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Sterling Ranch East Filing No. 8
Traffic Impact Study
EPC PCD File Nos.: SF2526 & PUDSP256
(LSC #S224591)
October 1, 2026

Traffic Engineer's Statement

This traffic report and supporting information were prepared under my responsible charge and they comport with the standard of care. So far as is consistent with the standard of care, said report was prepared in general conformance with the criteria established by the County for traffic reports.

COLORADO LICENSED
JEFFREY C. HODSDON
31684
PROFESSIONAL ENGINEER
10-6-26

Developer's Statement

I, the Developer, have read and will comply with all commitments made on my behalf within this report.

V.P.

16/6/2026
Date

Sterling Ranch East Filing No. 8

Traffic Impact Study

Prepared for:
Loren J. Moreland
Vice President/ Project Manager
Classic SRJ
2138 Flying Horse Club Drive
Colorado Springs, CO 80921

OCTOBER 1, 2026

LSC Transportation Consultants
Prepared by: Kirstin D. Ferrin, P.E.
Reviewed by: Jeffrey C. Hodsdon, P.E.

LSC #S224591

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October 1, 2026

Loren J. Moreland
Vice President/ Project Manager
Classic SRJ
2138 Flying Horse Club Drive
Colorado Springs, CO 80921

RE: Sterling Ranch East
Filing No. 8
Traffic Impact Study
El Paso County, Colorado
EPC PCD File Nos.: SF2526 & PUDSP256
LSC #S224591

Dear Mr. Moreland:

LSC Transportation Consultants, Inc. has prepared this Traffic Impact Study for the proposed Sterling Ranch East Filing No. 8. As shown in Figure 1, the site is located north of Briargate Parkway and east of the future Sterling Ranch Road in El Paso County, Colorado.

REPORT CONTENTS

The preparation of this report included the following:

- A list of previous Sterling Ranch traffic reports and the context of this project;
- The existing roadway and traffic conditions in the site's vicinity including the roadway widths, surface conditions, lane geometries, traffic controls, posted speed limits, and crash history;
- A summary of the proposed land use and access plan;
- Existing traffic-volume data;
- Estimates of projected short-term and long-term baseline traffic volumes;
- The projected average weekday and peak-hour vehicle trips to be generated by the proposed future development;
- The assignment of the projected site-generated traffic volumes to the area roadways;
- The projected short-term and long-term total traffic volumes on the area roadways;
- The projected levels of service at the key intersections within the study area;
- Signal-warrant threshold analysis;
- The recommended street classifications;
- Findings and recommendations for study-area roadways and intersections, including number of lanes, auxiliary turn lanes, intersection traffic control, etc.; and
- The project's obligation to the County roadway improvement fee program.

RECENT TRAFFIC REPORTS

The master traffic impact study (MTIS) by LSC for the entire Sterling Ranch development is dated March 17, 2023 (SKP224). LSC also prepared a technical memorandum for the Sterling Ranch Amendment #3 dated January 17, 2024 (SKP235, P239, P2310, and P2311) and for Sterling Ranch Amendment #4 dated November 18, 2024 (SKP241). Appendix Table 1, which includes a list of other traffic studies within Sterling Ranch and in the vicinity of area of study (that LSC is aware of), is attached for reference.

El Paso County completed a study of the Briargate Stapleton Corridor as part of a Pikes Peak Rural Transportation Authority (PPRTA) study. The final version of the *Briargate-Stapleton Corridor Study* by Wilson & Company was published December 7, 2023.

STUDY AREA

Figure 1 shows the location of the Sterling Ranch East Filing No. 8 relative to the overall Sterling Ranch Sketch Plan Area. As shown in Figure 1, the site is located generally in the middle of the Sketch Plan Area adjacent to the future extension of Sterling Ranch Road and north of Briargate Parkway.

Land Use

Figure 2 shows the proposed Sterling Ranch East Filing No. 8 Plan. The site is planned to be developed with 154 residential dwelling units. This is four fewer residential dwelling units than was assumed for this area in the 2023 MTIS.

Pedestrian Plan

Figure 2 shows the proposed sidewalks within Sterling Ranch East Filing No 8. Attached 5-foot-wide concrete sidewalks are planned on all of the local streets. Detached sidewalks will also be provided along the adjacent streets (Briargate Parkway, Sterling Ranch Road, Idaho Falls Drive, and Boulder City Drive). The multi-use paved shoulder on Sterling Ranch Road accommodates bicycles.

Although there are no proposed regional trails within the boundary of the site, multiple community trails are included for circulation and recreational use throughout the overall Sterling Ranch development.

There are no existing schools within two miles of the site. However, there are multiple future school sites in the area, including a future K-8 school site south of the site on the southwest corner of Briargate Parkway/Sterling Ranch Road. No information or plans are available for the school sites and a separate site-specific traffic impact study including pedestrian plans will be required to be approved prior to school site development.

Proposed Access Points

Figure 3 shows the roadway connections that have been completed and are planned to be constructed in the short term.

Figure 2 shows the proposed access plan. Access is proposed to the future Idaho Falls Drive (Urban Local) and Boulder City Drive (Urban Local). The intersection of Idaho Falls Drive/Sterling Ranch Road is planned to be a full-movement stop-sign-controlled intersection and the intersection of Briargate Parkway/Boulder City Drive is planned to be restricted to three-quarter movement (left-in/right-in/right-out only).

Sight Distance Analysis

Figure 4a shows a sight-distance analysis at the intersection of Idaho Falls Drive (Urban Local)/Sterling Ranch Road (Urban Residential Collector). Based on a design speed of 40 miles per hour (mph) and the criteria contained in Table 2-21 of the *Engineering Criteria Manual* (*ECM*), the required intersection sight distance at the future intersection is 445 feet. As shown in Figure 4a, this intersection will meet the criteria.

Figure 4b shows a sight-distance analysis at the three-quarter movement intersection of Boulder City Drive (Urban Local)/Briargate (4-Lane Urban Principal Arterial). Based on a design speed of 50 miles per hour (mph) and the criteria contained in Table 2-21 of the *Engineering Criteria Manual* (*ECM*), the required intersection sight distance at the future intersection is 555 feet. As shown in Figure 4b, the proposed intersection will meet the criteria.

REPORT SCENARIOS

Short-Term Scenario

The short-term scenario includes the roadway segments to be added in the short term only. This scenario includes the Sterling Ranch East Filing No. 8 area (“the site”) as well as traffic to be generated in the short term by buildout of Retreat at Prairie Ridge Filing No. 1 through 4, the Retreat at TimberRidge, Homestead at Sterling Ranch, Branding Iron at Sterling Ranch, Sterling Ranch Filings 2-4, Copper Chase at Sterling Ranch, Homestead North at Sterling Ranch Filings 1-3, Sterling Ranch East Filings 1 through 6, and the Villages at Sterling Ranch East.

Note that the short-term scenario assumes no traffic due to the future school sites within the Sterling Ranch East Preliminary Plan 1. Trips projected from these other short-term developments outside of the Sterling Ranch East Filing No. 8 boundary are included as short-term “background traffic” in this report.

Long-Term Scenario

The long-term scenario is essentially the same as the 2045 long-term scenario contained in the approved TIS for Villages at Sterling Ranch subdivision plat, dated April 24, 2025 and *the Sterling Ranch Sketch Plan Amendment #4 and Sterling Ranch East Filing No. 7 Site Rezone Traffic Impact Study* by LSC dated November 18, 2024 with additional detail added for this application.

The study area of this report is more focused than the Sketch Plan. Included is analysis of the Arterial/Arterial and Arterial/Collector intersections adjacent to the existing, approved, and currently-proposed areas within the Sterling Ranch Sketch Plan Area (Briargate Parkway/Vollmer Road [#4], Briargate Parkway/Sterling Ranch Road [#5], Research Parkway/Marksheffel Road/Vollmer Road [#12], and Marksheffel Road/Sterling Ranch Road [#13]), and new analysis of Arterial/Local and Collector/Local intersections adjacent to the site (Briargate Parkway/Boulder City Drive [#102] and Sterling Ranch Road/Idaho Falls Drive [#308]).

EXISTING ROAD AND TRAFFIC CONDITIONS

The adjacent streets are shown in Figure 1 and are described below. Excerpts from the 2024 *El Paso County Major Transportation Corridors Plan (MTCP) 2045 Roadway Functional Classifications (Figure 22) and 2065 Corridor Preservation Plan (Figure 39)* with the site location identified on them have been attached to this report. The *2045* and *2065 Through Lane Requirements* (Figures 23 and 40, respectively) are also reflected in this report.

Vollmer Road The 2024 *MTCP* shows Vollmer Road as an Urban – Major Collector in the vicinity of the site. Two Vollmer Road improvement projects (CDR2116 and CDR217) which provided two through lanes in each direction on Vollmer Road in the vicinity of Marksheffel Road and Briargate Parkway were recently completed.

Marksheffel Road is a Principal Arterial extending north from the City of Fountain to Woodmen Road. Marksheffel Road is planned to ultimately be widened to six lanes and extended north and west from Woodmen Road to connect to Research Parkway at Black Forest Road. Marksheffel Road is shown as a four-lane Principal Arterial through the site on the El Paso County *MTCP*. The City of Colorado Springs has taken ownership and maintenance of Marksheffel Road.

The section of Marksheffel Road adjacent to Sterling Ranch has been constructed on 107 feet of right-of-way to the City's required cross section(s) and criteria. The section of Marksheffel Road southeast of Sterling Ranch Road was completed in November 2024 and Marksheffel Road is now open between Woodmen Road and Vollmer Road.

Briargate Parkway is a Principal Arterial that extends east from I-25 to Grand Lawn Circle (about one-half mile east of Powers Boulevard). Briargate Parkway is planned ultimately to extend to Towner Drive. The segment of Briargate Parkway from just west of Vollmer Road to Sterling Ranch Road was recently constructed to its full-lane cross section.

Sterling Ranch Road is an Urban Non-Residential Collector shown extending through the Sterling Ranch development between Marksheffel Road and the north end of the Sketch Plan area (Arroya Road). Sterling Ranch Road has been constructed between Marksheffel Road and Briargate Parkway. Sections north of Briargate Parkway are planned in the short-term Sterling Ranch East Filings No. 2, Sterling Ranch East Filing No. 6, and/or Sterling Ranch East Filing No. 8.

Existing Traffic Volumes

Figure 5a shows the existing peak-hour traffic volumes at the key study-area intersections. The peak-hour traffic volumes shown are based on manual turning-movement counts by LSC Transportation Consultants in March 2025. The traffic-count sheets are attached.

Existing Levels of Service

Level of service (LOS) is a quantitative measure of the level of congestion or delay at an intersection. Level of service is indicated on a scale from "A" to "F." LOS A represents control delay of less than 10 seconds for unsignalized intersections. LOS F represents control delay of more than 50 seconds for unsignalized intersections. Table 1 shows the level of service delay ranges.

Table 1: Intersection Levels of Service Delay Ranges

Level of Service	Signalized Intersections Average Control Delay (seconds per vehicle)	Unsignalized Intersections Average Control Delay (seconds per vehicle)[1]
A	10.0 sec or less	10.0 sec or less
B	10.1-20.0 sec	10.1-15.0 sec
C	20.1-35.0 sec	15.1-25.0 sec
D	35.1-55.0 sec	25.1-35.0 sec
E	55.1-80.0 sec	35.1-50.0 sec
F	80.1 sec or more	50.1 sec or more

(1) For unsignalized intersections, if V/C ratio is greater than 1.0 the level of service is LOS F, regardless of the projected average control delay per vehicle.

The existing study-area intersections have been analyzed based on the unsignalized-intersection analysis procedures from the *Highway Capacity Manual, 6th Edition* by the Transportation Research Board. The results of the analysis are shown in Figure 5b.

All movements at the two-way, stop-sign-controlled intersections of Briargate/Vollmer, Marksheffel/Vollmer and Marksheffel/Sterling Ranch are currently operating at LOS C or better during the peak hours.

Safety and Accident Analysis

LSC obtained three-year crash history data from the Colorado Department of Transportation for Vollmer Road and Marksheffel Road adjacent to the Sterling Ranch Sketch Plan area. One single-vehicle crash was reported at the intersection of Vollmer Road/Briargate Parkway (#4) in December 2024. The vehicle was making a right-turn and hit a sign and the curb. One non-intersection related crash was reported in the vicinity of Vollmer Road/Marksheffel Road (#12) in September 2025. The crash involved a fatigued driver that ran off the left side of the road. No crashes were reported at the intersection of Marksheffel Road/Sterling Ranch Road (#13).

BASELINE CONDITIONS

Baseline traffic is the traffic estimated to be on the adjacent roadways and at adjacent intersections without the proposed development's trip generation of site-generated traffic volumes. Baseline traffic (for a specified horizon year) includes the through traffic and the traffic generated by nearby developments (existing and planned, including traffic generated by existing and planned developments within the greater Sterling Ranch overall development) but assumes zero traffic generated by land uses within the site (the Sterling Ranch East Filing No. 8 boundary area).

Short-Term Baseline Scenario Conditions

Please refer to the description of the short-term scenario above. Figure 6a shows the projected volumes for the short-term baseline scenario.

Note: the short-term baseline scenario assumes only the following approved subdivisions to be developed and generating trips (in the short term): Retreat at Prairie Ridge Filing No. 1 through 4, the Retreat at TimberRidge, Homestead at Sterling Ranch, Branding Iron at Sterling Ranch, Sterling Ranch Filings 2-4, Copper Chase at Sterling Ranch, Homestead North at Sterling Ranch Filings 1-3, Sterling Ranch East Filings 1 through 6, and the Villages at Sterling Ranch East. The short-term scenario also assumes some of the existing traffic from the Retreat at TimberRidge Filing No. 1 north of the site will be shifted to use the new connection through the Sterling Ranch East Filing No. 4.

Figure 6b shows the lane geometry, traffic control, and level of service at the key area intersections, based on the short-term baseline scenario volumes.

Long-Term Baseline Scenario Conditions

Figure 7a shows the projected 2045 baseline daily traffic volumes on key street segments at the key area intersections and the projected 2045 peak-hour baseline traffic volumes at the key area intersections. These volumes assume buildout of the area street network, including the

completion of Marksheffel Road between Vollmer Road and Black Forest Road, Briargate Parkway between Meridian Road and Black Forest Road, and Sterling Ranch Road between Marksheffel Road and Briargate Parkway.

The 2045 baseline traffic volumes are estimates by LSC, primarily taken from the recently-prepared and approved TIS for Villages at Sterling Ranch subdivision plat, dated April 24, 2025. The 2045 baseline daily traffic volumes assume buildout of the land uses within the Sterling Ranch Master Plan that were not included in the short-term scenario, including the preliminary estimates of future traffic to be generated by the Sterling Ranch school sites. The estimates of future school trip generation and traffic volumes at intersections are only preliminary estimates because no school site plans/student enrollment numbers etc. are available.

Figure 7b shows the lane geometry, traffic control, and level of service at the key area intersections, based on the 2045 baseline volumes.

TRIP GENERATION

The SRE Filing No. 8 (site-generated) vehicle trips were estimated using the nationally-published trip-generation rates from *Trip Generation, 12th Edition*, 2025 by the Institute of Transportation Engineers (ITE). Table 2 shows the trip-generation estimates. Table 2 also shows the trip-generation estimate assumed for the same area in the Sterling Ranch MTIS for comparison. Note that the trip-generation estimate in the Sterling Ranch MTIS was based on the trip-generation rates from the 11th edition of *Trip Generation.*

Sterling Ranch East Filing No. 8 is projected to generate about 1,400 new external vehicle trips on the average weekday, with about half entering and half exiting the site during a 24-hour period. This is about 90 **fewer** vehicle trips per day than were assumed for the same area in the MTIS. During the morning peak hour, which generally occurs for one hour between 6:30 and 8:30 a.m., about 29 vehicles would enter and 79 vehicles would exit the site. During the afternoon peak hour, which generally occurs for one hour between 4:15 and 6:15 p.m., about 89 vehicles would enter and 54 vehicles would exit the site.

TRIP DISTRIBUTION AND ASSIGNMENT

The directional distribution of the site-generated traffic volumes on the street and roadway system serving the site is an important factor in determining the site's traffic impacts. The distribution estimates for short-term and long-term residential-related traffic are shown in Figure 8. The short-term directional-distribution estimate assumes the short-term roadway network shown in Figure 3 only and the long-term directional-distribution estimate assumes buildout of the roadway network. The directional-distribution estimates are based, in part, on the estimates contained in the Amendment #4 Sketch Plan MTIS report. Factors include: the location of the site with respect to the Colorado Springs metropolitan area, the planned access

system for the site, the street and roadway system serving the site, and the land uses proposed for the site.

When the distribution percentages (from Figure 8) are applied to the new, external trip-generation estimates (from Table 2), the resulting site-generated traffic volumes can be determined. Figure 9 shows the short-term site-generated traffic volumes. Figure 10 shows the long-term residential site-generated traffic volumes assuming buildout of the area roadway network.

TOTAL TRAFFIC

Short-Term Total Traffic

Figure 11a shows the projected short-term total daily traffic volumes on key street segments and the projected short-term-total peak-hour traffic volumes at the key study-area intersections. These volumes are the sum of the short-term-baseline traffic volumes (from Figures 6a) and the short-term site-generated traffic volumes (from Figure 9).

Figure 11b shows the level of service analysis results for the key area intersections based on the projected short-term total volumes. The figure also shows the general intersection lane geometry and intersection traffic control used in the analysis.

2045 Total Traffic

Figure 12a shows the projected 2045 total daily traffic volumes on key street segments and the projected 2045 total peak-hour traffic volumes at the key study-area intersections. These volumes are the sum of the 2045 baseline traffic volumes (from Figure 7a) and the long-term site-generated traffic volumes (from Figure 10).

Figure 11b shows the level of service analysis results for the key area intersections, based on the projected 2045 total volumes. The figure also shows the general intersection lane geometry and intersection traffic control used in the analysis.

SIGNAL WARRANT ANALYSIS

The intersections of Briargate/Vollmer (#4), Marksheffel/Vollmer (#12) and Marksheffel/Sterling Ranch (#13) were analyzed to determine if the thresholds for Four-Hour and/or Eight-Hour Vehicular-Volume Traffic-Signal Warrant thresholds would be reached or exceeded, based on the projected short-term peak-hour traffic volumes and the criteria contained in the *Manual of Uniform Traffic Control Devices* 11th Edition, December 2023 (*MUTCD*).

Table 3 shows the results of the analysis for the intersection of Briargate/Vollmer (#4). Based on the projected short-term-total traffic volumes, only four of the hours analyzed are projected to

meet the criteria for an Eight-Hour Vehicular-Volume Warrant and three of hours analyzed are projected to meet the criteria for a Four-Hour Vehicular-Volume Traffic-Signal Warrant. This analysis indicates that traffic-signal warrant(s) will **not** likely be met in the short term.

Table 4 shows the results of the analysis for the intersection of Marksheffel/Vollmer (#12). Based on the projected short-term-total traffic volumes, nine of the hours analyzed are projected to meet the criteria for an Eight-Hour Vehicular-Volume Warrant and three of hours analyzed are projected to meet the criteria for a Four-Hour Vehicular-Volume Traffic-Signal Warrant. This analysis indicates that traffic-signal warrant(s) may be met in the short term.
Table 5 shows the results of the analysis for the intersection of Marksheffel/Sterling Ranch (#13). Based on the projected short-term total traffic volumes, only seven of the eight hours analyzed are projected to meet the criteria for an Eight-Hour Vehicular-Volume Warrant. However, nine of the hours analyzed are projected to meet the criteria for a Four-Hour Vehicular-Volume Traffic-Signal Warrant. This analysis indicates that a traffic-signal warrant will likely be met in the short term.

LEVEL OF SERVICE ANALYSIS

The key area future signalized intersections have been analyzed to determine the projected intersection levels of service for short-term and 2045 baseline and total-traffic scenarios for the morning and afternoon peak-hour periods using Synchro Version 11. The key area future stop-sign-controlled intersections have been analyzed, based on the unsignalized-intersection analysis procedures from the *Highway Capacity Manual 6th Edition*. Figures 4b, 5b, 6b, 11b, and 12b show the level of service analysis results. The level of service reports are attached.

Intersection #4: Vollmer Road/Briargate Parkway

Based on the projected short-term total traffic volumes, the westbound left-turn and through movements at the intersection of Marksheffel/Vollmer is projected to operate at LOS F during the morning and afternoon peak hours. This intersection is planned as a future signalized intersection. However, as discussed in the Signal Warrant Analysis section above, traffic-signal warrant(s) may not be met in the short term. It is not uncommon for the minor movements at a stop-sign-controlled intersection to operate at LOS E or F as the traffic volumes approach the levels needed to meet vehicular-volume traffic-signal warrants.

By 2045, it was assumed Briargate Parkway would be extended west to Black Forest Road and East to Towner Avenue and that the intersection of Vollmer/Briargate will be converted to traffic-signal control. The intersection of Vollmer/Briargate is projected to operate at an overall LOS C during the peak hours as a signalized intersection, based on the projected 2045 total traffic volumes shown in Figure 12a and the lane geometry shown in Figure 12b.

Intersection #5: Briargate Parkway/Sterling Ranch Road

The intersection of Briargate/Sterling Ranch is projected to operate at LOS C or better for all movements in the short term as a stop-sign-controlled intersection.

By 2045, it was assumed Briargate Parkway would be extended west to Black Forest Road and East to Towner Avenue and that the intersection of Briargate/Sterling Ranch will be converted to traffic-signal control. The intersection of Briargate/Sterling Ranch is projected to operate at an overall LOS C during the peak hours as a signalized intersection, based on the projected 2045 total traffic volumes shown in Figure 12b and the lane geometry shown in Figure 12c.

Intersection #12: Marksheffel Road/Vollmer Road

Based on the projected short-term total traffic volumes, the westbound left-turn movement at the intersection of Marksheffel/Vollmer is projected to operate at LOS F during the morning and afternoon peak hours. This intersection is planned as a future signalized intersection. As discussed in the Signal Warrant Analysis section above, this intersection is expected to meet an Eight-Hour Vehicular-Volume Traffic-Signal Warrant following buildout of the Sterling Ranch parcels assumed in the short-term baseline scenario. If this intersection is converted to signal control, it is projected to operate at an overall LOS C or better during the peak hours, through 2045.

Intersection #13: Marksheffel Road/Sterling Ranch Road

Based on the projected short-term total traffic volumes, the southbound left-turn movement at the intersection of Marksheffel/Sterling Ranch is projected to operate at LOS F during the morning and afternoon peak hours if it remains stop-sign controlled. As discussed in the Signal Warrant Analysis section above, this intersection is expected to meet a Four-Hour Vehicular-Volume Traffic-Signal Warrant following buildout of the Sterling Ranch parcels assumed in the short-term baseline scenario. If this intersection is converted to signal control, it is projected to operate at an overall LOS C or better during the peak hours, through 2045.

Intersection #102: Briargate Parkway/Boulder City Drive

The intersection of Sterling Ranch/Idaho Falls Drive is projected to operate at LOS C or better for all movements as a stop-sign-controlled three-quarter movement (left-in/right-in/right-out only) intersection, based on the projected short-term and 2045 total traffic volumes.

Intersection #308: Sterling Ranch Road/Idaho Falls Drive

The intersection of Sterling Ranch/Idaho Falls Drive is projected to operate at LOS B or better for all movements as a full-movement stop-sign-controlled intersection, based on the projected short-term and 2045 total traffic volumes.

ROADWAY FUNCTIONAL CLASSIFICATIONS AND LANEAGE

Figure 13 shows the recommended functional classifications for streets within SRE Filing No. 8. The figure also shows, for reference, the functional classification and number of through lanes for the adjacent roadways, Sterling Ranch Road and Briargate Parkway.

RECOMMENDED IMPROVEMENTS

Intersection Improvements

Figures 11b and 12b show the intersection traffic control and lane-schematic diagrams for the **short-** and **long**-term total traffic scenarios, respectively. The intersection diagrams indicate with arrows where exclusive auxiliary turn lanes should be provided.

Auxiliary Turn Lanes

The following auxiliary turn-lane improvement will be needed with Sterling Ranch East Filing No. 8 if not constructed as part of another Sterling Ranch East Filing. The recommended improvement is based on the short-term and 2045 total traffic volumes shown in Figures 11b and 12b and the criteria contained in the El Paso County *Engineering Criteria Manual* (*ECM*).

- A northeast-bound left-turn lane on Sterling Ranch Road approaching Idaho Falls Drive. A center painted median is part of the standard Urban Minor Collector cross section.
- Note that an eastbound left-turn lane and a westbound right-turn deceleration lane that meet *ECM* criteria have already been constructed on Briargate Parkway approaching the future Boulder City Drive.

Intersection Traffic Control Upgrades (Future Traffic Signals)

The figures show intersections as stop-sign controlled or as signalized intersections.

For intersections shown with future traffic signal control, please refer to the escrow section and Table 6 for the site-generated estimate percent impact of Filing 8 contributing to the warrant threshold volumes.

Roadway Segment Improvements

Table 6 is the **overall** list of Sterling Ranch/Sterling Ranch East area roadway-segment improvements. Please refer to Figure 13, which provides a graphic/map of the roadway-segments by identifier number and timing (short-, intermediate-, and long-term). These recommendations are consistent with the LSC MTIS for the Sterling Ranch Sketch Plan Amendment #4, dated February 18, 2024 (SKP224).

DEVIATION REQUESTS

No [traffic-related] deviations to the criteria contained in the *El Paso County Engineering Criteria Manual* (*ECM*) are planned to be submitted as part of this application.

AREA MTCP 2045 ROADWAY IMPROVEMENT PROJECTS

The *El Paso County 2024 Major Transportation Corridors Plan Update* identified the following roadway improvement projects within the study area:

- 158: Vollmer Road from Marksheffel Road to Burgess Road as an Urban Major Collector l
- 166: Stapleton Drive from west of Vollmer Road to Towner Avenue as a 4-Lane Urban Principal Arterial
- 329: Stapleton Drive/Briargate Parkway: from Black Forest Road to west of Vollmer Road and a 4-Lane Urban Principal Arterial

ESCROW ANALYSIS

Table 7 shows the impact of site-generated traffic expressed as a percentage of 2045 total morning and afternoon peak-hour traffic volumes that contribute to the Four-Hour Vehicular-Volume Traffic-Signal-Warrant minor-approach volumes at the intersections of Briargate Parkway/Sterling Ranch Road (#5), Marksheffel Road/Research Parkway/Vollmer Road (#12), and Marksheffel Road/Sterling Ranch Road (#13). These percentages could be used as basis for a fair-share contribution towards the future signalization of these intersections. Marksheffel Road/Research Parkway/Vollmer Road (#12) and Marksheffel Road/Sterling Ranch Road (#13) are City of Colorado Springs intersections. The City may modify this formula (or use their own formula) for signal participation, based on City-standard methodology.

TRANSPORTATION IMPROVEMENT FEE PROGRAM AND CREDIT AGREEMENTS

The applicant will be required to participate in the Countywide Transportation Improvement Fee Program. These projects will annex into the 5 mil PID, which has a per-lot upfront building permit fee of $1,974 per single-family dwelling unit. The total building permit fee amount for the 154 residential dwelling units would be $303,996. Note: this is based on the current rate, which is subject to change. El Paso County updates this rate periodically.

CONCLUSIONS AND RECOMMENDATIONS

Trip Generation

Sterling Ranch East Filing No. 8 is projected to generate about 1,400 new external vehicle trips on the average weekday, with about half entering and half exiting the site during a 24-hour period. During the morning peak hour, about 29 vehicles would enter and 79 vehicles would exit the site. During the afternoon peak hour, about 89 vehicles would enter and 54 vehicles would exit the site.

Level of Service

- Some of the movements at the intersections of Briargate/Vollmer (#5), Marksheffel Road/Vollmer Road (#12) and Marksheffel Road/Sterling Ranch Road (#13) are projected to operate at LOS E or LOS F during the peak hours, if they remain stop-sign controlled in the short-term future. Once signalized, all movements at these intersections are projected to operate at LOS D or better, based on the projected short-term and 2045 total traffic volumes.
- The intersection of Briargate/Sterling Ranch is projected to operate at a satisfactory level of service as a stop-sign-controlled intersection in the short-term future. By 2045, this intersection will likely need to be converted to traffic-signal control. As signalized intersections, all movements are projected to operate at LOS D or better during the peak hours, based on the projected 2045 total traffic volumes.
- The intersection of Sterling Ranch Road/Boulder City Drive (#102) is projected to operate at an acceptable level of service as a stop-sign-controlled three-quarter movement (left-in/right-in/right-out only) intersection.
- The intersection of Sterling Ranch Road/ Idaho Falls Drive (#308) is projected to operate at an acceptable level of service as a stop-sign-controlled full-movement intersection.

Recommended Improvements

- Based on the short-term and 2045 total traffic volumes shown in Figures 11b and 12b and the criteria contained in the El Paso County *Engineering Criteria Manual* (*ECM*) a northeast-bound left-turn lane on Sterling Ranch Road approaching Idaho Falls Drive. A center painted median is part of the standard Urban Minor Collector cross section.
- Based on the short-term and 2045 total traffic volumes shown in Figures 11b and 12b and the criteria contained in the *ECM* an eastbound left-turn lane and a westbound right-turn deceleration lane are required on Briargate Parkway approaching Boulder City Drive. Note that both of these lanes have already been constructed.

Escrow Analysis

Table 7 shows the impact of Sterling Ranch East Filing No. 8 (site-generated) traffic expressed as a percentage of 2045 total morning and afternoon peak-hour traffic volumes that contribute to the Four-Hour Vehicular-Volume Traffic-Signal-Warrant minor-approach volumes at the intersections of Briargate Parkway/Sterling Ranch Road (#5), Marksheffel Road/Research Parkway/Vollmer Road (#12), and Marksheffel Road/Sterling Ranch Road (#13). These percentages could be used as basis for a fair-share contribution towards the future signalization of these intersections. Marksheffel Road/Research Parkway/Vollmer Road (#12) and Marksheffel Road/Sterling Ranch Road (#13) are City of Colorado Springs intersections. The City may modify this formula (or use their own formula) for signal participation, based on City-standard methodology.

* * * * *

Please contact me if you have any questions regarding this report.

Sincerely,

LSC TRANSPORTATION CONSULTANTS, INC.

