNDS PROGRAMMED - FISCAL YEAR 2026

FUNDING SOURCE

AGENCY	LOCAL	FTA	TOTAL
MET	$15,302	$61,208	$76,510
TOTAL	**$15,302**	**$61,208**	**$76,510**

**The 2026 amounts figure above includes $22,500 for planning software and $54,010 budgeted for staff hours.

44.24.02 Current Service Enhancement

OBJECTIVE

To improve service, ridership, and effectiveness of the existing transit system.

ACCOMPLISHMENTS FISCAL YEAR 2025

Staff continued implementation of expanded marketing programs, including outreach to various community groups, education institutions, and public events.

Completed the integration with Apple Maps in addition to previous integration with Google Maps.

Continued to develop the internal advertising program, by exploring additional amenity opportunities to support transit operations, as well as opportunities for capital support.

Continued to leverage data gained from the electronic fare system to make recommendations to admin regarding metric tracking and budget structure.

Updated and began redesign of agency website to increase ease of use, as well as improve overall communication with the public. Continued to develop and implement an improved social media presence for public engagement, including campaigns about the AVL system, designated bus stops, hiring events, and route updates.

Developed and implemented fixed-route service, including routes and schedules in the Downtown core due to the City's conversion of 1-way streets to 2-way streets.

Developed FY2025 APC Maintenance Plan update, due to mandatory sampling year.

Staff reviewed ridership data in analysis of system functioning and passenger miles travelled metrics; members also provided monthly ridership analysis (including ADA lift use and bike rack use), assessed ridership trends, and prepared other information on system functioning, as requested.

Staff prepared National Transit Database reports for monthly submission of ridership, safety, and operational data, as well as annual reporting requirements.

Staff members regularly participated in group meetings and committee meetings (both in person and virtual) to solicit partner and public feedback on current system usage, demands, successes, and shortfalls.

PROPOSED ACTIVITIES FISCAL YEAR 2026

Functions necessary in support of planning and development of enhancements to the current systems will be performed under this work element, including continuation of activities undertaken in FY2025. These activities necessitate the ongoing cloud-based software costs and run cutting module, for route development and planning, which is split between this element and future service enhancements.

Activities are as follows:

- Continue to develop and implement criteria for bus stop amenities and other required items and make changes to stop amenities as needed; make recommendations on funding priorities to support bus stops with high usage and infrastructure needs.
- Enhance development and implementation of education and outreach strategies to guide market research, promote public awareness, and engagement to increase ridership.
- Develop and implement further education and outreach programs to increase partnerships and other forms of participation.
- Collect and analyze ridership data from automatic passenger counters hardware and software.
- Continue to sample manual ridership on all bus routes to ensure data reporting is correct and consistent; FY2026 is a mandatory sampling year for passenger miles traveled (PMT).
- Develop further marketing strategies, including opportunities for increased revenue generation through amenity expansion and innovative concession programs. Include analysis of potential concession for retail space and other revenue generators at the Downtown Transfer Center.
- Assessment of current personnel usage for areas of improvement in utilization of resources and effectiveness; evaluate effectiveness of current staffing levels.
- Maintain monthly ridership figures and summary figures for effective decision-making and complete related National Transit Database reports.
- Solicit and record public reaction to any modified routes, schedules, education efforts, and technology enhancements.
- Assessment of current budgetary impact of recommended improvements.

STAFFING

200.00 Asst. Transit Director Staff Hours
240.00 Transit Planner Staff Hours
60.00 Transit Operations Coordinator
95.60 Marketing and Outreach Coordinator Staff Hours

595.60 Total Staff Hours

FUNCTIONAL AGENCY RESPONSIBILITY

City of Billings Transit Division – MET Transit

PRODUCT

- Information relating to potential enhancements to existing service and system with newly designed website.
- Recommendations for immediate improvements.
- Analysis of current system functions.
- Budget alternatives.

FUNDING SCHEDULE – CURRENT SERVICE ENHANCEMENTS

FUNDS PROGRAMMED - FISCAL YEAR 2025

FUNDING SOURCE

AGENCY	LOCAL	FTA	TOTAL
MET	$18,817	$75,268	$94,085
TOTAL	**$18,817**	**$75,268**	**$94,085**

FUNDS PROGRAMMED - FISCAL YEAR 2026

FUNDING SOURCE

AGENCY	LOCAL	FTA	TOTAL
MET	$16,260	$65,040	$81,300
TOTAL	**$16,260**	**$65,040**	**$81,300**

**The 2026 amounts figure above includes $22,500 for planning software and $58,800 budgeted for staff hours.

44.25.00 TRANSPORTATION IMPROVEMENT PROGRAM

44.25.01 Transportation Improvement Program

OBJECTIVE

To maintain a viable five-year program of transit improvements for the Billings Urbanized Area.

