

Date:	February 24, 2026
To:	Josh Smith, City of Prineville
From:	Joe Bessman, PE
Project Reference No.:	2131
Project Name:	Iron Horse Tract II Subdivision



This memorandum provides the formal Transportation Impact Analysis for the proposed 45-unit single-family detached residential units proposed south of Barnes Butte Elementary School within the boundary of the original Brooks Resources Iron Horse property. This report follows submittal of the scoping materials. The proposed subdivision seeks access from Iron Horse Drive with a looped local street connection situated in alignment with the school access. Figure 1 illustrates the location of the site for context, and Figure 2 presents the preliminary subdivision plan.

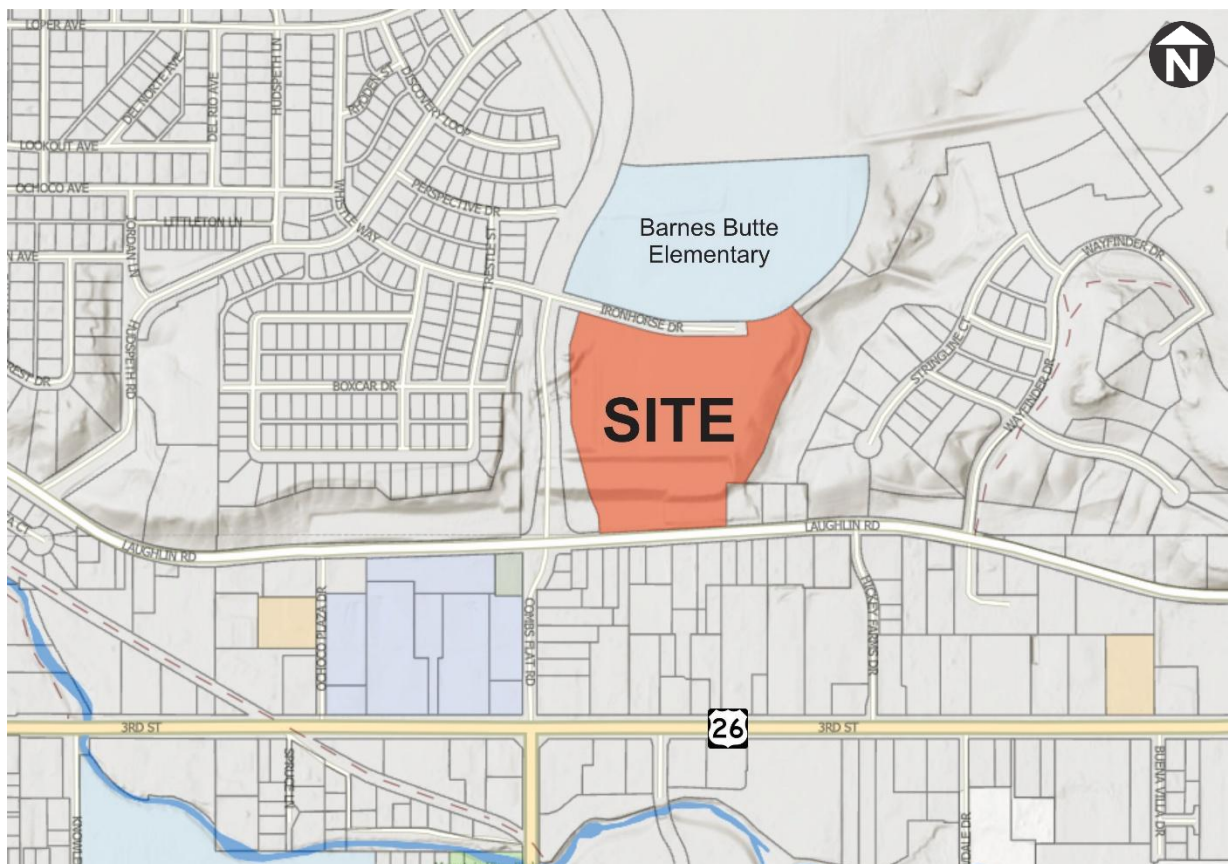


Figure 1. Site Vicinity Map. Image Source: gis.crookcountyor.gov/

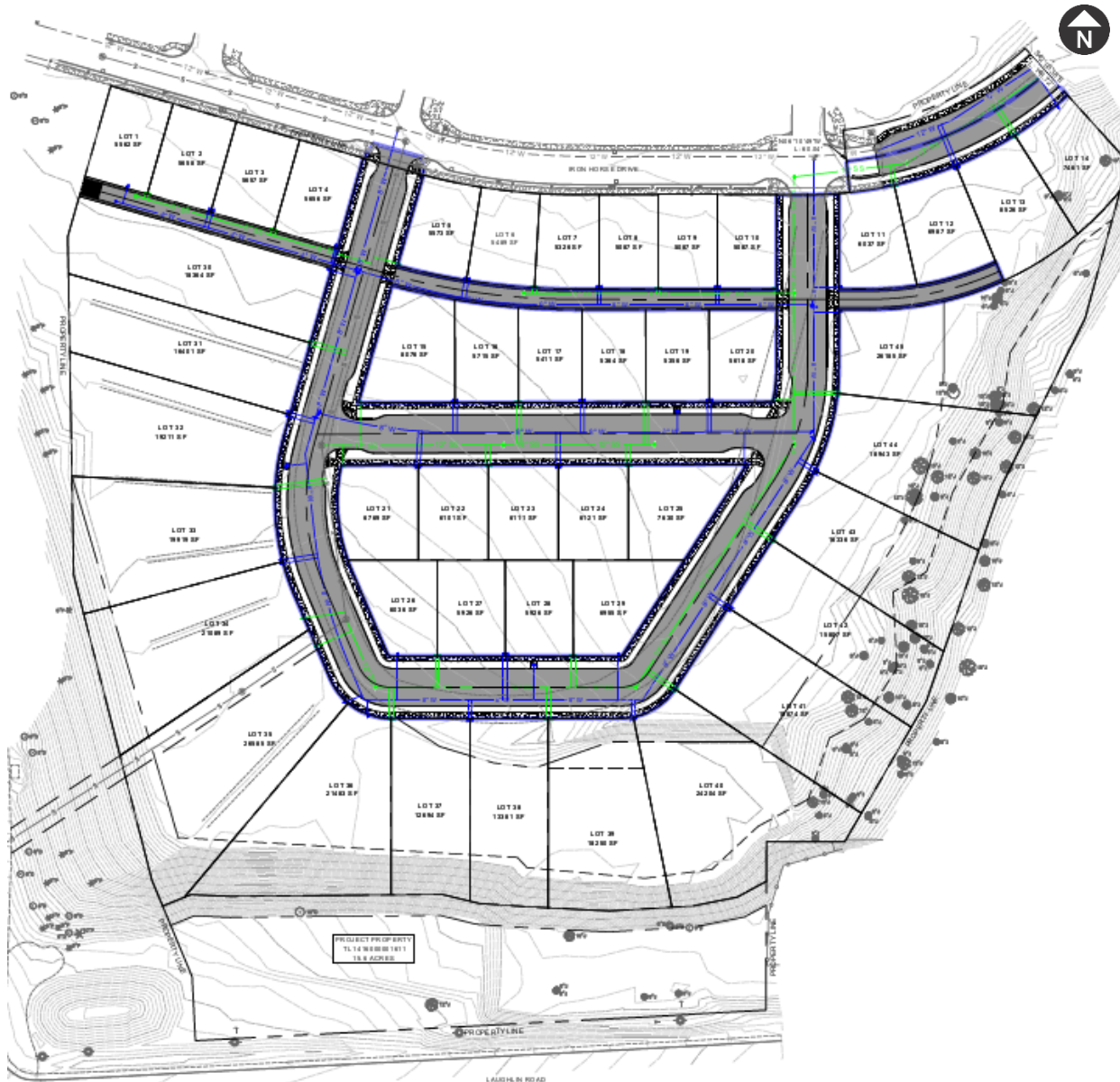


Figure 2. Preliminary Site Plan. Source: Ashley & Vance, November 2025.

IRONHORSE CONTEXT

The Iron Horse site in Prineville was originally an over 1,100 acre cattle ranch that included the Hudspeth Ranch. The property was acquired in 2005 by Brooks Resources, developing a master-planned mixed-use community that was renamed as IronHorse in recognition of the ranching and City-owned railroad. The project was envisioned as a livable, sustainable community with neighborhood trails and open space. Development began in 2007, but was slowed by the recession. The overall master plan was updated in 2013 (see Figure 3) to explore concepts considering an open or [realigned] piped canal system.

In 2016 the City and Brooks Resources negotiated the sale of a significant northern portion of the site (approximately 460 acres) located around Barnes Butte, which was subsequently developed into a system

of paved and single-track recreation trails. The City recently completed the Combs Flat Road extension north to Peters Road, forming a new loop system around the northeast portion of the City.

Within all of the prior plans the development of the subject property was envisioned for residential development with the same looped road system as shown in the current proposal, as shown in Figure 4.

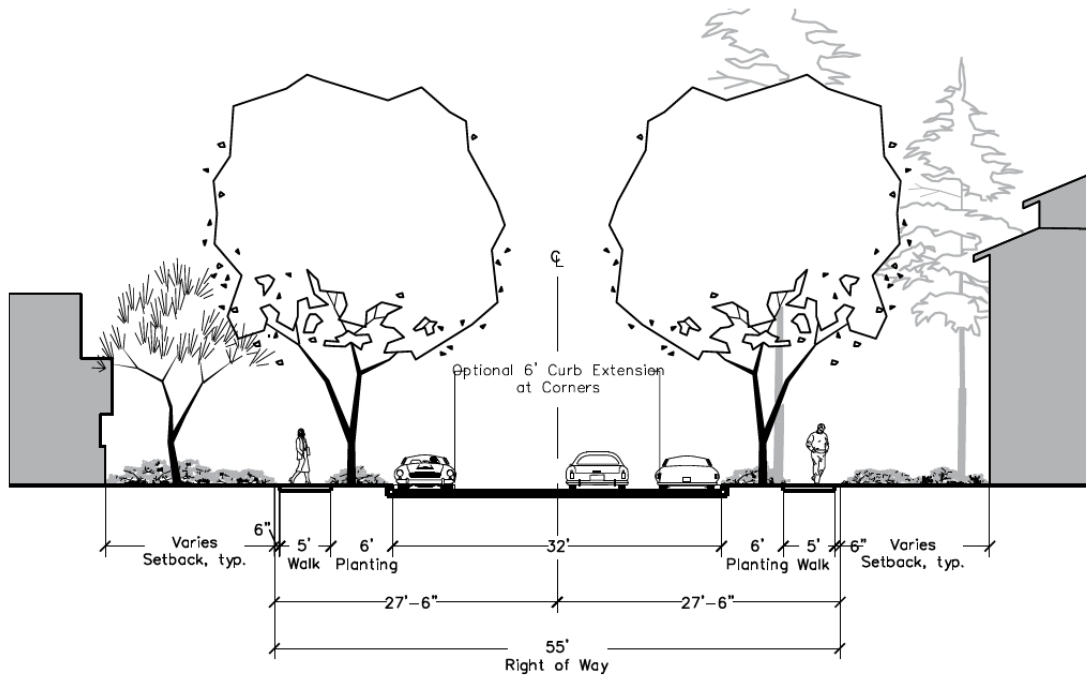


Figure 3. Original Iron Horse Boundary. Source: IronHorse 2013 Outline Development Plan Update.



Figure 4. Planned Street System. Source: IronHorse ODP, 2013 Update.

As shown in Figure 4, the originally planned streets through the subdivision include the “C-2 Neighborhood Street” with a 55-foot right-of-way (see Figure 5) and parking along one side of the road, connecting to the 60-foot Whistle Way right-of-way along the southern boundary of Barnes Butte Elementary School.



C -2 Neighborhood Street - Parking One Side, 55' ROW

no change per previous submittal

Figure 5. Originally planned section for the internal looped street. Source: IronHorse ODP, 2013 Update.

TRIP GENERATION ESTIMATES

Trip generation estimates for the proposed subdivision were prepared using standard national data within the Institute of Transportation Engineers (ITE) *Trip Generation, 12th Edition*, which was released in August 2025. The site is undeveloped, so there are no available credits for existing uses. The proposed subdivision was classified using ITE Land Use 210: *Single-Family Detached Housing*, as defined below:

ITE Land Use 210: Single-Family Detached Housing - *A single-family detached housing site includes any single-family detached home on an individual lot. A typical site surveyed is a suburban subdivision.*

Trip generation estimates for the overall weekday, weekday a.m. peak hour, and weekday p.m. peak hour are summarized in Table 1.

Table 1. Trip Generation Estimates (ITE 12th Edition)

Land Use	ITE Code	Units	Weekday Daily Trips	Weekday AM Peak Hour			Weekday PM Peak Hour		
				Total	In	Out	Total	In	Out
Single-Family Detached Housing	210	45 Units	409 <i>9.09/Unit</i>	31 <i>0.70/Unit</i>	9 <i>27%</i>	22 <i>73%</i>	42 <i>0.93/Unit</i>	26 <i>62%</i>	16 <i>38%</i>

As shown in Table 1, the proposed development is forecast to generate 409 weekday daily trips, including 42 trips during the weekday p.m. peak hour. As the subject property is located adjacent to a school and includes access aligned with the school, consideration of conditions during the school dismissal period (2:10 p.m.) was also considered, but no standard ITE trip rates for this afternoon time period were identified.

The City of Prineville Development Code Section 153.201 outlines the requirements for a Transportation Impact Analysis (TIA). In addition to staff discretion due to safety or operational concerns, Part (B) provides clear and objective criteria stating that a formal TIA is required for any development that generates more than 300 weekday daily trips or more than 20 weekday p.m. peak hour trips. As these levels of impact are exceeded, this scoping letter outlines the proposed study area for the TIA that will follow to address Part (C), which requires that “the applicant shall have a pre-scoping discussion with the City and/or other jurisdictional authorities to ensure that the proposed TIA scoping area and all required elements are included in the TIA.”

While a formal TIA is triggered by the application, City Code does not outline the required elements or study area for this report; Oregon Administrative Rule 660-008-0015, which requires that “a local government may only adopt Clear and Objective standards, conditions, and procedures regulating the development of needed housing on buildable land.” While the City’s adopted 2013 Transportation System Plan is not referenced within Code, Appendix 1 of the TSP describes the general requirements for a TIA, which includes the following:

- Study Area is defined as locations impacted by 25 or more weekday p.m. peak hour trips and locations adjacent to the site.
- The Study Time Periods are limited to the weekday p.m. peak hour, except for uses located near special generators (e.g., schools).

- Study periods should include existing conditions, future “without project” conditions, and future “with project” conditions.
- Operational analysis must reflect peak fifteen-minute conditions, with performance standards at unsignalized intersections require a LOS “E” or better, with a volume-to-capacity ratio of 1.0 or less and a 95th percentile queue within the available storage bay. These standards vary for other intersection control types (All-Way Stop: LOS “E”; Roundabout: v/c ratio 0.85; Traffic Signal: LOS “E”, v/c ratio 0.90, and adequate queue storage bay)

To address these criteria, additional site characteristics information was reviewed.

ESTIMATED TRIP DISTRIBUTION AND ASSIGNMENT

Trip distribution estimates were prepared for the site to identify the likely travel routes from the subdivision onto the City’s public street system. Based on historical trends (prior to the Combs Flat Road – Peters Road extension) and the location of area destinations, the majority of trips from the subdivision are expected to travel south toward the 3rd Street (US 26) corridor. Figure 6 illustrates the estimated trip distribution pattern using available historical traffic volumes and also indicates the anticipated trip impact at the nearby intersections.