By Jeffrey C. Hodsdon, P.E.
Principal

JCH/KDF:jas

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TRANSPORTATION
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Table 2
Trip Generation Estimate
Sterling Ranch East Filings No. 8

ITE Code	ITE Land Use	Quantity	Unit	Trip Generation Rates[1] Daily	AM Peak Hour In	AM Peak Hour Out	PM Peak Hour In	PM Peak Hour Out	Total Trips Generated Daily	AM Peak Hour In	AM Peak Hour Out	PM Peak Hour In	PM Peak Hour Out
Trip Generation Estimate Based on the Currently Proposed Land Use													
210	Single-Family Detached Housing	154	DU	9.09	0.19	0.51	0.58	0.35	1,400	29	79	89	54
Trip Generation Estimate For the Same Parcel (TAZ 19) From the *Sterling Ranch Sketch Plan Amendment #4 Master Traffic Impact Study* (SKP 241) November 18, 2024													
210	Single-Family Detached Housing	158	DU	9.43	0.18	0.53	0.59	0.35	1,490	28	83	94	55
	Change (Decrease)	**-4**	**DU**						**-90**	**1**	**-4**	**-5**	**-1**

Notes:

(1) Source: "Trip Generation, 12th Edition, 2025" by the Institute of Transportation Engineers (ITE)

(2) DU = Dwelling Unit

Source: LSC Transportation Consultants, Inc.

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Table 3: Traffic Signal Warrant Analysis
Scenario: Short-Term Total Traffic
Briargate/Vollmer Road

Hour	Short-Term Background Traffic: Major[2] Vollmer	Short-Term Background Traffic: Minor[3] WB Briargate	Sterling Ranch East Fil 8 Generated Traffic: Major Vollmer	Sterling Ranch East Fil 8 Generated Traffic: Minor Marksheffel	Short-Term Total Traffic: Major Vollmer	Short-Term Total Traffic: Minor WB Briargate	Warrant Analysis[1] — Warrant 1: Eight-Hour Vehicular-Volume Evaluation — Warrant Thresholds: Condition A Major	Condition A Minor	Condition B Major	Condition B Minor	Warrant Threshold Met? — Short-Term Background: Condition A	Condition B	Short-Term Total: Condition A	Condition B	Warrant 2: Four-Hour Vehicular-Volume Evaluation — Short-Term Background: Warrant Threshold Minor Minimum	Warrant Threshold Met? WB	Short-Term Total: Warrant Threshold Minor Minimum	Warrant Threshold Met? WB
Short-Term Total Traffic[4]																		
12-1 AM	37	4	2	1	39	5	600	150	900	75	No	No	No	No	Low Volume	No	Low Volume	No
1-2 AM	15	4	1	1	16	5	600	150	900	75	No	No	No	No	Low Volume	No	Low Volume	No
2-3 AM	11	0	1	0	12	0	600	150	900	75	No	No	No	No	Low Volume	No	Low Volume	No
3-4 AM	22	4	1	1	23	5	600	150	900	75	No	No	No	No	Low Volume	No	Low Volume	No
4-5 AM	41	15	1	3	42	18	600	150	900	75	No	No	No	No	Low Volume	No	Low Volume	No
5-6 AM	92	38	2	7	94	45	600	150	900	75	No	No	No	No	Low Volume	No	Low Volume	No
6-7 AM	355	112	8	22	363	134	600	150	900	75	No	No	No	No	Low Volume	No	Low Volume	No
7-8 AM	728	193	16	38	744	231	600	150	900	75	Yes	No	Yes	No	236	No	228	Yes
8-9 AM	658	163	18	32	676	195	600	150	900	75	Yes	No	Yes	No	267	No	260	No
9-10 AM	539	102	16	20	555	122	600	150	900	75	No	No	No	No	321	No	313	No
10-11 AM	550	102	21	20	571	122	600	150	900	75	No	No	No	No	315	No	305	No
11-12 PM	692	97	27	19	719	116	600	150	900	75	No	No	No	No	253	No	241	No
12-1 PM	645	105	27	19	672	124	600	150	900	75	No	No	No	No	272	No	261	No
1-2 PM	667	111	29	20	696	131	600	150	900	75	No	No	No	No	263	No	252	No
2-3 PM	760	117	34	21	794	138	600	150	900	75	No	No	No	No	220	No	203	No
3-4 PM	865	113	41	21	906	134	600	150	900	75	No	No	No	Yes	184	No	174	No
4-5 PM	992	141	50	26	1042	167	600	150	900	75	No	Yes	Yes	Yes	152	No	137	Yes
5-6 PM	950	139	49	26	999	165	600	150	900	75	No	Yes	Yes	Yes	163	No	150	Yes
6-7 PM	622	111	41	20	663	131	600	150	900	75	No	No	No	No	281	No	265	No
7-8 PM	519	81	29	15	548	96	600	150	900	75	No	No	No	No	331	No	316	No
8-9 PM	435	58	30	11	465	69	600	150	900	75	No	No	No	No	Low Volume	No	358	No
9-10 PM	292	45	21	8	313	53	600	150	900	75	No	No	No	No	Low Volume	No	Low Volume	No
10-11 PM	150	21	10	4	160	25	600	150	900	75	No	No	No	No	Low Volume	No	Low Volume	No
11-12 AM	71	13	6	2	77	15	600	150	900	75	No	No	No	No	Low Volume	No	Low Volume	No
Numbers of Hours the Warrant Thresholds Are Met											2	2	4	3		0		3
Warrant Met?											No		No			No		No

Notes:
(1) Thresholds are based on 2 or more lanes on the major approach and 1 lane on the minor approach (Warrant evaluation assuming the westbound left turn only for the minor street)
(2) The major-street (Vollmer) traffic includes all movements (left, through, and right)
(3) The minor-street traffic includes only the left turns from the minor street (WB Briargate)
(5) Off-peak-hour traffic volumes are based on the projected peak-hour traffic volumes, 72-hour machine counts conducted on Vollmer Road in April 2024 and vehicle time-of-day distribution data for single-family residential published by the Institute of Transportation Engineers

Source: LSC Transportation Consultants, Inc.

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Table 4: Traffic Signal Warrant Analysis
Scenario: Short-Term Total Traffic
Marksheffel Road/Vollmer Road

							Warrant Analysis[1]											
							Warrant 1: Eight-Hour Vehicular-Volume Evaluation								Warrant 2: Four-Hour Vehicular-Volume Evaluation			
											Warrant Threshold Met?				Short-Term Background		Short-Term Total	
	Short-Term Background Traffic		Sterling Ranch East Fil 8 Generated Traffic		Short-Term Total Traffic		Warrant Thresholds				Short-Term Background		Short-Term Total		Warrant Threshold Minor Minimum	Warrant Threshold Met? WB	Warrant Threshold Minor Minimum	Warrant Threshold Met? WB
							Condition A		Condition B									
Hour	Major[2] Vollmer	Minor[3] Marksheffel	Major Vollmer	Minor Marksheffel	Major Vollmer	Minor Marksheffel	Major	Minor	Major	Minor	Condition A	Condition B	Condition A	Condition B				
Short-Term Total Traffic[4]																		
12-1 AM	53	3	2	0	55	3	600	150	900	75	No	No	No	No	Low Volume	No	Low Volume	No
1-2 AM	21	3	1	0	22	3	600	150	900	75	No	No	No	No	Low Volume	No	Low Volume	No
2-3 AM	15	0	1	0	16	0	600	150	900	75	No	No	No	No	Low Volume	No	Low Volume	No
3-4 AM	33	3	1	0	34	3	600	150	900	75	No	No	No	No	Low Volume	No	Low Volume	No
4-5 AM	63	12	1	0	64	12	600	150	900	75	No	No	No	No	Low Volume	No	Low Volume	No
5-6 AM	145	29	2	0	147	29	600	150	900	75	No	No	No	No	Low Volume	No	Low Volume	No
6-7 AM	562	86	7	0	569	86	600	150	900	75	No	No	No	No	309	No	306	No
7-8 AM	1156	149	14	0	1170	149	600	150	900	75	No	Yes	No	Yes	109	Yes	106	Yes
8-9 AM	1020	126	16	0	1036	126	600	150	900	75	No	Yes	No	Yes	144	No	139	No
9-10 AM	834	79	14	0	848	79	600	150	900	75	No	No	No	No	192	No	188	No
10-11 AM	834	79	18	0	852	79	600	150	900	75	No	No	No	No	192	No	187	No
11-12 PM	1043	75	24	0	1067	75	600	150	900	75	No	Yes	No	Yes	137	No	130	No
12-1 PM	925	75	23	0	948	75	600	150	900	75	No	Yes	No	Yes	169	No	163	No
1-2 PM	944	79	25	0	969	79	600	150	900	75	No	Yes	No	Yes	164	No	158	No
2-3 PM	1065	83	29	0	1094	83	600	150	900	75	No	Yes	No	Yes	131	No	122	No
3-4 PM	1191	81	35	0	1226	81	600	150	900	75	No	Yes	No	Yes	102	No	97	No
4-5 PM	1331	101	43	0	1374	101	600	150	900	75	No	Yes	No	Yes	87	Yes	83	Yes
5-6 PM	1263	100	42	0	1305	100	600	150	900	75	No	Yes	No	Yes	94	Yes	90	Yes
6-7 PM	744	79	35	0	779	79	600	150	900	75	No	No	No	No	228	No	211	No
7-8 PM	664	58	25	0	689	58	600	150	900	75	No	No	No	No	264	No	254	No
8-9 PM	510	42	26	0	536	42	600	150	900	75	No	No	No	No	Low Volume	No	322	No
9-10 PM	327	32	18	0	345	32	600	150	900	75	No	No	No	No	Low Volume	No	Low Volume	No
10-11 PM	174	15	9	0	183	15	600	150	900	75	No	No	No	No	Low Volume	No	Low Volume	No
11-12 AM	71	9	5	0	76	9	600	150	900	75	No	No	No	No	Low Volume	No	Low Volume	No
							Numbers of Hours the Warrant Thresholds Are Met				0	9	0	9		3		3
							Warrant Met?				Yes		Yes			No		No

Notes:
(1) Thresholds are based on 2 or more lanes on the major approach and 1 lane on the minor approach (Warrant evaluation assuming the westbound left turn only for the minor street)
(2) The major-street traffic includes all movements (left, through, and right)
(3) The minor-street traffic includes only the left turns from the minor street
(5) Off-peak-hour traffic volumes are based on the projected peak-hour traffic volumes, 72-hour machine counts conducted on Vollmer Road in April 2024 and vehicle time-of-day distribution data for single-family residential published by the Institute of Transportation Engineers

Source: LSC Transportation Consultants, Inc. *Aug-26*

Table 5: Traffic Signal Warrant Analysis
Scenario: Short-Term Total Traffic
Marksheffel Road/Sterling Ranch Road

Hour	Short-Term Background Traffic: Major[2] Marksheffel	Short-Term Background Traffic: Minor[3] Sterling Ranch	Sterling Ranch Filing No. 8 Generated Traffic: Major Marksheffel	Sterling Ranch Filing No. 8 Generated Traffic: Minor Sterling Ranch	Short-Term Total Traffic: Major Marksheffel	Short-Term Total Traffic: Minor Sterling Ranch	Warrant Analysis[1] — Warrant 1: Eight-Hour Vehicular-Volume Evaluation — Warrant Thresholds: Condition A Major	Condition A Minor	Condition B Major	Condition B Minor	Warrant Threshold Met? — Short-Term Background: Condition A	Condition B	Short-Term Total: Condition A	Condition B	Warrant 2: Four-Hour Vehicular-Volume Evaluation — Short-Term Background: Warrant Threshold Minor Minimum	Warrant Threshold Met?	Short-Term Total: Warrant Threshold Minor Minimum	Warrant Threshold Met?
Short-Term Total Traffic[4]																		
12-1 AM	52	12	2	1	54	13	600	150	900	75	No	No	No	No	Low Volume	No	Low Volume	No
1-2 AM	22	12	1	1	23	13	600	150	900	75	No	No	No	No	Low Volume	No	Low Volume	No
2-3 AM	20	0	1	0	21	0	600	150	900	75	No	No	No	No	Low Volume	No	Low Volume	No
3-4 AM	23	12	1	1	24	13	600	150	900	75	No	No	No	No	Low Volume	No	Low Volume	No
4-5 AM	37	50	1	3	38	53	600	150	900	75	No	No	No	No	Low Volume	No	Low Volume	No
5-6 AM	69	124	2	7	71	131	600	150	900	75	No	No	No	No	Low Volume	No	Low Volume	No
6-7 AM	239	366	7	20	246	386	600	150	900	75	No	No	No	No	Low Volume	No	Low Volume	No
7-8 AM	479	632	13	34	492	666	600	150	900	75	No	No	No	No	Low Volume	No	Low Volume	No
8-9 AM	499	533	15	29	514	562	600	150	900	75	No	No	No	No	Low Volume	No	333	Yes
9-10 AM	422	335	13	18	435	353	600	150	900	75	No	No	No	No	Low Volume	No	Low Volume	No
10-11 AM	512	335	17	18	529	353	600	150	900	75	No	No	No	No	Low Volume	No	Low Volume	No
11-12 PM	651	316	22	17	673	333	600	150	900	75	Yes	No	Yes	No	270	Yes	261	Yes
12-1 PM	542	329	20	18	562	347	600	150	900	75	No	No	No	No	319	Yes	309	Yes
1-2 PM	581	346	22	19	603	365	600	150	900	75	No	No	Yes	No	Low Volume	No	289	Yes
2-3 PM	672	364	26	20	698	384	600	150	900	75	Yes	No	Yes	No	261	Yes	251	Yes
3-4 PM	798	352	32	19	830	371	600	150	900	75	Yes	No	Yes	No	201	Yes	193	Yes
4-5 PM	966	440	39	24	1005	464	600	150	900	75	Yes	Yes	Yes	Yes	159	Yes	149	Yes
5-6 PM	942	434	38	24	980	458	600	150	900	75	Yes	Yes	Yes	Yes	165	Yes	155	Yes
6-7 PM	740	346	32	19	772	365	600	150	900	75	Yes	No	Yes	No	Low Volume	No	214	Yes
7-8 PM	552	252	23	14	575	266	600	150	900	75	No	No	No	No	Low Volume	No	Low Volume	No
8-9 PM	535	182	23	10	558	192	600	150	900	75	No	No	No	No	Low Volume	No	Low Volume	No
9-10 PM	377	141	17	8	394	149	600	150	900	75	No	No	No	No	Low Volume	No	Low Volume	No
10-11 PM	186	65	8	4	194	69	600	150	900	75	No	No	No	No	Low Volume	No	Low Volume	No
11-12 AM	105	41	5	2	110	43	600	150	900	75	No	No	No	No	Low Volume	No	Low Volume	No
							Numbers of Hours the Warrant Thresholds Are Met				6	2	7	2		6		9
											Warrant Met?		No		Approaching		Yes	

Notes:

(1) Thresholds are based on 2 or more lanes on the major approach and 1 lane on the minor approach (Warrant evaluation assuming the southbound left turn only for the minor street)

(2) The major-street traffic includes all movements (left, through, and right)

(3) The minor-street traffic includes only the left turns from the minor street

(4) Off-peak-hour traffic volumes are based on the projected peak-hour traffic volumes, 72-hour machine counts conducted on Vollmer Road in April 2024 and vehicle time-of-day distribution data for single-family residential published by the Institute of Transportation Engineers

Source: LSC Transportation Consultants, Inc.

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Table 7: Traffic Signal Escrow Calculations

SRE Filing No. 8

	Traffic Volumes																					
	Northbound (Minor Approach)					Southbound (Minor Approach)					Eastbound (Major Approach)			Westbound (Major Approach)			Total Intersection Volume		Minor Approach Volume		Total Traffic Signal Cost	Fair Share Amount
	LT	TH	RT All RT	RT Included in the Minor Approach Volume[1]		LT	TH	RT All RT	RT Included in the Minor Approach Volume[1]		LT	TH	RT	LT	TH	RT						
	(vph)	(vph)	(vph)	(%)	(vph)	(vph)	(vph)	(vph)	(%)	(vph)	(vph)	(vph)	(vph)	(vph)	(vph)	(vph)	veh/hr	%	veh/hr	%*		
#4 Briargate Parkway/Vollmer Road																						
AM Peak Hour																						
2045 Background Traffic	153	130	94		0	107	310	139		0	68	524	153	217	998	78						
Long-Term Sterling Ranch East Filing No. 8 Site-Generated Traffic	0	0	**6**	0%	0	0	0	0	0%	0	0	17	0	11	17	1						
Total	**153**	**130**	**100**		**0**	**107**	**310**	**139**		**0**	**68**	**541**	**153**	**228**	**1,015**	**79**						
PM Peak Hour																						
2045 Background Traffic	291	414	239		0	89	211	118		0	227	948	176	178	707	64						
Long-Term Sterling Ranch East Filing No. 8 Site-Generated Traffic	0	0	23	0%	0	**2**	0	0	0%	0	0	22	0	9	13	1						
Total	**291**	**414**	**262**		**0**	**91**	**211**	**118**		**0**	**227**	**970**	**176**	**187**	**720**	**65**						
AM Peak Hour + PM Peak Hour																						
2045 Background Traffic	444	544	333		0	196	521	257		0	295	1,472	329	395	1,705	142			1,705	99.9%		$649,238
Long-Term Sterling Ranch East Filing No. 8 Site-Generated Traffic	0	0	29	0%	0	2	0	0	0%	0	0	39	0	20	30	2			2	0.1%	$650,000	$762
Total	**444**	**544**	**362**		**0**	**198**	**521**	**257**		**0**	**295**	**1,511**	**329**	**415**	**1,735**	**144**			**1,707**			
#5 Briargate Parkway/Sterling Ranch Road																						
AM Peak Hour																						
2045 Background Traffic	240	91	123		0	42	105	140		0	45	605	135	124	912	9						
Long-Term Sterling Ranch East Filing No. 8 Site-Generated Traffic	1	13	0	0%	0	5	18	6	0%	0	11	0	0	0	3	1						
Total	**241**	**104**	**123**		**0**	**47**	**123**	**146**		**0**	**56**	**605**	**135**	**124**	**915**	**10**						
PM Peak Hour																						
2045 Background Traffic	143	93	84		0	33	51	101		0	215	902	134	144	812	32						
Long-Term Sterling Ranch East Filing No. 8 Site-Generated Traffic	3	21	0	0%	0	4	8	5	0%	0	47	0	0	0	11	7						
Total	**146**	**114**	**84**		**0**	**37**	**59**	**106**		**0**	**262**	**902**	**134**	**144**	**823**	**39**						
AM Peak Hour + PM Peak Hour																						
2045 Background Traffic	383	184	207		0	75	156	241		0	260	1,507	269	268	1,724	41			798	91.6%		$595,522
Long-Term Sterling Ranch East Filing No. 8 Site-Generated Traffic	4	34	0	0%	0	9	26	11	0%	0	58	0	0	0	14	8			73	8.4%	$650,000	$54,478
Total	**387**	**218**	**207**		**0**	**84**	**182**	**252**		**0**	**318**	**1,507**	**269**	**268**	**1,738**	**49**			**871**			
#12 Marksheffel Road/Research Parkway/Vollmer Road[2]																						
AM Peak Hour																						
Short-Term Background Traffic	0	369	68		68	108	611	0		0	0	0	0	149	0	70						
Short-Term Sterling Ranch East Filing No. 8 Site-Generated Traffic	0	14	0	100%	0	0	38	0	50%	0	0	0	0	0	0	0						
Short-Term Total	**0**	**383**	**68**		**68**	**108**	**649**	**0**		**0**	**0**	**0**	**0**	**149**	**0**	**70**						
2045 Background Traffic	108	240	104		52	121	556	132		66	67	831	42	162	893	63						
Long-Term Sterling Ranch East Filing No. 8 Site-Generated Traffic	0	6	0	50%	0	0	11	3	50%	2	1	0	0	0	4	0						
Total	**108**	**246**	**104**		**52**	**121**	**567**	**135**		**68**	**68**	**831**	**42**	**162**	**897**	**63**						
PM Peak Hour																						
Short-Term Background Traffic	0	691	122		122	75	443	0		0	0	0	0	101	0	96						
Short-Term Sterling Ranch East Filing No. 8 Site-Generated Traffic	0	43	0	100%	0	0	26	0	50%	0	0	0	0	0	0	0						
Short-Term Total	**0**	**734**	**122**		**122**	**75**	**469**	**0**		**0**	**0**	**0**	**0**	**101**	**0**	**96**						
2045 Background Traffic	169	747	176		88	126	372	193		97	134	906	89	187	697	149						
Long-Term Sterling Ranch East Filing No. 8 Site-Generated Traffic	0	23	0	50%	0	0	9	3	50%	2	4	6	0	0	3	0						
Total	**169**	**770**	**176**		**88**	**126**	**381**	**196**		**99**	**138**	**912**	**89**	**187**	**700**	**149**						
AM Peak Hour + PM Peak Hour																						
Short-Term Background Traffic	0	1,060	190		190	183	1,054	0		0	0	0	0	250	0	166			2,903	96.0%		$623,991
Short-Term Sterling Ranch East Filing No. 8 Site-Generated Traffic	0	57	0	100%	0	0	64	0	50%	0	0	0	0	0	0	0			121	4.0%	$650,000	$26,009
Short-Term Total	**0**	**1,117**	**190**		**190**	**183**	**1,118**	**0**		**0**	**0**	**0**	**0**	**250**	**0**	**166**			**3,024**			
2045 Background Traffic	277	987	280		140	247	928	325		163	201	1,737	131	349	1,590	212	7,264	99.0%				$643,533
Long-Term Sterling Ranch East Filing No. 8 Site-Generated Traffic	0	29	0	50%	0	0	20	6	50%	3	5	6	0	0	7	0	73	1.0%			$650,000	$6,467
Total	**277**	**1,016**	**280**		**140**	**247**	**948**	**331**		**166**	**206**	**1,743**	**131**	**349**	**1,597**	**212**	**7,337**					
#13 Marksheffel Road/Sterling Ranch Road[2]																						
AM Peak Hour																						
Short-Term Background Traffic	10	3	5		5	632	0	150		75	73	99	4	8	60	239						
Short-Term Sterling Ranch East Filing No. 8 Site-Generated Traffic	0	0	0	100%	0	34	0	0	50%	0	0	0	0	0	0	13						
Short-Term Total	**10**	**3**	**5**		**5**	**666**	**0**	**150**		**75**	**73**	**99**	**4**	**8**	**60**	**252**						
2045 Background Traffic	7	2	7		7	483	8	304		152	140	884	12	53	807	170						
Long-Term Sterling Ranch East Filing No. 6 Site-Generated Traffic	0	0	0	100%	0	15	1	4	50%	2	2	0	0	0	0	3						
Total	**7**	**2**	**7**		**7**	**498**	**9**	**308**		**154**	**142**	**884**	**12**	**53**	**807**	**173**						
PM Peak Hour																						
Short-Term Background Traffic	3	11	10		10	440	10	100		50	122	69	6	8	94	673						
Short-Term Sterling Ranch East Filing No. 8 Site-Generated Traffic	0	0	0	100%	0	24	0	0	50%	0	0	0	0	0	0	39						
Short-Term Total	**3**	**11**	**10**		**10**	**464**	**10**	**100**		**50**	**122**	**69**	**6**	**8**	**94**	**712**						
2045 Background Traffic	18	4	24		24	327	15	177		89	289	940	6	62	838	538						
Long-Term Sterling Ranch East Filing No. 8 Site-Generated Traffic	0	0	0	100%	0	11	1	3	50%	2	6	0	0	0	0	11						
Total	**18**	**4**	**24**		**24**	**338**	**16**	**180**		**91**	**295**	**940**	**6**	**62**	**838**	**549**						
AM Peak Hour + PM Peak Hour																						
Short-Term Background Traffic	13	14	15		15	1,072	10	250		125	195	168	10	16	154	912			2,704	96.1%		$624,591
Short-Term Sterling Ranch East Filing No. 8 Site-Generated Traffic	0	0	0	100%	0	58	0	0	50%	0	0	0	0	0	0	52			110	3.9%	$650,000	$25,409
Short-Term Total	**13**	**14**	**15**		**15**	**1,130**	**10**	**250**		**125**	**195**	**168**	**10**	**16**	**154**	**964**			**2,814**			
2045 Background Traffic	25	6	31		31	810	23	481		241	429	1,824	18	115	1,645	708			5,875	99.1%		$644,080
Long-Term Sterling Ranch East Filing No. 8 Site-Generated Traffic	0	0	0	100%	0	26	2	7	50%	4	8	0	0	0	0	14			54	0.9%	$650,000	$5,920
Total	**25**	**6**	**31**		**31**	**836**	**25**	**488**		**245**	**437**	**1,824**	**18**	**115**	**1,645**	**722**			**5,929**			

Notes:

(1) Traffic Volumes That Contribute to the Four-Hour and Eight-Hour Vehicular Volume Traffic Signal Warrant Minor Street Volume

(2) Intersections No. 12 and 13 are City of Colorado Springs intersections. The City may modify this formula (or use their own formula) for signal participation based on City-standard methodology.

Source: LSC Transportation Consultants, Inc. *8/26/2026*

Table 6
Roadway Segment Improvements
Sterling Ranch East With Callout Notes Specific to Filing No. 8
Sterling Ranch East Filing No. 8
(Page 1 of 2)

Segment ID[1] (See Figure 13 for map)	Improvement Description	Timing	Design ADT (vpd)	Projected 2045 ADT (vpd)	Responsibility
V1 (Short-Term) Northbound	UPDATE (November 2023): It is our understanding that a meeting(s) with JR Engineering/the applicant, City staff and County staff were held, that a short-term/interim improvement to segment V1 will not be required. The original LSC recommendation for this segment was for restriping. However, City staff indicated that the striped bike lane in the southbound direction needs to remain.	Updated November 2023 - It is our understanding that following a meeting with the City of Colorado Springs and El Paso County, a V1 interim shoulder improvement will no longer be required.	5,500 (Directional northbound)		N/A
V1 (Short-Term) Southbound			10,000 (Directional southbound)		
V1	Improve Vollmer Road between Dry Needle Place and the Sterling Ranch south boundary to a standard 4-Lane Urban Minor Arterial Cross Section (Add a second northbound through lane and painted center median) [2] 8/22/2024 Note: the 2024 MTCP shows Vollmer Road as an Urban – Major Collector	Intermediate-Term Future	20,000	15,710	Updated November 2023 Adjacent parcel owner which could potentially include: • "Pioneer Landscape Center Parcel" (5300000742) (redevelopment is unlikely in the foreseeable future) • "Schmidt Parcel" west of Vollmer Rd (5200000571) • The triangular parcels southeast of Vollmer/Marksheffel (5232400001 and 5232400003)
V2	Improve Vollmer Road between the Sterling Ranch south boundary to Lochwinnoch Lane/Sterling property boundary to a standard 4-Lane Urban Minor Arterial Cross Section [2] 8/22/2024 Note: the 2024 *MTCP* shows Vollmer Road as an Urban – Major Collector	**Completed**	20,000 (Note: Existing Capacity 8,000[3])	17,115	Sterling Ranch
V3	**Short Term:** Improve Vollmer Road from Lochwinnoch Lane to Sterling Ranch boundary (northeast of Glider Loop) to provide 36' of pavement (existing pavement 1 approx. 23.38') and stripe for one through lane and plus a 6' paved, striped outside shoulder in each direction [2]	Updated November 2023 – Future as required due to net increase traffic demand. The construction documents have been approved.	11,000 (Note: Existing Capacity 8,000)	17,015	Sterling Ranch
	Long Term: Improve Vollmer Road from Lochwinnoch Lane to Sterling Ranch boundary (northeast of Glider Loop) to a standard 4-Lane Urban Minor Arterial Cross Section [2] 8/22/2024 Note: the 2024 *MTCP* shows Vollmer Road as an Urban – Major Collector	Long-Term Future	20,000		By others - pursuant to the recent development agreement between Sterling Ranch and EPC.
V4	Improve Vollmer Road from Sterling Ranch boundary (northeast of Glider Loop) to Briargate Parkway to a standard 4-Lane Urban Minor Arterial Cross Section [2] Update November 2023 - with transition section to the existing two-lane section to the south as shown on the Vollmer North CDs. Improvements consist of curb and gutter on west side (as most of the east side is already built) and repaving.	**Completed**	20,000	16,155	Sterling Ranch
V5	Improve Vollmer Road from Briargate Parkway to Jane Kirkham Drive to a standard 4-Lane Urban Minor Arterial Cross Section [2] 8/22/2024 Note: the 2024 *MTCP* shows Vollmer Road as an Urban – Major Collector	**Completed**	20,000	11,515	Sterling Ranch
V6	Improve Vollmer Road from Jane Kirkham Drive to Sam Bass Drive to a standard 4-Lane Urban Minor Arterial Cross Section [2] 8/22/2024 Note: the 2024 *MTCP* shows Vollmer Road as an Urban – Major Collector	**Completed**	20,000	11,245	Sterling Ranch
V7	Improve Vollmer Road between Sam Bass Drive and Poco Road to a 4-lane Urban Minor Arterial but with necessary lane transitions, redirect tapers, etc. south of Poco to adequately transition between the 4-Lane Urban Minor Arterial Cross Section and the 2-Lane Rural Arterial Cross Section north of Poco Road. 8/22/2024 Note: the 2024 *MTCP* shows Vollmer Road as an Urban – Major Collector	**Completed**	20,000	11,010	Sterling Ranch
V8	Improve Vollmer Road from Poco Road to Burgess Road to a 2-Lane Urban – Major Collector Cross Section [2]	Long-Term Future	20,000	11,395	El Paso County

Part 1/2 of this table (see Part 2 on next page)

Notes:

(1) See Figure 13

(2) Adequate transition/redirect tapers would be needed between the various cross sections on Vollmer Road. Based on the criteria contained in Table 2-29 of the *El Paso Engineering Criteria Manual* an appropriate taper ratio for a roadway with a design speed of 40 miles per hour is 20:1

(3) Source: Table 20 *Road Impact Fee Study Updated* November 16, 2016

Source: LSC Transportation Consultants, Inc. (August 2026)

Table 6
Roadway Segment Improvements
Sterling Ranch East With Callout Notes Specific to Filing No. 8
Sterling Ranch East Filing No. 8
(Page 2 of 2)