ACCOMPLISHMENTS FISCAL YEAR 2025

Developed Transit specific data for a TIP/STIP update for the new five-year document, including programming for selected capital programs. Updated projects were also added to the Division's Transit Asset Management Plan (TAM), Capital Improvement Plan (CIP), and Equipment Replacement Plan (ERP).

Monitored projects for inclusion in the TIP and STIP. The Statewide Transportation Improvement Program (STIP) process was also addressed and monitored.

Completed TIP amendments; attended and participated in MPO meetings.

PROPOSED ACTIVITIES FISCAL YEAR 2026

Functions necessary in support of transit related project inclusion in the Transportation Improvement Program will be performed under this work element. Activities are as follows:

- Division members will develop and compile information on operating and capital projects for which MET Transit plans to utilize grant assistance for inclusion in the TIP; this includes utilizing and updating the Division's TAM, CIP, ERP, and other plans as required.
- All applicable projects will be provided to the MPO for inclusion in the program.
- Staff will monitor inclusion in the TIP and STIP to ensure the ability to obtain federal Sections 5307, 5310, 5339, and other applicable grants

STAFFING

32.00 Asst. Transit Director Staff Hours

32.00 Transit Planner Staff Hours

64.00 Total Staff Hours

FUNCTIONAL AGENCY RESPONSIBILITY

City of Billings Transit Division – MET Transit will provide transit-related information to the City/County Planning Department for the MPO's inclusion in the TIP document.

PRODUCT

- Monitoring of plans including Transit Asset Management, the Capital Improvement Program, and components of the Equipment Replacement Plan for related projects.
- Annual inclusion of projects in TIP, as necessary per FTA regulations.
- Amendments to TIP as necessary to include new projects.

FUNDING SCHEDULE – Transportation Improvement Program

FUNDS PROGRAMMED - FISCAL YEAR 2025

FUNDING SOURCE

AGENCY	LOCAL	FTA	TOTAL
MET	$1,526	$6,103	$7,629
TOTAL	**$1,526**	**$6,103**	**$7,629**

FUNDS PROGRAMMED - FISCAL YEAR 2026

FUNDING SOURCE

AGENCY	LOCAL	FTA	TOTAL
MET	$1,395	$5,578	$6,973
TOTAL	**$1,395**	**$5,578**	**$6,973**

44.26.12 COORDINATION ON NON-EMERGENCY HUMAN SERVICE TRANSPORTATION

44.26.12 Coordination of Non-Emergency Human Service Transportation

OBJECTIVE

To ensure optimal use of City of Billings funds in meeting the transportation needs of seniors and individuals with disabilities in both demand response and fixed route transportation in accordance with Federal Regulations.

ACCOMPLISHMENTS FISCAL YEAR 2025

Staff continued to investigate methods to improve paratransit efficiency and cost-effectiveness.

Continued evaluating dispatch and customer service practices for potential modification in regard to dispatching software implementation, as well as other technology implementations.

Members also continued to assess the financial and operational functioning of paratransit services, including a contractual agreement with Adult Resource Alliance. MET staff worked with Alliance staff regarding certifications of clients to ensure program sustainability.

Staff monitored procedures and policies involving ADA accessible fixed-route service and other accessibility features/requirements and updated with relevant findings, including updates to the Paratransit and Dispatch Handbooks.

Assessed and updated paratransit vehicle specifications to support future vehicle purchases; continued implementation and further procurement development of smaller ADA equipped vehicles to enhance paratransit service efficiencies.

Staff familiarized passengers with fixed route system use as appropriate via MET's travel training program.

Staff continued to coordinate transportation services among 5310 transit providers, social service agencies, and the public to provide an overall strategy to enhance transportation access, minimize duplication of services, and facilitate the most appropriate cost-effective transportation possible within available resources. This also

included outreach and engagement to improve and advance the coordination plan, as well as to improve community relations.