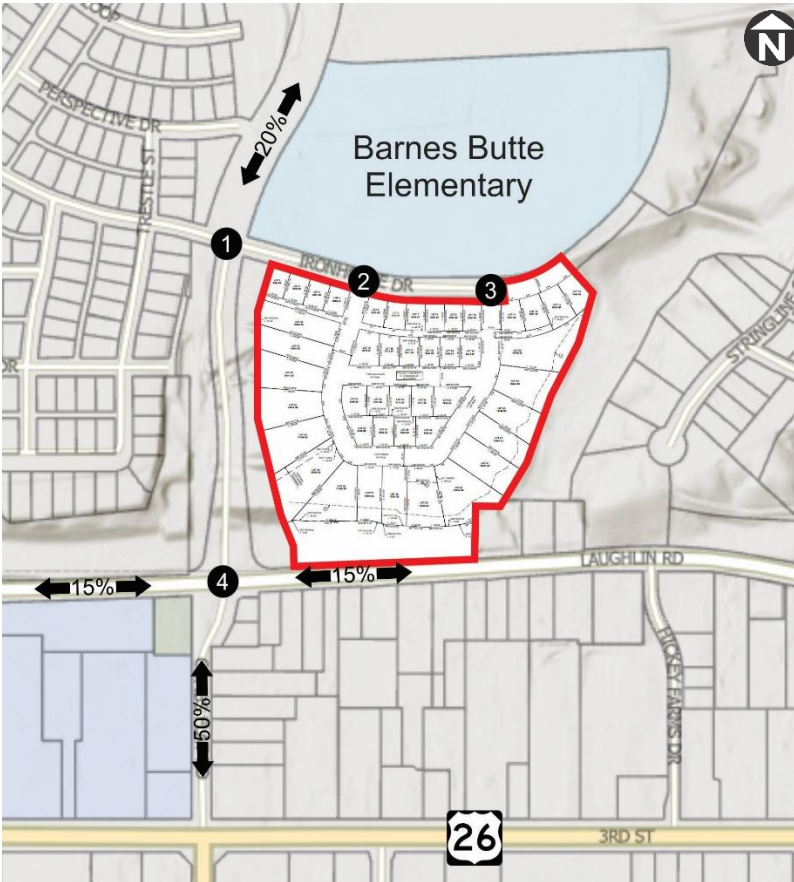
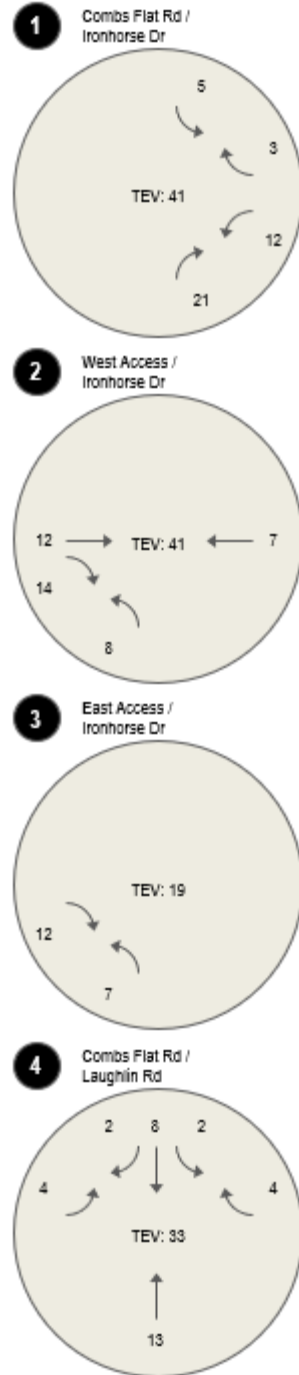


Figure 6. Estimated Trip Distribution and Assignment, Weekday PM Peak Hour
 TEV: Total Entering Vehicles



Based on the trip assignment within Figure 6, all four of the locations shown will be included as “Study Intersections” for the purposes of this Transportation Impact Analysis, as the impact at each of the off-site locations shown exceeds 25 or more weekday p.m. peak hour trips.

ROADWAY SECTIONS

The proposed roadway sections are included within the Ashley & Vance civil plans. These plans indicate that internal streets will deviate from the sections contemplated within the Outline Development Plan and instead conform to City of Prineville standards, with a 36-foot pavement section on the internal street (see Figure 7). This is a modification from prior phases that had included a 30-foot street width, and will better support on-street parking, allowing parking on both sides of the street. As a means of avoiding backing maneuvers onto Iron Horse Drive, a 15-foot paved alley is proposed and will include one-foot concrete (mountable) curbs within a 20-foot ROW. Discussions with the City fire department have indicated that this would not serve as a fire access (which would occur from Ironhorse Drive), instead only providing residential access to the abutting units opposite the school. Five-foot sidewalk and six-foot planter strip widths are also retained from prior IronHorse phases.

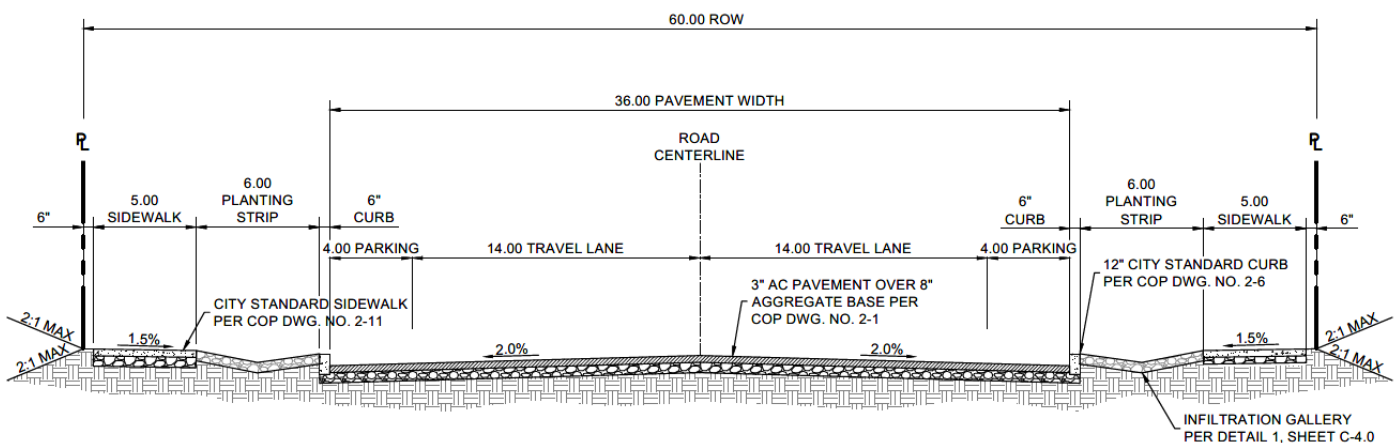


Figure 7. Neighborhood Street (Local Residential Street). Source: Ashley & Vance Engineering.

INTERSECTION SIGHT DISTANCE

Intersection Sight Distance

The proposed residential subdivision will include two street connections to Ironhorse Drive, with these new connection points directly aligned with the school accesses. The western school access is designated as an exit only, and the eastern connection is already stubbed in anticipation of the street extension. Intersection sight distance information and requirements are based on the standard reference *A Policy on Geometric Design of Highways and Streets, 7th Edition* published by the American Association of State Highway and Transportation Officials (AASHTO) in 2018, commonly referred to as the *Green Book*. Intersection sight distance was field reviewed in February 2026.

Intersection Sight Triangles

For minor-street stop-control intersections, intersection sight triangles are based on guidance cited within Conditions B1 (left-turn from minor road) and B2 (right-turn from minor road) of the *Green Book*. All distances are measured from a vertex point located 14.5 feet from the major-road travel way along the center of the approaching travel lane, accounting for comfortable positioning distance from the travel way (6.5 feet) and the distance from the front of the vehicle to the driver eye (8.0 feet). The assumed eye

height is 3.5 feet above the departing road for passenger vehicles. The object height is also 3.5 feet above the major road, providing enough space on the approaching vehicle to recognize it.

A posted speed was not observe, but would be 20 miles per hour during school periods and 25 miles per hour outside of school hours. The statutory speed of 25 mph conservatively was applied. Figure 8 illustrates the recommended intersection sight distance measurements per AASHTO guidance.

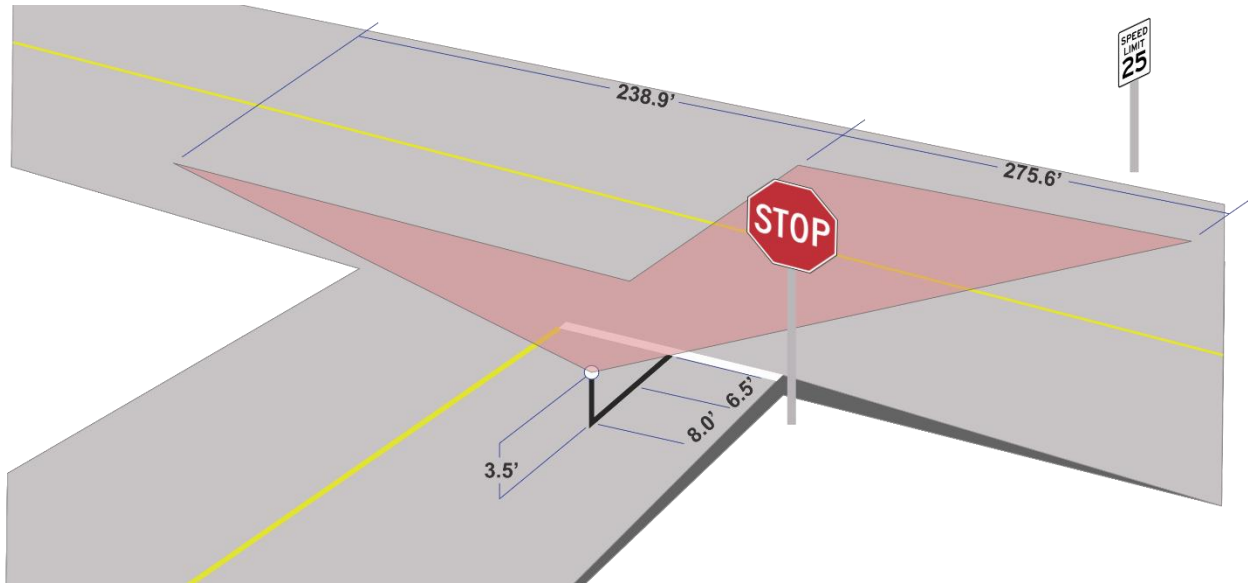


Figure 8. Recommended Intersection Sight Distance on Jeans Road.

Figures 9 through 14 illustrate the current sight lines onto Ironhorse Drive. These figures show that clear and unobstructed sight lines are present at each of the planned street connections. These figures also show that the access points were planned, with the eastern connection already stubbed and pedestrian crossing ramps present at the western street connection point. With construction of the subdivision it is recommended that striped crosswalks be provided across Ironhorse Drive on the east side both street connections to connect to the walkways present within the school site.

HISTORICAL AREA SAFETY

Area safety was not reviewed given the substantial modifications that have been made with the completion of the Combs Flat Road extension. The new connections have altered area travel patterns, speeds, and control devices. Review of historical data would only be reflective of conditions prior to these improvements.



Figure 9. View from the west access facing west on Ironhorse Drive. *Photo date: February 2026.*



Figure 10. View from the western street connection facing north toward Barnes Butte Elementary. *Photo date: February 2026.*



Figure 11. View from the western street connection facing east on Ironhorse Drive. Photo date: February 2026.



Figure 12. View from the eastern street connection facing west. Photo date: February 2026.



Figure 13. View from the eastern street connection facing north toward Barnes Butte Elementary School. *Photo date: February 2026.*



Figure 14. View from the eastern street connection facing east. *Photo date: February 2026.*

Intersection sight distance was reviewed at the planned street connections to ensure that clear sight lines will be provided with the subdivision. Intersection sight distance

Field review was conducted in February 2026, and showed that with the planned/stubbed streets aligned with existing school entrances there will be clear and unobstructed views available in either direction.

SCHOOL IMPACTS

As the proposed subdivision is located adjacent to Barnes Butte Elementary School, additional safety review was conducted to ensure that the system can operate safely and will not adversely impact the established school zone. Prior reviews conducted at the school have shown extended queuing and congestion in the area during peak school times.

Field review was conducted on February 12, 2026 to coincide with the school arrival/drop-off period. Figure 15 illustrates the layout of the school with the recent modifications for context.



Figure 15. Barnes Butte Elementary School Layout. *Photo date: February 12, 2026.*

Field review noted the following:

- The school contains two separate parking lots (western and southeasterly). The southeasterly lot has been designed for parent drop-off and pick-up, with an extended loop with sidewalk loading area. Parents enter the easternmost access from Ironhorse Drive, drop-off students in front of the

school, then loop back east to the central “Exit Only” to leave the school. All parents return through the Combs Flat/Ironhorse Drive intersection.

- Staff and buses utilize the western parking area (which is clearly posted for bus and staff parking only). This parking area allows buses to enter directly from Combs Flat, but all entering staff must enter from Ironhorse Drive. Buses and staff may exit onto Combs Flat Road.
- A crossing guard was present at the Whistle Way/Combs Flat Road intersection during the morning period, and pushbutton-activated flashing Rapid Rectangular Flashing Beacons have been installed to increase crossing visibility.
- The intersection of Combs Flat Road/Whistle Way – Ironhorse Drive is stop-sign controlled on the east-west approaches, with traffic on Combs Flat Road remaining uncontrolled. Northbound Combs Flat Road traffic is ascending a steep grade to reach the intersection, which limits the available sight lines for the minor-street traffic. Supplemental “Cross Traffic Does Not Stop” signage is in place below the stop sign.
- With the current configuration, all entering and exiting parents, some entering buses, and all entering staff must travel through the Combs Flat Road/Ironhorse Drive intersection, placing a high demand on the stop-sign controlled westbound approach until the 7:50 school start time.
- Field review noted that some parents were dropping off students within the staff parking area as a means of avoiding the queuing and congestion.
- Traffic flows at Ironhorse Drive distributed approximately 25% toward the north, 15% toward the south, and 60% toward the south, closely mimicking the estimated distribution patterns.

Figure 16 illustrates the overall staff, bus, parent, and walking routes showing the high overlap at the intersection. Traffic exiting the campus generally has to yield to entering traffic, resulting in long queuing and delays on the westbound approach (and to a lesser degree on the eastbound approach).



Figure 16. Access and Circulation Routes surrounding Barnes Butte Elementary School.

Potential measures that could be implemented to reduce congestion at the school include the following:

- Reduce the consolidated outbound movements at Ironhorse Drive. Future planned street connections within the original ODP identify new streets connecting south to Laughlin Road and to new street connections north of the school. These planned streets will help better distribute traffic on the system, but there is no plans or known timing for the connections.
- The westbound Ironhorse Drive approach could be converted to right-out only (at least during the school peak periods). This would then require the majority of trips to make a U-turn at the roundabout before returning toward 3rd Street (US 26). This configuration would substantially improve the outbound capacity.
- Temporary internal connections could be provided between the drop-off and staff parking lot. These should not intermix with the bus loop, but could be permitted to exit through the staff parking area.
- The Combs Flat Road access could be modified to also allow staff to enter. This would have a negligible impact on congestion as staff generally arrives prior to the drop-off period.
- Broader shifts could occur to swap the location of the buses and the drop-off operations, as the bus parking area has two exits. Shifting staff parking into the southerly lot would allow parents to park and drop in the western lot.
- If drop-off traffic could use the Combs Flat Road staff/bus exit this could be converted to right-out only, requiring only short out-of-direction travel to the roundabout for U-turns and substantially increasing the outbound flow.

TRAFFIC COUNTS

Traffic counts were collected throughout the area in mid-February 2026, capturing the 7:00 to 9:00 a.m. period and the 1:30 to 6:00 p.m. period (to capture the 2:10 p.m. school dismissal and the 4:00 p.m. to 6:00 p.m. commute period). The February counts reflect typical weekday school conditions within this area. The traffic counts included a peak hour during the morning hours between 7:10 a.m. and 8:10 a.m., and during the afternoon from 1:30 to 2:30 p.m. at Ironhorse Drive (capturing the morning school drop-off and afternoon school pick-up periods) with a later peak observed in the afternoon at Laughlin Road. Peak morning and evening traffic volumes at the study intersections are shown in Figure 17. Notably, peak travel demands were higher during the morning peak hour adjacent to Barnes Butte Elementary School, but lower in the morning on the general transportation system at Laughlin Road.