Segment ID[(1)] (See Figure 13 for map)	Improvement Description	Timing	Design ADT (vpd)	Projected 2045 ADT (vpd)	Responsibility
SR1	Construct Sterling Ranch Road as an Urban Major Collector from Marksheffel Road to Dines Boulevard	**Completed**	20,000	14,470	Sterling Ranch
SR2	Construct Sterling Ranch Road as an Urban Major Collector from Dines Boulevard to Briargate Parkway	**Completed**	20,000	9,805	Sterling Ranch
SR3	Construct Sterling Ranch Road as an Urban Minor Collector from Briargate Parkway to Vancouver Street	**Short-Term – With SRE Filing No. 4**	10,000	8,345	Sterling Ranch
SR4	Construct Sterling Ranch Road from Vancouver Street north to Oshkosh Road	**Short-Term - with SRE Filing 6**	10,000	6,910	Sterling Ranch
SR5	Construct Sterling Ranch Road from Oshkosh Road north to ultimate north terminus	Intermediate-Term Future	10,000	4,330	Sterling Ranch
M1	Construct Marksheffel Road as an Urban Principal Arterial to City of Colorado Springs standards in 107' of right-of-way between Vollmer Road and Sterling Ranch Road	**Completed**	40,000	23,015	Sterling Ranch
M2	Construct Marksheffel Road as an Urban Principal Arterial to City of Colorado Springs standards in 107' of right-of-way between Sterling Ranch Road and the south boundary of the Sterling Ranch Master Plan Area. **NOTE: With the completion of this improvement, the connection between Vollmer Road and Woodmen Road will be completed**	**Completed**	40,000	28,210	Sterling Ranch
M3	Construct Marksheffel Road between the south boundary of the Sterling Ranch Master Plan Area and Woodmen Road (Note this segment is located within the City of Colorado Springs)	**Completed** (by Others)	40,000	24,525	Others (Completed)
M4	Construct Marksheffel Road between Black Forest Road and Vollmer Road	Long-Term Future	40,000	27,910	Others
B1	Construct the full section of Briargate Parkway (4-Lane Principal Arterial) between Vollmer Road and Wheatland Drive	**Completed**	40,000	24,125	Sterling Ranch
B2	Construct Briargate Parkway **(full section)** as a 4-Lane Principal Arterial between Wheatland Drive and Sterling Ranch Road	**Completed**	40,000	25,180	Sterling Ranch
B3	Construct Briargate Parkway as a 4-Lane Principal Arterial between Sterling Ranch Road and Sioux Falls Way	**Short-Term - with SRE Filing 6**	40,000	21,965	Sterling Ranch
B4	Construct Briargate Parkway as a 4-Lane Principal Arterial between Sioux Falls Way and Banning Lewis Parkway	Intermediate Term	40,000	21,235	Sterling Ranch
B5	Construct Stapleton Road as a 4-Lane Principal Arterial between Banning Lewis Parkway and Meridian Road (including upgrade of existing rural two-lane segment between Towner and Meridian)	Long-Term Future	40,000	17,655	Others
B6	Construct Briargate Parkway as a 4-Lane Principal Arterial between its current terminus and Black Forest Road and between Black Forest Road and Vollmer Road	Long-Term Future	40,000	24,340	Others
BL1	Construct Banning Lewis Parkway as a 4-Lane Principal Arterial between the south Sterling Ranch boundary and Briargate Pkwy	Long-Term Future	40,000	20,320	Future - TBD with the future preliminary plan for that area - potentially, financial assurances for half-section, west-side half-section or full-section w/ cost recover may be required
BL2	Construct Banning Lewis Parkway as a 4-Lane Principal Arterial between Woodmen Road and the south Sterling Ranch boundary (Note this segment will be located within the City of Colorado Springs)	Long-Term Future	40,000	28,480	Others
W1	Widen Woodmen Road from 4-lane to 6-lane section from Powers Boulevard to US 24	Long-Term Future	72,000	66,690	Others

Part 2/2 of this table
Notes:

(1) See Figure 13

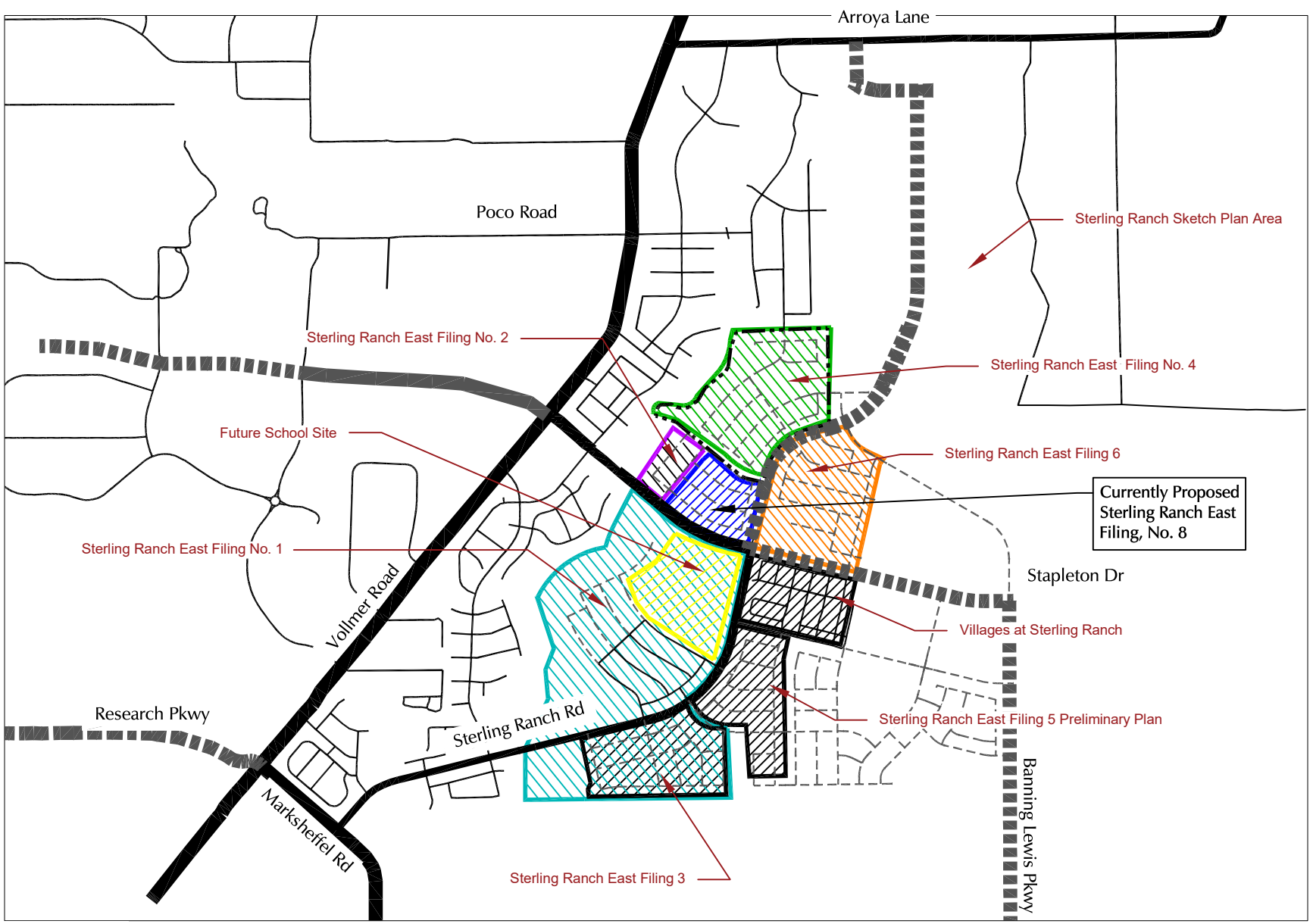
(2) Adequate transition/redirect tapers would be needed between the various cross sections on Vollmer Road. Based on the criteria contained in Table 2-29 of the *El Paso Engineering Criteria Manual*, an appropriate taper ratio for a roadway with a design speed of 40 miles per hour is 20:1

(3) Source: Table 20 *Road Impact Fee Study Updated* November 16, 2016

Source: LSC Transportation Consultants, Inc. (Augustl 2026)

Figures 1-14

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CONSULTANTS, INC.



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Figure 1

Vicinity Map

Sterling Ranch East Filing No. 8 (LSC #S224591)



N

1"=500'
scale

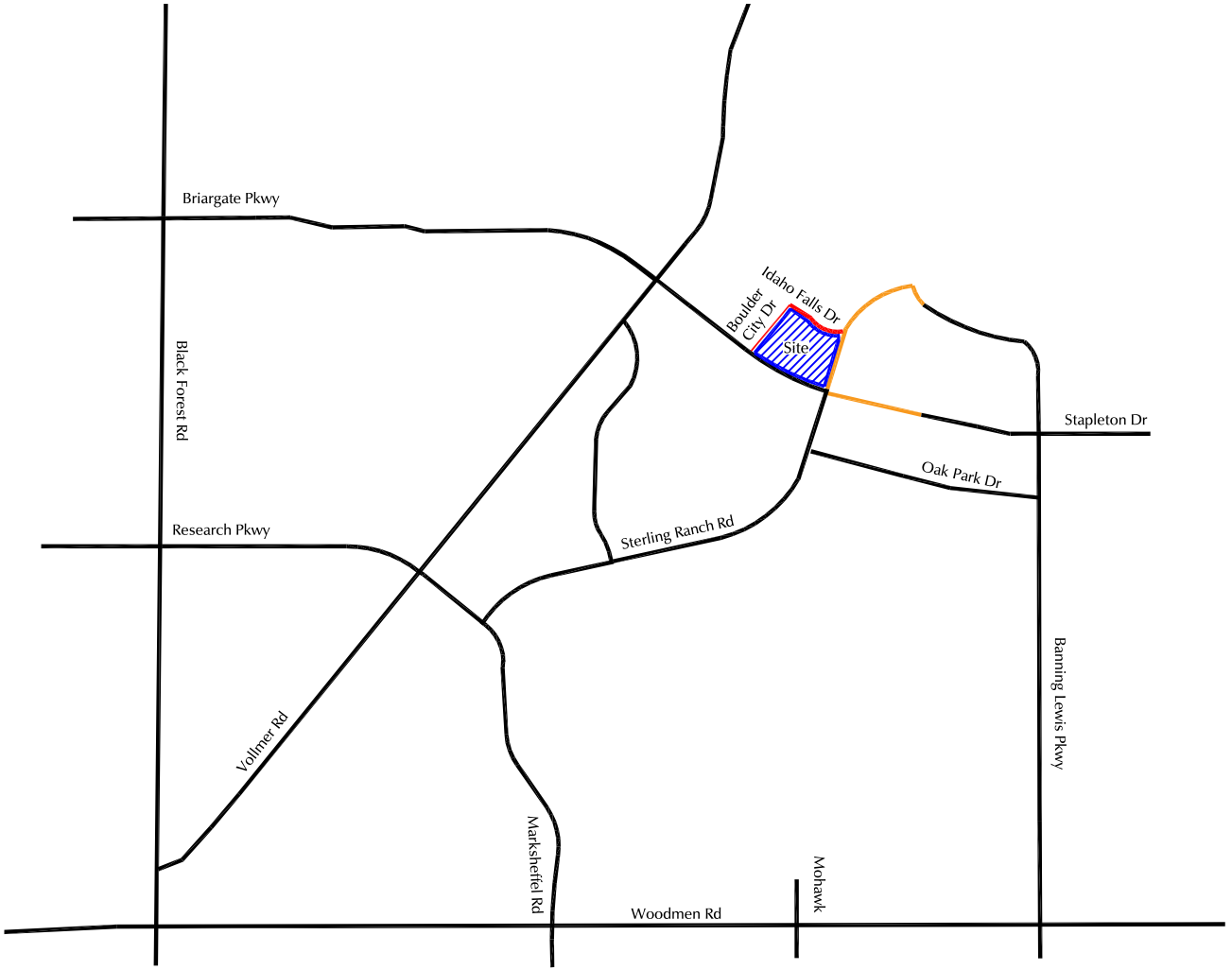
TRANSPORTATION CONSULTANTS, INC.

Sidewalk or Trails

Figure 2

Site Plan

Sterling Ranch East Filing No. 8 (LSC #S224591)



1"=500'
scale

LEGEND:

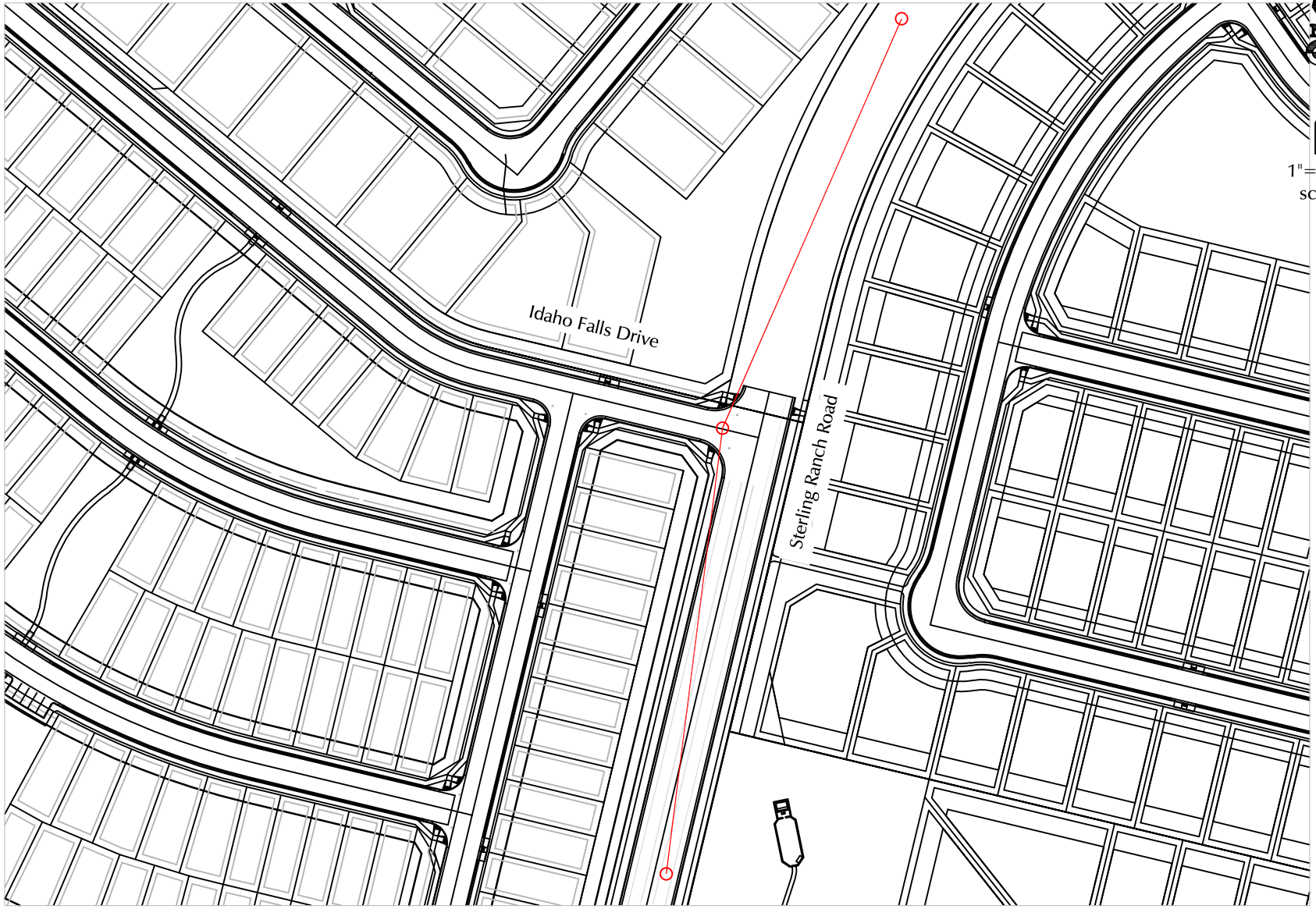
- Roadway connection planned with Sterling Ranch East Filings 2 or 8
- Roadway connection planned with Sterling Ranch East Fil. Nos. 4 or 6
- Existing Roadway
- Future Roadway

TRANSPORTATION CONSULTANTS, INC.

Figure 3

Short-Term Roadway Connections

Sterling Ranch East Filing No. 8 (LSC #S224591)



LSC TRANSPORTATION CONSULTANTS, INC.

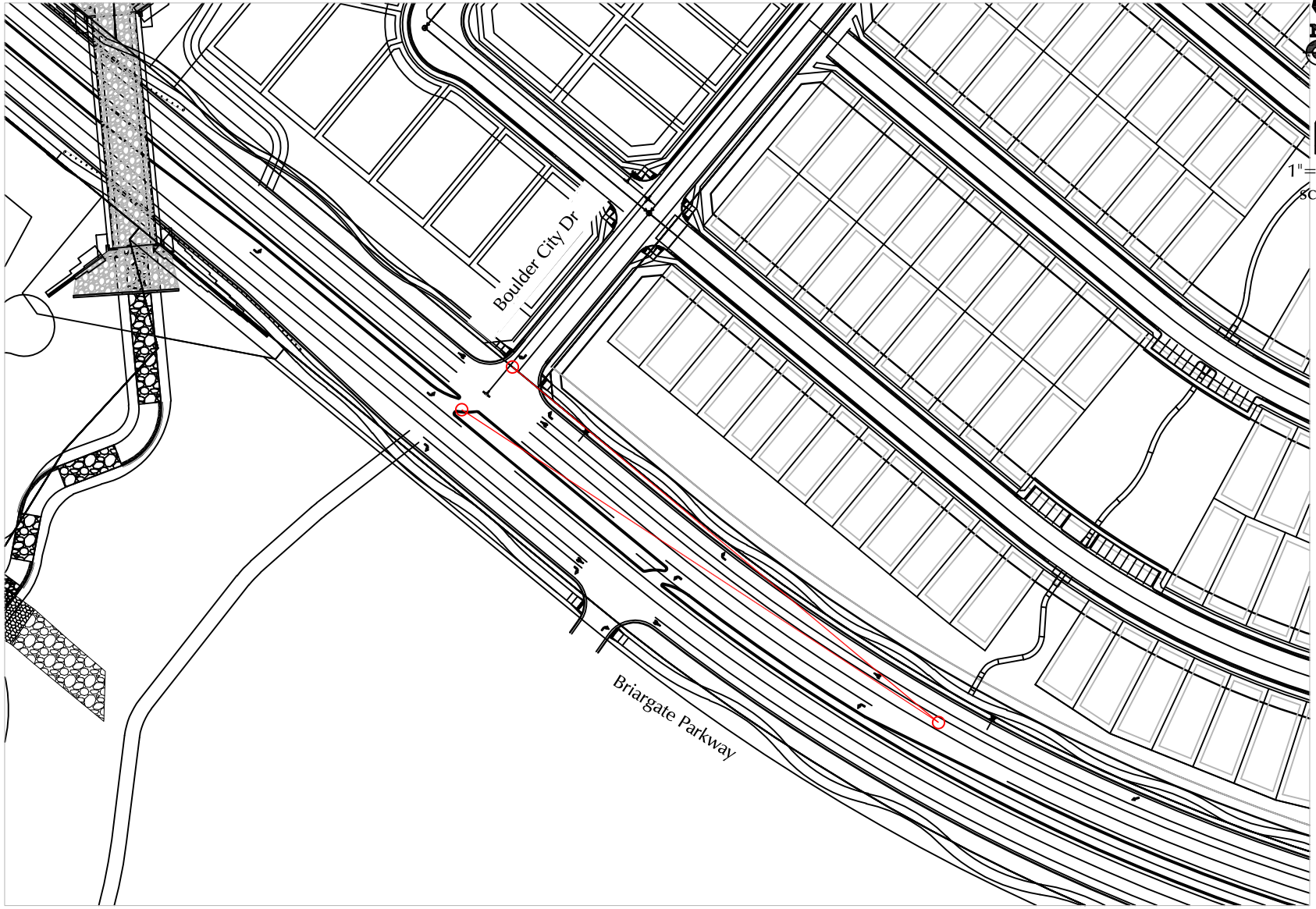
LEGEND:

— ECM Required Intersection Sight Distance (445' from Table 2-21 based on a Design Speed of 40 mph)

Figure 4a

Sight-Distance Analysis
Sterling Ranch Road/Idaho Falls Drive

Sterling Ranch East Filing No. 8 (LSC #S224591)



LEGEND:

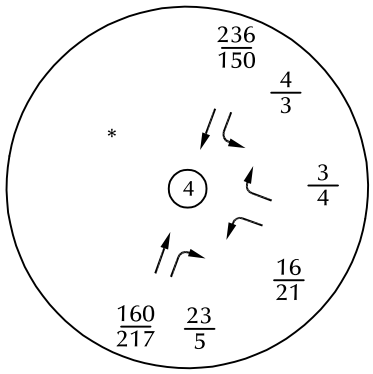
ECM Required Intersection Sight Distance (555' from Table 2-21 based on a Design Speed of 50 mph)

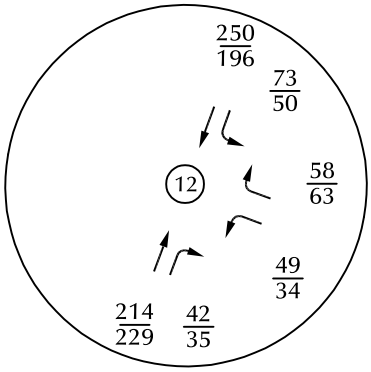
TRANSPORTATION CONSULTANTS, INC.

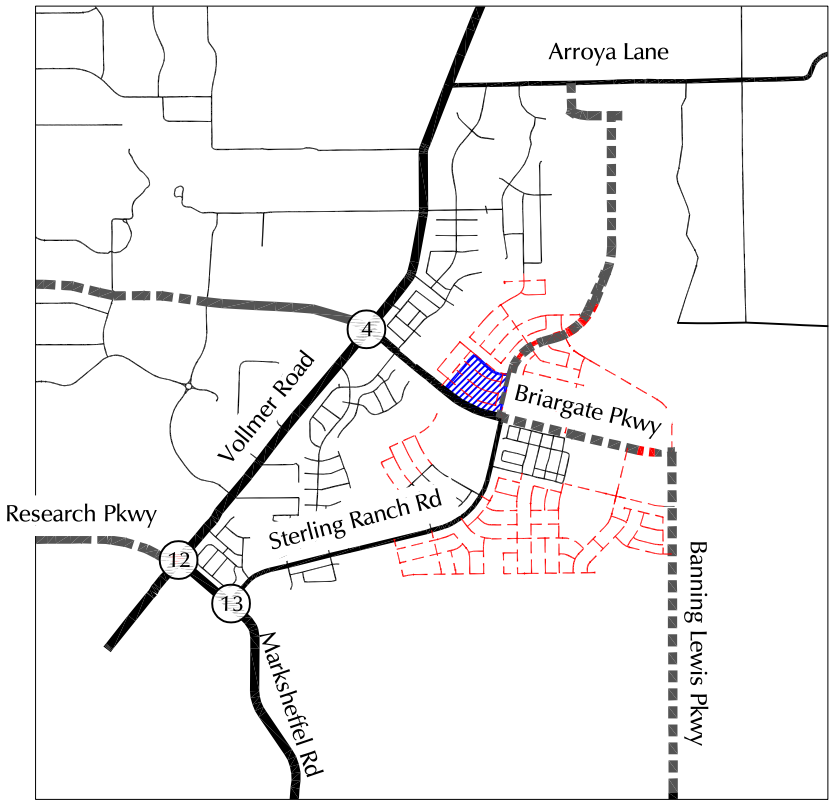
Figure 4b

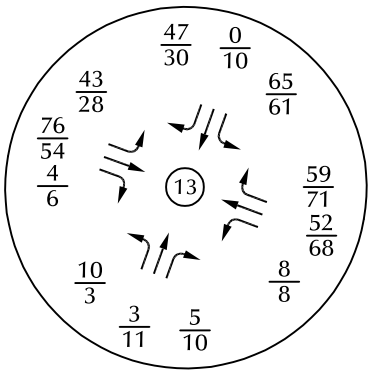
Sight-Distance Analysis
Sterling Ranch Road/Idaho Falls Drive

Sterling Ranch East Filing No. 8 (LSC #S224591)









LEGEND:

$\frac{XX}{XX}$ = $\frac{\text{AM Peak-Hour Traffic (Veh/Hr)}}{\text{PM Peak-Hour Traffic (Veh/Hr)}}$

*Briargate Parkway west of Vollmer is open for site grading/construction traffic, but no dwelling units or non-residential buildings have been developed or generating traffic yet.

**Counts by LSC March 2025 (These traffic counts were conducted about 4 months after the completion of Marksheffel Road between Vollmer Road and Woodmen Road)

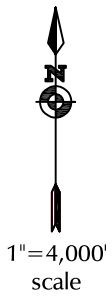
Existing Roadway
Future Roadway

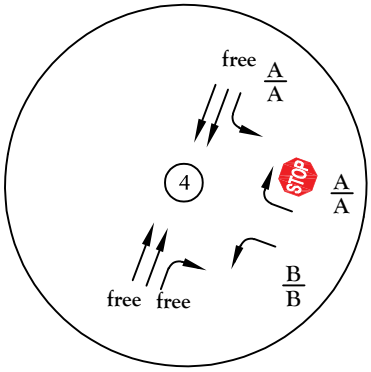
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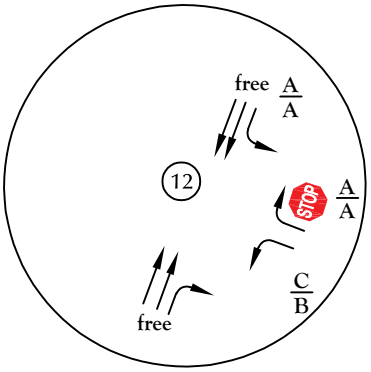
Figure 5a

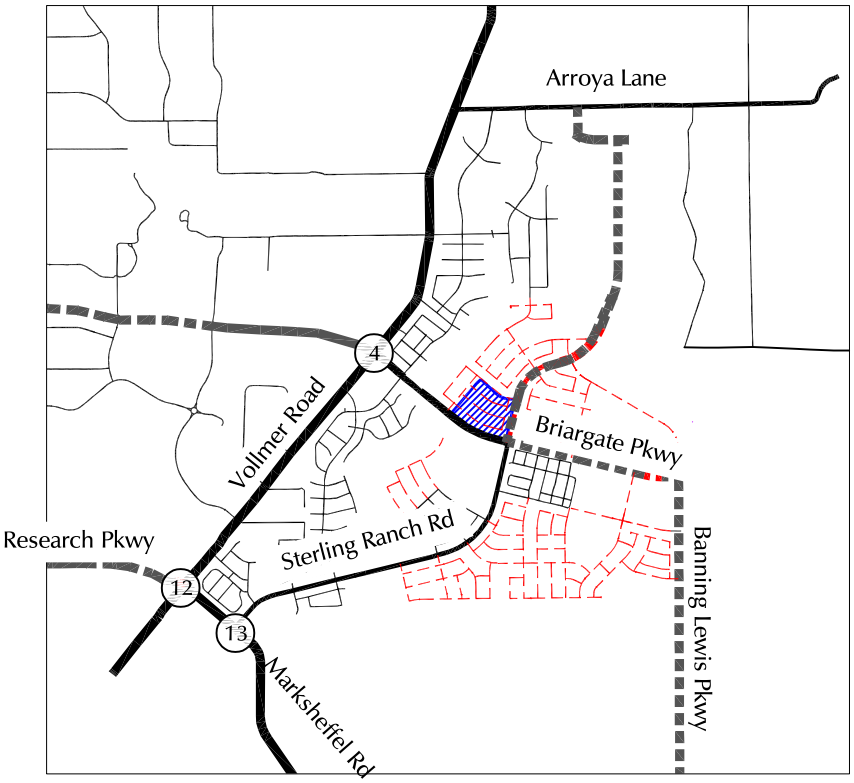
Existing (2025) Peak-Hour Traffic Counts**

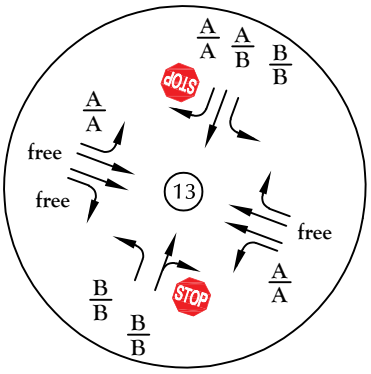
Sterling Ranch East Filing No. 8 (LSC #S224591)











*LOS for volumes shown on Figure 5a; based on laneage and traffic control at the time of the counts (depicted here)

LEGEND:

STOP = Stop Sign

A/B = AM Individual Movement Peak-Hour LOS / PM Individual Movement Peak-Hour LOS

—— Existing Roadway

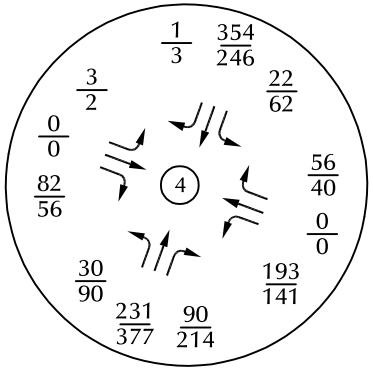
- - - Future Roadway

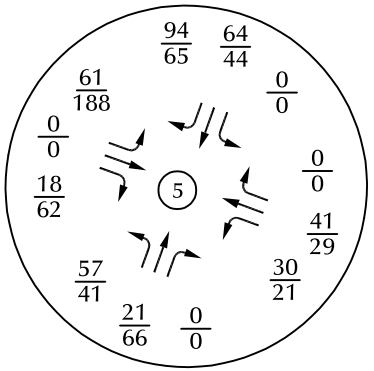
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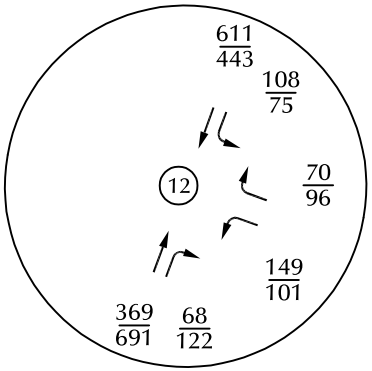
Figure 5b

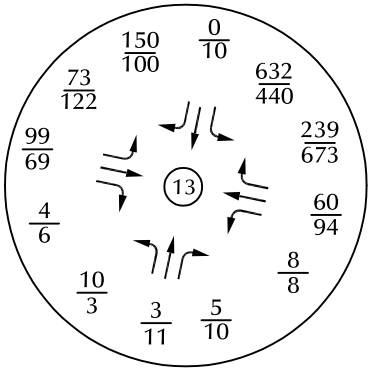
2025 Lane Geometry, Traffic Control, and LOS*

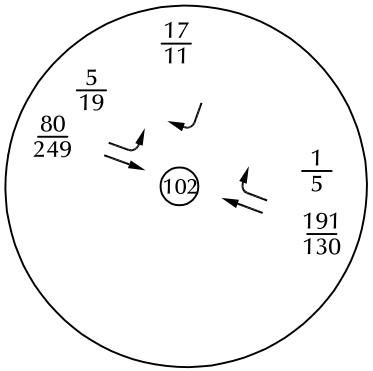
Sterling Ranch East Filing No. 8 (LSC #S224591)

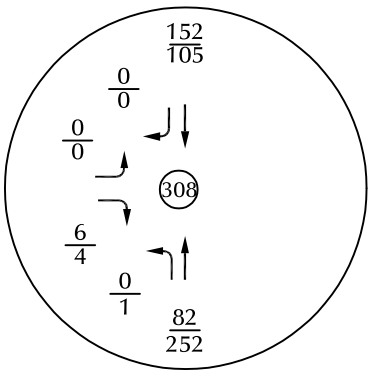


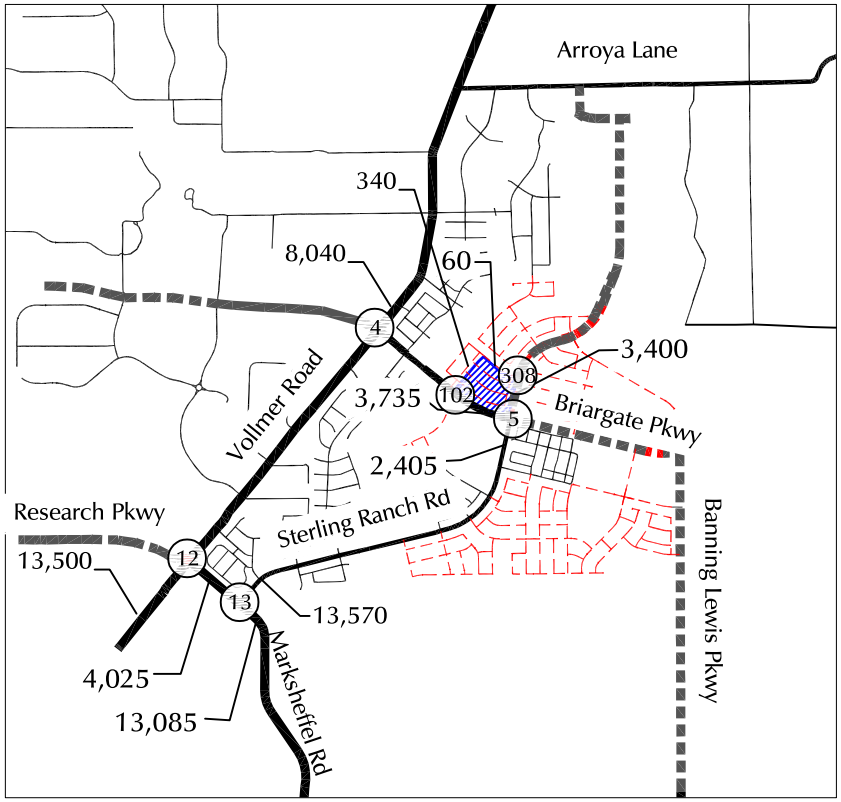














1"=4,000'
scale

TRANSPORTATION CONSULTANTS, INC.