PROPOSED ACTIVITIES FISCAL YEAR 2026

Functions necessary in support of planning and development of transit related Americans with Disabilities projects, procedures, outreach, and other related activities will be performed under this work element. Activities are as follows:

- Continue developing and refining improvements to current travel training options to the public using available technology and updated delivery methods; improve education and outreach surrounding these services.
- Staff will continue to evaluate each bus stop for ADA compliance and suggest improvements based on priority of needs and funding availability, as outlined in the Bus Stop Master Plan.
- Staff will continue to provide outreach and education for professionals, organizations, and other identified entities in the community, including participating on advisory groups in order to maintain positive relationships with individuals with disabilities and senior communities.
- Staff will continue to facilitate and encourage involvement in regular Billings Area Human Services Transportation Coordination Plan meetings with human service providers, social service agencies, transportation providers, and the public to coordinate efforts associated with transit capital and service planning.
- Continue to facilitate effective service provision and usage of lift-equipped fixed-route vehicles; assess and recommend capital and operational projects with the intent of supporting existing service, increased demand, and adding potential enhancements.
- Continue identification of means to address transit and paratransit needs, assessing both short- and long-term paratransit needs, and the organizational and financial capabilities of addressing those needs.
- Continue community outreach to the public and organizations in support of improving access to transportation for seniors, individuals with disabilities, and low-income populations; continue participation on community committee meetings, while exploring avenues for further outreach and engagement.
- Analyze and recommend improvements to current scheduling practices, including more advanced use of available technologies to expand availability of services to seniors and low-income groups.
- Continue to assess, evaluate, and recommend improvements to the Paratransit Eligibility process to respond to increased demand for services to ensure all requirements regarding capacity and service are executed efficiently and equitably.

STAFFING

160.00 Asst. Transit Director Staff Hours
100.00 Transit Planner Staff Hours
120.00 Transit Operations Coordinator
80.00 Marketing and Outreach Coordinator Staff Hours

460.00 Total Staff Hours

FUNCTIONAL AGENCY RESPONSIBILITY

City of Billings Transit Division – MET Transit

PRODUCT

- Continued community consensus and support of City of Billings methods for addressing specialized needs, including lift-equipped vehicles and other options for individuals with disabilities and seniors.
- Recommendations and proposals for enhancements to existing system and programs in support of ADA compliance and regulations aimed at increasing efficiency and effectiveness.
- Public involvement and feedback regarding potential system enhancements in support of transportation for seniors and individuals with disabilities.

FUNDING SCHEDULE – ADA SERVICE (COORDINATION OF NON-EMERGENCY HUMAN SERVICE TRANSPORTATION)

FUNDS PROGRAMMED - FISCAL YEAR 2025

FUNDING SOURCE

AGENCY	LOCAL	FTA	TOTAL
MET	$8,572	$34,289	$42,861
TOTAL	**$8,572**	**$34,289**	**$42,861**

FUNDS PROGRAMMED - FISCAL YEAR 2026

FUNDING SOURCE

AGENCY	LOCAL	FTA	TOTAL
MET	$9,261	$37,043	$46,304
TOTAL	**$9,261**	**$37,043**	**$46,304**

SECTION 2 – FUNDING SUMMARY

FEDERAL FISCAL YEAR 2026

WORK ELEMENT	FUNDING SOURCES FY 2026			STAFF HOURS
	LOCAL	FTA	EST.COST	
44.21.01 Administration				
Staff Hours	$10,706	$42,825	$53,531	560.00
44.24.01 Future Service				
Staff Hours	$10,802	$43,208	$54,010	540.00
Planning Software	$4,500	$18,000	$22,500	
44.24.02 Current Service				
Staff Hours	$11,760	$47,040	$58,800	595.60
Planning Software	$4,500	$18,000	$22,500	
44.25.01 T.I.P.				
Staff Hours	$1,395	$5,578	$6,973	64.00
44.26.12 Coordination of Non- Emergency Human Service Transportation				
Staff Hours	$9,261	$37,043	$46,304	460.00
TOTAL	**$52,924**	**$211,694**	**$264,618**	**2,219.60**

ALLOCATION OF COSTS

Expenditures identified include direct costs, benefits at the rate of 73% of direct salary or wages, and indirect costs at the rate of 11% of direct salary or wages.

Federal Transit Administration Section 5303 funding is available at an 80% reimbursement rate, meaning the local to FTA funding ratio for all categories is 20% local, 80% federal.