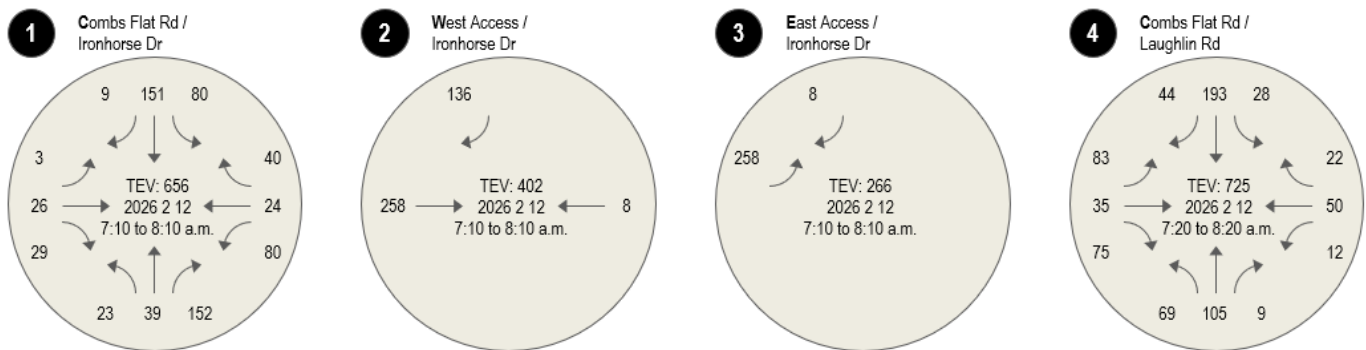


Figure 17a. Existing (2026) Peak Hour Traffic Volumes, Weekday AM Peak Hour

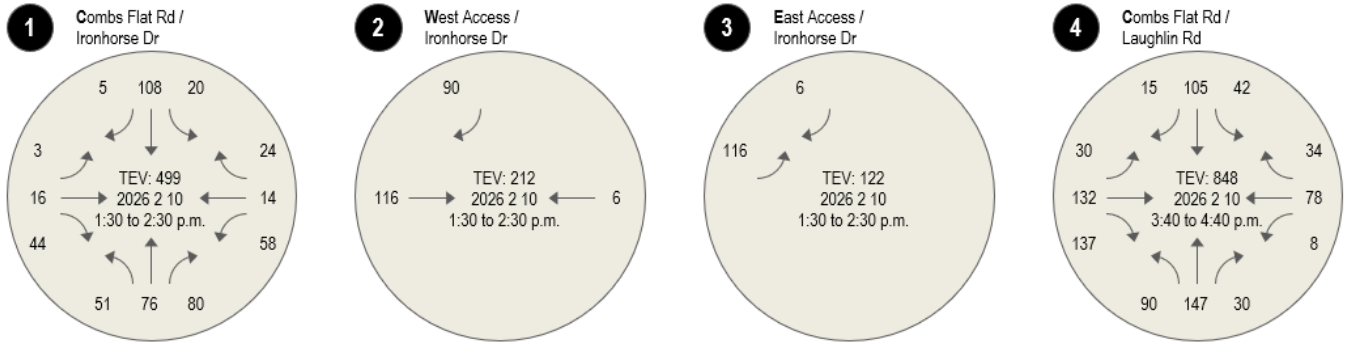


Figure 17b. Existing (2026) Peak Hour Traffic Volumes, Weekday PM Peak Hour

TRAVEL FORECASTS

Future travel forecasts within this area include the continued development of properties within the surrounding IronHorse lands, with lands to the north and west expected to continue to develop primarily with single-family housing. In addition, the Combs Flat Road corridor will continue to experience growth as it provides the overall connection throughout the northeast quadrant of the City, linking employment, recreational, and residential lands.

Within the City’s 2024 Transportation System Plan Update, the Future Conditions Technical Memorandum (TSP Volume 2, Appendix D) identified a citywide growth rate between 6.4% and 13.6% between 2022 and 2045, or approximately 0.3% to 0.5% annual growth. The TSP also cites a much higher planned population increase in Prineville of 25% over this same time period based on the Portland State University’s coordinated population forecasts, along with a 9% increase in employment, with most of the employment growth clustered near the airport and in the downtown core area. The intersection of Combs Flat Road and Laughlin Road was not specifically included within the TSP, but the TSP did include an assessment of the 3rd Street/Combs Flat Road intersection as shown in Figure 18.

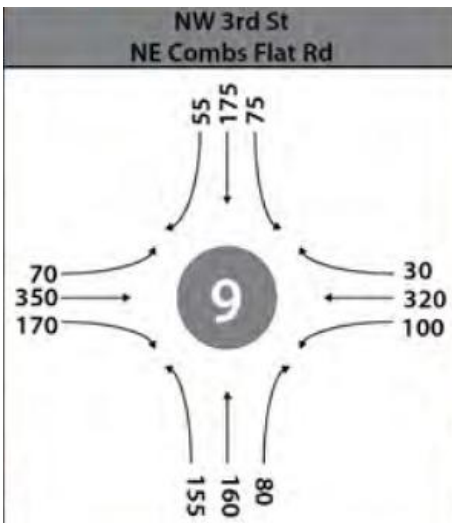


Figure 18a. Year 2022 Traffic Volume, Weekday PM Peak Hour. Source: Prineville TSP Update, 2025.

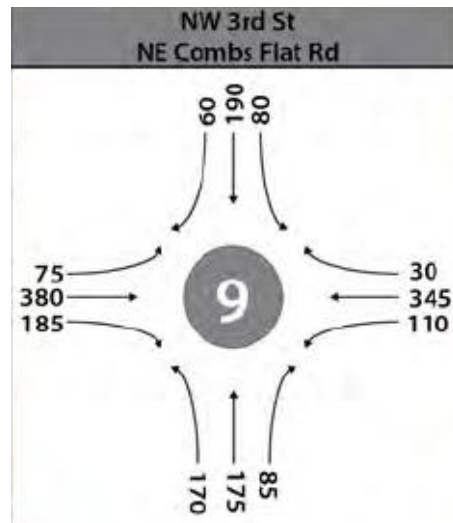


Figure 18b. Future 2045 Travel Projection, Weekday PM Peak Hour. Source: Prineville TSP Update, 2025.

As shown in Figure 18, even with the extension of Combs Flat Road, numerous buildable lots within Iron Horse, and the adjacent development potential within the former Ochoco Mill site to the south, the 3rd Street/Combs Flat Road intersection was shown to only experience an eight percent overall traffic increase, or compounding annual growth of 0.3 percent.

Since the preparation of the TSP the Combs Flat Road extension has been completed, and travel projections can now be better calibrated to assess the travel shift between Main Street and Combs Flat Road. Using the existing traffic counts as a baseline, future travel forecasts were prepared through assessment of 3% annual growth, which is more reflective of the development potential within this area. With the application of this growth rate that is 10 times higher than the overall TSP projections it was assumed that this projection would readily account for the numerous planned/approved development projects contemplated within the surrounding area, which will largely occur as new homes are built and occupied.

Based on the limited number of residential units, it was assumed that build-out of the proposed IronHorse subdivision could occur by 2030. Accordingly, this TIA assesses existing conditions (during the weekday morning and afternoon/evening peak hours) and conditions in 2030 with and without the proposed residential subdivision.

OPERATIONAL ANALYSIS

An operational analysis was prepared using the Highway Capacity Manual analysis methodology. All traffic conditions within this report reflect peak fifteen-minute conditions. With the proximity of the site to Barnes Butte Elementary School there is substantial peaking that occurs at the school arrival and dismissal periods, as separately discussed. This analysis conservatively assumes that the peak subdivision trip rates shown within the trip generation table coincide with the peak [afternoon] hour on the transportation system; afternoon trip generation rates for a residential subdivision are generally lower than during the commute peak. The results of the operational analysis are summarized in Tables 2 and 3.

Table 2. Summary of Intersection Operational Analysis, Weekday AM Peak Hour

Intersection	Performance Standard	LOS	Delay (s)	v/c Ratio	95 th % Queue	Acceptable?
Existing Traffic Conditions						
Combs Flat/ Ironhorse Dr	<i>Two-Way Stop Control LOS E v/c <1.0</i>	EB: LOS C WB: LOS F	EB: 18.0 s WB: 51.0 s	EB: 0.25 WB: 0.79	EB: 25 ft WB: 175 ft	No
Ironhorse Dr/ West Access		SB: LOS A	SB: 9.3 s	SB: 0.20	SB: 25 ft	Yes
Ironhorse Dr/ East Access		SB: LOS A	SB: n/a	SB: n/a	SB: n/a	Yes
Combs Flat/ Laughlin Rd	<i>All-Way Stop LOS E</i>	Overall: B EB: LOS B WB: LOS B NB: LOS B SB: LOS C	Overall: 13.2 s EB: 13.3 s WB: 10.8 s NB: 11.3 s SB: 15.3 s	EB: 0.43 WB: 0.20 NB: 0.27 SB: 0.55	EB: 75 ft WB: 25 ft NB: 50 ft SB: 100 ft	Yes
Future No-Build Traffic Conditions						
Combs Flat/ Ironhorse Dr	<i>Two-Way Stop Control LOS E v/c <1.0</i>	EB: LOS C WB: LOS F	EB: 21.4 s WB: >100 s	EB: 0.32 WB: 1.09	EB: 50 ft WB: 300 ft	No
Ironhorse Dr/ West Access		SB: LOS A	SB: 9.4 s	SB: 0.23	SB: 25 ft	Yes
Ironhorse Dr/ East Access		SB: LOS A	SB: n/a	SB: n/a	SB: n/a	Yes
Combs Flat/ Laughlin Rd	<i>All-Way Stop LOS E</i>	Overall: C EB: LOS C WB: LOS B NB: LOS B SB: LOS C	Overall: 15.9 s EB: 15.8 s WB: 11.9 s NB: 12.4 s SB: 19.6 s	EB: 0.51 WB: 0.24 NB: 0.33 SB: 0.65	EB: 75 ft WB: 25 ft NB: 50 ft SB: 125 ft	Yes
Future With Project Traffic Conditions						
Combs Flat/ Ironhorse Dr	<i>Two-Way Stop Control LOS E v/c <1.0</i>	EB: LOS C WB: LOS F	EB: 22.5 s WB: >100 s	EB: 0.34 WB: 1.29	EB: 50 ft WB: 400 ft	No
Ironhorse Dr/ West Access		SB: LOS A NB: LOS C	SB: 9.3 s NB: 17.5 s	SB: 0.20 NB: 0.08	SB: 25 ft NB: 25 ft	Yes
Ironhorse Dr/ East Access		SB: LOS A NB: LOS C	SB: 8.4 s NB: 24.9 s	SB: 0.01 NB: 0.06	SB: 25 ft NB: 25 ft	Yes
Combs Flat/ Laughlin Rd	<i>All-Way Stop LOS E</i>	Overall: C EB: LOS C WB: LOS B NB: LOS B SB: LOS C	Overall: 16.9 s EB: 16.3 s WB: 12.2 s NB: 12.7 s SB: 21.5 s	EB: 0.52 WB: 0.25 NB: 0.35 SB: 0.69	EB: 75 ft WB: 25 ft NB: 50 ft SB: 150 ft	Yes

Table 3. Summary of Intersection Operational Analysis, Weekday PM Peak Hour

Intersection	Performance Standard	LOS	Delay (s)	v/c Ratio	95 th % Queue	Acceptable?
Existing Traffic Conditions						
Combs Flat/ Ironhorse Dr	<i>Two-Way Stop Control LOS E v/c <1.0</i>	EB: LOS B WB: LOS C	EB: 11.8 s WB: 18.2 s	EB: 0.50 WB: 0.34	EB: 25 ft WB: 50 ft	Yes
Ironhorse Dr/ West Access		SB: LOS A	SB: 8.9 s	SB: 0.13	SB: 25 ft	Yes
Ironhorse Dr/ East Access		SB: LOS A	SB: n/a	SB: n/a	SB: n/a	Yes
Combs Flat/ Laughlin Rd	<i>All-Way Stop LOS E</i>	Overall: B EB: LOS B WB: LOS B NB: LOS B SB: LOS B	Overall: 11.7 s EB: 13.2 s WB: 10.3 s NB: 11.4 s SB: 10.7 s	EB: 0.49 WB: 0.22 NB: 0.33 SB: 0.23	EB: 75 ft WB: 25 ft NB: 50 ft SB: 25 ft	Yes
Future No-Build Traffic Conditions						
Combs Flat/ Ironhorse Dr	<i>Two-Way Stop Control LOS E v/c <1.0</i>	EB: LOS B WB: LOS C	EB: 12.5 s WB: 22.5 s	EB: 0.18 WB: 0.44	EB: 25 ft WB: 75 ft	Yes
Ironhorse Dr/ West Access		SB: LOS A	SB: 8.9 s	SB: 0.14	SB: 25 ft	Yes
Ironhorse Dr/ East Access		SB: LOS A	SB: n/a	SB: n/a	SB: n/a	Yes
Combs Flat/ Laughlin Rd	<i>All-Way Stop LOS E</i>	Overall: B EB: LOS C WB: LOS B NB: LOS B SB: LOS B	Overall: 13.4 s EB: 15.9 s WB: 11.2 s NB: 12.6 s SB: 11.5 s	EB: 0.58 WB: 0.26 NB: 0.39 SB: 0.28	EB: 100 ft WB: 25 ft NB: 50 ft SB: 50 ft	Yes
Future With Project Traffic Conditions						
Combs Flat/ Ironhorse Dr	<i>Two-Way Stop Control LOS E v/c <1.0</i>	EB: LOS B WB: LOS D	EB: 12.8 s WB: 27.0 s	EB: 0.19 WB: 0.53	EB: 25 ft WB: 75 ft	Yes
Ironhorse Dr/ West Access		SB: LOS A NB: LOS C	SB: 9.0 s NB: 11.7 s	SB: 0.14 NB: 0.02	SB: 25 ft NB: 25 ft	Yes
Ironhorse Dr/ East Access		SB: LOS A NB: LOS B	SB: 8.3 s NB: 12.2 s	SB: 0.01 NB: 0.02	SB: 25 ft NB: 25 ft	Yes
Combs Flat/ Laughlin Rd	<i>All-Way Stop LOS E</i>	Overall: B EB: LOS C WB: LOS B NB: LOS B SB: LOS B	Overall: 13.9 s EB: 16.7 s WB: 11.6 s NB: 13.2 s SB: 12.0 s	EB: 0.60 WB: 0.27 NB: 0.43 SB: 0.30	EB: 100 ft WB: 50 ft NB: 75 ft SB: 50 ft	Yes

As shown in Tables 2 and 3, with exception of the westbound Ironhorse Drive approach onto Combs Flat Road during the school arrival period all of the intersections operate acceptably. The currently failing conditions at the school's primary parent drop-off exit point would experience some additional impacts with the added trips from the subdivision, but these delays only occur throughout a 20-minute period.

TRANSPORTATION MITIGATION OPTIONS

Capacity mitigation adjacent to an elementary school is secondary to maintaining a safe system. As included in the traffic counts, there were 24 pedestrian crossings of Combs Flat Road during the morning drop-off period and 47 crossings in the afternoon period. School conditions vary seasonally with the light and weather, so these numbers could be even higher during the fall and spring. Conversely, during inclement weather traffic conditions could be more congested as increased drop-offs occur.

There are several potential mitigation options, which vary between system capacity improvements and management strategies. These are outlined below:

- As summarized above, the addition of new street connections to reduce the loading of all school trips onto the stop-controlled Ironhorse Drive approach would allow the system to operate much better. The timing of new street connections is reliant on surrounding development and there are no specific plans that would build these streets near-term.
- The lower impacts during the afternoon period reflect more dispersed school departure times. Staggering the morning drop-off period by grade level(s) could substantially reduce the school congestion. Because some parents have multiple children in different grade levels and buses would still be combined with all grade levels, this type of strategy may require some type of indoor before-school assembly/play space while students wait for the start bell.
- Physical changes to the campus could be provided to allow parents the use of the Combs Flat Road access point. This would need to be more closely reviewed as it would introduce new bus and pedestrian conflict points within the school campus.
- Modifications could be provided at the Combs Flat Road/Ironhorse Drive intersection. These could include right-turn only movement restrictions on Ironhorse Drive, requiring that all trips use the roundabout to return to 3rd Street. This would reduce the westbound delays but would also increase conflicts with the northern pedestrian crossing.
- The Combs Flat Road/Ironhorse Drive intersection could be converted into an all-way stop as an interim treatment until additional street connections are available to the campus. The primary drawbacks would be the resultant queuing on the steep section of Combs Flat Road that could be more problematic in the winter, requiring increased maintenance priority.
- The Whistle Way vehicular connection to Combs Flat Road could be eliminated, requiring that neighborhood traffic instead route toward Hudspeth to access the campus. This would convert the Ironhorse Drive intersection into a simpler three-legged “T” intersection, substantially increasing its capacity as westbound motorists would not have to yield to eastbound traffic.
- Construction of a roundabout or traffic signal at the Ironhorse Drive intersection could be pursued. This would be a costly treatment serving only a limited duration event, and is beyond any nexus for the proposed subdivision.

NEXT STEPS

To resolve the current school congestion and ensure that a safe, efficient, and interconnected multimodal system is available throughout this area, it is recommended that these mitigation strategies be reviewed with City and Barnes Butte Elementary School staff. Regardless of whether or not the previously planned residential subdivision is built the congestion at the Combs Flat/Ironhorse Drive intersection should be addressed as delays exceed City standards and can lead to increasingly aggressive maneuvers within the school zone.

Our team will reach out to identify potential meeting times to further discuss these findings with staff. Thank you for the continued support and coordination, if you have any questions in the interim I can be reached at (503) 997-4473 or via email at joe@transightconsulting.com.