LEGEND:

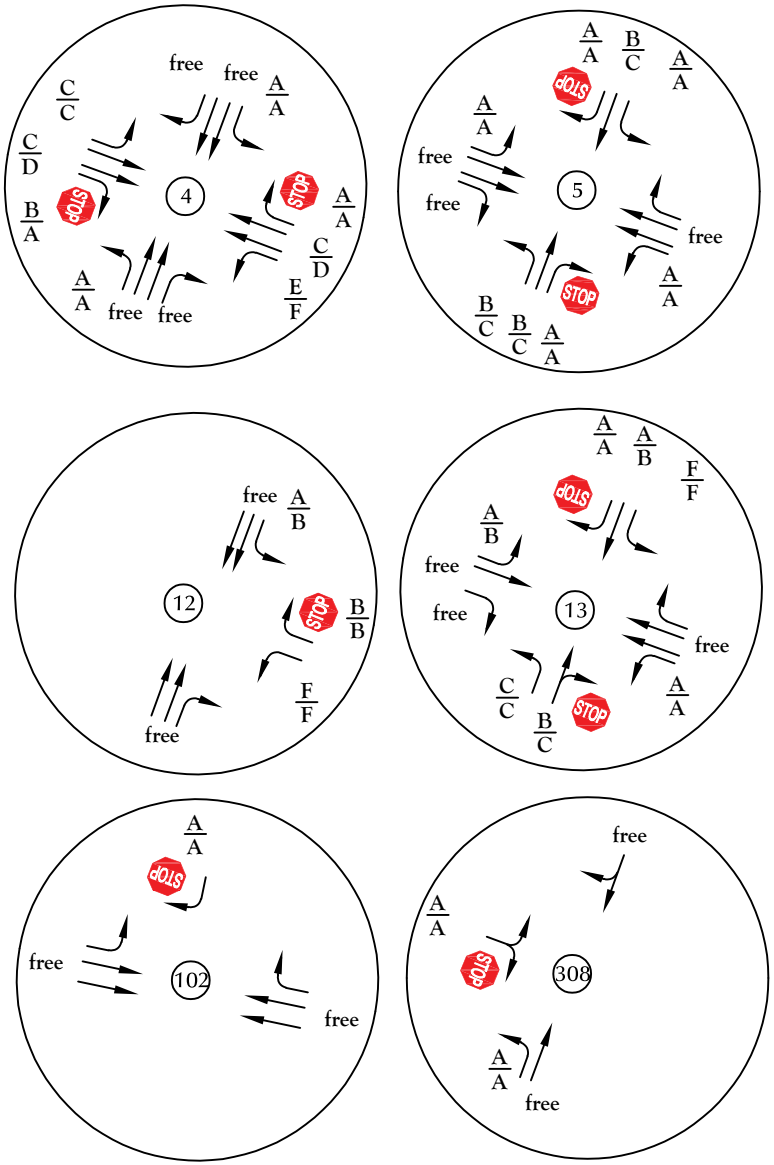
XX/XX = AM Peak-Hour Traffic (Veh/Hr) / PM Peak-Hour Traffic (Veh/Hr)

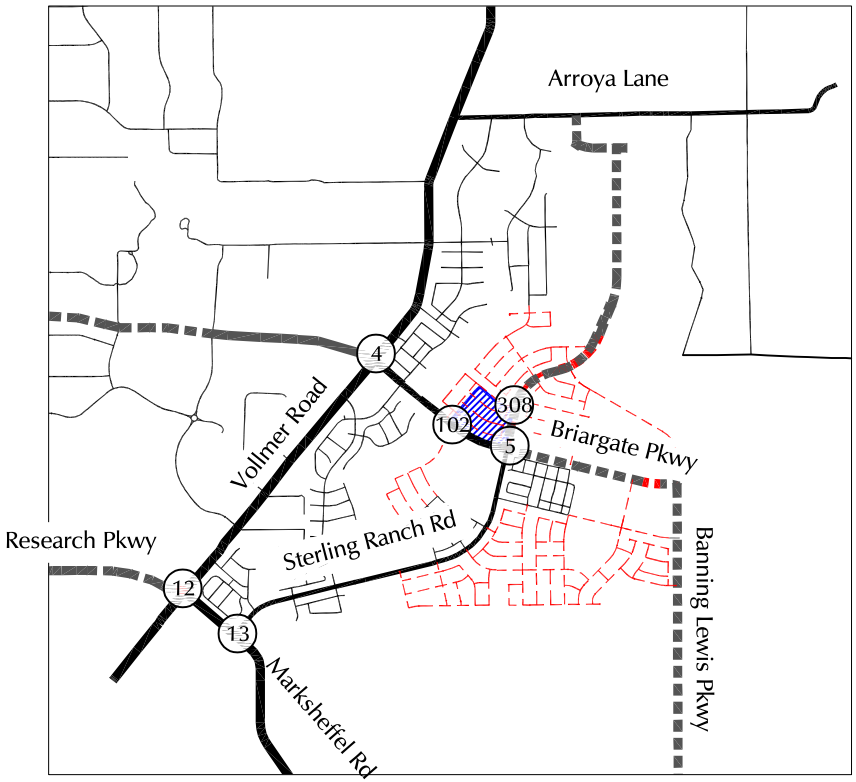
Existing Roadway
Future Roadway

Figure 6a

Short-Term Background Traffic

Sterling Ranch East Filing No. 8 (LSC #S224591)





1"=4,000'
scale

LEGEND:

$\frac{A}{B}$ = AM Individual Movement Peak-Hour LOS / PM Individual Movement Peak-Hour LOS

$\frac{C}{D}$ = AM Entire Intersection Peak-Hour Level of Service / PM Entire Intersection Peak-Hour Level of Service

Existing Roadway

Future Roadway

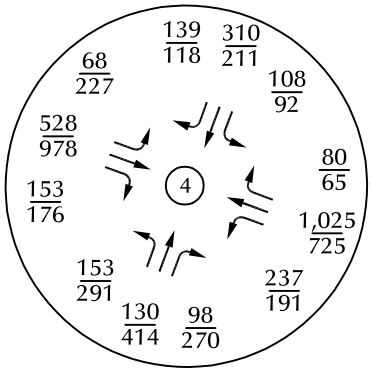
STOP = Stop Sign

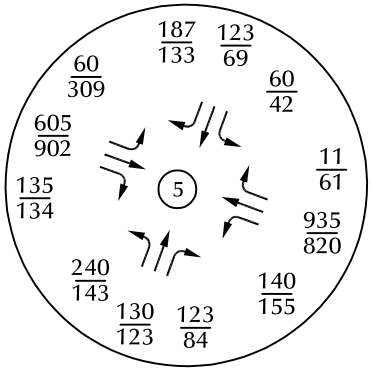
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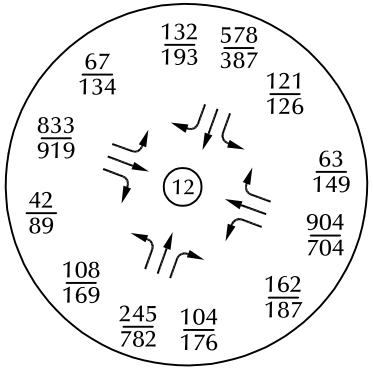
Figure 6b

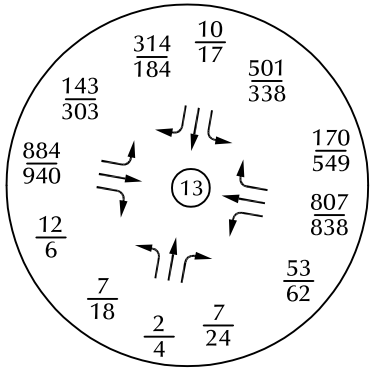
Short-Term Background Lane Geometry, Traffic Control, and LOS

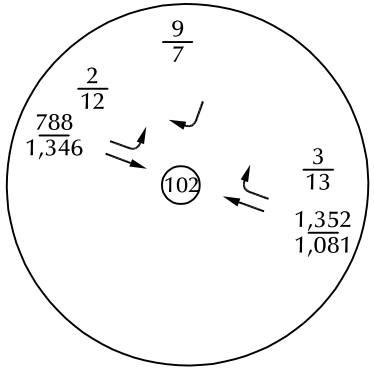
Sterling Ranch East Filing No. 8 (LSC #S224591)

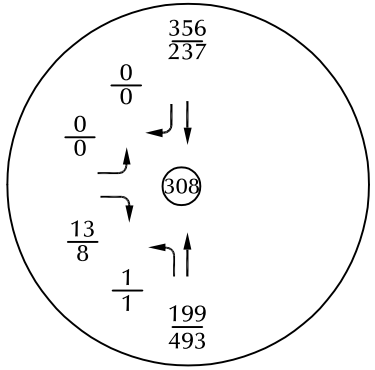


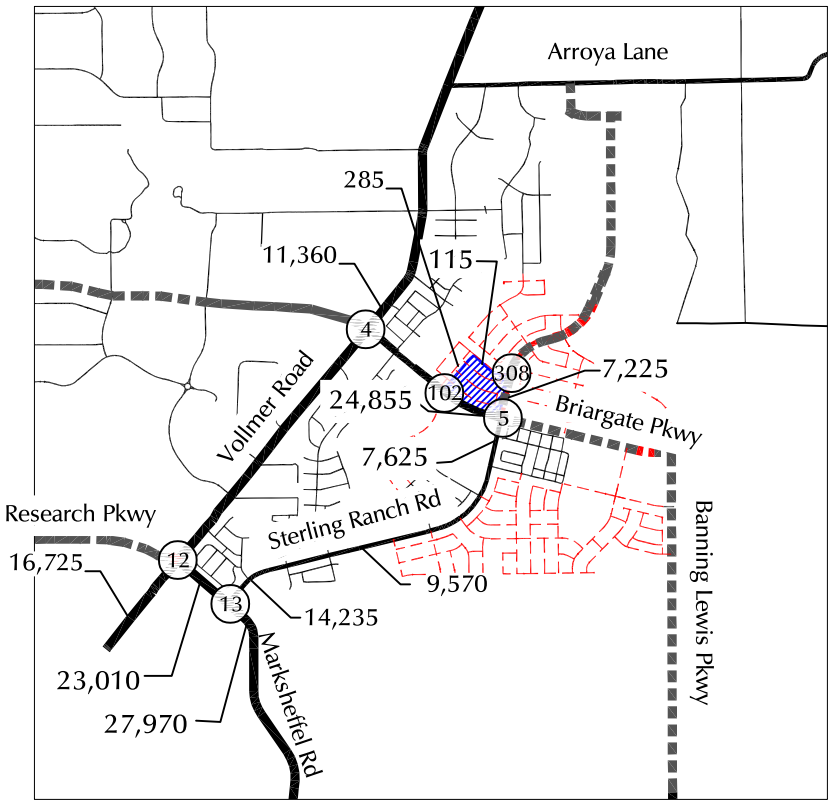


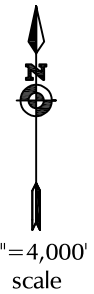












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LEGEND:

XX / XX = AM Peak-Hour Traffic (Veh/Hr) / PM Peak-Hour Traffic (Veh/Hr)

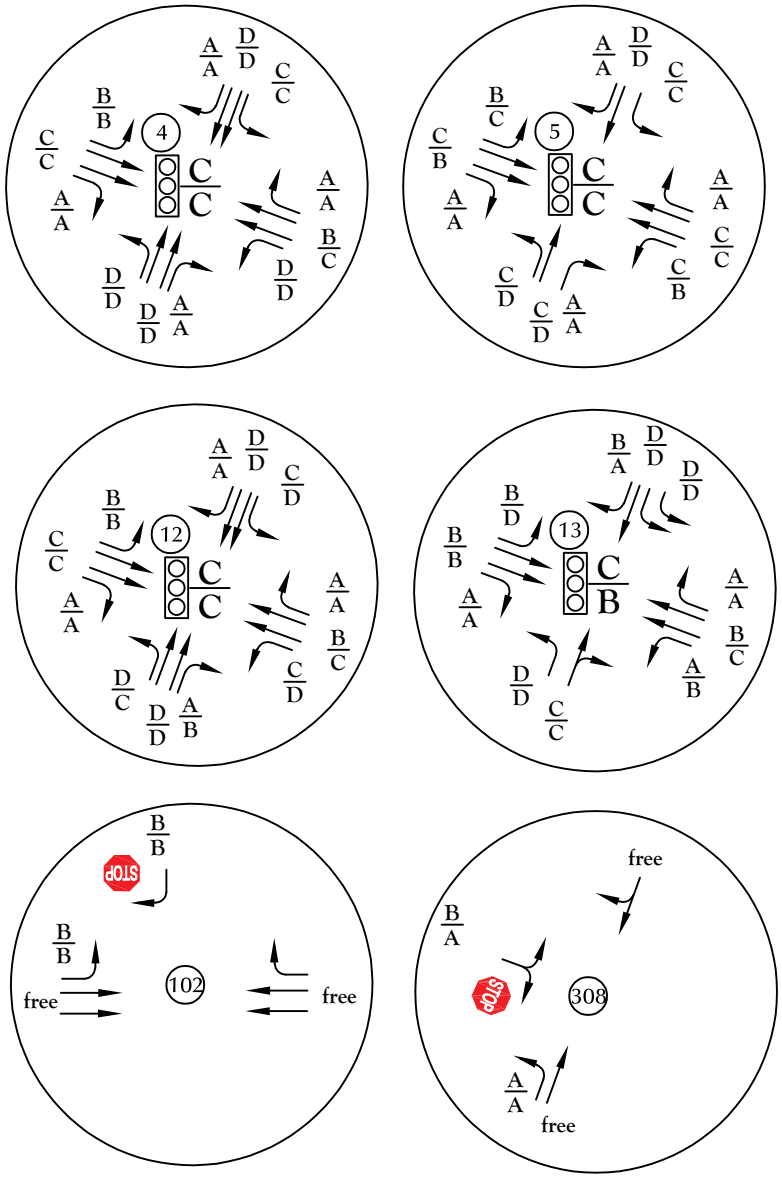
Existing Roadway

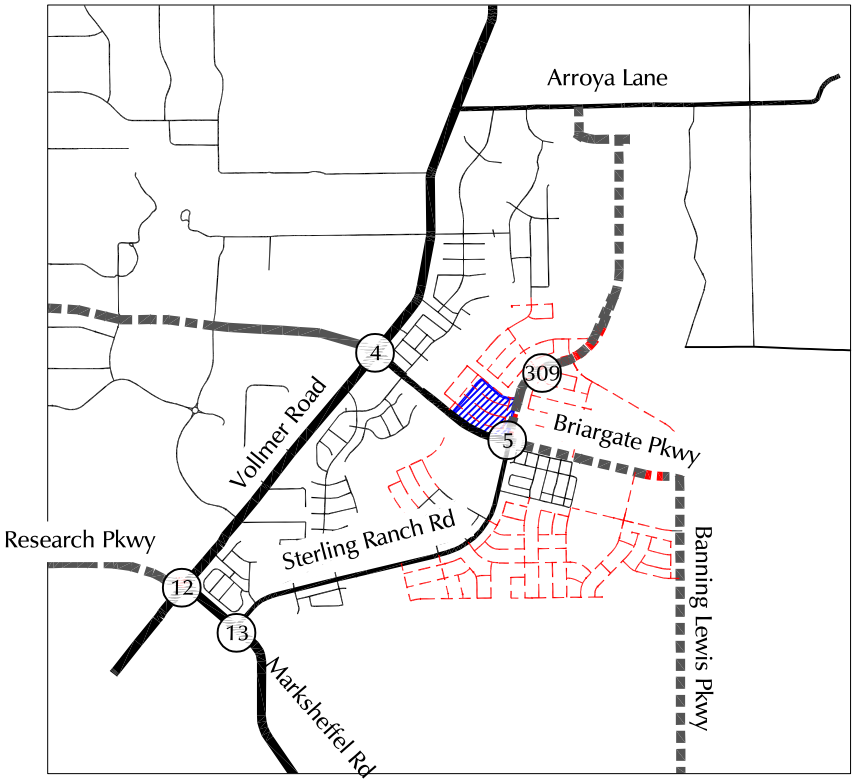
Future Roadway

Figure 7a

2045 Background Traffic

Sterling Ranch East Filing No. 8 (LSC #S224591)





N

1"=4,000' scale

LEGEND:

$\frac{A}{B}$ = AM Individual Movement Peak-Hour LOS / PM Individual Movement Peak-Hour LOS

$\frac{C}{D}$ = AM Entire Intersection Peak-Hour Level of Service / PM Entire Intersection Peak-Hour Level of Service

Existing Roadway

Future Roadway

= Traffic Signal

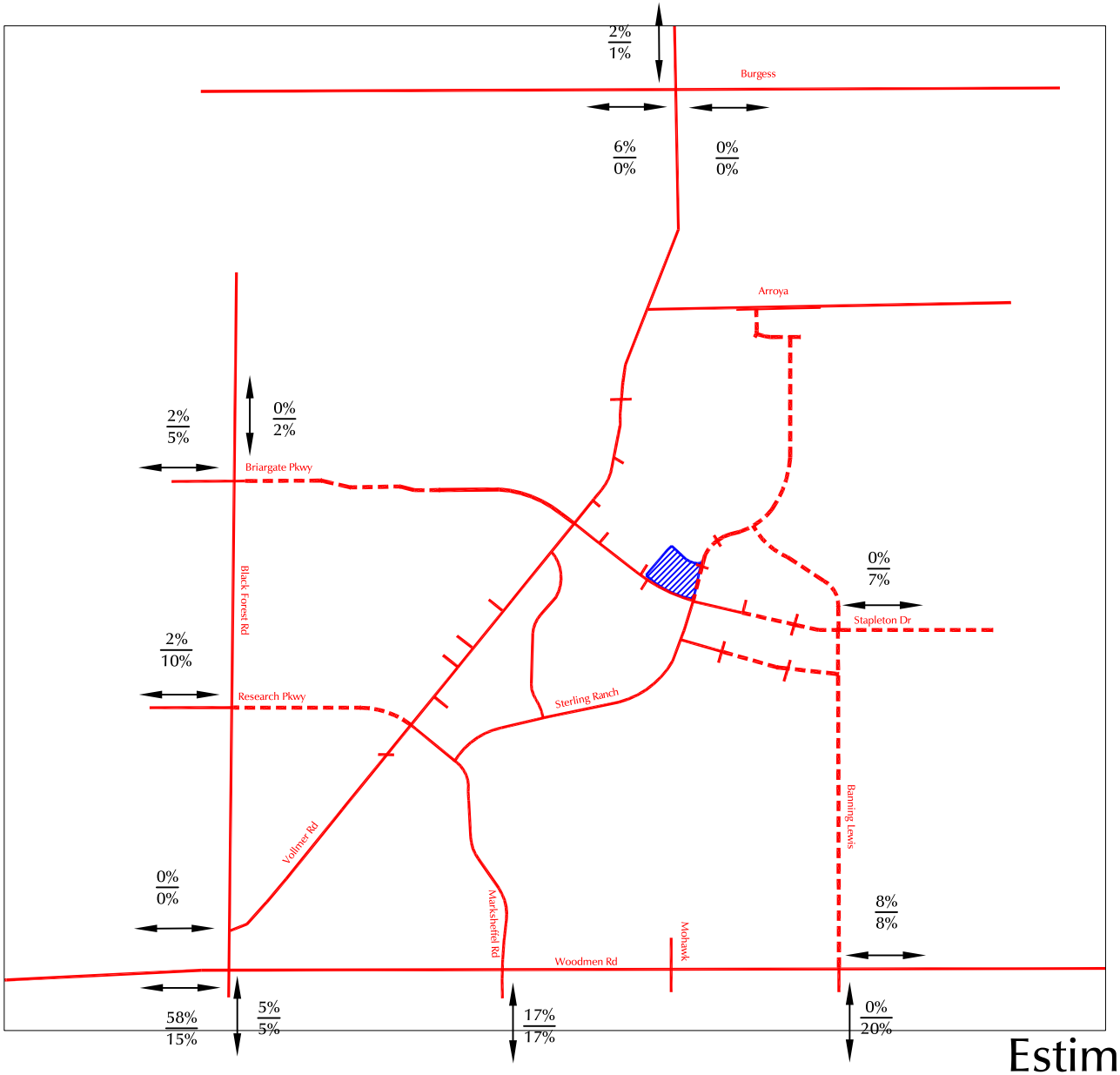
= Stop Sign

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Figure 7b

2045 Background Lane Geometry, Traffic Control, and LOS

Sterling Ranch East Filing No. 8 (LSC #S224591)



1"=4,000'
scale

LEGEND:

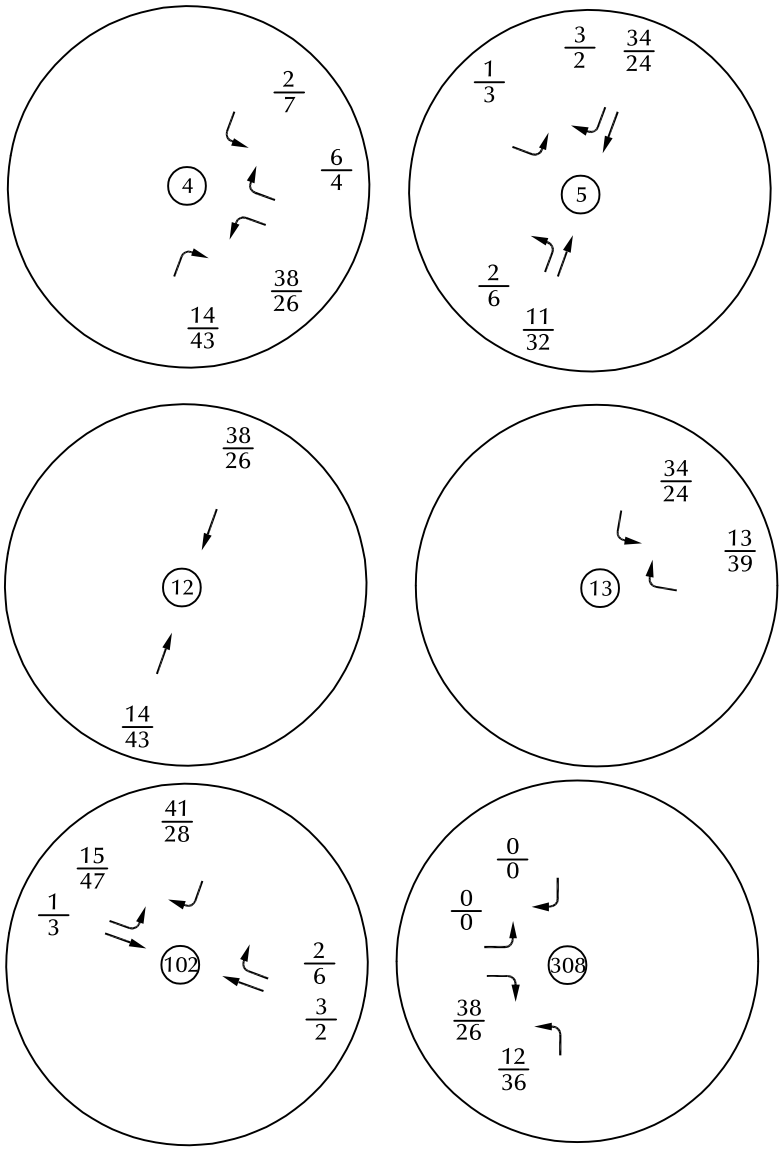
XX% / XX% = Percent of Short-Term Trips / Percent of Buildout Long-Term Trips

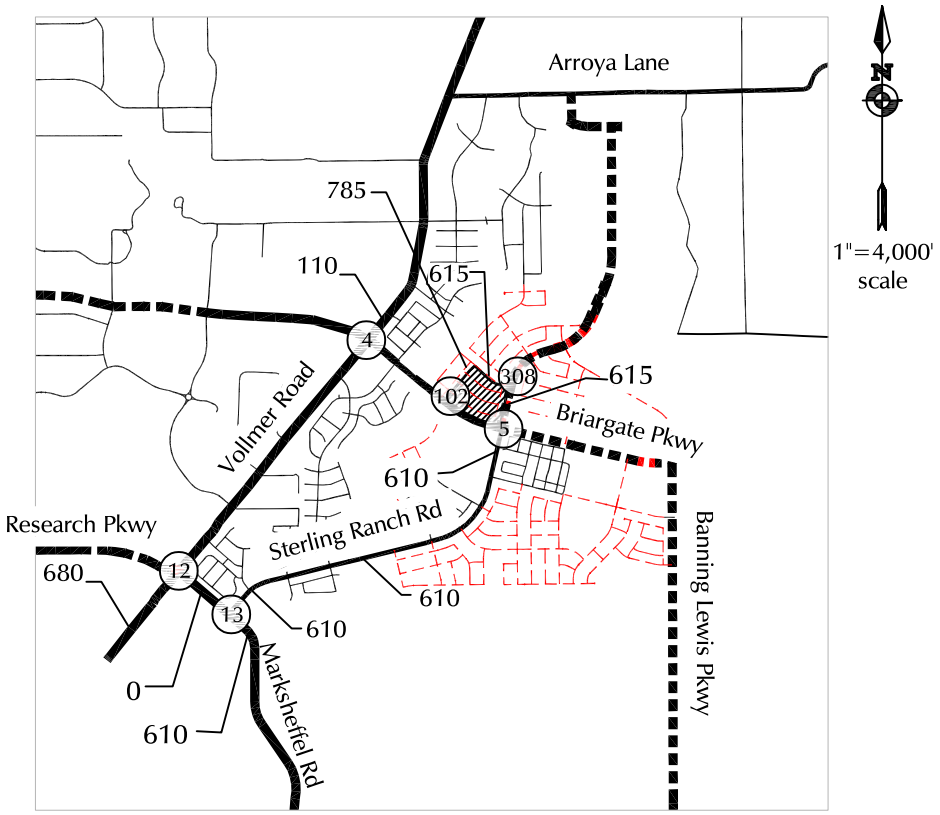
TRANSPORTATION CONSULTANTS, INC.

Figure 8

Estimated Directional Distribution of Site-Generated Traffic

Sterling Ranch East Filing No. 8 (LSC #S224591)





LSC TRANSPORTATION CONSULTANTS, INC.

LEGEND:

XX / XX = AM Peak-Hour Traffic (Veh/Hr) / PM Peak-Hour Traffic (Veh/Hr)

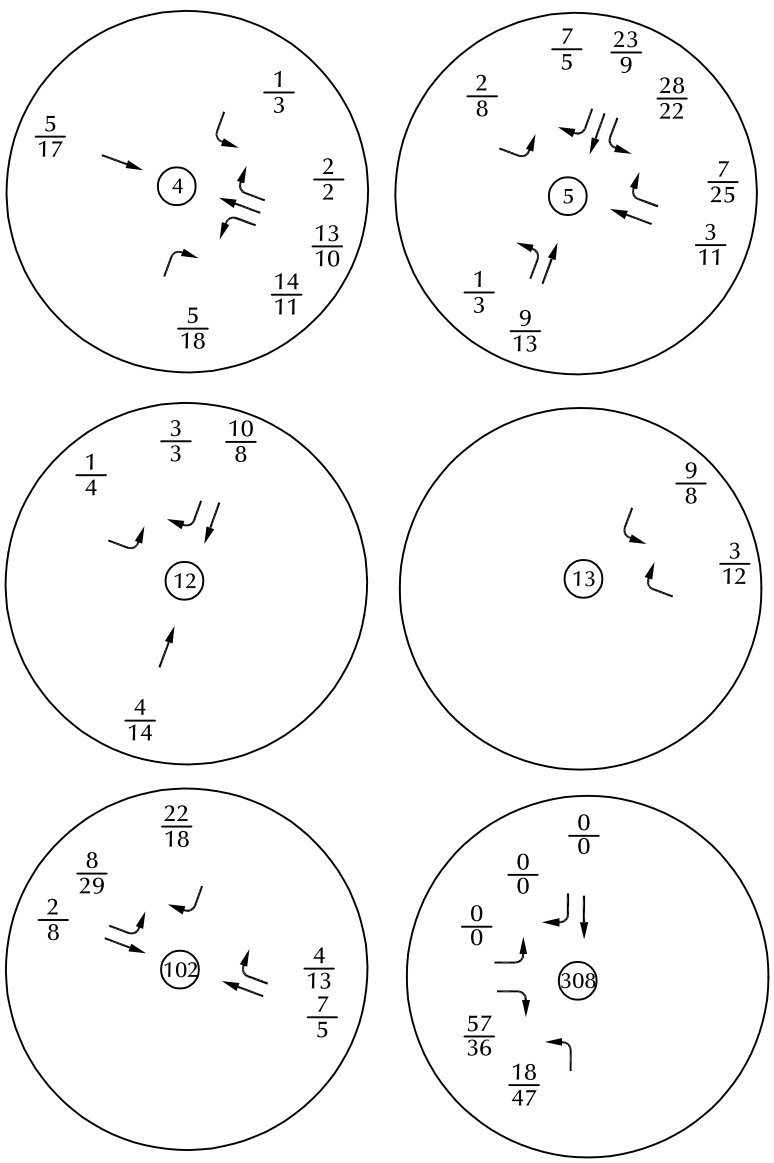
— Existing Roadway

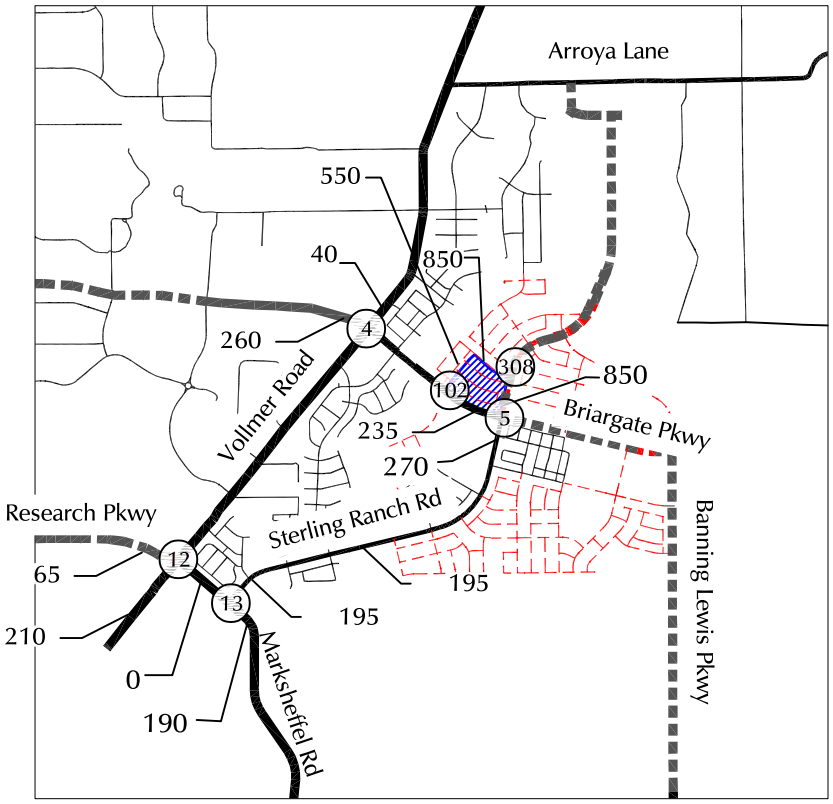
--- Future Roadway

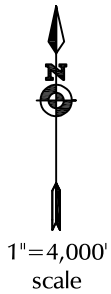
Figure 9

Short-Term Site-Generated Traffic

Sterling Ranch East Filing No. 8 (LSC #S224591)







LEGEND:

XX / XX = AM Peak-Hour Traffic (Veh/Hr) / PM Peak-Hour Traffic (Veh/Hr)

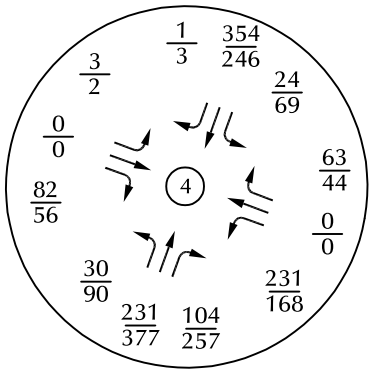
Existing Roadway

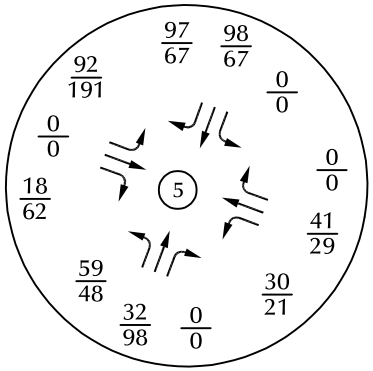
Future Roadway

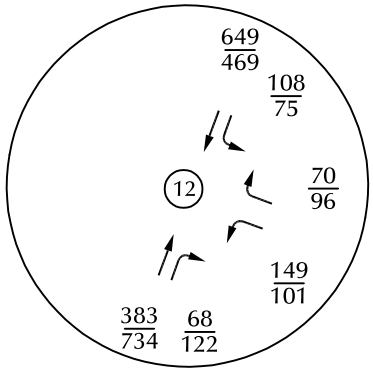
Figure 10

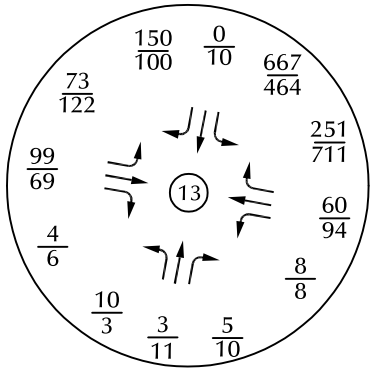
Long-Term Site-Generated Traffic

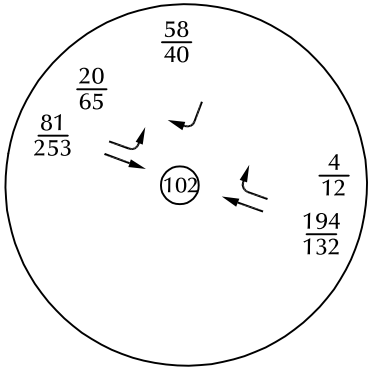
Sterling Ranch East Filing No. 8 (LSC #S224591)

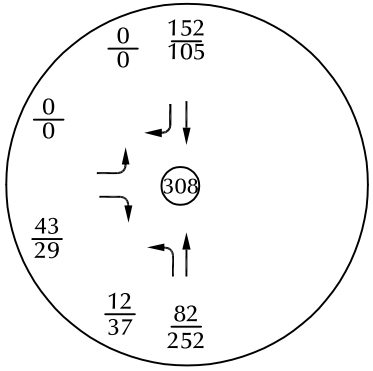


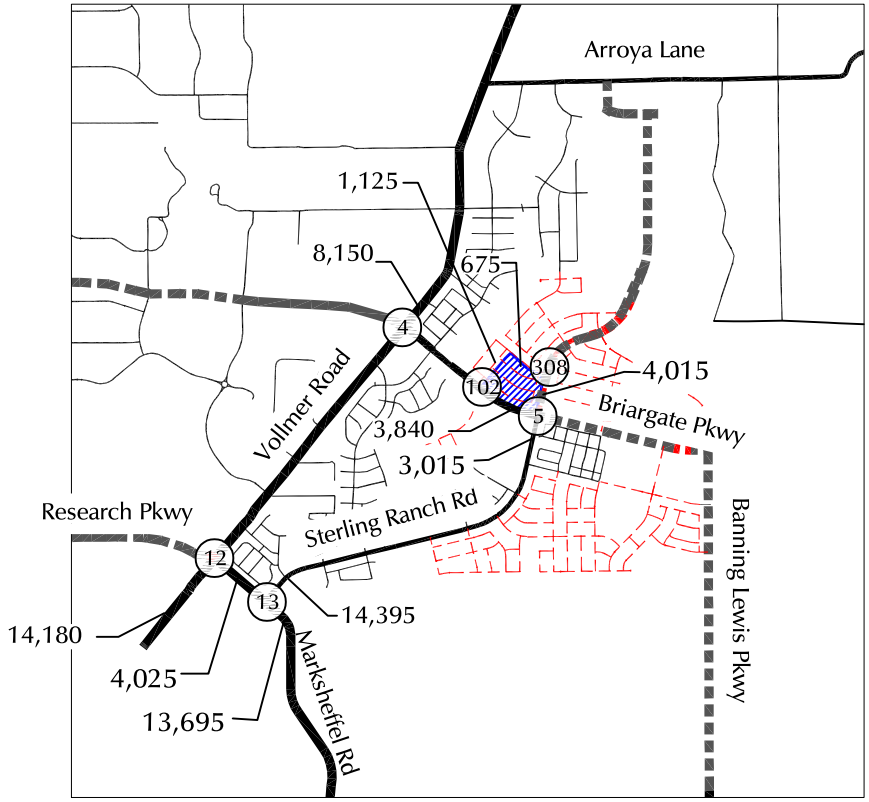












1"=4,000' scale

LEGEND:

XX/XX = AM Peak-Hour Traffic (Veh/Hr) / PM Peak-Hour Traffic (Veh/Hr)

Existing Roadway

Future Roadway

TRANSPORTATION CONSULTANTS, INC.

Figure 11a

Short-Term Total Traffic

Sterling Ranch East Filing No. 8 (LSC #S224591)

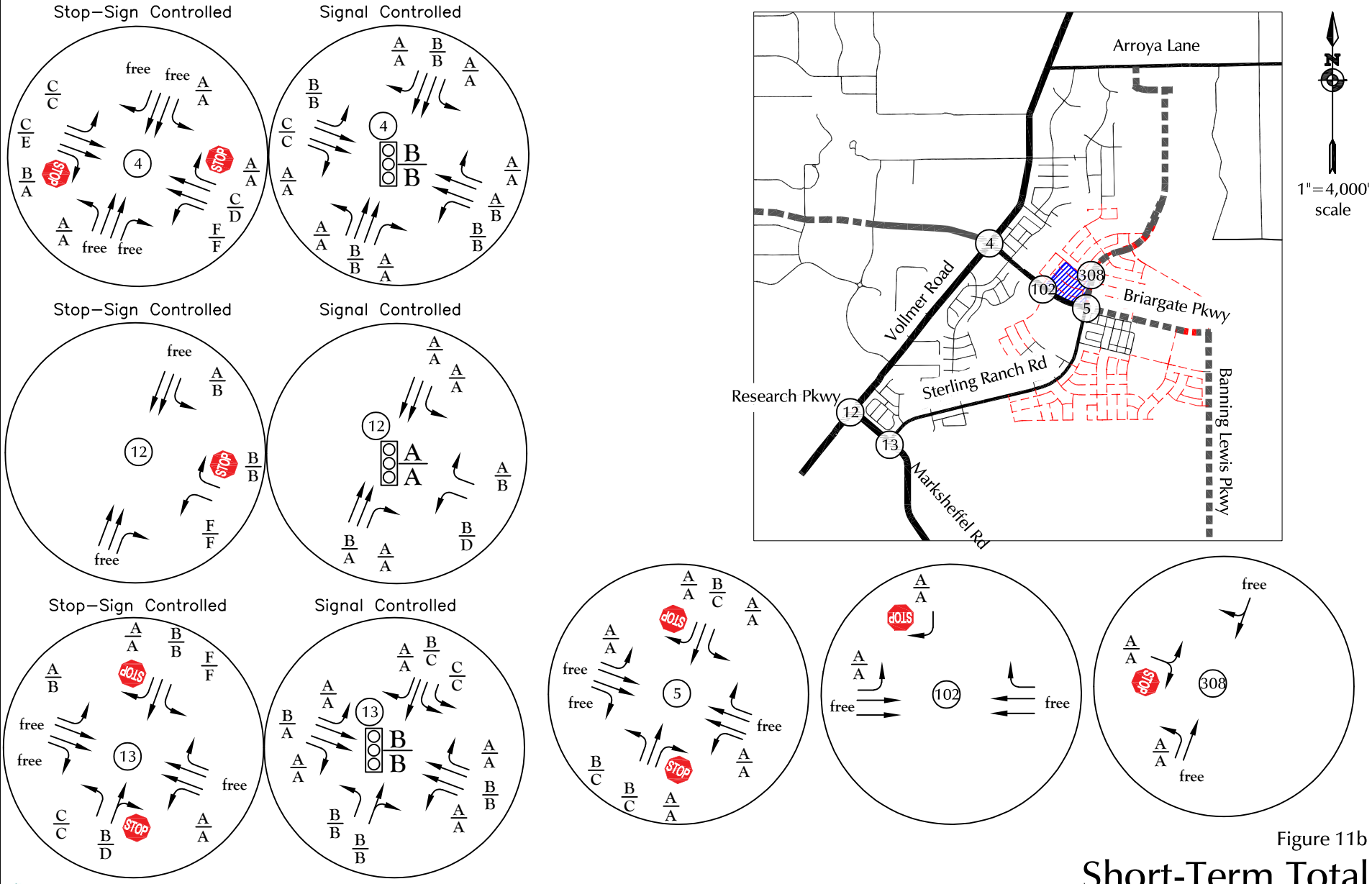
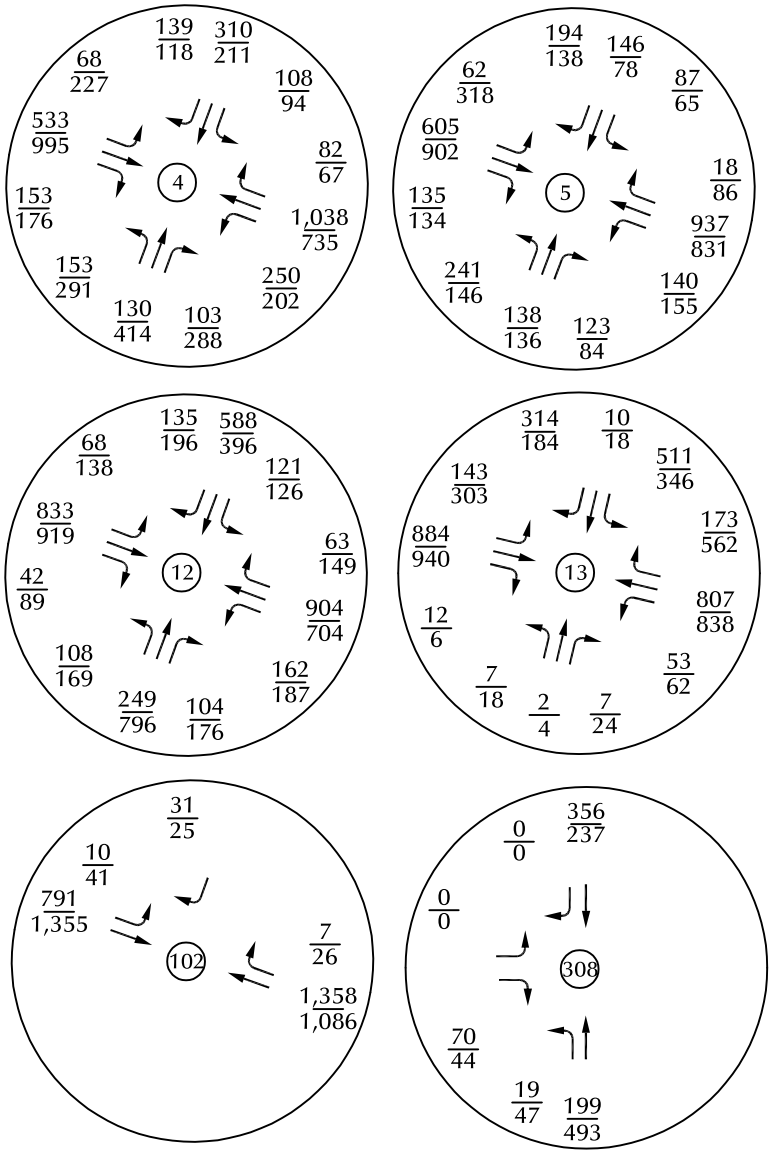
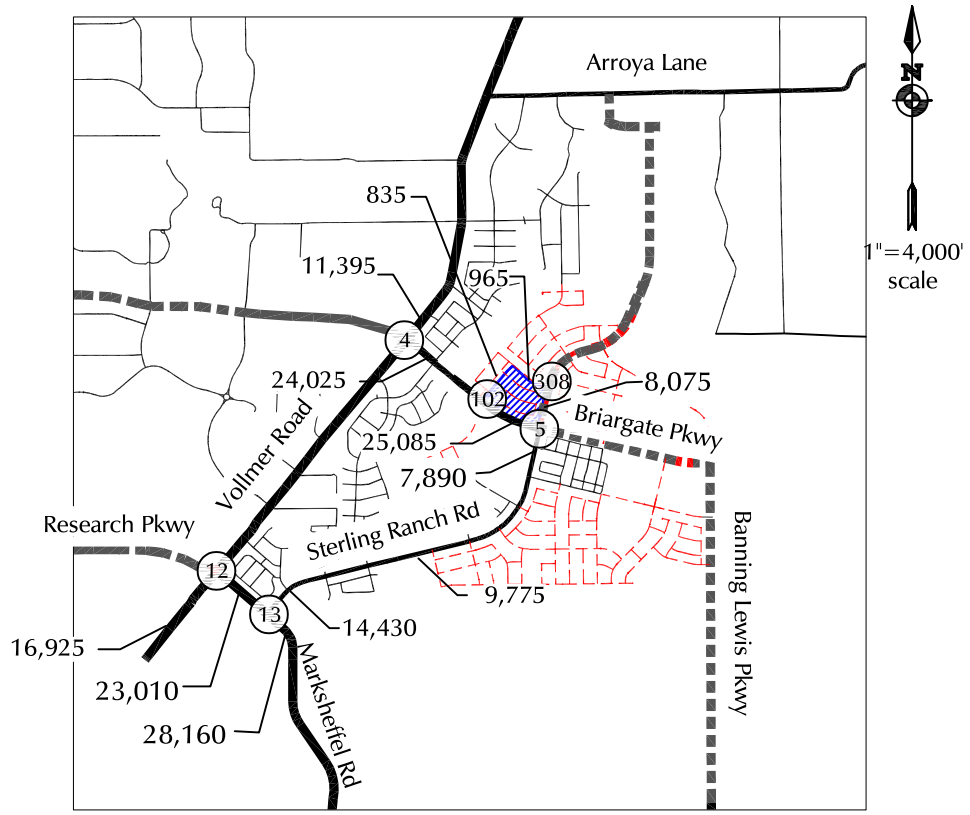


Figure 11b

Short-Term Total Lane Geometry, Traffic Control, and LOS

Sterling Ranch East Filing No. 8 (LSC #S224591)





LEGEND:

XX / XX = AM Peak-Hour Traffic (Veh/Hr) / PM Peak-Hour Traffic (Veh/Hr)

Existing Roadway

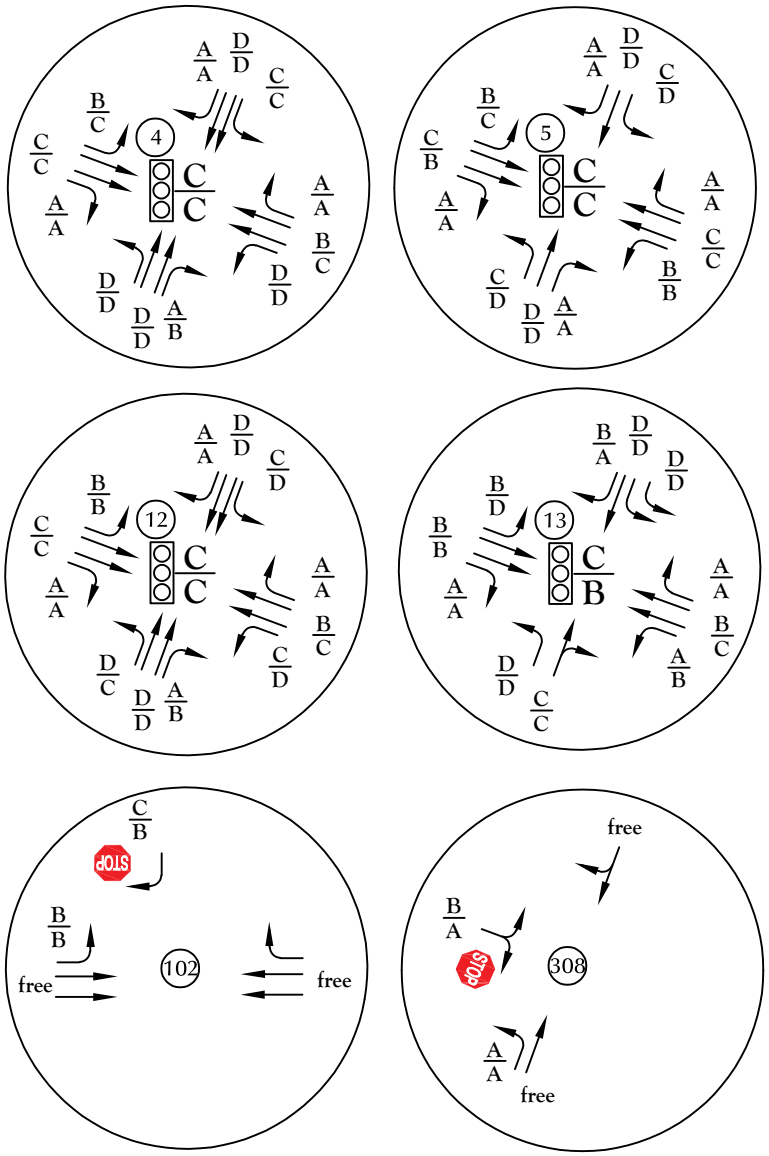
Future Roadway

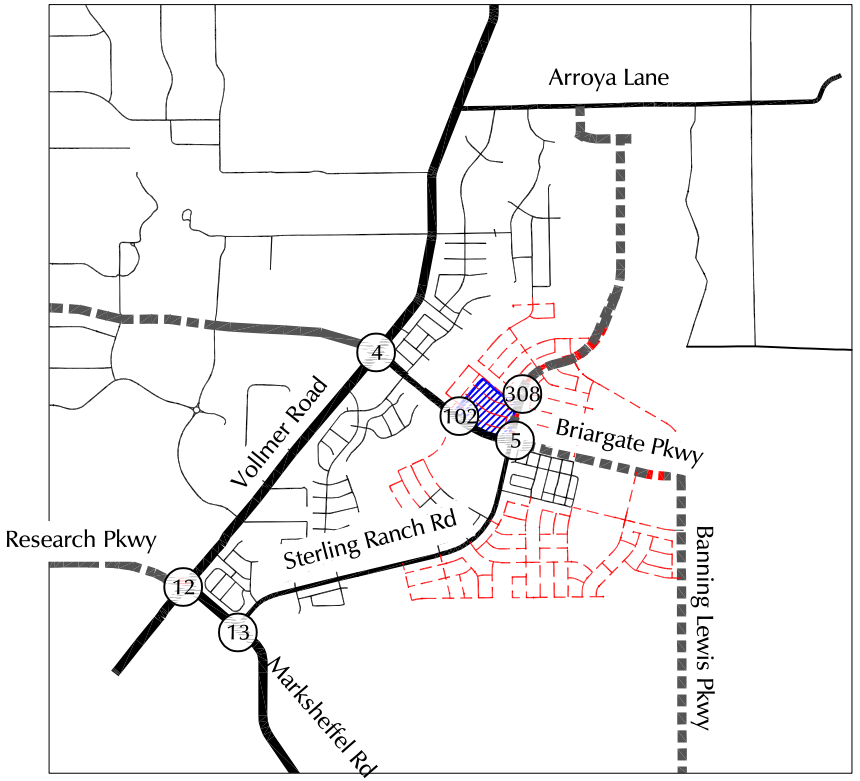
TRANSPORTATION CONSULTANTS, INC.

Figure 12a

2045 Total Traffic

Sterling Ranch East Filing No. 8 (LSC #S224591)





1"=4,000'
scale

LEGEND:

$\frac{A}{B}$ = AM Individual Movement Peak-Hour LOS / PM Individual Movement Peak-Hour LOS

$\frac{C}{D}$ = AM Entire Intersection Peak-Hour Level of Service / PM Entire Intersection Peak-Hour Level of Service

Existing Roadway
Future Roadway

= Traffic Signal

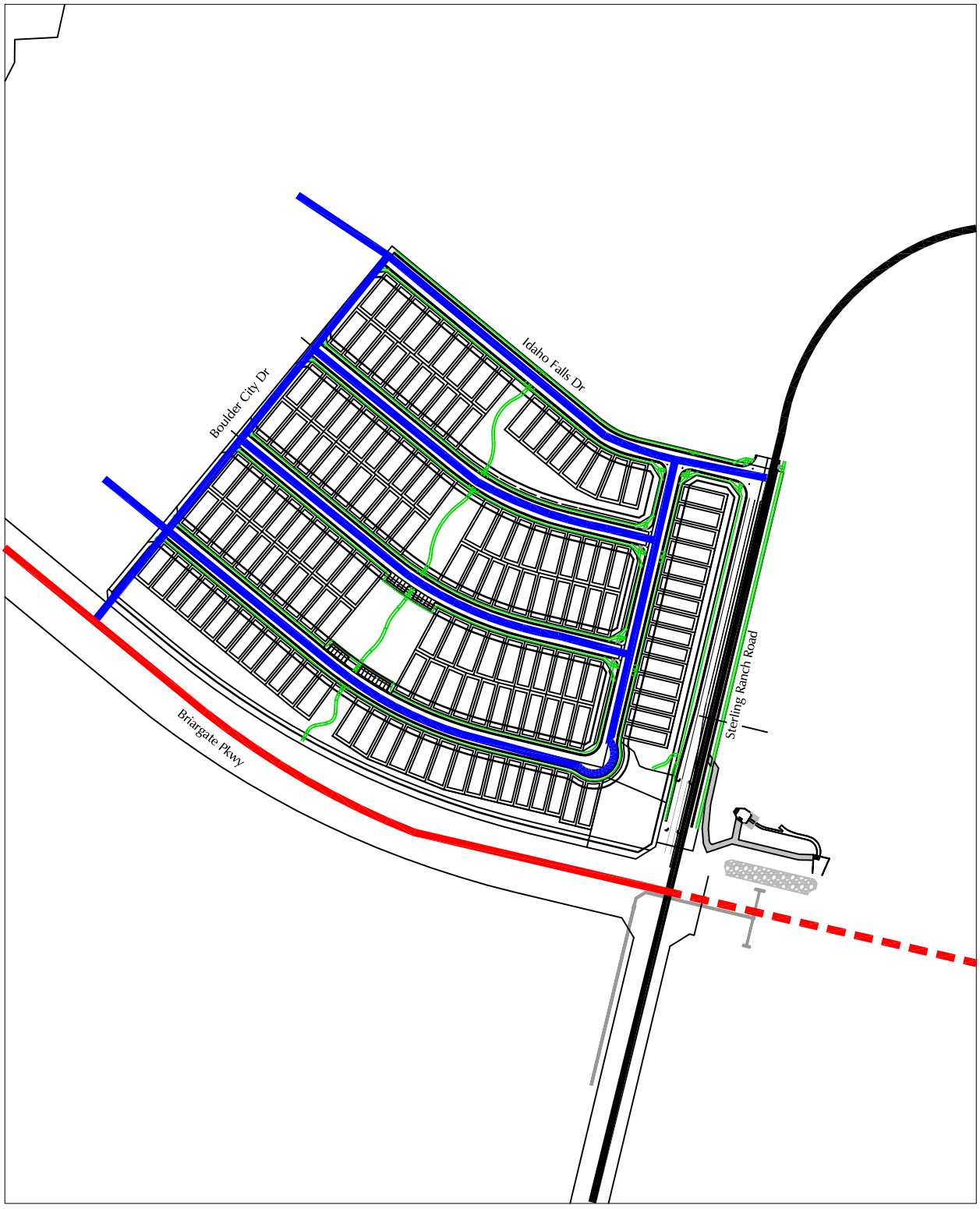
= Stop Sign

TRANSPORTATION CONSULTANTS, INC.

Figure 12b

2045 Total Lane Geometry, Traffic Control, and LOS

Sterling Ranch East Filing No. 8 (LSC #S224591)



N

1"=500'
scale

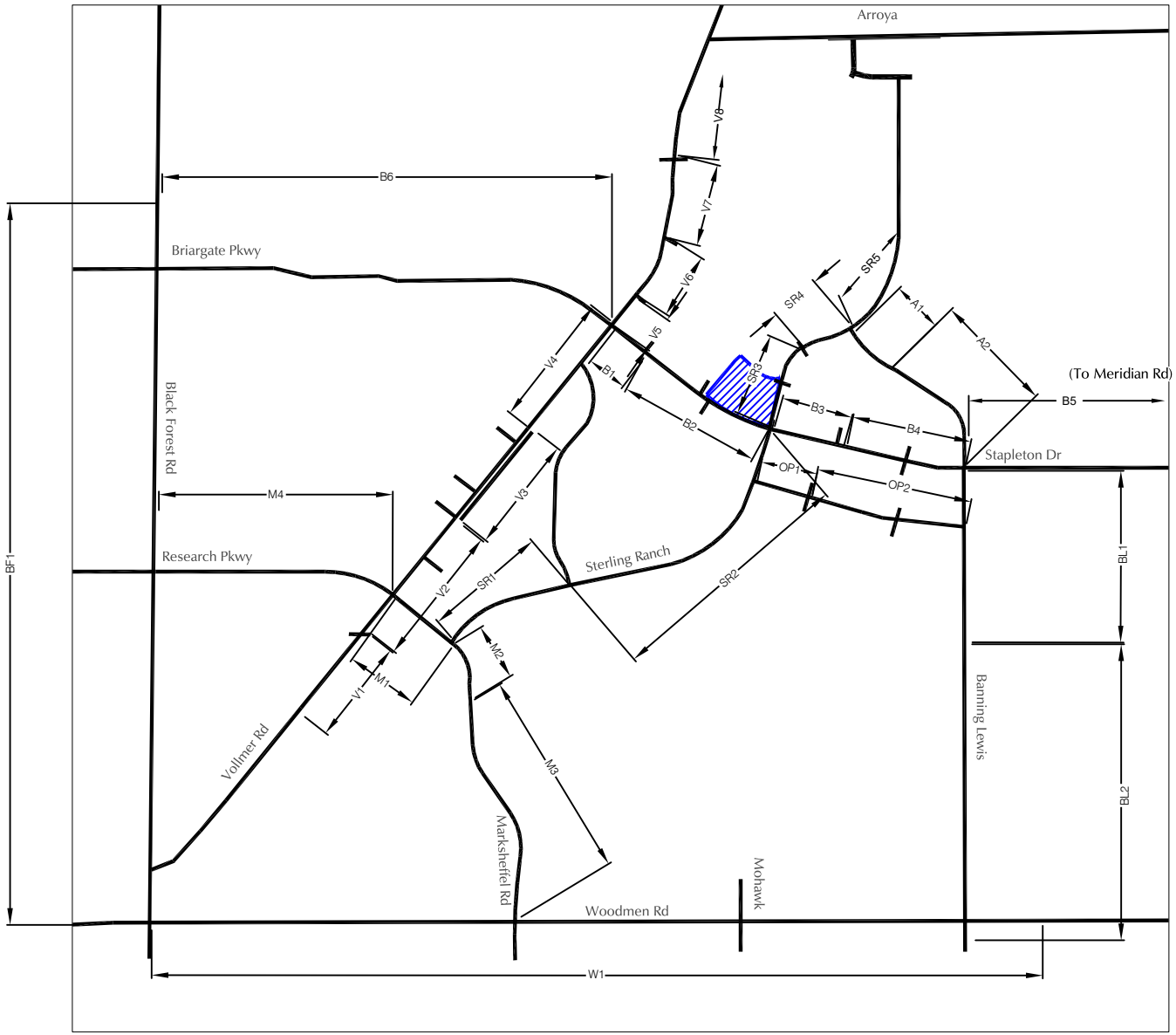
TRANSPORTATION CONSULTANTS, INC.