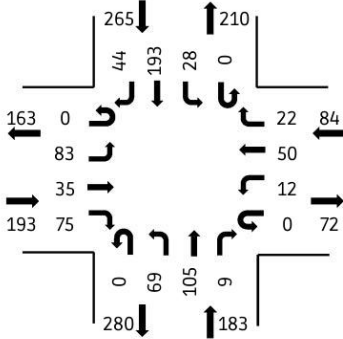
ATTACHMENTS

- Traffic Count Worksheets
- LOS Analysis Worksheets

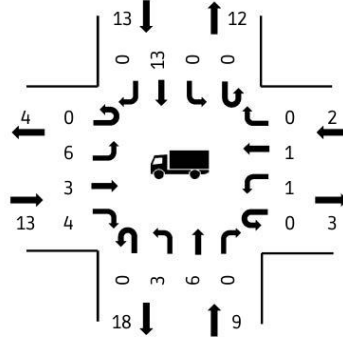


Location: NE Combs Flat Rd & NE Laughlin Rd
 Date: 2026-02-12
 Peak Hour Start: 07:20 AM
 Peak 15 Minute Start: 07:35 AM
 Peak Hour Factor: 0.73

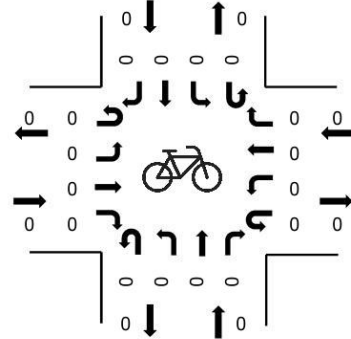
Motorized Vehicles



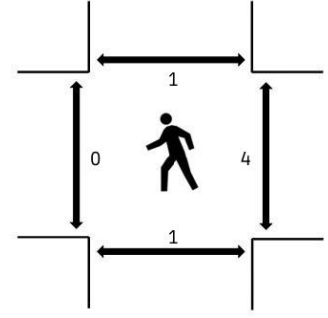
Heavy Vehicles



Bikes



Pedestrians



(peak hour)

Percent Heavy Vehicles

Northbound (NE Combs Flat Rd)					Southbound (NE Combs Flat Rd)					Eastbound (NE Laughlin Rd)					Westbound (NE Laughlin Rd)				
Left	Thru	Right	U-turn	RTOR	Left	Thru	Right	U-turn	RTOR	Left	Thru	Right	U-turn	RTOR	Left	Thru	Right	U-turn	RTOR
4	6	0	0	0	0	7	0	0	0	7	9	5	0	0	8	2	0	0	0

All Vehicle Volumes

Time	NB (NE Combs Flat Rd)					SB (NE Combs Flat Rd)					EB (NE Laughlin Rd)					WB (NE Laughlin Rd)					Totals	
	Left	Thru	Right	U-turn	RTOR	Left	Thru	Right	U-turn	RTOR	Left	Thru	Right	U-turn	RTOR	Left	Thru	Right	U-turn	RTOR	15min	1hr
07:00:00 AM	5	4	0	0	0	1	4	1	0	0	3	2	4	0	0	0	5	2	0	0		
07:05:00 AM	2	9	0	0	0	1	6	1	0	0	3	0	4	0	0	1	6	1	0	0		
07:10:00 AM	4	8	0	0	0	3	10	0	0	0	6	0	3	0	0	0	2	1	0	0	102	
07:15:00 AM	3	7	0	0	0	3	6	0	0	0	3	2	3	0	0	0	3	1	0	0	102	
07:20:00 AM	5	8	0	0	0	2	4	1	0	0	12	1	5	0	0	0	4	1	0	0	111	
07:25:00 AM	6	10	0	0	0	3	18	1	0	0	16	2	6	0	0	3	3	3	0	0	145	
07:30:00 AM	2	10	0	0	0	4	19	5	0	0	9	2	6	0	0	3	1	2	0	0	177	
07:35:00 AM	4	17	2	0	0	3	24	2	0	0	16	4	6	0	0	1	3	2	0	0	218	
07:40:00 AM	10	10	2	0	0	1	18	7	0	0	8	3	10	0	0	1	6	5	0	0	228	
07:45:00 AM	7	9	0	0	0	5	27	11	0	0	9	3	2	0	0	2	8	1	0	0	249	
07:50:00 AM	4	8	0	0	0	4	24	6	0	0	3	5	5	0	0	0	5	0	0	0	229	
07:55:00 AM	7	4	1	0	0	0	12	5	0	0	2	2	11	0	0	1	9	0	0	0	202	677
08:00:00 AM	6	8	0	0	0	2	17	2	0	0	3	3	5	0	0	1	1	2	0	0	168	696
08:05:00 AM	6	10	1	0	0	1	6	3	0	0	1	5	7	0	0	0	5	2	0	0	151	709
08:10:00 AM	6	6	2	0	0	2	10	1	0	0	2	3	5	0	0	0	3	2	0	0	139	714
08:15:00 AM	6	5	1	0	0	1	14	0	0	0	2	2	7	0	0	0	2	2	0	0	131	725
08:20:00 AM	3	2	0	0	0	1	11	3	0	0	0	4	4	0	0	0	4	1	0	0	117	715
08:25:00 AM	6	6	0	0	0	1	5	0	0	0	0	3	4	0	0	1	6	2	0	0	109	678
08:30:00 AM	4	9	0	0	0	4	16	1	0	0	0	2	10	0	0	0	2	1	0	0	116	664
08:35:00 AM	5	3	3	0	0	1	19	1	0	0	5	3	5	0	0	1	2	1	0	0	132	629
08:40:00 AM	3	9	3	0	0	1	11	1	0	0	1	1	4	0	0	2	3	0	0	0	137	587
08:45:00 AM	5	8	1	0	0	1	13	1	0	0	1	5	5	0	0	3	4	1	0	0	136	551
08:50:00 AM	9	5	2	0	0	2	9	1	0	0	0	5	6	0	0	0	3	0	0	0	129	529
08:55:00 AM	14	13	1	0	0	1	8	0	0	0	0	3	4	0	0	0	3	1	0	0	138	523

Car Volumes

Time	NB (NE Combs Flat Rd)					SB (NE Combs Flat Rd)					EB (NE Laughlin Rd)					WB (NE Laughlin Rd)					Totals	
	Left	Thru	Right	U-turn	RTOR	Left	Thru	Right	U-turn	RTOR	Left	Thru	Right	U-turn	RTOR	Left	Thru	Right	U-turn	RTOR	15min	1hr
07:00:00 AM	5	4	0	0	0	1	4	1	0	0	3	1	4	0	0	0	4	2	0	0		
07:05:00 AM	2	9	0	0	0	1	5	1	0	0	3	0	3	0	0	1	6	1	0	0		
07:10:00 AM	4	8	0	0	0	3	10	0	0	0	6	0	2	0	0	0	2	1	0	0	97	
07:15:00 AM	3	7	0	0	0	3	5	0	0	0	3	2	3	0	0	0	3	1	0	0	98	
07:20:00 AM	5	6	0	0	0	2	4	1	0	0	12	1	4	0	0	0	4	1	0	0	106	
07:25:00 AM	6	9	0	0	0	3	18	1	0	0	11	1	5	0	0	2	3	3	0	0	132	
07:30:00 AM	2	8	0	0	0	4	12	5	0	0	8	2	6	0	0	3	1	2	0	0	155	
07:35:00 AM	4	16	2	0	0	3	21	2	0	0	16	4	6	0	0	1	3	2	0	0	195	
07:40:00 AM	8	10	2	0	0	1	18	7	0	0	8	3	10	0	0	1	6	5	0	0	212	
07:45:00 AM	6	9	0	0	0	5	27	11	0	0	9	3	2	0	0	2	7	1	0	0	241	
07:50:00 AM	4	8	0	0	0	4	24	6	0	0	3	4	5	0	0	0	5	0	0	0	224	
07:55:00 AM	7	4	1	0	0	0	12	5	0	0	2	2	10	0	0	1	9	0	0	0	198	639
08:00:00 AM	6	8	0	0	0	2	17	2	0	0	3	3	5	0	0	1	1	2	0	0	166	660
08:05:00 AM	6	10	1	0	0	1	6	3	0	0	1	5	6	0	0	0	5	2	0	0	149	674
08:10:00 AM	6	6	2	0	0	2	8	1	0	0	2	3	5	0	0	0	3	2	0	0	136	678
08:15:00 AM	6	5	1	0	0	1	13	0	0	0	2	1	7	0	0	0	2	2	0	0	126	688
08:20:00 AM	3	2	0	0	0	1	11	3	0	0	0	4	4	0	0	0	4	1	0	0	113	681
08:25:00 AM	6	5	0	0	0	1	5	0	0	0	0	3	4	0	0	1	5	2	0	0	105	651
08:30:00 AM	4	9	0	0	0	4	14	1	0	0	0	2	9	0	0	0	2	1	0	0	111	644
08:35:00 AM	5	3	3	0	0	1	19	1	0	0	5	3	3	0	0	0	2	1	0	0	124	610
08:40:00 AM	3	9	3	0	0	1	11	1	0	0	1	1	4	0	0	2	3	0	0	0	131	570
08:45:00 AM	4	8	1	0	0	1	13	1	0	0	1	5	5	0	0	3	4	1	0	0	132	535
08:50:00 AM	9	5	2	0	0	2	9	1	0	0	0	5	5	0	0	0	3	0	0	0	127	513
08:55:00 AM	14	12	1	0	0	1	8	0	0	0	0	3	4	0	0	0	3	1	0	0	135	507

Truck Volumes

Time	NB (NE Combs Flat Rd)					SB (NE Combs Flat Rd)					EB (NE Laughlin Rd)					WB (NE Laughlin Rd)					Totals	
	Left	Thru	Right	U-turn	RTOR	Left	Thru	Right	U-turn	RTOR	Left	Thru	Right	U-turn	RTOR	Left	Thru	Right	U-turn	RTOR	15min	1hr
07:00:00 AM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0		
07:05:00 AM	0	0	0	0	0	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0		
07:10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	5	
07:15:00 AM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	4	
07:20:00 AM	0	2	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	5	
07:25:00 AM	0	1	0	0	0	0	0	0	0	0	5	1	1	0	0	1	0	0	0	0	13	
07:30:00 AM	0	2	0	0	0	0	7	0	0	0	1	0	0	0	0	0	0	0	0	0	22	
07:35:00 AM	0	1	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	23	
07:40:00 AM	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	16	
07:45:00 AM	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	8	
07:50:00 AM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	5	
07:55:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	4	38
08:00:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	36
08:05:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	2	35
08:10:00 AM	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	3	36
08:15:00 AM	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	5	37
08:20:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	34
08:25:00 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	4	27
08:30:00 AM	0	0	0	0	0	0	2	0	0	0	0	0	1	0	0	0	0	0	0	0	5	20
08:35:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	1	0	0	0	0	8	19
08:40:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	17
08:45:00 AM	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	16
08:50:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	2	16
08:55:00 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	16

Pedestrian Volumes

Time	Pedestrians				Totals	
	North	South	East	West	15min	1hr
07:00:00 AM	0	0	0	0		
07:05:00 AM	0	0	0	0		
07:10:00 AM	0	0	0	0	0	
07:15:00 AM	0	0	0	0	0	
07:20:00 AM	0	0	0	0	0	
07:25:00 AM	1	1	0	0	2	
07:30:00 AM	0	0	1	0	3	
07:35:00 AM	0	0	0	0	3	
07:40:00 AM	0	0	0	0	1	
07:45:00 AM	0	0	0	0	0	
07:50:00 AM	0	0	0	0	0	
07:55:00 AM	0	0	0	0	0	3
08:00:00 AM	0	0	0	0	0	3
08:05:00 AM	0	0	1	0	1	4
08:10:00 AM	0	0	0	0	1	4
08:15:00 AM	0	0	2	0	3	6
08:20:00 AM	0	0	0	1	3	7
08:25:00 AM	0	0	0	0	3	5
08:30:00 AM	0	0	0	0	1	4
08:35:00 AM	0	0	0	0	0	4
08:40:00 AM	0	0	0	0	0	4
08:45:00 AM	0	0	0	0	0	4
08:50:00 AM	0	0	0	0	0	4
08:55:00 AM	0	0	0	0	0	4

All Vehicle Volumes

Time	NB (NE Combs Flat Rd)					SB (NE Combs Flat Rd)					EB (NE Iron Horse Dr)					WB (NE Iron Horse Dr)					Totals	
	Left	Thru	Right	U-turn	RTOR	Left	Thru	Right	U-turn	RTOR	Left	Thru	Right	U-turn	RTOR	Left	Thru	Right	U-turn	RTOR	15min	1hr
07:00:00 AM	2	4	6	0	0	1	4	0	0	0	1	0	2	0	0	1	0	0	0	0		
07:05:00 AM	1	2	7	0	0	0	1	0	0	0	0	1	2	0	0	0	1	0	0	0		
07:10:00 AM	1	3	10	0	0	1	10	0	0	0	2	1	2	0	0	3	0	0	0	0	69	
07:15:00 AM	2	2	7	0	0	0	9	0	0	0	0	3	1	0	0	1	0	0	0	0	73	
07:20:00 AM	1	0	14	0	0	4	4	0	0	0	0	2	1	0	0	1	0	0	0	0	85	
07:25:00 AM	2	2	20	0	0	13	11	1	0	0	0	6	1	0	0	8	1	2	0	0	119	
07:30:00 AM	0	1	23	0	0	12	23	1	0	0	0	3	3	0	0	4	6	5	0	0	175	
07:35:00 AM	0	5	21	0	0	22	24	0	0	0	0	2	0	0	0	2	2	12	0	0	238	
07:40:00 AM	4	3	28	0	0	14	16	2	0	0	0	1	3	0	0	8	1	7	0	0	258	
07:45:00 AM	2	4	15	0	0	9	18	4	0	0	0	3	4	0	0	17	4	4	0	0	261	
07:50:00 AM	3	2	10	0	0	3	12	1	0	0	1	0	5	0	0	21	5	7	0	0	241	
07:55:00 AM	0	3	2	0	0	2	8	0	0	0	0	3	1	0	0	8	2	2	0	0	185	631
08:00:00 AM	2	5	1	0	0	0	8	0	0	0	0	2	5	0	0	3	2	0	0	0	129	638
08:05:00 AM	6	9	1	0	0	0	8	0	0	0	0	0	3	0	0	4	1	1	0	0	92	656
08:10:00 AM	2	4	4	0	0	0	10	0	0	0	0	0	4	0	0	1	0	0	0	0	86	648
08:15:00 AM	3	6	2	0	0	1	6	1	0	0	1	0	1	0	0	2	0	0	0	0	81	646
08:20:00 AM	4	1	1	0	0	0	8	0	0	0	0	0	6	0	0	2	1	0	0	0	71	642
08:25:00 AM	1	1	1	0	0	0	7	1	0	0	0	0	5	0	0	0	0	0	0	0	62	591
08:30:00 AM	3	4	0	0	0	0	10	0	0	0	0	0	4	0	0	2	0	0	0	0	62	533
08:35:00 AM	5	10	1	0	0	0	18	1	0	0	1	0	3	0	0	0	0	0	0	0	78	482
08:40:00 AM	0	5	1	0	0	0	11	0	0	0	0	0	4	0	0	2	0	0	0	0	85	418
08:45:00 AM	1	10	1	0	0	0	7	0	0	0	0	0	4	0	0	1	0	0	0	0	86	358
08:50:00 AM	1	5	0	0	0	0	5	0	0	0	0	0	3	0	0	1	0	0	0	0	62	303
08:55:00 AM	2	6	0	0	0	0	10	1	0	0	1	0	4	0	0	0	0	1	0	0	64	297

Car Volumes

Time	NB (NE Combs Flat Rd)					SB (NE Combs Flat Rd)					EB (NE Iron Horse Dr)					WB (NE Iron Horse Dr)					Totals	
	Left	Thru	Right	U-turn	RTOR	Left	Thru	Right	U-turn	RTOR	Left	Thru	Right	U-turn	RTOR	Left	Thru	Right	U-turn	RTOR	15min	1hr
07:00:00 AM	2	4	6	0	0	1	4	0	0	0	1	0	2	0	0	1	0	0	0	0		
07:05:00 AM	1	2	7	0	0	0	0	0	0	0	0	1	2	0	0	0	1	0	0	0		
07:10:00 AM	1	3	10	0	0	1	10	0	0	0	2	1	2	0	0	3	0	0	0	0	68	
07:15:00 AM	2	2	7	0	0	0	8	0	0	0	0	3	1	0	0	1	0	0	0	0	71	
07:20:00 AM	1	0	13	0	0	4	4	0	0	0	0	2	1	0	0	1	0	0	0	0	83	
07:25:00 AM	2	2	17	0	0	12	11	1	0	0	0	6	1	0	0	8	1	2	0	0	113	
07:30:00 AM	0	1	18	0	0	12	16	1	0	0	0	3	3	0	0	4	6	5	0	0	158	
07:35:00 AM	0	4	20	0	0	22	21	0	0	0	0	2	0	0	0	2	2	12	0	0	217	
07:40:00 AM	4	3	28	0	0	14	16	2	0	0	0	1	3	0	0	8	1	7	0	0	241	
07:45:00 AM	2	4	15	0	0	9	18	4	0	0	0	3	4	0	0	17	4	4	0	0	256	
07:50:00 AM	3	2	10	0	0	3	12	1	0	0	1	0	5	0	0	21	5	7	0	0	241	
07:55:00 AM	0	3	2	0	0	2	8	0	0	0	0	3	1	0	0	8	2	2	0	0	185	607
08:00:00 AM	2	5	1	0	0	0	8	0	0	0	0	2	5	0	0	3	2	0	0	0	129	614
08:05:00 AM	6	9	1	0	0	0	8	0	0	0	0	0	3	0	0	4	1	1	0	0	92	633
08:10:00 AM	2	4	4	0	0	0	9	0	0	0	0	0	3	0	0	1	0	0	0	0	84	623
08:15:00 AM	3	6	2	0	0	1	5	1	0	0	1	0	1	0	0	2	0	0	0	0	78	621
08:20:00 AM	4	1	1	0	0	0	8	0	0	0	0	0	6	0	0	2	1	0	0	0	68	618
08:25:00 AM	1	1	1	0	0	0	7	1	0	0	0	0	5	0	0	0	0	0	0	0	61	571
08:30:00 AM	3	3	0	0	0	0	9	0	0	0	0	0	3	0	0	2	0	0	0	0	59	522
08:35:00 AM	5	10	1	0	0	0	18	1	0	0	1	0	3	0	0	0	0	0	0	0	75	476
08:40:00 AM	0	5	1	0	0	0	11	0	0	0	0	0	4	0	0	2	0	0	0	0	82	412
08:45:00 AM	1	10	1	0	0	0	7	0	0	0	0	0	4	0	0	1	0	0	0	0	86	352
08:50:00 AM	1	5	0	0	0	0	5	0	0	0	0	0	3	0	0	1	0	0	0	0	62	297
08:55:00 AM	2	6	0	0	0	0	10	1	0	0	1	0	4	0	0	0	0	1	0	0	64	291