- 4-Lane Urban Principal Arterial
- 4-Lane Urban Principal Arterial (future)
- Urban Non-Residential Collector
- Urban Local

Figure 13

Roadway Classification

Sterling Ranch East Filing No. 8 (LSC #S224591)



1"=3,000'
scale

V1, B4, SR3, etc - Segment Identifier*

*See Table 6 for recommended roadway segment improvements for each segment.

Figure 14

Roadway Improvement Segments*

Sterling Ranch East Filing No. 8 (LSC #S224591)

TRANSPORTATION CONSULTANTS, INC.

Traffic Counts

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CONSULTANTS, INC.

LSC Transportation Consultants, Inc.

2504 E. Pikes Peak Ave, Suite 304
Colorado Springs, CO 80909
719-633-2868

File Name : Sterling Rannch Rd - Marksheffel Rd AM
Site Code : S224580
Start Date : 3/6/2025
Page No : 1

Groups Printed- Unshifted

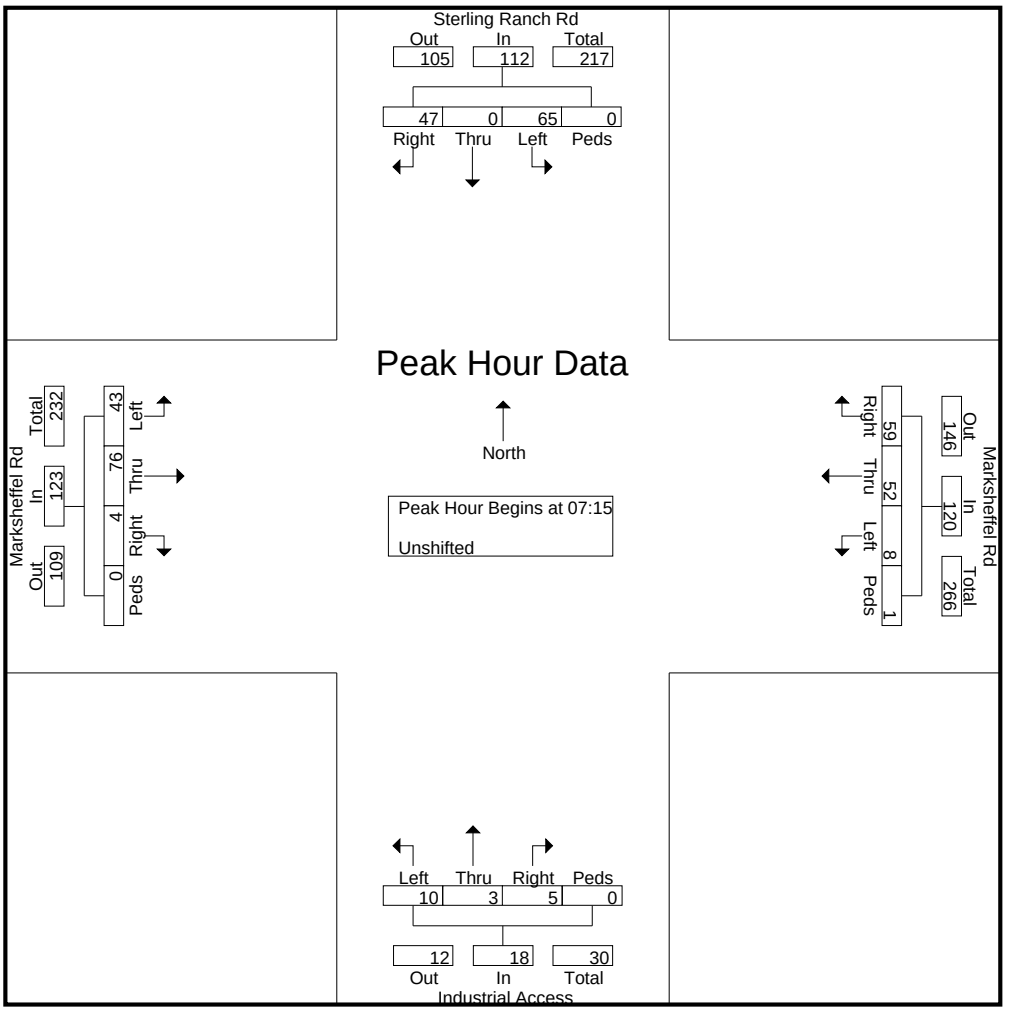
	Sterling Ranch Rd Southbound					Marksheffel Rd Westbound					Industrial Access Northbound					Marksheffel Rd Eastbound					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
06:30	3	0	13	0	16	13	6	2	0	21	0	0	0	0	0	2	12	5	0	19	56
06:45	5	0	8	0	13	16	14	3	0	33	0	6	0	0	6	2	17	5	0	24	76
Total	8	0	21	0	29	29	20	5	0	54	0	6	0	0	6	4	29	10	0	43	132
07:00	8	0	17	0	25	17	11	0	0	28	2	4	0	0	6	3	12	5	0	20	79
07:15	10	0	17	0	27	8	6	1	0	15	3	0	3	0	6	1	24	4	0	29	77
07:30	16	0	15	0	31	16	19	4	0	39	1	1	2	0	4	1	20	9	0	30	104
07:45	9	0	18	0	27	18	15	1	1	35	0	2	3	0	5	1	13	12	0	26	93
Total	43	0	67	0	110	59	51	6	1	117	6	7	8	0	21	6	69	30	0	105	353
08:00	12	0	15	0	27	17	12	2	0	31	1	0	2	0	3	1	19	18	0	38	99
08:15	3	1	12	0	16	15	13	3	0	31	1	1	1	0	3	3	11	3	0	17	67
Grand Total	66	1	115	0	182	120	96	16	1	233	8	14	11	0	33	14	128	61	0	203	651
Apprch %	36.3	0.5	63.2	0		51.5	41.2	6.9	0.4		24.2	42.4	33.3	0		6.9	63.1	30	0		
Total %	10.1	0.2	17.7	0	28	18.4	14.7	2.5	0.2	35.8	1.2	2.2	1.7	0	5.1	2.2	19.7	9.4	0	31.2	

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Site Code : S224580
Start Date : 3/6/2025
Page No : 2

	Sterling Ranch Rd Southbound					Marksheffel Rd Westbound					Industrial Access Northbound					Marksheffel Rd Eastbound					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 06:30 to 08:15 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:15																					
07:15	10	0	17	0	27	8	6	1	0	15	**3**	0	**3**	0	**6**	**1**	**24**	4	0	29	77
07:30	**16**	0	15	0	**31**	16	**19**	**4**	0	**39**	1	1	2	0	4	1	20	9	0	30	**104**
07:45	9	0	**18**	0	27	**18**	15	1	**1**	35	0	**2**	3	0	5	1	13	12	0	26	93
08:00	12	0	15	0	27	17	12	2	0	31	1	0	2	0	3	1	19	**18**	0	**38**	99
Total Volume	47	0	65	0	112	59	52	8	1	120	5	3	10	0	18	4	76	43	0	123	373
% App. Total	42	0	58	0		49.2	43.3	6.7	0.8		27.8	16.7	55.6	0		3.3	61.8	35	0		
PHF	.734	.000	.903	.000	.903	.819	.684	.500	.250	.769	.417	.375	.833	.000	.750	1.00	.792	.597	.000	.809	.897

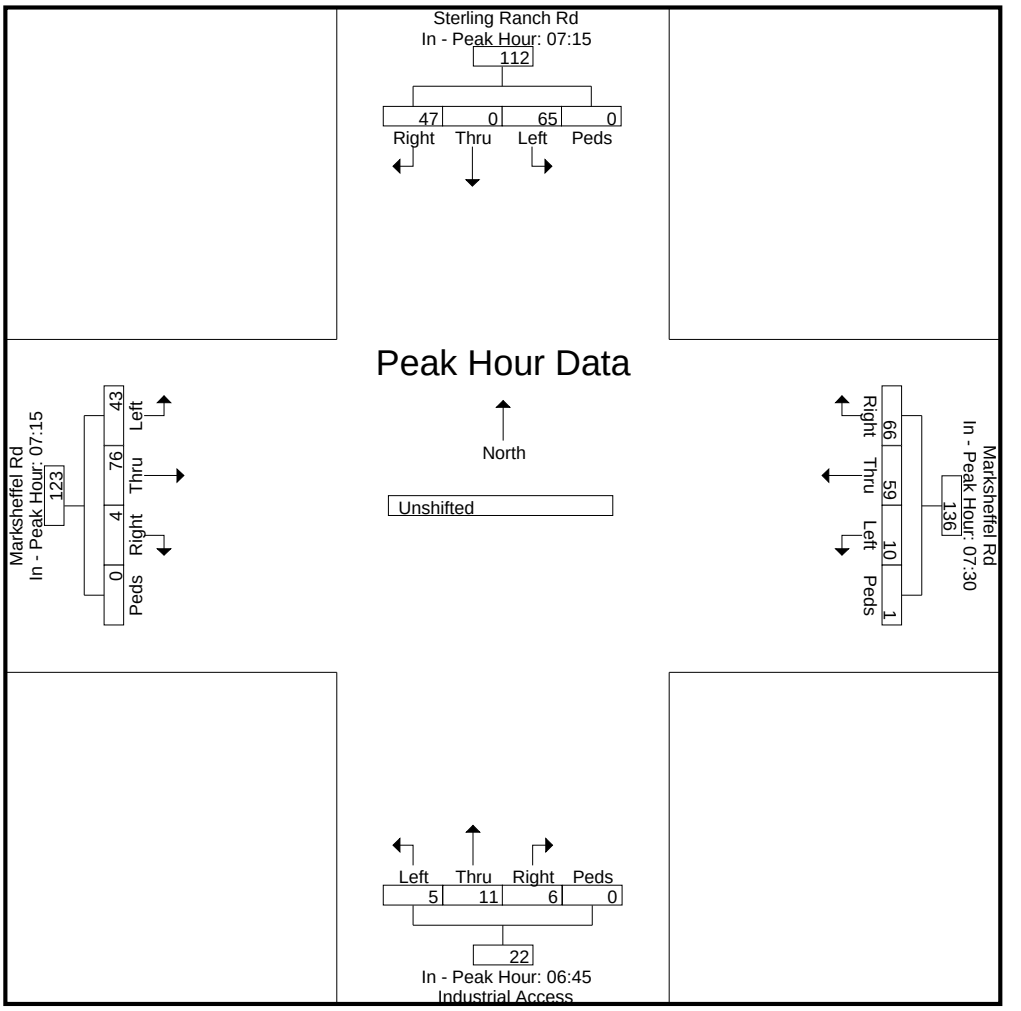


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File Name : Sterling Rannch Rd - Marksheffel Rd AM
Site Code : S224580
Start Date : 3/6/2025
Page No : 3

	Sterling Ranch Rd Southbound					Marksheffel Rd Westbound					Industrial Access Northbound					Marksheffel Rd Eastbound					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 06:30 to 08:15 - Peak 1 of 1																					
Peak Hour for Each Approach Begins at:																					
	07:15					07:30					06:45					07:15					
+0 mins.	10	0	17	0	27	16	**19**	**4**	0	**39**	0	**6**	0	0	**6**	**1**	**24**	4	0	29	
+15 mins.	**16**	0	15	0	**31**	**18**	15	1	**1**	35	2	4	0	0	6	1	20	9	0	30	
+30 mins.	9	0	**18**	0	27	17	12	2	0	31	**3**	0	**3**	0	6	1	13	12	0	26	
+45 mins.	12	0	15	0	27	15	13	3	0	31	1	1	2	0	4	1	19	**18**	0	**38**	
Total Volume	47	0	65	0	112	66	59	10	1	136	6	11	5	0	22	4	76	43	0	123	
% App. Total	42	0	58	0		48.5	43.4	7.4	0.7		27.3	50	22.7	0		3.3	61.8	35	0		
PHF	.734	.000	.903	.000	.903	.917	.776	.625	.250	.872	.500	.458	.417	.000	.917	1.000	.792	.597	.000	.809	



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Groups Printed- Unshifted

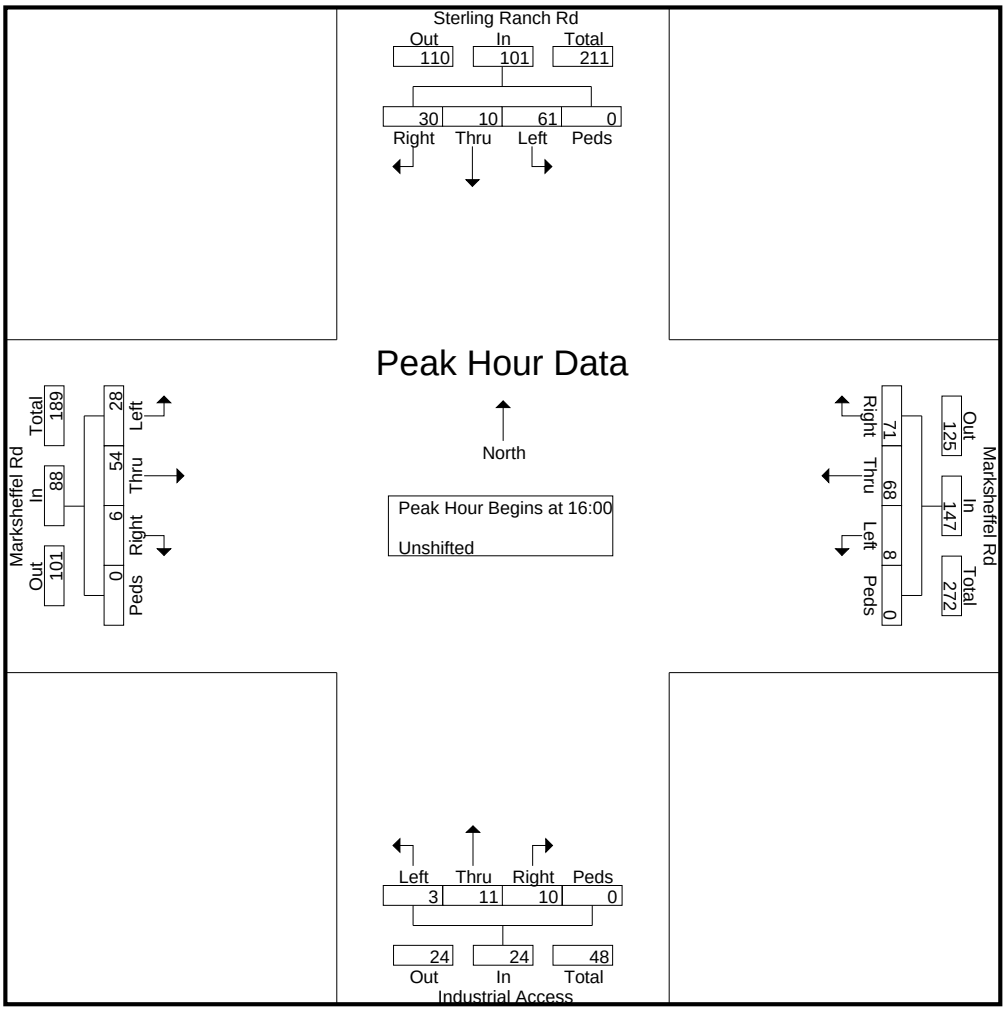
	Sterling Ranch Rd Southbound					Marksheffel Rd Westbound					Industrial Access Northbound					Marksheffel Rd Eastbound					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
16:00	5	6	20	0	31	14	13	5	0	32	5	7	0	0	12	0	12	10	0	22	97
16:15	9	0	16	0	25	18	23	2	0	43	2	2	0	0	4	2	17	10	0	29	101
16:30	10	1	20	0	31	14	17	1	0	32	1	1	1	0	3	0	18	6	0	24	90
16:45	6	3	5	0	14	25	15	0	0	40	2	1	2	0	5	4	7	2	0	13	72
Total	30	10	61	0	101	71	68	8	0	147	10	11	3	0	24	6	54	28	0	88	360
17:00	3	2	17	0	22	20	19	1	0	40	1	2	0	0	3	0	16	7	0	23	88
17:15	4	12	20	0	36	13	14	1	0	28	1	0	2	0	3	1	17	8	0	26	93
17:30	8	0	25	0	33	11	20	3	0	34	13	0	3	0	16	0	13	7	0	20	103
17:45	11	0	14	0	25	14	10	0	0	24	4	0	1	0	5	0	9	10	0	19	73
Total	26	14	76	0	116	58	63	5	0	126	19	2	6	0	27	1	55	32	0	88	357
Grand Total	56	24	137	0	217	129	131	13	0	273	29	13	9	0	51	7	109	60	0	176	717
Apprch %	25.8	11.1	63.1	0		47.3	48	4.8	0		56.9	25.5	17.6	0		4	61.9	34.1	0		
Total %	7.8	3.3	19.1	0	30.3	18	18.3	1.8	0	38.1	4	1.8	1.3	0	7.1	1	15.2	8.4	0	24.5	

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File Name : Sterling Rannch Rd - Marksheffel Rd PM
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Page No : 2

	Sterling Ranch Rd Southbound					Marksheffel Rd Westbound					Industrial Access Northbound					Marksheffel Rd Eastbound					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 16:00 to 17:45 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 16:00																					
16:00	5	**6**	**20**	0	**31**	14	13	**5**	0	32	**5**	**7**	0	0	**12**	0	12	**10**	0	22	97
16:15	9	0	16	0	25	18	**23**	2	0	**43**	2	2	0	0	4	2	17	10	0	**29**	**101**
16:30	**10**	1	20	0	31	14	17	1	0	32	1	1	1	0	3	0	**18**	6	0	24	90
16:45	6	3	5	0	14	**25**	15	0	0	40	2	1	**2**	0	5	**4**	7	2	0	13	72
Total Volume	30	10	61	0	101	71	68	8	0	147	10	11	3	0	24	6	54	28	0	88	360
% App. Total	29.7	9.9	60.4	0		48.3	46.3	5.4	0		41.7	45.8	12.5	0		6.8	61.4	31.8	0		
PHF	.750	.417	.763	.000	.815	.710	.739	.400	.000	.855	.500	.393	.375	.000	.500	.375	.750	.700	.000	.759	.891

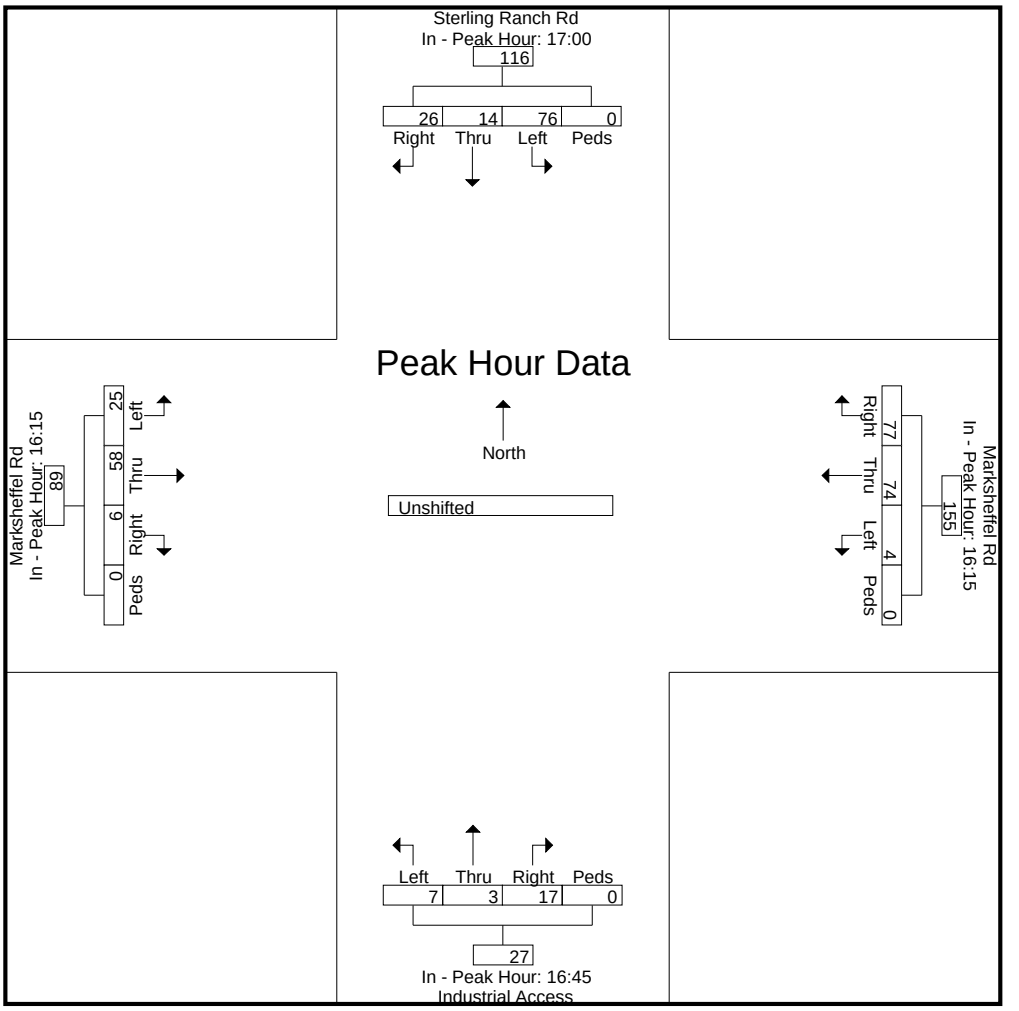


LSC Transportation Consultants, Inc.

2504 E. Pikes Peak Ave, Suite 304
Colorado Springs, CO 80909
719-633-2868

File Name : Sterling Rannch Rd - Marksheffel Rd PM
Site Code : S224580
Start Date : 3/6/2025
Page No : 3

	Sterling Ranch Rd Southbound					Marksheffel Rd Westbound					Industrial Access Northbound					Marksheffel Rd Eastbound					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 16:00 to 17:45 - Peak 1 of 1																					
Peak Hour for Each Approach Begins at:																					
	17:00					16:15					16:45					16:15					
+0 mins.	3	2	17	0	22	18	**23**	**2**	0	**43**	2	1	2	0	5	2	17	**10**	0	**29**	
+15 mins.	4	**12**	20	0	**36**	14	17	1	0	32	1	**2**	0	0	3	0	**18**	6	0	24	
+30 mins.	8	0	**25**	0	33	**25**	15	0	0	40	1	0	2	0	3	**4**	7	2	0	13	
+45 mins.	**11**	0	14	0	25	20	19	1	0	40	**13**	0	**3**	0	**16**	0	16	7	0	23	
Total Volume	26	14	76	0	116	77	74	4	0	155	17	3	7	0	27	6	58	25	0	89	
% App. Total	22.4	12.1	65.5	0		49.7	47.7	2.6	0		63	11.1	25.9	0		6.7	65.2	28.1	0		
PHF	.591	.292	.760	.000	.806	.770	.804	.500	.000	.901	.327	.375	.583	.000	.422	.375	.806	.625	.000	.767	



LSC Transportation Consultants, Inc.

2504 E. Pikes Peak Ave, Suite 304
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File Name : Vollmer Rd - Briargate Pkwy AM
Site Code : S244580
Start Date : 3/6/2025
Page No : 1

Groups Printed- Unshifted

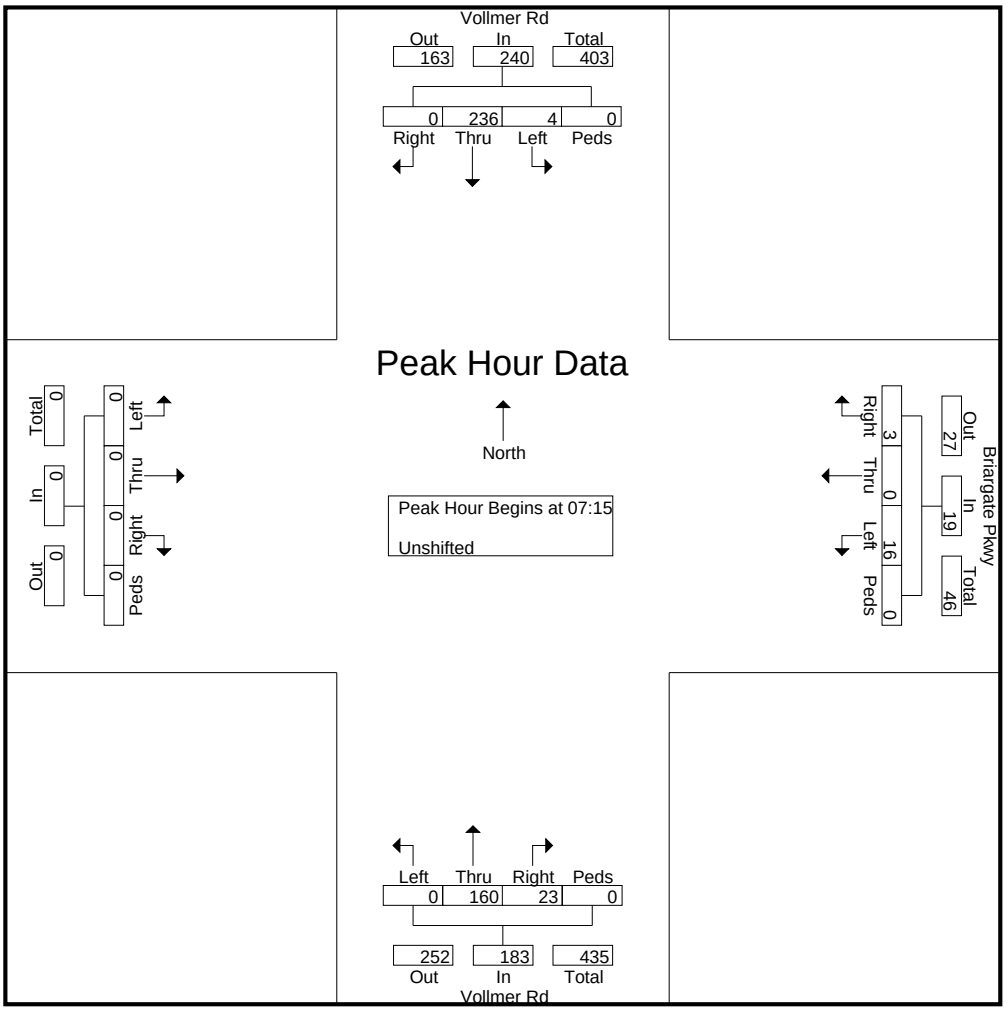
	Vollmer Rd Southbound					Briargate Pkwy Westbound					Vollmer Rd Northbound					Eastbound					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
06:30	0	27	0	0	27	0	0	2	0	2	0	16	0	0	16	0	0	0	0	0	45
06:45	0	36	0	0	36	1	0	4	0	5	4	29	0	0	33	0	0	0	0	0	74
Total	0	63	0	0	63	1	0	6	0	7	4	45	0	0	49	0	0	0	0	0	119
07:00	0	43	0	0	43	1	0	3	0	4	6	25	0	0	31	0	0	0	0	0	78
07:15	0	72	2	0	74	0	0	3	0	3	3	24	0	0	27	0	0	0	0	0	104
07:30	0	57	0	0	57	2	0	6	0	8	3	39	0	0	42	0	0	0	0	0	107
07:45	0	58	1	0	59	0	0	5	0	5	11	48	0	0	59	0	0	0	0	0	123
Total	0	230	3	0	233	3	0	17	0	20	23	136	0	0	159	0	0	0	0	0	412
08:00	0	49	1	0	50	1	0	2	0	3	6	49	0	0	55	0	0	0	0	0	108
08:15	0	38	0	0	38	1	0	4	0	5	5	44	0	0	49	0	0	0	0	0	92
Grand Total	0	380	4	0	384	6	0	29	0	35	38	274	0	0	312	0	0	0	0	0	731
Apprch %	0	99	1	0		17.1	0	82.9	0		12.2	87.8	0	0		0	0	0	0		
Total %	0	52	0.5	0	52.5	0.8	0	4	0	4.8	5.2	37.5	0	0	42.7	0	0	0	0	0	

LSC Transportation Consultants, Inc.

2504 E. Pikes Peak Ave, Suite 304
Colorado Springs, CO 80909
719-633-2868

File Name : Vollmer Rd - Briargate Pkwy AM
Site Code : S244580
Start Date : 3/6/2025
Page No : 2

	Vollmer Rd Southbound					Briargate Pkwy Westbound					Vollmer Rd Northbound					Eastbound					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 06:30 to 08:15 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:15																					
07:15	0	**72**	**2**	0	**74**	0	0	3	0	3	3	24	0	0	27	0	0	0	0	0	104
07:30	0	57	0	0	57	**2**	0	**6**	0	**8**	3	39	0	0	42	0	0	0	0	0	107
07:45	0	58	1	0	59	0	0	5	0	5	**11**	48	0	0	**59**	0	0	0	0	0	**123**
08:00	0	49	1	0	50	1	0	2	0	3	6	**49**	0	0	55	0	0	0	0	0	108
Total Volume	0	236	4	0	240	3	0	16	0	19	23	160	0	0	183	0	0	0	0	0	442
% App. Total	0	98.3	1.7	0		15.8	0	84.2	0		12.6	87.4	0	0		0	0	0	0		
PHF	.000	.819	.500	.000	.811	.375	.000	.667	.000	.594	.523	.816	.000	.000	.775	.000	.000	.000	.000	.000	.898

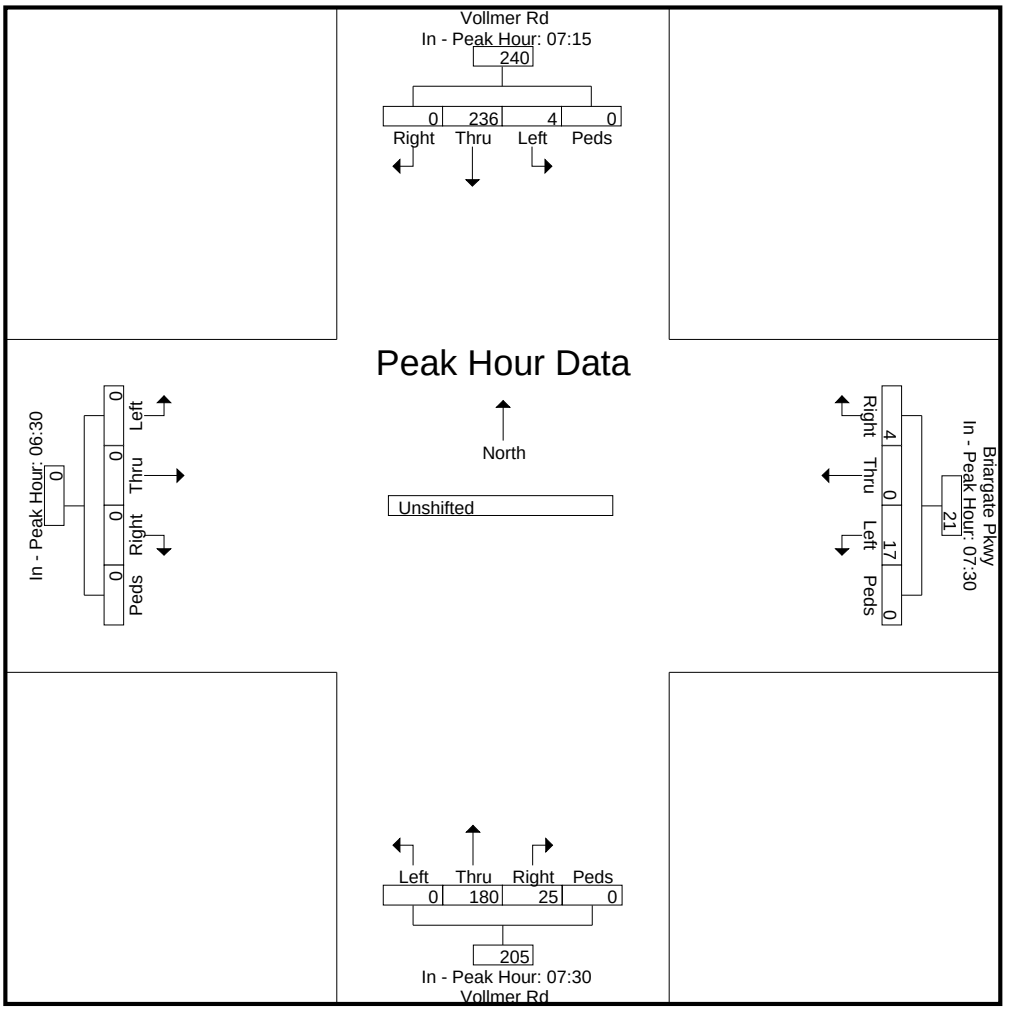


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2504 E. Pikes Peak Ave, Suite 304
Colorado Springs, CO 80909
719-633-2868

File Name : Vollmer Rd - Briargate Pkwy AM
Site Code : S244580
Start Date : 3/6/2025
Page No : 3

	Vollmer Rd Southbound					Briargate Pkwy Westbound					Vollmer Rd Northbound					Eastbound					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 06:30 to 08:15 - Peak 1 of 1																					
Peak Hour for Each Approach Begins at:																					
	07:15					07:30					07:30					06:30					
+0 mins.	0	**72**	**2**	0	**74**	**2**	0	**6**	0	**8**	3	39	0	0	42	0	0	0	0	0	
+15 mins.	0	57	0	0	57	0	0	5	0	5	**11**	48	0	0	**59**	0	0	0	0	0	
+30 mins.	0	58	1	0	59	1	0	2	0	3	6	**49**	0	0	55	0	0	0	0	0	
+45 mins.	0	49	1	0	50	1	0	4	0	5	5	44	0	0	49	0	0	0	0	0	
Total Volume	0	236	4	0	240	4	0	17	0	21	25	180	0	0	205	0	0	0	0	0	
% App. Total	0	98.3	1.7	0		19	0	81	0		12.2	87.8	0	0		0	0	0	0		
PHF	.000	.819	.500	.000	.811	.500	.000	.708	.000	.656	.568	.918	.000	.000	.869	.000	.000	.000	.000	.000	



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2504 E. Pikes Peak Ave, Suite 304
Colorado Springs, CO 80909
719-633-2868

File Name : Vollmer Rd - Briargate Pkwy PM
Site Code : S244580
Start Date : 3/6/2025
Page No : 1

Groups Printed- Unshifted

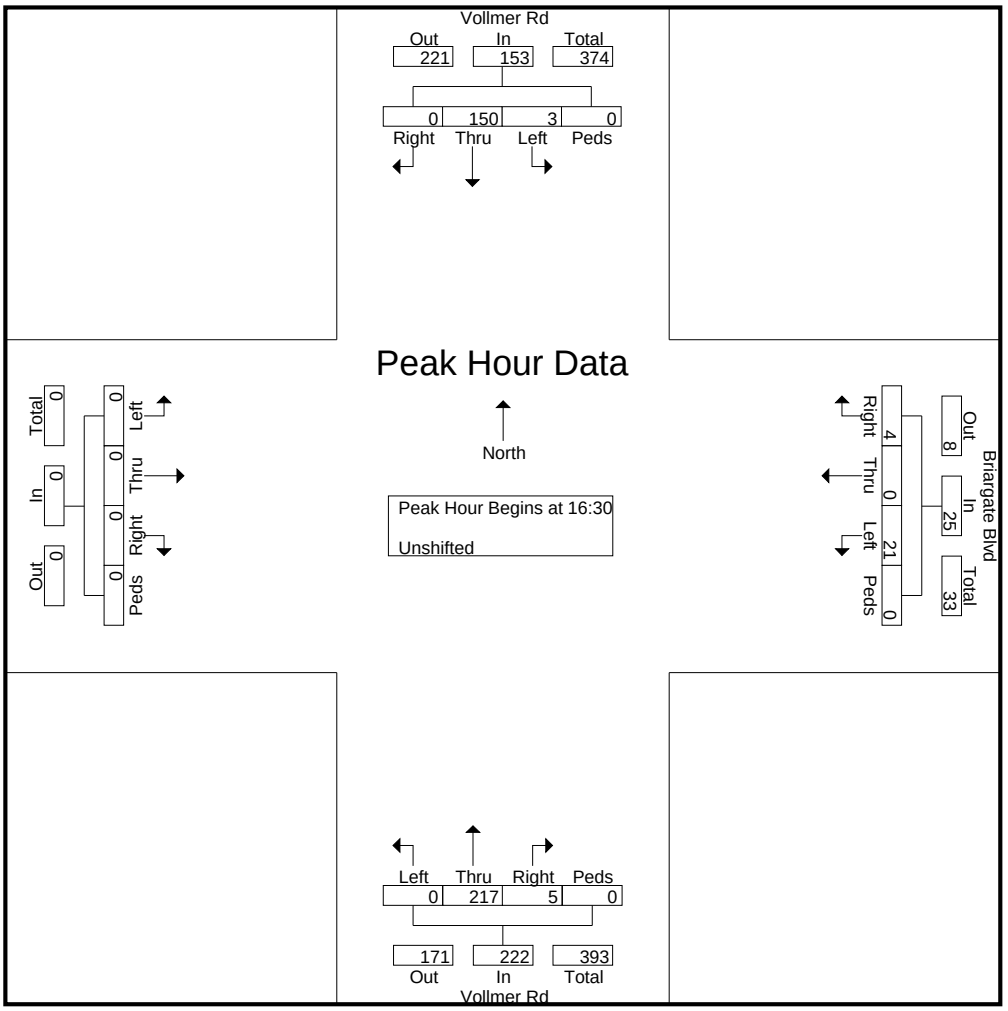
	Vollmer Rd Southbound					Briargate Blvd Westbound					Vollmer Rd Northbound					Eastbound					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
16:00	0	27	2	0	29	0	0	5	0	5	0	35	0	0	35	0	0	0	0	0	69
16:15	0	36	0	0	36	0	0	3	0	3	4	50	0	0	54	0	0	0	0	0	93
16:30	0	37	2	0	39	2	0	7	0	9	2	46	0	0	48	0	0	0	0	0	96
16:45	0	31	0	0	31	1	0	9	0	10	1	45	0	0	46	0	0	0	0	0	87
Total	0	131	4	0	135	3	0	24	0	27	7	176	0	0	183	0	0	0	0	0	345
17:00	0	39	1	0	40	1	0	4	0	5	0	58	0	0	58	0	0	0	0	0	103
17:15	0	43	0	0	43	0	0	1	0	1	2	68	0	0	70	0	0	0	0	0	114
17:30	0	30	2	0	32	0	0	2	0	2	3	58	0	0	61	0	0	0	0	0	95
17:45	0	26	1	0	27	0	0	5	0	5	5	36	0	0	41	0	0	0	0	0	73
Total	0	138	4	0	142	1	0	12	0	13	10	220	0	0	230	0	0	0	0	0	385
Grand Total	0	269	8	0	277	4	0	36	0	40	17	396	0	0	413	0	0	0	0	0	730
Apprch %	0	97.1	2.9	0		10	0	90	0		4.1	95.9	0	0		0	0	0	0		
Total %	0	36.8	1.1	0	37.9	0.5	0	4.9	0	5.5	2.3	54.2	0	0	56.6	0	0	0	0	0	

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2504 E. Pikes Peak Ave, Suite 304
Colorado Springs, CO 80909
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File Name : Vollmer Rd - Briargate Pkwy PM
Site Code : S244580
Start Date : 3/6/2025
Page No : 2

	Vollmer Rd Southbound					Briargate Blvd Westbound					Vollmer Rd Northbound					Eastbound					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 16:00 to 17:45 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 16:30																					
16:30	0	37	**2**	0	39	**2**	0	7	0	9	**2**	46	0	0	48	0	0	0	0	0	96
16:45	0	31	0	0	31	1	0	**9**	0	**10**	1	45	0	0	46	0	0	0	0	0	87
17:00	0	39	1	0	40	1	0	4	0	5	0	58	0	0	58	0	0	0	0	0	103
17:15	0	**43**	0	0	**43**	0	0	1	0	1	2	**68**	0	0	**70**	0	0	0	0	0	**114**
Total Volume	0	150	3	0	153	4	0	21	0	25	5	217	0	0	222	0	0	0	0	0	400
% App. Total	0	98	2	0		16	0	84	0		2.3	97.7	0	0		0	0	0	0		
PHF	.000	.872	.375	.000	.890	.500	.000	.583	.000	.625	.625	.798	.000	.000	.793	.000	.000	.000	.000	.000	.877

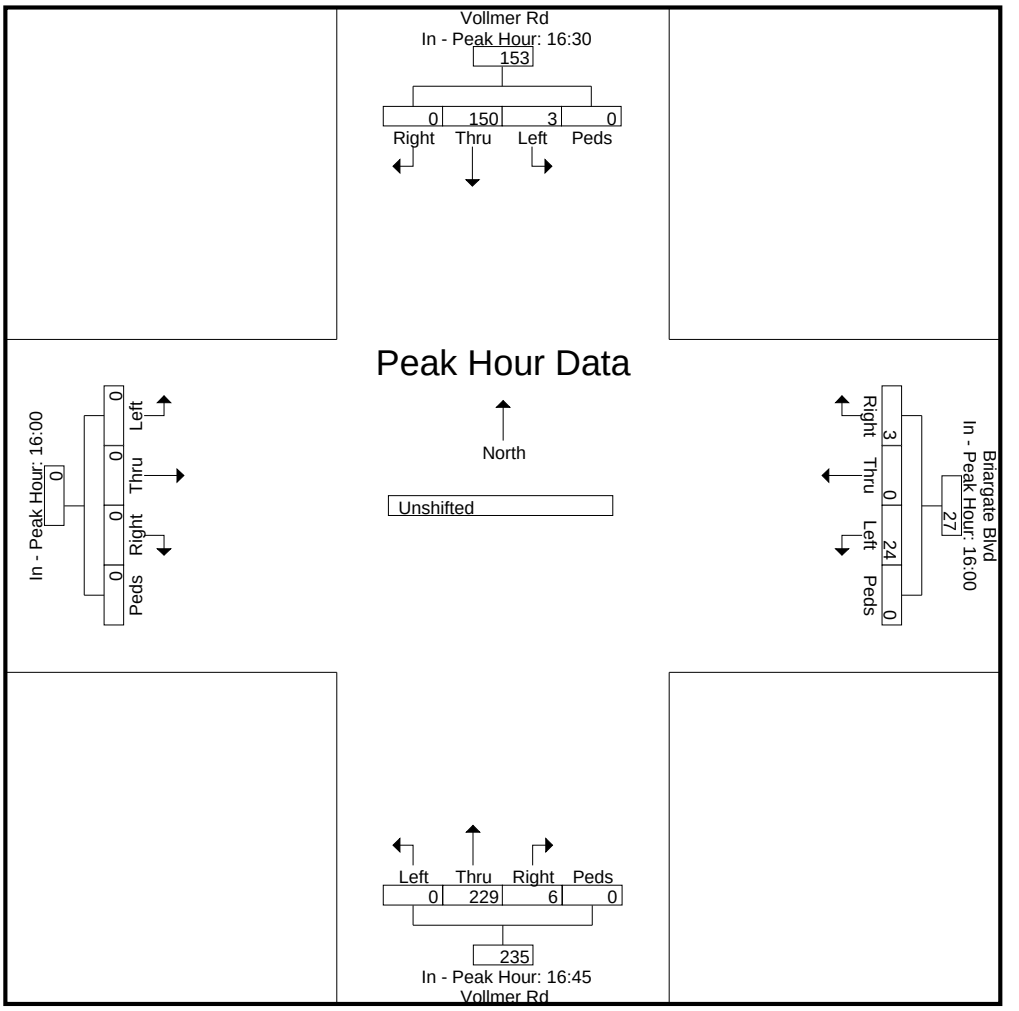


LSC Transportation Consultants, Inc.

2504 E. Pikes Peak Ave, Suite 304
Colorado Springs, CO 80909
719-633-2868

File Name : Vollmer Rd - Briargate Pkwy PM
Site Code : S244580
Start Date : 3/6/2025
Page No : 3

	Vollmer Rd Southbound					Briargate Blvd Westbound					Vollmer Rd Northbound					Eastbound					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 16:00 to 17:45 - Peak 1 of 1																					
Peak Hour for Each Approach Begins at:																					
	16:30					16:00					16:45					16:00					
+0 mins.	0	37	**2**	0	39	0	0	5	0	5	1	45	0	0	46	0	0	0	0	0	
+15 mins.	0	31	0	0	31	0	0	3	0	3	0	58	0	0	58	0	0	0	0	0	
+30 mins.	0	39	1	0	40	**2**	0	7	0	9	2	**68**	0	0	**70**	0	0	0	0	0	
+45 mins.	0	**43**	0	0	**43**	1	0	**9**	0	**10**	**3**	58	0	0	61	0	0	0	0	0	
Total Volume	0	150	3	0	153	3	0	24	0	27	6	229	0	0	235	0	0	0	0	0	
% App. Total	0	98	2	0		11.1	0	88.9	0		2.6	97.4	0	0		0	0	0	0		
PHF	.000	.872	.375	.000	.890	.375	.000	.667	.000	.675	.500	.842	.000	.000	.839	.000	.000	.000	.000	.000	



LSC Transportation Consultants, Inc.

2504 E. Pikes Peak Ave, Suite 304
Colorado Springs, CO 80909
719-633-2868

File Name : Vollmer Rd - Marksheffel Rd AM
Site Code : S244580
Start Date : 3/6/2025
Page No : 1

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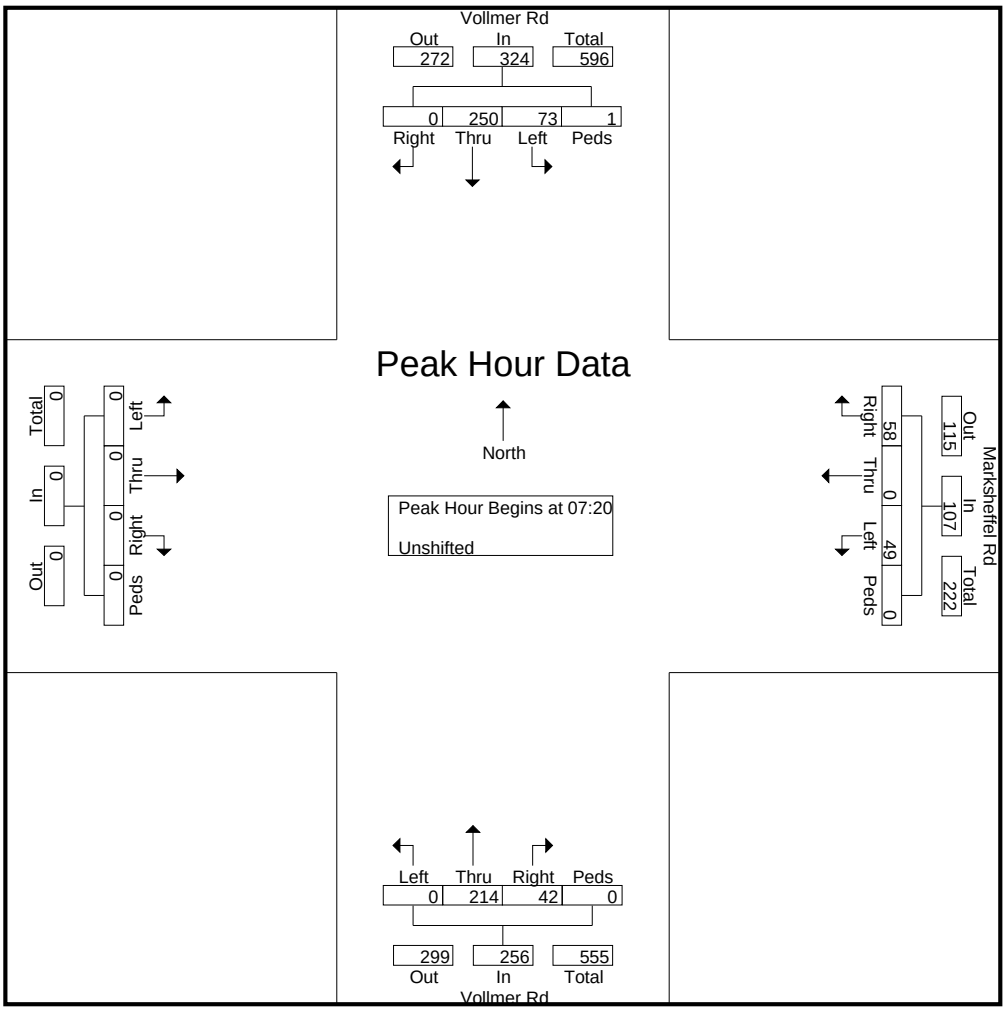
	Vollmer Rd Southbound					Marksheffel Rd Westbound					Vollmer Rd Northbound					Eastbound					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
06:30	0	14	3	0	17	2	0	0	0	2	3	4	0	0	7	0	0	0	0	0	26
06:35	0	15	5	0	20	0	0	2	0	2	0	10	0	0	10	0	0	0	0	0	32
06:40	0	6	3	0	9	1	0	3	0	4	3	8	0	0	11	0	0	0	0	0	24
06:45	0	7	7	0	14	4	0	1	0	5	4	12	0	0	16	0	0	0	0	0	35
06:50	0	14	4	0	18	5	0	3	0	8	2	3	0	0	5	0	0	0	0	0	31
06:55	0	12	2	0	14	5	0	2	0	7	4	10	0	0	14	0	0	0	0	0	35
Total	0	68	24	0	92	17	0	11	0	28	16	47	0	0	63	0	0	0	0	0	183
07:00	0	19	4	0	23	2	0	4	0	6	1	6	0	0	7	0	0	0	0	0	36
07:05	0	20	6	0	26	2	0	1	0	3	2	16	0	0	18	0	0	0	0	0	47
07:10	0	13	6	0	19	4	0	5	0	9	2	4	0	0	6	0	0	0	0	0	34
07:15	0	15	11	0	26	3	0	5	0	8	2	3	0	0	5	0	0	0	0	0	39
07:20	0	30	10	0	40	3	0	3	0	6	1	16	0	0	17	0	0	0	0	0	63
07:25	0	25	4	0	29	2	0	3	0	5	4	8	0	0	12	0	0	0	0	0	46
07:30	0	24	8	0	32	3	0	7	0	10	2	19	0	0	21	0	0	0	0	0	63
07:35	0	23	7	0	30	10	0	6	0	16	2	11	0	0	13	0	0	0	0	0	59
07:40	0	22	6	0	28	5	0	5	0	10	3	10	0	0	13	0	0	0	0	0	51
07:45	0	26	7	0	33	2	0	3	0	5	1	21	0	0	22	0	0	0	0	0	60
07:50	0	22	4	0	26	8	0	8	0	16	2	27	0	0	29	0	0	0	0	0	71
07:55	0	17	3	1	21	7	0	3	0	10	9	15	0	0	24	0	0	0	0	0	55
Total	0	256	76	1	333	51	0	53	0	104	31	156	0	0	187	0	0	0	0	0	624
08:00	0	18	10	0	28	6	0	1	0	7	10	27	0	0	37	0	0	0	0	0	72
08:05	0	19	8	0	27	3	0	5	0	8	3	17	0	0	20	0	0	0	0	0	55
08:10	0	10	3	0	13	5	0	3	0	8	4	21	0	0	25	0	0	0	0	0	46
08:15	0	14	3	0	17	4	0	2	0	6	1	22	0	0	23	0	0	0	0	0	46
08:20	0	17	6	0	23	5	0	1	0	6	1	22	0	0	23	0	0	0	0	0	52
08:25	0	10	3	0	13	2	0	2	0	4	3	15	0	0	18	0	0	0	0	0	35
Grand Total	0	412	133	1	546	93	0	78	0	171	69	327	0	0	396	0	0	0	0	0	1113
Apprch %	0	75.5	24.4	0.2		54.4	0	45.6	0		17.4	82.6	0	0		0	0	0	0		
Total %	0	37	11.9	0.1	49.1	8.4	0	7	0	15.4	6.2	29.4	0	0	35.6	0	0	0	0	0	

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2504 E. Pikes Peak Ave, Suite 304
Colorado Springs, CO 80909
719-633-2868

File Name : Vollmer Rd - Marksheffel Rd AM
Site Code : S244580
Start Date : 3/6/2025
Page No : 2

	Vollmer Rd Southbound					Marksheffel Rd Westbound					Vollmer Rd Northbound					Eastbound					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 06:30 to 08:25 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:20																					
07:20	0	**30**	**10**	0	**40**	3	0	3	0	6	1	16	0	0	17	0	0	0	0	0	63
07:25	0	25	4	0	29	2	0	3	0	5	4	8	0	0	12	0	0	0	0	0	46
07:30	0	24	8	0	32	3	0	7	0	10	2	19	0	0	21	0	0	0	0	0	63
07:35	0	23	7	0	30	**10**	0	6	0	**16**	2	11	0	0	13	0	0	0	0	0	59
07:40	0	22	6	0	28	5	0	5	0	10	3	10	0	0	13	0	0	0	0	0	51
07:45	0	26	7	0	33	2	0	3	0	5	1	21	0	0	22	0	0	0	0	0	60
07:50	0	22	4	0	26	8	0	**8**	0	16	2	**27**	0	0	29	0	0	0	0	0	71
07:55	0	17	3	**1**	21	7	0	3	0	10	9	15	0	0	24	0	0	0	0	0	55
08:00	0	18	10	0	28	6	0	1	0	7	**10**	27	0	0	**37**	0	0	0	0	0	**72**
08:05	0	19	8	0	27	3	0	5	0	8	3	17	0	0	20	0	0	0	0	0	55
08:10	0	10	3	0	13	5	0	3	0	8	4	21	0	0	25	0	0	0	0	0	46
08:15	0	14	3	0	17	4	0	2	0	6	1	22	0	0	23	0	0	0	0	0	46
Total Volume	0	250	73	1	324	58	0	49	0	107	42	214	0	0	256	0	0	0	0	0	687
% App. Total	0	77.2	22.5	0.3		54.2	0	45.8	0		16.4	83.6	0	0		0	0	0	0		
PHF	.000	.694	.608	.083	.675	.483	.000	.510	.000	.557	.350	.660	.000	.000	.577	.000	.000	.000	.000	.000	.795

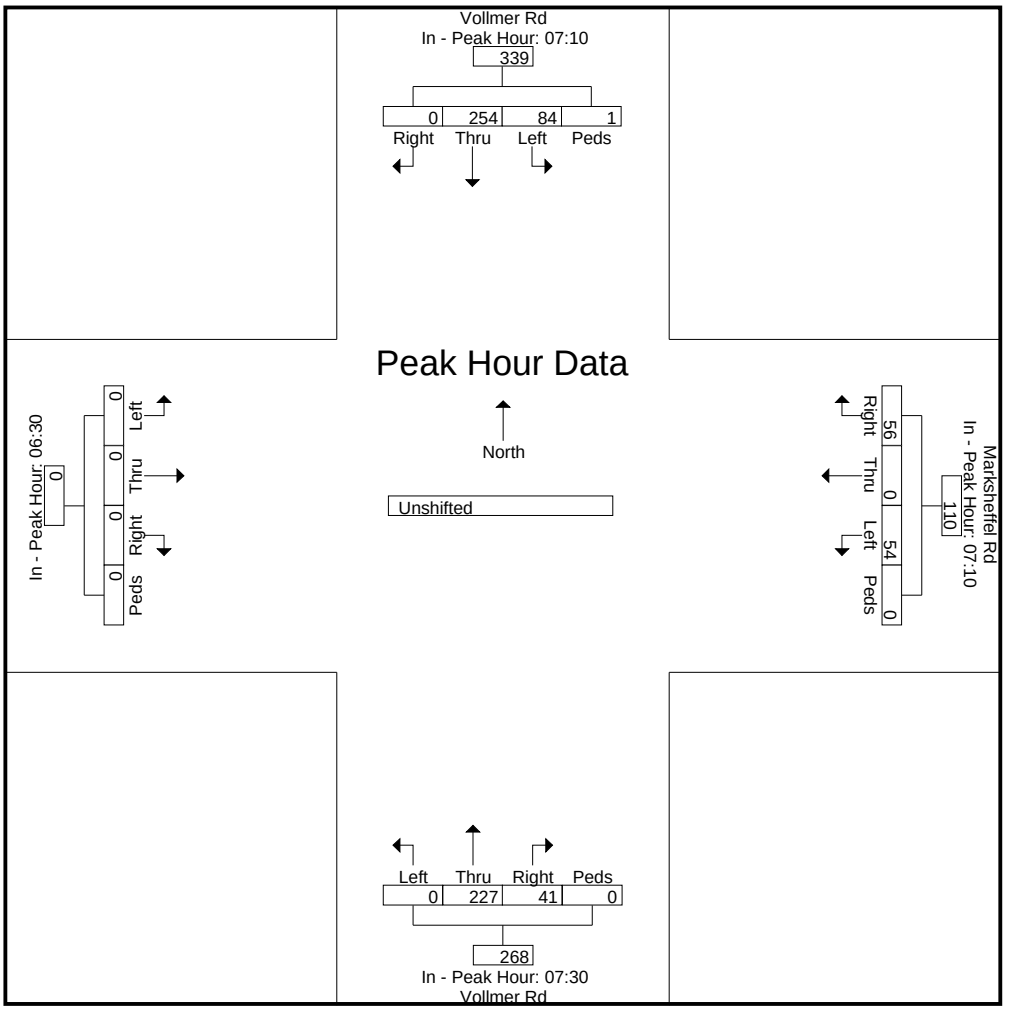


LSC Transportation Consultants, Inc.

2504 E. Pikes Peak Ave, Suite 304
Colorado Springs, CO 80909
719-633-2868

File Name : Vollmer Rd - Marksheffel Rd AM
Site Code : S244580
Start Date : 3/6/2025

	Vollmer Rd Southbound					Marksheffel Rd Westbound					Vollmer Rd Northbound					Eastbound					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 06:30 to 08:25 - Peak 1 of 1																					
Peak Hour for Each Approach Begins at:																					
	07:10					07:10					07:30					06:30					
+0 mins.	0	13	6	0	19	4	0	5	0	9	2	19	0	0	21	0	0	0	0	0	
+5 mins.	0	15	**11**	0	26	3	0	5	0	8	2	11	0	0	13	0	0	0	0	0	
+10 mins.	0	**30**	10	0	**40**	3	0	3	0	6	3	10	0	0	13	0	0	0	0	0	
+15 mins.	0	25	4	0	29	2	0	3	0	5	1	21	0	0	22	0	0	0	0	0	
+20 mins.	0	24	8	0	32	3	0	7	0	10	2	**27**	0	0	29	0	0	0	0	0	
+25 mins.	0	23	7	0	30	**10**	0	6	0	**16**	9	15	0	0	24	0	0	0	0	0	
+30 mins.	0	22	6	0	28	5	0	5	0	10	**10**	27	0	0	**37**	0	0	0	0	0	
+35 mins.	0	26	7	0	33	2	0	3	0	5	3	17	0	0	20	0	0	0	0	0	
+40 mins.	0	22	4	0	26	8	0	**8**	0	16	4	21	0	0	25	0	0	0	0	0	
+45 mins.	0	17	3	**1**	21	7	0	3	0	10	1	22	0	0	23	0	0	0	0	0	
+50 mins.	0	18	10	0	28	6	0	1	0	7	1	22	0	0	23	0	0	0	0	0	
+55 mins.	0	19	8	0	27	3	0	5	0	8	3	15	0	0	18	0	0	0	0	0	
Total Volume	0	254	84	1	339	56	0	54	0	110	41	227	0	0	268	0	0	0	0	0	
% App. Total	0	74.9	24.8	0.3		50.9	0	49.1	0		15.3	84.7	0	0		0	0	0	0		
PHF	.000	.706	.636	.083	.706	.467	.000	.563	.000	.573	.342	.701	.000	.000	.604	.000	.000	.000	.000	.000	



LSC Transportation Consultants, Inc.