Truck Volumes

Time	NB (NE Combs Flat Rd)					SB (NE Combs Flat Rd)					EB (NE Iron Horse Dr)					WB (NE Iron Horse Dr)					Totals	
	Left	Thru	Right	U-turn	RTOR	Left	Thru	Right	U-turn	RTOR	Left	Thru	Right	U-turn	RTOR	Left	Thru	Right	U-turn	RTOR	15min	1hr
07:00:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
07:05:00 AM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0		
07:10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	
07:15:00 AM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	2	
07:20:00 AM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	
07:25:00 AM	0	0	3	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	
07:30:00 AM	0	0	5	0	0	0	7	0	0	0	0	0	0	0	0	0	0	0	0	0	17	
07:35:00 AM	0	1	1	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	21	
07:40:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	17	
07:45:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	
07:50:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
07:55:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	24
08:00:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	24
08:05:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	23
08:10:00 AM	0	0	0	0	0	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	2	25
08:15:00 AM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	3	25
08:20:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	24
08:25:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	20
08:30:00 AM	0	1	0	0	0	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	3	11
08:35:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	6
08:40:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	6
08:45:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6
08:50:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6
08:55:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6

Pedestrian Volumes

Time	Pedestrians				Totals	
	North	South	East	West	15min	1hr
07:00:00 AM	1	0	0	0		
07:05:00 AM	0	0	0	0		
07:10:00 AM	0	0	0	0	1	
07:15:00 AM	0	0	0	0	0	
07:20:00 AM	0	1	0	0	1	
07:25:00 AM	6	0	0	0	7	
07:30:00 AM	6	0	0	0	13	
07:35:00 AM	2	0	0	0	14	
07:40:00 AM	2	0	0	0	10	
07:45:00 AM	7	0	0	1	12	
07:50:00 AM	0	0	0	0	10	
07:55:00 AM	1	0	0	0	9	27
08:00:00 AM	0	0	0	0	1	26
08:05:00 AM	0	0	1	0	2	27
08:10:00 AM	0	0	0	0	1	27
08:15:00 AM	0	0	0	0	1	27
08:20:00 AM	0	2	0	0	2	28
08:25:00 AM	0	0	0	0	2	22
08:30:00 AM	0	0	0	0	2	16
08:35:00 AM	1	0	0	1	2	16
08:40:00 AM	0	0	0	0	2	14
08:45:00 AM	0	0	0	0	2	6
08:50:00 AM	0	0	0	0	0	6
08:55:00 AM	0	0	0	0	0	5



RallyTraffic

Location: NE Combs Flat Rd & NE Laughlin Rd

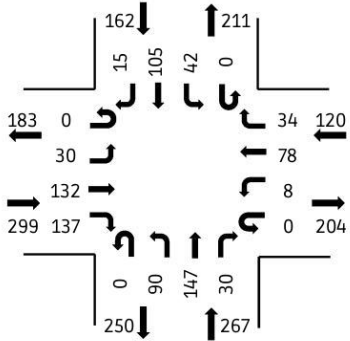
Date: 2026-02-10

Peak Hour Start: 03:40 PM

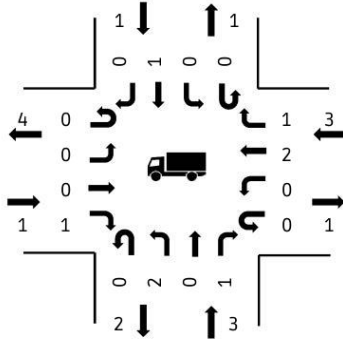
Peak 15 Minute Start: 03:40 PM

Peak Hour Factor: 0.89

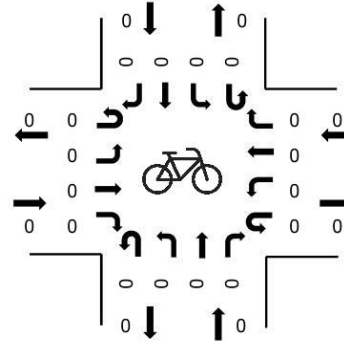
Motorized Vehicles



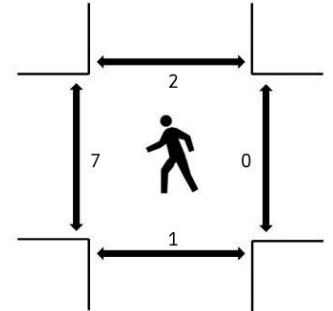
Heavy Vehicles



Bikes



Pedestrians



(peak hour)

Percent Heavy Vehicles

Northbound (NE Combs Flat Rd)					Southbound (NE Combs Flat Rd)					Eastbound (NE Laughlin Rd)					Westbound (NE Laughlin Rd)				
Left	Thru	Right	U-turn	RTOR	Left	Thru	Right	U-turn	RTOR	Left	Thru	Right	U-turn	RTOR	Left	Thru	Right	U-turn	RTOR
2	0	3	0	0	0	1	0	0	0	0	0	1	0	0	0	3	3	0	0

All Vehicle Volumes

Time	NB (NE Combs Flat Rd)					SB (NE Combs Flat Rd)					EB (NE Laughlin Rd)					WB (NE Laughlin Rd)					Totals	
	Left	Thru	Right	U-turn	RTOR	Left	Thru	Right	U-turn	RTOR	Left	Thru	Right	U-turn	RTOR	Left	Thru	Right	U-turn	RTOR	15min	1hr
01:30:00 PM	5	6	2	0	0	4	9	2	0	0	3	5	3	0	0	2	7	4	0	0		
01:35:00 PM	6	14	2	0	0	3	8	0	0	0	5	3	8	0	0	0	4	1	0	0		
01:40:00 PM	7	11	3	0	0	0	5	0	0	0	3	2	5	0	0	3	2	5	0	0	152	
01:45:00 PM	12	10	0	0	0	2	8	3	0	0	8	10	7	0	0	2	4	3	0	0	169	
01:50:00 PM	7	11	0	0	0	3	8	3	0	0	16	4	7	0	0	2	5	5	0	0	186	
01:55:00 PM	7	12	3	0	0	4	9	7	0	0	2	9	6	0	0	1	6	4	0	0	210	
02:00:00 PM	4	11	4	0	0	5	17	10	0	0	4	9	9	0	0	0	3	6	0	0	223	
02:05:00 PM	3	9	2	0	0	7	18	4	0	0	2	12	13	0	0	0	6	1	0	0	229	
02:10:00 PM	11	2	2	0	0	5	22	11	0	0	1	13	9	0	0	2	3	2	0	0	242	
02:15:00 PM	9	11	4	0	0	4	11	2	0	0	0	9	8	0	0	1	3	3	0	0	225	
02:20:00 PM	10	8	6	0	0	2	10	1	0	0	1	12	8	0	0	0	2	2	0	0	210	
02:25:00 PM	7	13	3	0	0	2	6	0	0	0	6	3	7	0	0	0	6	4	0	0	184	788
02:30:00 PM	7	7	2	0	0	1	9	1	0	0	1	12	15	0	0	0	5	0	0	0	179	796
02:35:00 PM	6	15	5	0	0	3	7	3	0	0	1	8	10	0	0	2	1	6	0	0	184	809
02:40:00 PM	9	3	2	0	0	2	5	0	0	0	0	4	9	0	0	1	6	2	0	0	170	806
02:45:00 PM	8	4	0	0	0	3	8	1	0	0	1	7	8	0	0	0	10	0	0	0	160	787
02:50:00 PM	12	14	1	0	0	3	8	1	0	0	2	8	7	0	0	0	11	0	0	0	160	783
02:55:00 PM	9	5	1	0	0	2	7	4	0	0	1	8	12	0	0	1	8	4	0	0	179	775
03:00:00 PM	11	11	2	0	0	3	9	2	0	0	0	12	8	0	0	1	1	6	0	0	195	759
03:05:00 PM	10	6	4	0	0	0	7	3	0	0	1	12	13	0	0	1	3	3	0	0	191	745
03:10:00 PM	5	13	2	0	0	6	17	5	0	0	1	6	5	0	0	1	5	4	0	0	199	732
03:15:00 PM	6	9	3	0	0	4	13	5	0	0	1	4	11	0	0	1	2	4	0	0	196	730
03:20:00 PM	7	11	1	0	0	2	12	1	0	0	0	8	4	0	0	0	6	4	0	0	189	724
03:25:00 PM	10	6	3	0	0	1	12	5	0	0	1	5	10	0	0	0	1	4	0	0	177	725
03:30:00 PM	5	7	1	0	0	1	10	0	0	0	2	16	6	0	0	2	8	2	0	0	174	725
03:35:00 PM	5	12	1	0	0	3	11	3	0	0	2	5	8	0	0	3	7	1	0	0	179	719
03:40:00 PM	10	17	1	0	0	5	10	1	0	0	3	7	16	0	0	0	4	6	0	0	201	756
03:45:00 PM	8	20	2	0	0	2	11	2	0	0	1	18	18	0	0	1	3	0	0	0	227	792
03:50:00 PM	8	9	4	0	0	4	5	1	0	0	3	13	10	0	0	0	12	2	0	0	237	796
03:55:00 PM	4	12	2	0	0	4	8	0	0	0	4	9	11	0	0	0	8	2	0	0	221	798
04:00:00 PM	10	10	1	0	0	1	4	0	0	0	2	10	8	0	0	2	7	6	0	0	196	793
04:05:00 PM	7	8	4	0	0	3	11	2	0	0	1	12	12	0	0	1	8	1	0	0	195	800
04:10:00 PM	10	19	0	0	0	5	11	2	0	0	4	11	9	0	0	0	4	3	0	0	209	808
04:15:00 PM	3	13	4	0	0	4	7	1	0	0	4	9	9	0	0	1	6	0	0	0	209	806
04:20:00 PM	6	5	2	0	0	4	8	1	0	0	4	8	15	0	0	0	5	2	0	0	199	810
04:25:00 PM	3	11	0	0	0	1	9	2	0	0	2	18	6	0	0	1	1	2	0	0	177	808
04:30:00 PM	14	11	5	0	0	5	9	1	0	0	1	6	7	0	0	1	9	4	0	0	189	821
04:35:00 PM	7	12	5	0	0	4	12	2	0	0	1	11	16	0	0	1	11	6	0	0	217	848
04:40:00 PM	7	9	5	0	0	0	8	0	0	0	3	8	11	0	0	0	6	3	0	0	221	828
04:45:00 PM	4	9	4	0	0	4	15	0	0	0	1	5	12	0	0	2	7	2	0	0	213	807
04:50:00 PM	7	9	1	0	0	4	18	2	0	0	3	8	11	0	0	1	8	3	0	0	200	811
04:55:00 PM	8	8	4	0	0	6	8	0	0	0	1	2	8	0	0	0	4	3	0	0	192	799
05:00:00 PM	7	18	4	0	0	1	8	2	0	0	3	10	7	0	0	0	4	3	0	0	194	805
05:05:00 PM	8	16	2	0	0	1	13	1	0	0	1	10	13	0	0	1	2	2	0	0	189	805
05:10:00 PM	7	18	3	0	0	6	11	1	0	0	3	8	9	0	0	0	10	2	0	0	215	805
05:15:00 PM	13	18	1	0	0	2	14	1	0	0	0	14	7	0	0	3	4	7	0	0	232	828
05:20:00 PM	1	8	1	0	0	5	13	0	0	0	1	6	11	0	0	0	11	3	0	0	222	828
05:25:00 PM	4	18	0	0	0	2	12	0	0	0	0	3	4	0	0	2	3	3	0	0	195	823

Car Volumes

Time	NB (NE Combs Flat Rd)					SB (NE Combs Flat Rd)					EB (NE Laughlin Rd)					WB (NE Laughlin Rd)					Totals	
	Left	Thru	Right	U-turn	RTOR	Left	Thru	Right	U-turn	RTOR	Left	Thru	Right	U-turn	RTOR	Left	Thru	Right	U-turn	RTOR	15min	1hr
01:30:00 PM	4	6	2	0	0	4	9	1	0	0	3	5	3	0	0	2	7	4	0	0		
01:35:00 PM	6	14	1	0	0	3	8	0	0	0	5	3	8	0	0	0	4	1	0	0		
01:40:00 PM	7	10	2	0	0	0	5	0	0	0	3	2	5	0	0	3	2	5	0	0	147	
01:45:00 PM	12	10	0	0	0	2	8	3	0	0	6	10	7	0	0	2	4	3	0	0	164	
01:50:00 PM	7	11	0	0	0	3	8	2	0	0	5	4	7	0	0	2	5	5	0	0	170	
01:55:00 PM	7	12	3	0	0	4	9	7	0	0	2	9	6	0	0	1	6	4	0	0	196	
02:00:00 PM	4	11	4	0	0	5	15	10	0	0	4	9	9	0	0	0	3	6	0	0	209	
02:05:00 PM	3	9	2	0	0	7	18	4	0	0	2	12	11	0	0	0	6	1	0	0	225	
02:10:00 PM	11	2	2	0	0	5	11	11	0	0	1	13	9	0	0	2	3	2	0	0	227	
02:15:00 PM	9	11	4	0	0	4	11	2	0	0	0	9	8	0	0	1	3	3	0	0	212	
02:20:00 PM	8	8	6	0	0	2	10	1	0	0	1	12	8	0	0	0	2	1	0	0	196	
02:25:00 PM	7	13	3	0	0	2	6	0	0	0	6	3	7	0	0	0	6	4	0	0	181	751
02:30:00 PM	6	6	2	0	0	1	9	1	0	0	1	11	15	0	0	0	5	0	0	0	173	758
02:35:00 PM	6	15	5	0	0	3	7	3	0	0	1	8	10	0	0	2	1	6	0	0	181	772
02:40:00 PM	9	3	2	0	0	2	5	0	0	0	0	4	8	0	0	1	6	2	0	0	166	770
02:45:00 PM	7	4	0	0	0	3	8	1	0	0	1	7	7	0	0	0	10	0	0	0	157	751
02:50:00 PM	10	14	1	0	0	3	8	1	0	0	2	7	7	0	0	0	11	0	0	0	154	756
02:55:00 PM	9	4	1	0	0	2	7	4	0	0	1	8	12	0	0	1	8	4	0	0	173	747
03:00:00 PM	11	11	2	0	0	3	9	2	0	0	0	12	8	0	0	1	1	6	0	0	191	733
03:05:00 PM	9	6	4	0	0	0	7	3	0	0	1	12	12	0	0	1	3	3	0	0	188	719
03:10:00 PM	5	12	2	0	0	6	17	5	0	0	1	6	5	0	0	1	5	4	0	0	196	716
03:15:00 PM	6	9	3	0	0	4	13	5	0	0	1	4	10	0	0	1	2	4	0	0	192	713
03:20:00 PM	7	11	1	0	0	2	12	1	0	0	0	8	4	0	0	0	6	4	0	0	187	710
03:25:00 PM	9	6	3	0	0	1	12	5	0	0	1	5	9	0	0	0	1	4	0	0	174	709
03:30:00 PM	5	7	1	0	0	1	10	0	0	0	2	16	6	0	0	2	7	2	0	0	171	711
03:35:00 PM	5	12	1	0	0	3	11	3	0	0	2	5	8	0	0	3	7	1	0	0	176	705
03:40:00 PM	10	17	1	0	0	5	10	1	0	0	3	7	16	0	0	0	4	6	0	0	200	743
03:45:00 PM	8	20	2	0	0	2	11	2	0	0	1	18	18	0	0	1	3	0	0	0	227	781
03:50:00 PM	8	9	3	0	0	4	5	1	0	0	3	13	10	0	0	0	12	2	0	0	236	787
03:55:00 PM	4	12	2	0	0	4	8	0	0	0	4	9	11	0	0	0	8	2	0	0	220	790
04:00:00 PM	9	10	1	0	0	1	4	0	0	0	2	10	7	0	0	2	7	6	0	0	193	783
04:05:00 PM	7	8	4	0	0	3	11	2	0	0	1	12	12	0	0	1	7	1	0	0	192	791
04:10:00 PM	10	19	0	0	0	5	10	2	0	0	4	11	9	0	0	0	4	2	0	0	204	798
04:15:00 PM	3	13	4	0	0	4	7	1	0	0	4	9	9	0	0	1	6	0	0	0	206	797
04:20:00 PM	6	5	2	0	0	4	8	1	0	0	4	8	15	0	0	0	5	2	0	0	197	801
04:25:00 PM	2	11	0	0	0	1	9	2	0	0	2	18	6	0	0	1	1	2	0	0	176	800
04:30:00 PM	14	11	5	0	0	5	9	1	0	0	1	6	7	0	0	1	9	4	0	0	188	814
04:35:00 PM	7	12	5	0	0	4	12	2	0	0	1	11	16	0	0	1	10	6	0	0	215	840
04:40:00 PM	5	9	5	0	0	0	8	0	0	0	3	8	11	0	0	0	6	3	0	0	218	818
04:45:00 PM	3	9	4	0	0	4	14	0	0	0	1	5	12	0	0	2	7	2	0	0	208	795
04:50:00 PM	7	9	1	0	0	4	18	2	0	0	3	7	10	0	0	1	8	2	0	0	193	797
04:55:00 PM	8	8	4	0	0	6	8	0	0	0	1	2	8	0	0	0	4	3	0	0	187	785
05:00:00 PM	7	17	4	0	0	1	8	2	0	0	3	9	6	0	0	0	4	3	0	0	188	790
05:05:00 PM	8	16	2	0	0	1	13	1	0	0	1	10	13	0	0	1	2	2	0	0	186	791
05:10:00 PM	7	18	3	0	0	6	11	1	0	0	3	7	9	0	0	0	10	2	0	0	211	792
05:15:00 PM	13	18	1	0	0	2	14	1	0	0	0	14	7	0	0	3	4	7	0	0	231	815
05:20:00 PM	1	8	1	0	0	5	13	0	0	0	1	6	11	0	0	0	11	3	0	0	221	815
05:25:00 PM	3	18	0	0	0	2	12	0	0	0	0	3	4	0	0	2	3	3	0	0	194	810

Pedestrian Volumes

Time	Pedestrians				Totals	
	North	South	East	West	15min	1hr
01:30:00 PM	0	0	0	0		
01:35:00 PM	0	0	0	0		
01:40:00 PM	0	0	0	0	0	
01:45:00 PM	0	0	0	1	1	
01:50:00 PM	0	0	0	0	1	
01:55:00 PM	0	0	0	0	1	
02:00:00 PM	0	0	0	0	0	
02:05:00 PM	0	0	0	0	0	
02:10:00 PM	0	0	0	0	0	
02:15:00 PM	0	0	0	0	0	
02:20:00 PM	0	0	0	0	0	
02:25:00 PM	0	0	0	0	0	1
02:30:00 PM	0	1	1	0	2	3
02:35:00 PM	0	0	0	0	2	3
02:40:00 PM	0	0	0	0	2	3
02:45:00 PM	0	0	0	0	0	2
02:50:00 PM	0	0	0	0	0	2
02:55:00 PM	0	0	0	0	0	2
03:00:00 PM	0	0	1	0	1	3
03:05:00 PM	0	0	0	0	1	3
03:10:00 PM	0	0	0	0	1	3
03:15:00 PM	0	0	0	0	0	3
03:20:00 PM	0	0	0	0	0	3
03:25:00 PM	0	0	0	0	0	3
03:30:00 PM	0	0	0	0	0	1
03:35:00 PM	0	0	0	0	0	1
03:40:00 PM	0	1	0	0	1	2
03:45:00 PM	0	0	0	0	1	2
03:50:00 PM	0	0	0	0	1	2
03:55:00 PM	0	0	0	0	0	2
04:00:00 PM	0	0	0	0	0	1
04:05:00 PM	2	0	0	4	6	7
04:10:00 PM	0	0	0	1	7	8
04:15:00 PM	0	0	0	2	9	10
04:20:00 PM	0	0	0	0	3	10
04:25:00 PM	0	0	0	0	2	10
04:30:00 PM	0	0	0	0	0	10
04:35:00 PM	0	0	0	0	0	10
04:40:00 PM	0	0	0	0	0	9
04:45:00 PM	0	0	0	1	1	10
04:50:00 PM	0	0	0	0	1	10
04:55:00 PM	0	0	0	0	1	10
05:00:00 PM	0	0	0	0	0	10
05:05:00 PM	0	0	0	0	0	4
05:10:00 PM	0	0	0	1	1	4
05:15:00 PM	0	0	0	0	1	2
05:20:00 PM	0	0	0	0	1	2
05:25:00 PM	0	0	0	1	1	3



RallyTraffic

Location: NE Combs Flat Rd & NE Iron Horse Dr

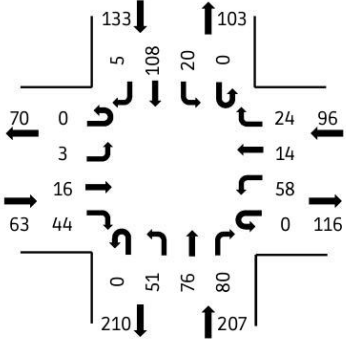
Date: 2026-02-10

Peak Hour Start: 01:30 PM

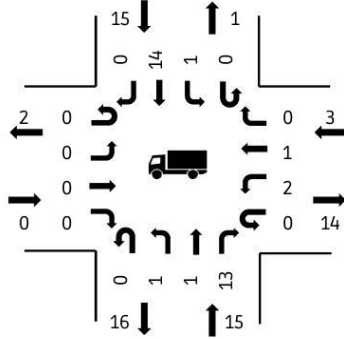
Peak 15 Minute Start: 01:55 PM

Peak Hour Factor: 0.68

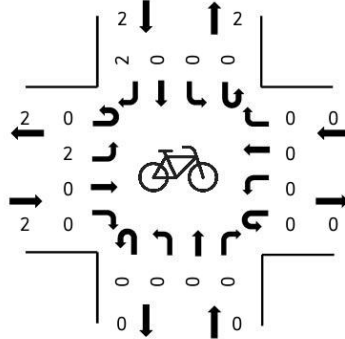
Motorized Vehicles



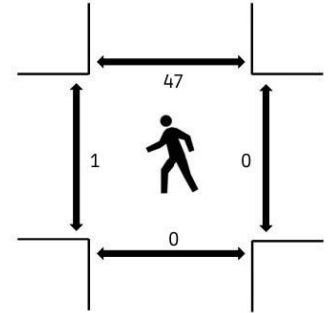
Heavy Vehicles



Bikes



Pedestrians



(peak hour)

Percent Heavy Vehicles

Northbound (NE Combs Flat Rd)					Southbound (NE Combs Flat Rd)					Eastbound (NE Iron Horse Dr)					Westbound (NE Iron Horse Dr)				
Left	Thru	Right	U-turn	RTOR	Left	Thru	Right	U-turn	RTOR	Left	Thru	Right	U-turn	RTOR	Left	Thru	Right	U-turn	RTOR
2	1	16	0	0	5	13	0	0	0	0	0	0	0	0	3	7	0	0	0

Pedestrian Volumes

Time	Pedestrians				Totals	
	North	South	East	West	15min	1hr
01:30:00 PM	0	0	0	0		
01:35:00 PM	1	0	0	0		
01:40:00 PM	0	0	0	1	2	
01:45:00 PM	0	0	0	0	2	
01:50:00 PM	0	0	0	0	1	
01:55:00 PM	0	0	0	0	0	
02:00:00 PM	5	0	0	0	5	
02:05:00 PM	38	0	0	0	43	
02:10:00 PM	3	0	0	0	46	
02:15:00 PM	0	0	0	0	41	
02:20:00 PM	0	0	0	0	3	
02:25:00 PM	0	0	0	0	0	48
02:30:00 PM	0	0	0	0	0	48
02:35:00 PM	0	0	0	0	0	47
02:40:00 PM	0	0	0	0	0	46
02:45:00 PM	1	0	0	0	1	47
02:50:00 PM	0	0	0	0	1	47
02:55:00 PM	0	0	0	0	1	47
03:00:00 PM	0	0	0	0	0	42
03:05:00 PM	1	0	0	0	1	5
03:10:00 PM	0	0	0	0	1	2
03:15:00 PM	0	0	0	0	1	2
03:20:00 PM	0	0	0	0	0	2
03:25:00 PM	0	1	0	0	1	3
03:30:00 PM	0	0	0	0	1	3
03:35:00 PM	0	0	0	0	1	3
03:40:00 PM	0	0	0	0	0	3
03:45:00 PM	1	0	1	0	2	4
03:50:00 PM	2	0	0	0	4	6
03:55:00 PM	0	0	0	0	4	6
04:00:00 PM	0	0	0	0	2	6
04:05:00 PM	0	0	0	0	0	5
04:10:00 PM	0	1	0	0	1	6
04:15:00 PM	0	0	0	0	1	6
04:20:00 PM	1	0	0	0	2	7
04:25:00 PM	0	0	0	0	1	6
04:30:00 PM	0	1	0	0	2	7
04:35:00 PM	0	0	0	0	1	7
04:40:00 PM	0	0	0	0	1	7
04:45:00 PM	0	0	0	0	0	5
04:50:00 PM	0	0	0	0	0	3
04:55:00 PM	0	0	0	0	0	3
05:00:00 PM	1	0	0	0	1	4
05:05:00 PM	0	0	0	0	1	4
05:10:00 PM	0	1	0	0	2	4
05:15:00 PM	2	0	0	0	3	6
05:20:00 PM	0	0	0	0	3	5
05:25:00 PM	0	0	0	0	2	5

Intersection												
Int Delay, s/veh	14											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	3	26	29	80	24	40	23	39	152	80	151	9
Future Vol, veh/h	3	26	29	80	24	40	23	39	152	80	151	9
Conflicting Peds, #/hr	24	0	1	1	0	24	1	0	1	1	0	1
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	63	63	63	63	63	63	63	63	63	63	63	63
Heavy Vehicles, %	0	0	0	0	0	0	2	1	7	1	7	0
Mvmt Flow	5	41	46	127	38	63	37	62	241	127	240	14

Major/Minor	Minor2		Minor1		Major1			Major2				
Conflicting Flow All	833	880	249	804	767	208	255	0	0	304	0	0
Stage 1	502	502	-	258	258	-	-	-	-	-	-	-
Stage 2	331	378	-	546	509	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.12	-	-	4.11	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.218	-	-	2.209	-	-
Pot Cap-1 Maneuver	290	288	795	304	335	837	1310	-	-	1263	-	-
Stage 1	555	545	-	751	698	-	-	-	-	-	-	-
Stage 2	687	619	-	526	541	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	208	245	793	221	285	817	1309	-	-	1262	-	-
Mov Cap-2 Maneuver	208	245	-	221	285	-	-	-	-	-	-	-
Stage 1	535	481	-	724	673	-	-	-	-	-	-	-
Stage 2	564	597	-	400	477	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	18		51		0.8		2.7	
HCM LOS	C		F					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1309	-	-	369	291	1262	-	-
HCM Lane V/C Ratio	0.028	-	-	0.249	0.785	0.101	-	-
HCM Control Delay (s)	7.8	0	-	18	51	8.2	0	-
HCM Lane LOS	A	A	-	C	F	A	A	-
HCM 95th %tile Q(veh)	0.1	-	-	1	6.1	0.3	-	-

Intersection												
Int Delay, s/veh	3.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	258	0	0	8	0	0	0	0	0	0	136
Future Vol, veh/h	0	258	0	0	8	0	0	0	0	0	0	136
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	63	63	63	63	63	63	63	63	63	63	63	63
Heavy Vehicles, %	0	5	0	0	0	0	0	0	0	0	0	6
Mvmt Flow	0	410	0	0	13	0	0	0	0	0	0	216

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	13	0	0	410	0	0	531	423	410	423	423	13
Stage 1	-	-	-	-	-	-	410	410	-	13	13	-
Stage 2	-	-	-	-	-	-	121	13	-	410	410	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.26
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.354
Pot Cap-1 Maneuver	1619	-	-	1160	-	-	462	526	646	545	526	1056
Stage 1	-	-	-	-	-	-	623	599	-	1013	889	-
Stage 2	-	-	-	-	-	-	888	889	-	623	599	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1619	-	-	1160	-	-	368	526	646	545	526	1056
Mov Cap-2 Maneuver	-	-	-	-	-	-	368	526	-	545	526	-
Stage 1	-	-	-	-	-	-	623	599	-	1013	889	-
Stage 2	-	-	-	-	-	-	706	889	-	623	599	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0	0	9.3
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	-	1619	-	-	1160	-	-	1056
HCM Lane V/C Ratio	-	-	-	-	-	-	-	0.204
HCM Control Delay (s)	0	0	-	-	0	-	-	9.3
HCM Lane LOS	A	A	-	-	A	-	-	A
HCM 95th %tile Q(veh)	-	0	-	-	0	-	-	0.8

Intersection												
Int Delay, s/veh	7.6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	258	0	0	0	0	0	0	0	0	0	0	8
Future Vol, veh/h	258	0	0	0	0	0	0	0	0	0	0	8
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	63	63	63	63	63	63	63	63	63	63	63	63
Heavy Vehicles, %	0	5	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	410	0	0	0	0	0	0	0	0	0	0	13

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	2	0	0	0	0	0	829	822	0	822	822	2
Stage 1	-	-	-	-	-	-	820	820	-	2	2	-
Stage 2	-	-	-	-	-	-	9	2	-	820	820	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1634	-	-	-	-	-	292	311	-	295	311	1088
Stage 1	-	-	-	-	-	-	372	392	-	1026	898	-
Stage 2	-	-	-	-	-	-	1017	898	-	372	392	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1634	-	-	-	-	-	233	233	-	-	233	1088
Mov Cap-2 Maneuver	-	-	-	-	-	-	233	233	-	-	233	-
Stage 1	-	-	-	-	-	-	279	294	-	768	898	-
Stage 2	-	-	-	-	-	-	1005	898	-	279	294	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	7.9	0	0	
HCM LOS			A	-

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	-	1634	-	-	-	-	-	-
HCM Lane V/C Ratio	-	0.251	-	-	-	-	-	-
HCM Control Delay (s)	0	7.9	0	-	0	-	-	-
HCM Lane LOS	A	A	A	-	A	-	-	-
HCM 95th %tile Q(veh)	-	1	-	-	-	-	-	-

Intersection	
Intersection Delay, s/veh	13.2
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↵	↵		↵	↵	
Traffic Vol, veh/h	83	35	75	12	50	22	69	105	9	28	193	44
Future Vol, veh/h	83	35	75	12	50	22	69	105	9	28	193	44
Peak Hour Factor	0.73	0.73	0.73	0.73	0.73	0.73	0.73	0.73	0.73	0.73	0.73	0.73
Heavy Vehicles, %	7	9	5	8	2	0	4	6	0	0	7	0
Mvmt Flow	114	48	103	16	68	30	95	144	12	38	264	60
Number of Lanes	0	1	0	0	1	0	1	1	0	1	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	1	1
HCM Control Delay	13.3	10.8	11.3	15.3
HCM LOS	B	B	B	C

Lane	NBLn1	NBLn2	EBLn1	WBLn1	SBLn1	SBLn2
Vol Left, %	100%	0%	43%	14%	100%	0%
Vol Thru, %	0%	92%	18%	60%	0%	81%
Vol Right, %	0%	8%	39%	26%	0%	19%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	69	114	193	84	28	237
LT Vol	69	0	83	12	28	0
Through Vol	0	105	35	50	0	193
RT Vol	0	9	75	22	0	44
Lane Flow Rate	95	156	264	115	38	325
Geometry Grp	7	7	2	2	7	7
Degree of Util (X)	0.179	0.272	0.429	0.198	0.07	0.546
Departure Headway (Hd)	6.807	6.276	5.837	6.205	6.574	6.055
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	526	570	613	574	544	594
Service Time	4.573	4.042	3.901	4.285	4.332	3.812
HCM Lane V/C Ratio	0.181	0.274	0.431	0.2	0.07	0.547
HCM Control Delay	11.1	11.4	13.3	10.8	9.8	15.9
HCM Lane LOS	B	B	B	B	A	C
HCM 95th-tile Q	0.6	1.1	2.1	0.7	0.2	3.3

Intersection												
Int Delay, s/veh	6.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	3	16	44	58	14	24	51	76	80	20	108	5
Future Vol, veh/h	3	16	44	58	14	24	51	76	80	20	108	5
Conflicting Peds, #/hr	47	0	0	0	0	47	1	0	0	0	0	1
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	68	68	68	68	68	68	68	68	68	68	68	68
Heavy Vehicles, %	0	0	0	4	7	0	2	1	15	5	13	0
Mvmt Flow	4	24	65	85	21	35	75	112	118	29	159	7

Major/Minor	Minor2		Minor1			Major1		Major2				
Conflicting Flow All	618	602	164	586	546	218	167	0	0	230	0	0
Stage 1	222	222	-	321	321	-	-	-	-	-	-	-
Stage 2	396	380	-	265	225	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.14	6.57	6.2	4.12	-	-	4.15	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.14	5.57	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.14	5.57	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.536	4.063	3.3	2.218	-	-	2.245	-	-
Pot Cap-1 Maneuver	404	416	886	419	438	827	1411	-	-	1320	-	-
Stage 1	785	723	-	687	643	-	-	-	-	-	-	-
Stage 2	633	617	-	736	708	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	331	381	885	347	401	790	1410	-	-	1320	-	-
Mov Cap-2 Maneuver	331	381	-	347	401	-	-	-	-	-	-	-
Stage 1	736	705	-	644	603	-	-	-	-	-	-	-
Stage 2	523	579	-	644	690	-	-	-	-	-	-	-

Approach	EB		WB			NB		SB		
HCM Control Delay, s	11.8		18.2			1.9		1.2		
HCM LOS	B		C							

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1410	-	-	625	413	1320	-	-
HCM Lane V/C Ratio	0.053	-	-	0.148	0.342	0.022	-	-
HCM Control Delay (s)	7.7	0	-	11.8	18.2	7.8	0	-
HCM Lane LOS	A	A	-	B	C	A	A	-
HCM 95th %tile Q(veh)	0.2	-	-	0.5	1.5	0.1	-	-

Intersection												
Int Delay, s/veh	3.8											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	116	0	0	6	0	0	0	0	0	0	90
Future Vol, veh/h	0	116	0	0	6	0	0	0	0	0	0	90
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	68	68	68	68	68	68	68	68	68	68	68	68
Heavy Vehicles, %	0	5	0	0	6	0	0	0	0	0	0	6
Mvmt Flow	0	171	0	0	9	0	0	0	0	0	0	132

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	9	0	0	171	0	0	246	180	171	180	180	9
Stage 1	-	-	-	-	-	-	171	171	-	9	9	-
Stage 2	-	-	-	-	-	-	75	9	-	171	171	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.26
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.354
Pot Cap-1 Maneuver	1624	-	-	1418	-	-	712	717	878	786	717	1061
Stage 1	-	-	-	-	-	-	836	761	-	1017	892	-
Stage 2	-	-	-	-	-	-	939	892	-	836	761	-
Platoon blocked, %		-	-	-	-	-						
Mov Cap-1 Maneuver	1624	-	-	1418	-	-	623	717	878	786	717	1061
Mov Cap-2 Maneuver	-	-	-	-	-	-	623	717	-	786	717	-
Stage 1	-	-	-	-	-	-	836	761	-	1017	892	-
Stage 2	-	-	-	-	-	-	822	892	-	836	761	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0			0			0			8.9		
HCM LOS							A			A		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	-	1624	-	-	1418	-	-	1061
HCM Lane V/C Ratio	-	-	-	-	-	-	-	0.125
HCM Control Delay (s)	0	0	-	-	0	-	-	8.9
HCM Lane LOS	A	A	-	-	A	-	-	A
HCM 95th %tile Q(veh)	-	0	-	-	0	-	-	0.4

Intersection												
Int Delay, s/veh	7.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	116	0	0	0	0	0	0	0	0	0	0	6
Future Vol, veh/h	116	0	0	0	0	0	0	0	0	0	0	6
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	68	68	68	68	68	68	68	68	68	68	68	68
Heavy Vehicles, %	0	5	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	171	0	0	0	0	0	0	0	0	0	0	9

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1	0	0	0	0	0	348	343	0	343	343	1
Stage 1	-	-	-	-	-	-	342	342	-	1	1	-
Stage 2	-	-	-	-	-	-	6	1	-	342	342	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1635	-	-	-	-	-	610	583	-	615	583	1090
Stage 1	-	-	-	-	-	-	677	642	-	1027	899	-
Stage 2	-	-	-	-	-	-	1021	899	-	677	642	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1635	-	-	-	-	-	556	522	-	-	522	1090
Mov Cap-2 Maneuver	-	-	-	-	-	-	556	522	-	-	522	-
Stage 1	-	-	-	-	-	-	606	575	-	919	899	-
Stage 2	-	-	-	-	-	-	1013	899	-	606	575	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	7.5	0	0	
HCM LOS			A	-

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	-	1635	-	-	-	-	-	-
HCM Lane V/C Ratio	-	0.104	-	-	-	-	-	-
HCM Control Delay (s)	0	7.5	0	-	0	-	-	-
HCM Lane LOS	A	A	A	-	A	-	-	-
HCM 95th %tile Q(veh)	-	0.3	-	-	-	-	-	-

Intersection	
Intersection Delay, s/veh	11.7
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↵	↵		↵	↵	
Traffic Vol, veh/h	30	132	137	8	78	34	90	147	30	42	105	15
Future Vol, veh/h	30	132	137	8	78	34	90	147	30	42	105	15
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Heavy Vehicles, %	0	0	1	0	3	3	2	0	3	0	1	0
Mvmt Flow	34	148	154	9	88	38	101	165	34	47	118	17
Number of Lanes	0	1	0	0	1	0	1	1	0	1	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	1	1
HCM Control Delay	13.2	10.3	11.4	10.7
HCM LOS	B	B	B	B

Lane	NBLn1	NBLn2	EBLn1	WBLn1	SBLn1	SBLn2
Vol Left, %	100%	0%	10%	7%	100%	0%
Vol Thru, %	0%	83%	44%	65%	0%	88%
Vol Right, %	0%	17%	46%	28%	0%	12%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	90	177	299	120	42	120
LT Vol	90	0	30	8	42	0
Through Vol	0	147	132	78	0	105
RT Vol	0	30	137	34	0	15
Lane Flow Rate	101	199	336	135	47	135
Geometry Grp	7	7	2	2	7	7
Degree of Util (X)	0.187	0.331	0.488	0.213	0.089	0.233
Departure Headway (Hd)	6.648	5.984	5.234	5.683	6.797	6.216
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	539	601	685	628	526	576
Service Time	4.397	3.733	3.285	3.746	4.553	3.972
HCM Lane V/C Ratio	0.187	0.331	0.491	0.215	0.089	0.234
HCM Control Delay	10.9	11.7	13.2	10.3	10.2	10.9
HCM Lane LOS	B	B	B	B	B	B
HCM 95th-tile Q	0.7	1.4	2.7	0.8	0.3	0.9

Intersection												
Int Delay, s/veh	31.6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	3	29	33	90	27	45	26	44	171	90	170	10
Future Vol, veh/h	3	29	33	90	27	45	26	44	171	90	170	10
Conflicting Peds, #/hr	24	0	1	1	0	24	1	0	1	1	0	1
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	63	63	63	63	63	63	63	63	63	63	63	63
Heavy Vehicles, %	0	0	0	0	0	0	2	1	6	1	6	0
Mvmt Flow	5	46	52	143	43	71	41	70	271	143	270	16

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	934	989	280	903	862	231	287	0	0	342	0	0
Stage 1	565	565	-	289	289	-	-	-	-	-	-	-
Stage 2	369	424	-	614	573	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.12	-	-	4.11	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.218	-	-	2.209	-	-
Pot Cap-1 Maneuver	248	249	764	260	295	813	1275	-	-	1223	-	-
Stage 1	513	511	-	723	677	-	-	-	-	-	-	-
Stage 2	655	590	-	483	507	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	166	205	763	174	243	794	1274	-	-	1222	-	-
Mov Cap-2 Maneuver	166	205	-	174	243	-	-	-	-	-	-	-
Stage 1	491	439	-	693	649	-	-	-	-	-	-	-
Stage 2	522	565	-	346	436	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB			
HCM Control Delay, s	21.4		129.2		0.9		2.8			
HCM LOS	C		F							

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1274	-	-	321	236	1222	-	-
HCM Lane V/C Ratio	0.032	-	-	0.321	1.09	0.117	-	-
HCM Control Delay (s)	7.9	0	-	21.4	129.2	8.3	0	-
HCM Lane LOS	A	A	-	C	F	A	A	-
HCM 95th %tile Q(veh)	0.1	-	-	1.4	11.2	0.4	-	-

Intersection												
Int Delay, s/veh	3.2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	290	0	0	9	0	0	0	0	0	0	153
Future Vol, veh/h	0	290	0	0	9	0	0	0	0	0	0	153
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	63	63	63	63	63	63	63	63	63	63	63	63
Heavy Vehicles, %	0	5	0	0	0	0	0	0	0	0	0	6
Mvmt Flow	0	460	0	0	14	0	0	0	0	0	0	243

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	14	0	0	460	0	0	596	474	460	474	474	14
Stage 1	-	-	-	-	-	-	460	460	-	14	14	-
Stage 2	-	-	-	-	-	-	136	14	-	460	460	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.26
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.354
Pot Cap-1 Maneuver	1617	-	-	1112	-	-	418	492	605	504	492	1054
Stage 1	-	-	-	-	-	-	585	569	-	1011	888	-
Stage 2	-	-	-	-	-	-	872	888	-	585	569	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1617	-	-	1112	-	-	322	492	605	504	492	1054
Mov Cap-2 Maneuver	-	-	-	-	-	-	322	492	-	504	492	-
Stage 1	-	-	-	-	-	-	585	569	-	1011	888	-
Stage 2	-	-	-	-	-	-	671	888	-	585	569	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0	0	9.4
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	-	1617	-	-	1112	-	-	1054
HCM Lane V/C Ratio	-	-	-	-	-	-	-	0.23
HCM Control Delay (s)	0	0	-	-	0	-	-	9.4
HCM Lane LOS	A	A	-	-	A	-	-	A
HCM 95th %tile Q(veh)	-	0	-	-	0	-	-	0.9

Intersection												
Int Delay, s/veh	7.8											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	290	0	0	0	0	0	0	0	0	0	0	9
Future Vol, veh/h	290	0	0	0	0	0	0	0	0	0	0	9
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	63	63	63	63	63	63	63	63	63	63	63	63
Heavy Vehicles, %	0	5	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	460	0	0	0	0	0	0	0	0	0	0	14

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	2	0	0	0	0	0	929	922	0	922	922	2
Stage 1	-	-	-	-	-	-	920	920	-	2	2	-
Stage 2	-	-	-	-	-	-	9	2	-	920	920	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1634	-	-	-	-	-	250	272	-	253	272	1088
Stage 1	-	-	-	-	-	-	327	352	-	1026	898	-
Stage 2	-	-	-	-	-	-	1017	898	-	327	352	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1634	-	-	-	-	-	193	195	-	-	195	1088
Mov Cap-2 Maneuver	-	-	-	-	-	-	193	195	-	-	195	-
Stage 1	-	-	-	-	-	-	235	253	-	737	898	-
Stage 2	-	-	-	-	-	-	1004	898	-	235	253	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	8.1	0	0	
HCM LOS			A	-

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	-	1634	-	-	-	-	-	-
HCM Lane V/C Ratio	-	0.282	-	-	-	-	-	-
HCM Control Delay (s)	0	8.1	0	-	0	-	-	-
HCM Lane LOS	A	A	A	-	A	-	-	-
HCM 95th %tile Q(veh)	-	1.2	-	-	-	-	-	-

Intersection	
Intersection Delay, s/veh	15.9
Intersection LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↵	↵		↵	↵	
Traffic Vol, veh/h	93	39	84	14	56	25	78	118	10	32	217	50
Future Vol, veh/h	93	39	84	14	56	25	78	118	10	32	217	50
Peak Hour Factor	0.73	0.73	0.73	0.73	0.73	0.73	0.73	0.73	0.73	0.73	0.73	0.73
Heavy Vehicles, %	7	9	5	8	2	0	4	6	0	0	7	0
Mvmt Flow	127	53	115	19	77	34	107	162	14	44	297	68
Number of Lanes	0	1	0	0	1	0	1	1	0	1	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	1	1
HCM Control Delay	15.8	11.9	12.4	19.6
HCM LOS	C	B	B	C

Lane	NBLn1	NBLn2	EBLn1	WBLn1	SBLn1	SBLn2
Vol Left, %	100%	0%	43%	15%	100%	0%
Vol Thru, %	0%	92%	18%	59%	0%	81%
Vol Right, %	0%	8%	39%	26%	0%	19%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	78	128	216	95	32	267
LT Vol	78	0	93	14	32	0
Through Vol	0	118	39	56	0	217
RT Vol	0	10	84	25	0	50
Lane Flow Rate	107	175	296	130	44	366
Geometry Grp	7	7	2	2	7	7
Degree of Util (X)	0.215	0.327	0.514	0.243	0.085	0.657
Departure Headway (Hd)	7.253	6.72	6.255	6.735	6.991	6.468
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	495	535	577	532	516	563
Service Time	4.993	4.46	4.293	4.784	4.691	4.168
HCM Lane V/C Ratio	0.216	0.327	0.513	0.244	0.085	0.65
HCM Control Delay	12	12.7	15.8	11.9	10.3	20.7
HCM Lane LOS	B	B	C	B	B	C
HCM 95th-tile Q	0.8	1.4	2.9	0.9	0.3	4.8

Intersection												
Int Delay, s/veh	7											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	3	18	50	65	16	27	57	86	90	23	122	6
Future Vol, veh/h	3	18	50	65	16	27	57	86	90	23	122	6
Conflicting Peds, #/hr	47	0	0	0	0	47	1	0	0	0	0	1
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	68	68	68	68	68	68	68	68	68	68	68	68
Heavy Vehicles, %	0	0	0	4	7	0	2	1	15	5	13	0
Mvmt Flow	4	26	74	96	24	40	84	126	132	34	179	9

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	692	679	185	662	617	239	189	0	0	258	0	0
Stage 1	253	253	-	360	360	-	-	-	-	-	-	-
Stage 2	439	426	-	302	257	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.14	6.57	6.2	4.12	-	-	4.15	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.14	5.57	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.14	5.57	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.536	4.063	3.3	2.218	-	-	2.245	-	-
Pot Cap-1 Maneuver	361	376	862	373	399	805	1385	-	-	1289	-	-
Stage 1	756	701	-	654	618	-	-	-	-	-	-	-
Stage 2	601	589	-	703	686	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	287	338	861	297	359	769	1384	-	-	1289	-	-
Mov Cap-2 Maneuver	287	338	-	297	359	-	-	-	-	-	-	-
Stage 1	701	680	-	607	574	-	-	-	-	-	-	-
Stage 2	485	547	-	600	665	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	12.5		22.5		1.9		1.2	
HCM LOS	B		C					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1384	-	-	583	362	1289	-
HCM Lane V/C Ratio	0.061	-	-	0.179	0.439	0.026	-
HCM Control Delay (s)	7.8	0	-	12.5	22.5	7.9	0
HCM Lane LOS	A	A	-	B	C	A	A
HCM 95th %tile Q(veh)	0.2	-	-	0.6	2.2	0.1	-

Intersection												
Int Delay, s/veh	3.8											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	131	0	0	7	0	0	0	0	0	0	101
Future Vol, veh/h	0	131	0	0	7	0	0	0	0	0	0	101
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	68	68	68	68	68	68	68	68	68	68	68	68
Heavy Vehicles, %	0	5	0	0	6	0	0	0	0	0	0	6
Mvmt Flow	0	193	0	0	10	0	0	0	0	0	0	149

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	10	0	0	193	0	0	278	203	193	203	203	10
Stage 1	-	-	-	-	-	-	193	193	-	10	10	-
Stage 2	-	-	-	-	-	-	85	10	-	193	193	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.26
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.354
Pot Cap-1 Maneuver	1623	-	-	1392	-	-	678	697	854	759	697	1060
Stage 1	-	-	-	-	-	-	813	745	-	1016	891	-
Stage 2	-	-	-	-	-	-	928	891	-	813	745	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1623	-	-	1392	-	-	583	697	854	759	697	1060
Mov Cap-2 Maneuver	-	-	-	-	-	-	583	697	-	759	697	-
Stage 1	-	-	-	-	-	-	813	745	-	1016	891	-
Stage 2	-	-	-	-	-	-	798	891	-	813	745	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0			0			0			8.9		
HCM LOS							A			A		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	-	1623	-	-	1392	-	-	1060
HCM Lane V/C Ratio	-	-	-	-	-	-	-	0.14
HCM Control Delay (s)	0	0	-	-	0	-	-	8.9
HCM Lane LOS	A	A	-	-	A	-	-	A
HCM 95th %tile Q(veh)	-	0	-	-	0	-	-	0.5

Intersection												
Int Delay, s/veh	7.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	131	0	0	0	0	0	0	0	0	0	0	7
Future Vol, veh/h	131	0	0	0	0	0	0	0	0	0	0	7
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	68	68	68	68	68	68	68	68	68	68	68	68
Heavy Vehicles, %	0	5	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	193	0	0	0	0	0	0	0	0	0	0	10

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1	0	0	0	0	0	392	387	0	387	387	1
Stage 1	-	-	-	-	-	-	386	386	-	1	1	-
Stage 2	-	-	-	-	-	-	6	1	-	386	386	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1635	-	-	-	-	-	571	551	-	575	551	1090
Stage 1	-	-	-	-	-	-	641	614	-	1027	899	-
Stage 2	-	-	-	-	-	-	1021	899	-	641	614	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1635	-	-	-	-	-	514	486	-	-	486	1090
Mov Cap-2 Maneuver	-	-	-	-	-	-	514	486	-	-	486	-
Stage 1	-	-	-	-	-	-	565	542	-	906	899	-
Stage 2	-	-	-	-	-	-	1011	899	-	565	542	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	7.5	0	0	
HCM LOS			A	-

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	-	1635	-	-	-	-	-	-
HCM Lane V/C Ratio	-	0.118	-	-	-	-	-	-
HCM Control Delay (s)	0	7.5	0	-	0	-	-	-
HCM Lane LOS	A	A	A	-	A	-	-	-
HCM 95th %tile Q(veh)	-	0.4	-	-	-	-	-	-

Intersection	
Intersection Delay, s/veh	13.4
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↵	↵		↵	↵	
Traffic Vol, veh/h	34	149	154	9	88	38	101	165	34	47	118	17
Future Vol, veh/h	34	149	154	9	88	38	101	165	34	47	118	17
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Heavy Vehicles, %	0	0	1	0	3	3	2	0	3	0	1	0
Mvmt Flow	38	167	173	10	99	43	113	185	38	53	133	19
Number of Lanes	0	1	0	0	1	0	1	1	0	1	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	1	1
HCM Control Delay	15.9	11.2	12.6	11.5
HCM LOS	C	B	B	B

Lane	NBLn1	NBLn2	EBLn1	WBLn1	SBLn1	SBLn2
Vol Left, %	100%	0%	10%	7%	100%	0%
Vol Thru, %	0%	83%	44%	65%	0%	87%
Vol Right, %	0%	17%	46%	28%	0%	13%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	101	199	337	135	47	135
LT Vol	101	0	34	9	47	0
Through Vol	0	165	149	88	0	118
RT Vol	0	34	154	38	0	17
Lane Flow Rate	113	224	379	152	53	152
Geometry Grp	7	7	2	2	7	7
Degree of Util (X)	0.219	0.39	0.577	0.254	0.105	0.276
Departure Headway (Hd)	6.943	6.276	5.488	6.024	7.129	6.545
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	514	570	651	590	500	545
Service Time	4.721	4.053	3.562	4.118	4.916	4.332
HCM Lane V/C Ratio	0.22	0.393	0.582	0.258	0.106	0.279
HCM Control Delay	11.7	13.1	15.9	11.2	10.8	11.8
HCM Lane LOS	B	B	C	B	B	B
HCM 95th-tile Q	0.8	1.8	3.7	1	0.3	1.1

Intersection												
Int Delay, s/veh	51.8											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	3	30	33	105	30	49	26	44	178	92	170	10
Future Vol, veh/h	3	30	33	105	30	49	26	44	178	92	170	10
Conflicting Peds, #/hr	24	0	1	1	0	24	1	0	1	1	0	1
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	63	63	63	63	63	63	63	63	63	63	63	63
Heavy Vehicles, %	0	0	0	0	0	0	2	1	6	1	6	0
Mvmt Flow	5	48	52	167	48	78	41	70	283	146	270	16

Major/Minor	Minor2		Minor1		Major1			Major2				
Conflicting Flow All	952	1007	280	916	874	237	287	0	0	354	0	0
Stage 1	571	571	-	295	295	-	-	-	-	-	-	-
Stage 2	381	436	-	621	579	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.12	-	-	4.11	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.218	-	-	2.209	-	-
Pot Cap-1 Maneuver	241	243	764	255	290	807	1275	-	-	1210	-	-
Stage 1	509	508	-	718	673	-	-	-	-	-	-	-
Stage 2	645	583	-	478	504	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	155	199	763	168	237	788	1274	-	-	1209	-	-
Mov Cap-2 Maneuver	155	199	-	168	237	-	-	-	-	-	-	-
Stage 1	487	434	-	687	644	-	-	-	-	-	-	-
Stage 2	504	558	-	339	431	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	22.5		203.3		0.8		2.8	
HCM LOS	C		F					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1274	-	-	309	226	1209	-	-
HCM Lane V/C Ratio	0.032	-	-	0.339	1.292	0.121	-	-
HCM Control Delay (s)	7.9	0	-	22.5	203.3	8.4	0	-
HCM Lane LOS	A	A	-	C	F	A	A	-
HCM 95th %tile Q(veh)	0.1	-	-	1.5	15.4	0.4	-	-

Intersection												
Int Delay, s/veh	3.6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	292	7	0	16	0	15	0	0	0	0	153
Future Vol, veh/h	0	292	7	0	16	0	15	0	0	0	0	153
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	63	63	63	63	63	63	63	63	63	63	63	63
Heavy Vehicles, %	0	5	0	0	0	0	0	0	0	0	0	6
Mvmt Flow	0	463	11	0	25	0	24	0	0	0	0	243

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	25	0	0	474	0	0	616	494	469	494	499	25
Stage 1	-	-	-	-	-	-	469	469	-	25	25	-
Stage 2	-	-	-	-	-	-	147	25	-	469	474	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.26
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.354
Pot Cap-1 Maneuver	1603	-	-	1099	-	-	406	479	598	489	476	1040
Stage 1	-	-	-	-	-	-	579	564	-	998	878	-
Stage 2	-	-	-	-	-	-	860	878	-	579	561	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1603	-	-	1099	-	-	311	479	598	489	476	1040
Mov Cap-2 Maneuver	-	-	-	-	-	-	311	479	-	489	476	-
Stage 1	-	-	-	-	-	-	579	564	-	998	878	-
Stage 2	-	-	-	-	-	-	659	878	-	579	561	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0			0			17.5			9.5		
HCM LOS							C			A		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	311	1603	-	-	1099	-	-	1040
HCM Lane V/C Ratio	0.077	-	-	-	-	-	-	0.234
HCM Control Delay (s)	17.5	0	-	-	0	-	-	9.5
HCM Lane LOS	C	A	-	-	A	-	-	A
HCM 95th %tile Q(veh)	0.2	0	-	-	0	-	-	0.9

Intersection												
Int Delay, s/veh	8.4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	290	0	2	0	0	0	7	0	0	0	0	9
Future Vol, veh/h	290	0	2	0	0	0	7	0	0	0	0	9
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	63	63	63	63	63	63	63	63	63	63	63	63
Heavy Vehicles, %	0	5	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	460	0	3	0	0	0	11	0	0	0	0	14

Major/Minor	Major1		Major2		Minor1		Minor2					
Conflicting Flow All	2	0	0	3	0	0	931	924	2	924	925	2
Stage 1	-	-	-	-	-	-	922	922	-	2	2	-
Stage 2	-	-	-	-	-	-	9	2	-	922	923	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1634	-	-	1632	-	-	249	271	1088	252	271	1088
Stage 1	-	-	-	-	-	-	327	352	-	1026	898	-
Stage 2	-	-	-	-	-	-	1017	898	-	327	351	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1634	-	-	1632	-	-	192	195	1088	197	195	1088
Mov Cap-2 Maneuver	-	-	-	-	-	-	192	195	-	197	195	-
Stage 1	-	-	-	-	-	-	235	253	-	737	898	-
Stage 2	-	-	-	-	-	-	1004	898	-	235	252	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	8		0		24.9		8.4	
HCM LOS					C		A	

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	192	1634	-	-	1632	-	-	1088
HCM Lane V/C Ratio	0.058	0.282	-	-	-	-	-	0.013
HCM Control Delay (s)	24.9	8.1	0	-	0	-	-	8.4
HCM Lane LOS	C	A	A	-	A	-	-	A
HCM 95th %tile Q(veh)	0.2	1.2	-	-	0	-	-	0

Intersection	
Intersection Delay, s/veh	16.9
Intersection LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↵	↵		↵	↵	
Traffic Vol, veh/h	94	39	84	14	56	26	78	123	10	34	227	53
Future Vol, veh/h	94	39	84	14	56	26	78	123	10	34	227	53
Peak Hour Factor	0.73	0.73	0.73	0.73	0.73	0.73	0.73	0.73	0.73	0.73	0.73	0.73
Heavy Vehicles, %	7	9	5	8	2	0	4	6	0	0	7	0
Mvmt Flow	129	53	115	19	77	36	107	168	14	47	311	73
Number of Lanes	0	1	0	0	1	0	1	1	0	1	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	1	1
HCM Control Delay	16.3	12.2	12.7	21.5
HCM LOS	C	B	B	C

Lane	NBLn1	NBLn2	EBLn1	WBLn1	SBLn1	SBLn2
Vol Left, %	100%	0%	43%	15%	100%	0%
Vol Thru, %	0%	92%	18%	58%	0%	81%
Vol Right, %	0%	8%	39%	27%	0%	19%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	78	133	217	96	34	280
LT Vol	78	0	94	14	34	0
Through Vol	0	123	39	56	0	227
RT Vol	0	10	84	26	0	53
Lane Flow Rate	107	182	297	132	47	384
Geometry Grp	7	7	2	2	7	7
Degree of Util (X)	0.218	0.344	0.525	0.25	0.091	0.695
Departure Headway (Hd)	7.331	6.8	6.355	6.847	7.048	6.524
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	489	528	568	523	511	556
Service Time	5.08	4.548	4.401	4.906	4.748	4.224
HCM Lane V/C Ratio	0.219	0.345	0.523	0.252	0.092	0.691
HCM Control Delay	12.1	13.1	16.3	12.2	10.5	22.8
HCM Lane LOS	B	B	C	B	B	C
HCM 95th-tile Q	0.8	1.5	3	1	0.3	5.4

Intersection												
Int Delay, s/veh	8.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	3	18	50	77	16	30	57	86	111	28	122	6
Future Vol, veh/h	3	18	50	77	16	30	57	86	111	28	122	6
Conflicting Peds, #/hr	47	0	0	0	0	47	1	0	0	0	0	1
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	68	68	68	68	68	68	68	68	68	68	68	68
Heavy Vehicles, %	0	0	0	4	7	0	2	1	15	5	13	0
Mvmt Flow	4	26	74	113	24	44	84	126	163	41	179	9

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	724	724	185	692	647	255	189	0	0	289	0	0
Stage 1	267	267	-	376	376	-	-	-	-	-	-	-
Stage 2	457	457	-	316	271	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.14	6.57	6.2	4.12	-	-	4.15	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.14	5.57	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.14	5.57	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.536	4.063	3.3	2.218	-	-	2.245	-	-
Pot Cap-1 Maneuver	344	354	862	356	383	789	1385	-	-	1256	-	-
Stage 1	743	692	-	641	608	-	-	-	-	-	-	-
Stage 2	587	571	-	691	676	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	269	316	861	280	342	754	1384	-	-	1256	-	-
Mov Cap-2 Maneuver	269	316	-	280	342	-	-	-	-	-	-	-
Stage 1	687	666	-	594	563	-	-	-	-	-	-	-
Stage 2	468	529	-	585	651	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	12.8		27		1.7		1.4	
HCM LOS	B		D					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1384	-	-	563	340	1256	-
HCM Lane V/C Ratio	0.061	-	-	0.185	0.532	0.033	-
HCM Control Delay (s)	7.8	0	-	12.8	27	8	0
HCM Lane LOS	A	A	-	B	D	A	A
HCM 95th %tile Q(veh)	0.2	-	-	0.7	3	0.1	-

Intersection												
Int Delay, s/veh	3.6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	143	14	0	14	0	8	0	0	0	0	101
Future Vol, veh/h	0	143	14	0	14	0	8	0	0	0	0	101
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	68	68	68	68	68	68	68	68	68	68	68	68
Heavy Vehicles, %	0	5	0	0	6	0	0	0	0	0	0	6
Mvmt Flow	0	210	21	0	21	0	12	0	0	0	0	149

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	21	0	0	231	0	0	317	242	221	242	252	21
Stage 1	-	-	-	-	-	-	221	221	-	21	21	-
Stage 2	-	-	-	-	-	-	96	21	-	221	231	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.26
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.354
Pot Cap-1 Maneuver	1608	-	-	1349	-	-	640	663	824	716	655	1045
Stage 1	-	-	-	-	-	-	786	724	-	1003	882	-
Stage 2	-	-	-	-	-	-	916	882	-	786	717	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1608	-	-	1349	-	-	549	663	824	716	655	1045
Mov Cap-2 Maneuver	-	-	-	-	-	-	549	663	-	716	655	-
Stage 1	-	-	-	-	-	-	786	724	-	1003	882	-
Stage 2	-	-	-	-	-	-	786	882	-	786	717	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0			0			11.7			9		
HCM LOS							B			A		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	549	1608	-	-	1349	-	-	1045
HCM Lane V/C Ratio	0.021	-	-	-	-	-	-	0.142
HCM Control Delay (s)	11.7	0	-	-	0	-	-	9
HCM Lane LOS	B	A	-	-	A	-	-	A
HCM 95th %tile Q(veh)	0.1	0	-	-	0	-	-	0.5

Intersection												
Int Delay, s/veh	7.2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	131	0	12	0	0	0	7	0	0	0	0	7
Future Vol, veh/h	131	0	12	0	0	0	7	0	0	0	0	7
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	68	68	68	68	68	68	68	68	68	68	68	68
Heavy Vehicles, %	0	5	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	193	0	18	0	0	0	10	0	0	0	0	10

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1	0	0	18	0	0	401	396	9	396	405	1
Stage 1	-	-	-	-	-	-	395	395	-	1	1	-
Stage 2	-	-	-	-	-	-	6	1	-	395	404	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1635	-	-	1612	-	-	563	544	1079	568	538	1090
Stage 1	-	-	-	-	-	-	634	608	-	1027	899	-
Stage 2	-	-	-	-	-	-	1021	899	-	634	603	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1635	-	-	1612	-	-	507	479	1079	516	474	1090
Mov Cap-2 Maneuver	-	-	-	-	-	-	507	479	-	516	474	-
Stage 1	-	-	-	-	-	-	559	536	-	905	899	-
Stage 2	-	-	-	-	-	-	1011	899	-	559	531	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	6.9			0			12.2			8.3		
HCM LOS							B			A		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	507	1635	-	-	1612	-	-	1090
HCM Lane V/C Ratio	0.02	0.118	-	-	-	-	-	0.009
HCM Control Delay (s)	12.2	7.5	0	-	0	-	-	8.3
HCM Lane LOS	B	A	A	-	A	-	-	A
HCM 95th %tile Q(veh)	0.1	0.4	-	-	0	-	-	0

Intersection	
Intersection Delay, s/veh	13.9
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↕	↕		↕	↕	
Traffic Vol, veh/h	38	149	154	9	88	42	101	178	34	49	126	19
Future Vol, veh/h	38	149	154	9	88	42	101	178	34	49	126	19
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Heavy Vehicles, %	0	0	1	0	3	3	2	0	3	0	1	0
Mvmt Flow	43	167	173	10	99	47	113	200	38	55	142	21
Number of Lanes	0	1	0	0	1	0	1	1	0	1	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	1	1
HCM Control Delay	16.7	11.6	13.2	12
HCM LOS	C	B	B	B

Lane	NBLn1	NBLn2	EBLn1	WBLn1	SBLn1	SBLn2
Vol Left, %	100%	0%	11%	6%	100%	0%
Vol Thru, %	0%	84%	44%	63%	0%	87%
Vol Right, %	0%	16%	45%	30%	0%	13%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	101	212	341	139	49	145
LT Vol	101	0	38	9	49	0
Through Vol	0	178	149	88	0	126
RT Vol	0	34	154	42	0	19
Lane Flow Rate	113	238	383	156	55	163
Geometry Grp	7	7	2	2	7	7
Degree of Util (X)	0.222	0.421	0.596	0.271	0.112	0.305
Departure Headway (Hd)	7.131	6.471	5.599	6.241	7.326	6.737
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	506	560	636	578	492	536
Service Time	4.831	4.171	3.697	4.254	5.026	4.437
HCM Lane V/C Ratio	0.223	0.425	0.602	0.27	0.112	0.304
HCM Control Delay	11.9	13.8	16.7	11.6	10.9	12.4
HCM Lane LOS	B	B	C	B	B	B
HCM 95th-tile Q	0.8	2.1	3.9	1.1	0.4	1.3