2504 E. Pikes Peak Ave, Suite 304
Colorado Springs, CO 80909
719-633-2868

File Name : Vollmer Rd - Marksheffel Rd PM
Site Code : S224580
Start Date : 3/6/2025
Page No : 1

Groups Printed- Unshifted

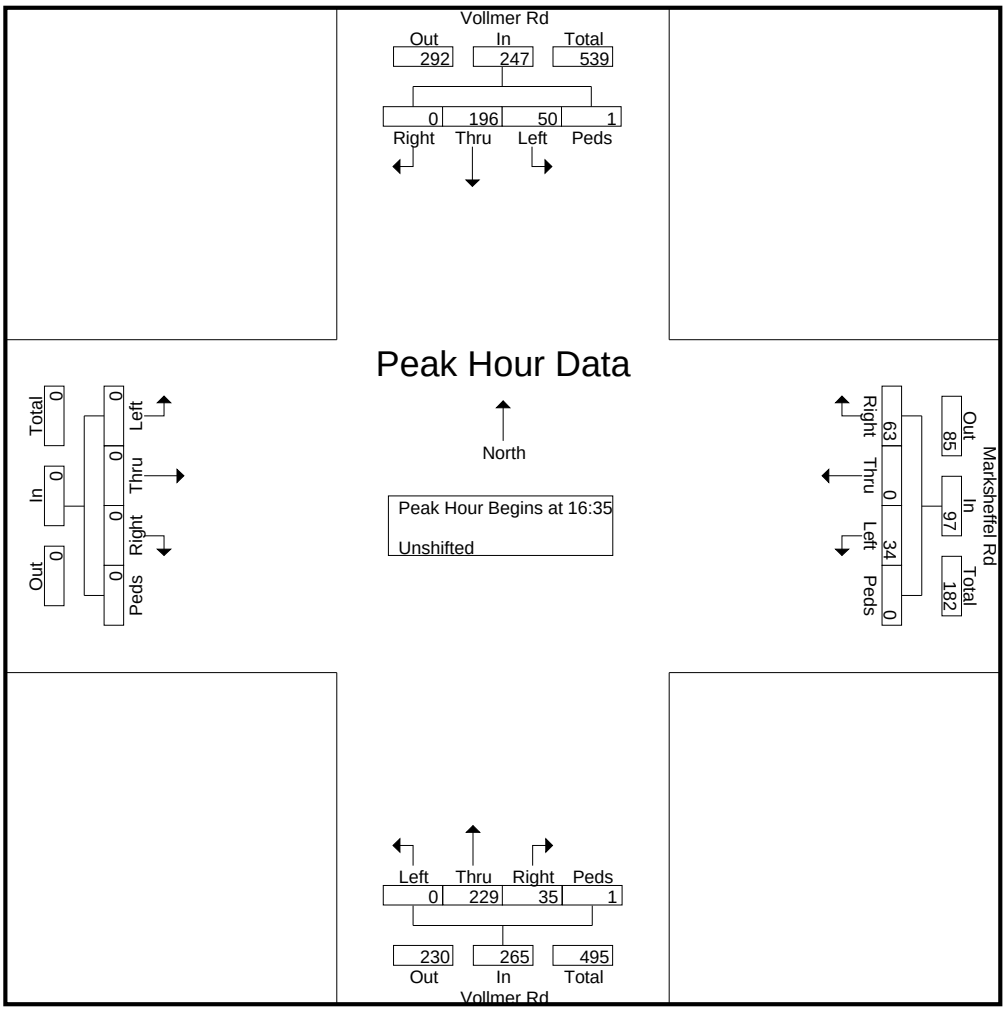
	Vollmer Rd Southbound					Marksheffel Rd Westbound					Vollmer Rd Northbound					Eastbound					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
16:00	0	10	3	0	13	7	0	1	0	8	3	9	0	0	12	0	0	0	0	0	33
16:05	0	18	6	0	24	5	0	3	0	8	5	19	0	0	24	0	0	0	0	0	56
16:10	0	14	2	0	16	3	0	4	0	7	8	15	0	0	23	0	0	0	0	0	46
16:15	0	8	9	0	17	6	0	3	0	9	4	20	0	0	24	0	0	0	0	0	50
16:20	0	11	4	0	15	5	0	3	0	8	2	12	0	0	14	0	0	0	0	0	37
16:25	0	11	4	0	15	11	0	1	0	12	5	24	0	0	29	0	0	0	0	0	56
16:30	0	17	4	0	21	6	0	3	0	9	2	14	0	0	16	0	0	0	0	0	46
16:35	0	21	8	0	29	4	0	9	0	13	4	14	0	0	18	0	0	0	0	0	60
16:40	0	19	3	0	22	4	0	2	0	6	1	26	0	0	27	0	0	0	0	0	55
16:45	0	14	1	0	15	9	0	2	0	11	2	13	0	0	15	0	0	0	0	0	41
16:50	0	13	3	0	16	5	0	3	0	8	2	22	0	0	24	0	0	0	0	0	48
16:55	0	21	4	0	25	4	0	1	0	5	3	8	0	0	11	0	0	0	0	0	41
Total	0	177	51	0	228	69	0	35	0	104	41	196	0	0	237	0	0	0	0	0	569
17:00	0	15	5	0	20	4	0	3	0	7	4	25	0	0	29	0	0	0	0	0	56
17:05	0	11	8	1	20	8	0	0	0	8	4	16	0	0	20	0	0	0	0	0	48
17:10	0	17	4	0	21	6	0	1	0	7	2	20	0	0	22	0	0	0	0	0	50
17:15	0	13	7	0	20	5	0	2	0	7	5	15	0	0	20	0	0	0	0	0	47
17:20	0	17	2	0	19	4	0	3	0	7	3	28	0	1	32	0	0	0	0	0	58
17:25	0	22	3	0	25	4	0	2	0	6	5	21	0	0	26	0	0	0	0	0	57
17:30	0	13	2	0	15	6	0	6	0	12	0	21	0	0	21	0	0	0	0	0	48
17:35	0	10	7	0	17	8	0	5	0	13	5	21	0	0	26	0	0	0	0	0	56
17:40	0	13	2	0	15	4	0	1	0	5	2	20	0	0	22	0	0	0	0	0	42
17:45	0	11	5	0	16	5	0	3	0	8	5	22	0	0	27	0	0	0	0	0	51
17:50	0	16	3	0	19	5	0	7	0	12	2	14	0	0	16	0	0	0	0	0	47
17:55	0	13	2	0	15	1	0	2	0	3	3	18	0	0	21	0	0	0	0	0	39
Total	0	171	50	1	222	60	0	35	0	95	40	241	0	1	282	0	0	0	0	0	599
Grand Total	0	348	101	1	450	129	0	70	0	199	81	437	0	1	519	0	0	0	0	0	1168
Apprch %	0	77.3	22.4	0.2		64.8	0	35.2	0		15.6	84.2	0	0.2		0	0	0	0		
Total %	0	29.8	8.6	0.1	38.5	11	0	6	0	17	6.9	37.4	0	0.1	44.4	0	0	0	0	0	

LSC Transportation Consultants, Inc.

2504 E. Pikes Peak Ave, Suite 304
Colorado Springs, CO 80909
719-633-2868

File Name : Vollmer Rd - Marksheffel Rd PM
Site Code : S224580
Start Date : 3/6/2025
Page No : 2

	Vollmer Rd Southbound					Marksheffel Rd Westbound					Vollmer Rd Northbound					Eastbound					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 16:00 to 17:55 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 16:35																					
16:35	0	21	**8**	0	**29**	4	0	**9**	0	**13**	4	14	0	0	18	0	0	0	0	0	**60**
16:40	0	19	3	0	22	4	0	2	0	6	1	26	0	0	27	0	0	0	0	0	55
16:45	0	14	1	0	15	**9**	0	2	0	11	2	13	0	0	15	0	0	0	0	0	41
16:50	0	13	3	0	16	5	0	3	0	8	2	22	0	0	24	0	0	0	0	0	48
16:55	0	21	4	0	25	4	0	1	0	5	3	8	0	0	11	0	0	0	0	0	41
17:00	0	15	5	0	20	4	0	3	0	7	4	25	0	0	29	0	0	0	0	0	56
17:05	0	11	8	**1**	20	8	0	0	0	8	4	16	0	0	20	0	0	0	0	0	48
17:10	0	17	4	0	21	6	0	1	0	7	2	20	0	0	22	0	0	0	0	0	50
17:15	0	13	7	0	20	5	0	2	0	7	**5**	15	0	0	20	0	0	0	0	0	47
17:20	0	17	2	0	19	4	0	3	0	7	3	**28**	0	**1**	**32**	0	0	0	0	0	58
17:25	0	**22**	3	0	25	4	0	2	0	6	5	21	0	0	26	0	0	0	0	0	57
17:30	0	13	2	0	15	6	0	6	0	12	0	21	0	0	21	0	0	0	0	0	48
Total Volume	0	196	50	1	247	63	0	34	0	97	35	229	0	1	265	0	0	0	0	0	609
% App. Total	0	79.4	20.2	0.4		64.9	0	35.1	0		13.2	86.4	0	0.4		0	0	0	0		
PHF	.000	.742	.521	.083	.710	.583	.000	.315	.000	.622	.583	.682	.000	.083	.690	.000	.000	.000	.000	.000	.846

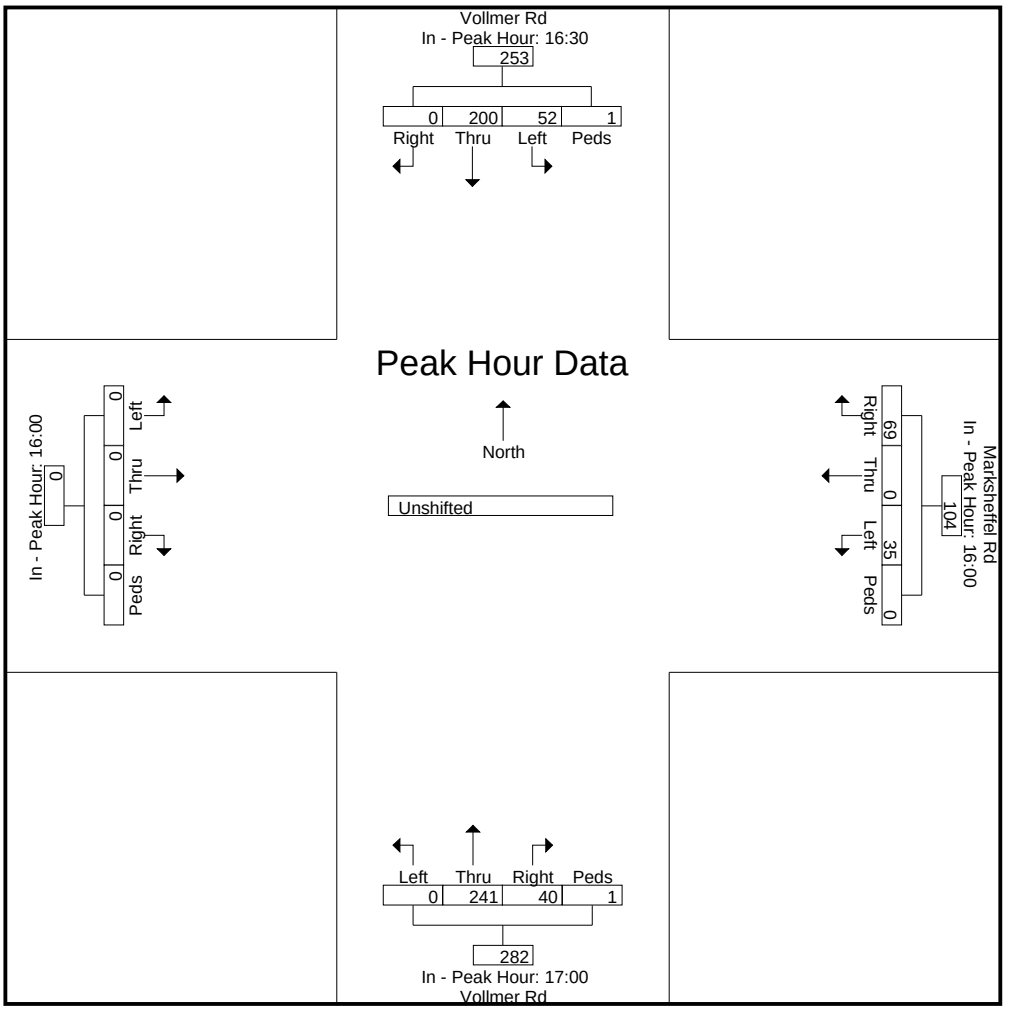


LSC Transportation Consultants, Inc.

2504 E. Pikes Peak Ave, Suite 304
Colorado Springs, CO 80909
719-633-2868

File Name : Vollmer Rd - Marksheffel Rd PM
Site Code : S224580
Start Date : 3/6/2025
Page No : 3

	Vollmer Rd Southbound					Marksheffel Rd Westbound					Vollmer Rd Northbound					Eastbound					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 16:00 to 17:55 - Peak 1 of 1																					
Peak Hour for Each Approach Begins at:																					
	16:30					16:00					17:00					16:00					
+0 mins.	0	17	4	0	21	7	0	1	0	8	4	25	0	0	29	0	0	0	0	0	
+5 mins.	0	21	**8**	0	**29**	5	0	3	0	8	4	16	0	0	20	0	0	0	0	0	
+10 mins.	0	19	3	0	22	3	0	4	0	7	2	20	0	0	22	0	0	0	0	0	
+15 mins.	0	14	1	0	15	6	0	3	0	9	**5**	15	0	0	20	0	0	0	0	0	
+20 mins.	0	13	3	0	16	5	0	3	0	8	3	**28**	0	**1**	**32**	0	0	0	0	0	
+25 mins.	0	21	4	0	25	**11**	0	1	0	12	5	21	0	0	26	0	0	0	0	0	
+30 mins.	0	15	5	0	20	6	0	3	0	9	0	21	0	0	21	0	0	0	0	0	
+35 mins.	0	11	8	**1**	20	4	0	**9**	0	**13**	5	21	0	0	26	0	0	0	0	0	
+40 mins.	0	17	4	0	21	4	0	2	0	6	2	20	0	0	22	0	0	0	0	0	
+45 mins.	0	13	7	0	20	9	0	2	0	11	5	22	0	0	27	0	0	0	0	0	
+50 mins.	0	17	2	0	19	5	0	3	0	8	2	14	0	0	16	0	0	0	0	0	
+55 mins.	0	**22**	3	0	25	4	0	1	0	5	3	18	0	0	21	0	0	0	0	0	
Total Volume	0	200	52	1	253	69	0	35	0	104	40	241	0	1	282	0	0	0	0	0	
% App. Total	0	79.1	20.6	0.4		66.3	0	33.7	0		14.2	85.5	0	0.4		0	0	0	0		
PHF	.000	.758	.542	.083	.727	.523	.000	.324	.000	.667	.667	.717	.000	.083	.734	.000	.000	.000	.000	.000	



Level of Service Reports

TRANSPORTATION
CONSULTANTS, INC.

Intersection	
Int Delay, s/veh	0.5

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	16	3	160	23	4	236
Future Vol, veh/h	16	3	160	23	4	236
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	485	-	-	235	385	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	18	3	178	26	4	262

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	317	89	0	0	204	0
Stage 1	178	-	-	-	-	-
Stage 2	139	-	-	-	-	-
Critical Hdwy	6.84	6.94	-	-	4.14	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	-	-	2.22	-
Pot Cap-1 Maneuver	651	951	-	-	1365	-
Stage 1	835	-	-	-	-	-
Stage 2	873	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	649	951	-	-	1365	-
Mov Cap-2 Maneuver	685	-	-	-	-	-
Stage 1	835	-	-	-	-	-
Stage 2	870	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	10.1	0	0.1
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	685	951	1365	-
HCM Lane V/C Ratio	-	-	0.026	0.004	0.003	-
HCM Control Delay (s)	-	-	10.4	8.8	7.6	-
HCM Lane LOS	-	-	B	A	A	-
HCM 95th %tile Q(veh)	-	-	0.1	0	0	-

Intersection	
Int Delay, s/veh	2.7

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	49	58	214	42	73	250
Future Vol, veh/h	49	58	214	42	73	250
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	300	-	-	155	300	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	81	81	71	71	87	87
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	60	72	301	59	84	287

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	613	151	0	0	360	0
Stage 1	301	-	-	-	-	-
Stage 2	312	-	-	-	-	-
Critical Hdwy	6.84	6.94	-	-	4.14	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	-	-	2.22	-
Pot Cap-1 Maneuver	424	868	-	-	1195	-
Stage 1	725	-	-	-	-	-
Stage 2	715	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	394	868	-	-	1195	-
Mov Cap-2 Maneuver	394	-	-	-	-	-
Stage 1	725	-	-	-	-	-
Stage 2	665	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	12.4	0	1.9
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	394	868	1195	-
HCM Lane V/C Ratio	-	-	0.154	0.082	0.07	-
HCM Control Delay (s)	-	-	15.8	9.5	8.2	-
HCM Lane LOS	-	-	C	A	A	-
HCM 95th %tile Q(veh)	-	-	0.5	0.3	0.2	-

Intersection	
Int Delay, s/veh	4.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	43	76	4	8	52	59	10	3	5	65	0	47
Future Vol, veh/h	43	76	4	8	52	59	10	3	5	65	0	47
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	300	-	200	250	-	205	0	-	-	155	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	83	83	83	76	76	76	78	78	78	90	90	90
Heavy Vehicles, %	2	2	70	70	2	2	88	2	88	2	2	2
Mvmt Flow	52	92	5	11	68	78	13	4	6	72	0	52

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	146	0	0	97	0	0	252	364	46	242	291	34
Stage 1	-	-	-	-	-	-	196	196	-	90	90	-
Stage 2	-	-	-	-	-	-	56	168	-	152	201	-
Critical Hdwy	4.14	-	-	5.5	-	-	9.26	6.54	8.66	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	8.26	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	8.26	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.9	-	-	4.38	4.02	4.18	3.52	4.02	3.32
Pot Cap-1 Maneuver	1434	-	-	1113	-	-	499	563	792	692	618	1032
Stage 1	-	-	-	-	-	-	589	737	-	907	820	-
Stage 2	-	-	-	-	-	-	748	758	-	835	734	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1434	-	-	1113	-	-	457	537	792	659	590	1032
Mov Cap-2 Maneuver	-	-	-	-	-	-	457	537	-	659	590	-
Stage 1	-	-	-	-	-	-	568	710	-	874	812	-
Stage 2	-	-	-	-	-	-	703	750	-	794	708	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	2.7	0.6	11.9	10.1
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2	SBLn3
Capacity (veh/h)	457	672	1434	-	-	1113	-	-	659	-	1032
HCM Lane V/C Ratio	0.028	0.015	0.036	-	-	0.009	-	-	0.11	-	0.051
HCM Control Delay (s)	13.1	10.4	7.6	-	-	8.3	-	-	11.1	0	8.7
HCM Lane LOS	B	B	A	-	-	A	-	-	B	A	A
HCM 95th %tile Q(veh)	0.1	0	0.1	-	-	0	-	-	0.4	-	0.2

Intersection	
Int Delay, s/veh	0.8

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	21	4	217	5	3	150
Future Vol, veh/h	21	4	217	5	3	150
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	485	-	-	235	385	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	78	78	79	79	89	89
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	27	5	275	6	3	169

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	366	138	0	0	281	0
Stage 1	275	-	-	-	-	-
Stage 2	91	-	-	-	-	-
Critical Hdwy	6.84	6.94	-	-	4.14	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	-	-	2.22	-
Pot Cap-1 Maneuver	607	885	-	-	1278	-
Stage 1	747	-	-	-	-	-
Stage 2	922	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	606	885	-	-	1278	-
Mov Cap-2 Maneuver	642	-	-	-	-	-
Stage 1	747	-	-	-	-	-
Stage 2	920	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	10.6	0	0.2
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	642	885	1278	-
HCM Lane V/C Ratio	-	-	0.042	0.006	0.003	-
HCM Control Delay (s)	-	-	10.9	9.1	7.8	-
HCM Lane LOS	-	-	B	A	A	-
HCM 95th %tile Q(veh)	-	-	0.1	0	0	-

Intersection	
Int Delay, s/veh	2.4

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	34	63	229	35	50	196
Future Vol, veh/h	34	63	229	35	50	196
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	300	-	-	155	300	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	83	83	85	85	87	87
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	41	76	269	41	57	225

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	496	135	0	0	310	0
Stage 1	269	-	-	-	-	-
Stage 2	227	-	-	-	-	-
Critical Hdwy	6.84	6.94	-	-	4.14	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	-	-	2.22	-
Pot Cap-1 Maneuver	503	889	-	-	1247	-
Stage 1	752	-	-	-	-	-
Stage 2	789	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	480	889	-	-	1247	-
Mov Cap-2 Maneuver	480	-	-	-	-	-
Stage 1	752	-	-	-	-	-
Stage 2	753	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	10.7	0	1.6
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	480	889	1247	-
HCM Lane V/C Ratio	-	-	0.085	0.085	0.046	-
HCM Control Delay (s)	-	-	13.2	9.4	8	-
HCM Lane LOS	-	-	B	A	A	-
HCM 95th %tile Q(veh)	-	-	0.3	0.3	0.1	-

Intersection	
Int Delay, s/veh	4.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	28	54	6	8	68	71	3	11	10	61	10	30
Future Vol, veh/h	28	54	6	8	68	71	3	11	10	61	10	30
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	300	-	200	250	-	205	0	-	-	155	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	76	76	76	85	85	85	78	78	78	83	83	83
Heavy Vehicles, %	2	2	70	70	2	2	88	2	88	2	2	2
Mvmt Flow	37	71	8	9	80	84	4	14	13	73	12	36

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	164	0	0	79	0	0	209	327	36	215	251	40
Stage 1	-	-	-	-	-	-	145	145	-	98	98	-
Stage 2	-	-	-	-	-	-	64	182	-	117	153	-
Critical Hdwy	4.14	-	-	5.5	-	-	9.26	6.54	8.66	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	8.26	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	8.26	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.9	-	-	4.38	4.02	4.18	3.52	4.02	3.32
Pot Cap-1 Maneuver	1412	-	-	1136	-	-	544	590	806	723	651	1022
Stage 1	-	-	-	-	-	-	643	776	-	898	813	-
Stage 2	-	-	-	-	-	-	738	748	-	875	770	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1412	-	-	1136	-	-	504	570	806	680	629	1022
Mov Cap-2 Maneuver	-	-	-	-	-	-	504	570	-	680	629	-
Stage 1	-	-	-	-	-	-	626	756	-	875	806	-
Stage 2	-	-	-	-	-	-	696	742	-	823	750	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	2.4	0.4	10.9	10.2
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2	SBLn3
Capacity (veh/h)	504	662	1412	-	-	1136	-	-	680	629	1022
HCM Lane V/C Ratio	0.008	0.041	0.026	-	-	0.008	-	-	0.108	0.019	0.035
HCM Control Delay (s)	12.2	10.7	7.6	-	-	8.2	-	-	10.9	10.8	8.7
HCM Lane LOS	B	B	A	-	-	A	-	-	B	B	A
HCM 95th %tile Q(veh)	0	0.1	0.1	-	-	0	-	-	0.4	0.1	0.1

Intersection	
Int Delay, s/veh	8.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	3	1	82	193	1	56	30	231	90	22	354	1
Future Vol, veh/h	3	1	82	193	1	56	30	231	90	22	354	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	250	-	250	485	-	235	435	-	235	385	-	235
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	85	85	85	85	85	85	85	85	85	85	85	85
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	4	1	96	227	1	66	35	272	106	26	416	1

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	675	916	208	603	811	136	417	0	0	378	0	0
Stage 1	468	468	-	342	342	-	-	-	-	-	-	-
Stage 2	207	448	-	261	469	-	-	-	-	-	-	-
Critical Hdwy	7.54	6.54	6.94	7.54	6.54	6.94	4.14	-	-	4.14	-	-
Critical Hdwy Stg 1	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	3.52	4.02	3.32	2.22	-	-	2.22	-	-
Pot Cap-1 Maneuver	340	271	798	383	312	888	1138	-	-	1177	-	-
Stage 1	545	560	-	646	637	-	-	-	-	-	-	-
Stage 2	776	571	-	721	559	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	301	257	798	322	296	888	1138	-	-	1177	-	-
Mov Cap-2 Maneuver	301	257	-	322	296	-	-	-	-	-	-	-
Stage 1	528	548	-	626	617	-	-	-	-	-	-	-
Stage 2	695	553	-	619	547	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	10.4	32.3	0.7	0.5
HCM LOS	B	D		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	WBLn3	SBL	SBT	SBR
Capacity (veh/h)	1138	-	-	301	257	798	322	296	888	1177	-	-
HCM Lane V/C Ratio	0.031	-	-	0.012	0.005	0.121	0.705	0.004	0.074	0.022	-	-
HCM Control Delay (s)	8.3	-	-	17.1	19.1	10.1	39	17.2	9.4	8.1	-	-
HCM Lane LOS	A	-	-	C	C	B	E	C	A	A	-	-
HCM 95th %tile Q(veh)	0.1	-	-	0	0	0.4	5	0	0.2	0.1	-	-

Intersection	
Int Delay, s/veh	8.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	61	0	18	30	41	0	57	21	0	0	64	94
Future Vol, veh/h	61	0	18	30	41	0	57	21	0	0	64	94
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	535	-	200	200	-	200	410	-	155	235	-	155
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	85	85	85	85	85	85	85	85	85	85	85	85
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	72	0	21	35	48	0	67	25	0	0	75	111

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	48	0	0	21	0	0	276	262	0	275	283	24
Stage 1	-	-	-	-	-	-	144	144	-	118	118	-
Stage 2	-	-	-	-	-	-	132	118	-	157	165	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	1557	-	-	1593	-	-	655	642	-	656	625	1047
Stage 1	-	-	-	-	-	-	844	777	-	874	797	-
Stage 2	-	-	-	-	-	-	858	797	-	829	761	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1557	-	-	1593	-	-	501	599	-	-	583	1047
Mov Cap-2 Maneuver	-	-	-	-	-	-	501	599	-	-	583	-
Stage 1	-	-	-	-	-	-	805	741	-	834	779	-
Stage 2	-	-	-	-	-	-	678	779	-	764	726	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	5.7	3.1	12.8	10.1
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	NBLn2	NBLn3	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2	SBLn3
Capacity (veh/h)	501	599	-	1557	-	-	1593	-	-	-	583	1047
HCM Lane V/C Ratio	0.134	0.041	-	0.046	-	-	0.022	-	-	-	0.129	0.106
HCM Control Delay (s)	13.3	11.3	0	7.4	-	-	7.3	-	-	0	12.1	8.8
HCM Lane LOS	B	B	A	A	-	-	A	-	-	A	B	A
HCM 95th %tile Q(veh)	0.5	0.1	-	0.1	-	-	0.1	-	-	-	0.4	0.4

Intersection	
Int Delay, s/veh	10.8

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	149	70	369	68	108	611
Future Vol, veh/h	149	70	369	68	108	611
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	300	-	-	155	300	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	85	85	85	85	85	85
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	175	82	434	80	127	719

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1048	217	0	0	514	0
Stage 1	434	-	-	-	-	-
Stage 2	614	-	-	-	-	-
Critical Hdwy	6.84	6.94	-	-	4.14	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	-	-	2.22	-
Pot Cap-1 Maneuver	223	787	-	-	1048	-
Stage 1	621	-	-	-	-	-
Stage 2	502	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	196	787	-	-	1048	-
Mov Cap-2 Maneuver	196	-	-	-	-	-
Stage 1	621	-	-	-	-	-
Stage 2	441	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	63.6	0	1.3
HCM LOS	F		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	196	787	1048	-
HCM Lane V/C Ratio	-	-	0.894	0.105	0.121	-
HCM Control Delay (s)	-	-	88.8	10.1	8.9	-
HCM Lane LOS	-	-	F	B	A	-
HCM 95th %tile Q(veh)	-	-	6.9	0.3	0.4	-

Intersection	
Int Delay, s/veh	90.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	73	99	4	8	60	239	10	3	5	632	1	150
Future Vol, veh/h	73	99	4	8	60	239	10	3	5	632	1	150
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	300	-	200	250	-	205	0	-	-	155	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	85	85	85	85	85	85	85	85	85	85	85	85
Heavy Vehicles, %	2	2	70	70	2	2	88	2	88	2	2	2
Mvmt Flow	86	116	5	9	71	281	12	4	6	744	1	176

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	352	0	0	121	0	0	342	658	58	321	382	36
Stage 1	-	-	-	-	-	-	288	288	-	89	89	-
Stage 2	-	-	-	-	-	-	54	370	-	232	293	-
Critical Hdwy	4.14	-	-	5.5	-	-	9.26	6.54	8.66	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	8.26	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	8.26	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.9	-	-	4.38	4.02	4.18	3.52	4.02	3.32
Pot Cap-1 Maneuver	1203	-	-	1083	-	-	417	383	775	~ 608	550	1029
Stage 1	-	-	-	-	-	-	503	672	-	908	820	-
Stage 2	-	-	-	-	-	-	750	619	-	750	669	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1203	-	-	1083	-	-	324	353	775	~ 562	507	1029
Mov Cap-2 Maneuver	-	-	-	-	-	-	324	353	-	~ 562	507	-
Stage 1	-	-	-	-	-	-	467	624	-	844	813	-
Stage 2	-	-	-	-	-	-	615	614	-	~ 687	622	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	3.4	0.2	14.4	146.7
HCM LOS			B	F

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2	SBLn3
Capacity (veh/h)	324	535	1203	-	-	1083	-	-	562	507	1029
HCM Lane V/C Ratio	0.036	0.018	0.071	-	-	0.009	-	-	1.323	0.002	0.171
HCM Control Delay (s)	16.5	11.8	8.2	-	-	8.4	-	-	179.5	12.1	9.2
HCM Lane LOS	C	B	A	-	-	A	-	-	F	B	A
HCM 95th %tile Q(veh)	0.1	0.1	0.2	-	-	0	-	-	31.5	0	0.6

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	0.7

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	5	80	191	1	0	17
Future Vol, veh/h	5	80	191	1	0	17
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	285	-	-	235	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	85	85	85	85	85	85
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	6	94	225	1	0	20

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	226	0	-	0	-	113
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	4.14	-	-	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	2.22	-	-	-	-	3.32
Pot Cap-1 Maneuver	1340	-	-	-	0	918
Stage 1	-	-	-	-	0	-
Stage 2	-	-	-	-	0	-
Platoon blocked, %			-	-	-	
Mov Cap-1 Maneuver	1340	-	-	-	-	918
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	0.5	0	9
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1340	-	-	-	918
HCM Lane V/C Ratio	0.004	-	-	-	0.022
HCM Control Delay (s)	7.7	-	-	-	9
HCM Lane LOS	A	-	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0.1

Intersection	
Int Delay, s/veh	0.2

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	6	0	82	152	0
Future Vol, veh/h	0	6	0	82	152	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	200	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	85	85	85	85	85	85
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	7	0	96	179	0

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	275	179	179	0	-	0
Stage 1	179	-	-	-	-	-
Stage 2	96	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	715	864	1397	-	-	-
Stage 1	852	-	-	-	-	-
Stage 2	928	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	715	864	1397	-	-	-
Mov Cap-2 Maneuver	715	-	-	-	-	-
Stage 1	852	-	-	-	-	-
Stage 2	928	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.2	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1397	-	864	-	-
HCM Lane V/C Ratio	-	-	0.008	-	-
HCM Control Delay (s)	0	-	9.2	-	-
HCM Lane LOS	A	-	A	-	-
HCM 95th %tile Q(veh)	0	-	0	-	-

Intersection	
Int Delay, s/veh	14.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	2	1	56	141	1	40	90	377	214	62	246	3
Future Vol, veh/h	2	1	56	141	1	40	90	377	214	62	246	3
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	250	-	250	485	-	235	435	-	235	385	-	235
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	85	85	85	85	85	85	85	85	85	85	85	85
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	2	1	66	166	1	47	106	444	252	73	289	4

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	870	1343	145	947	1095	222	293	0	0	696	0	0
Stage 1	435	435	-	656	656	-	-	-	-	-	-	-
Stage 2	435	908	-	291	439	-	-	-	-	-	-	-
Critical Hdwy	7.54	6.54	6.94	7.54	6.54	6.94	4.14	-	-	4.14	-	-
Critical Hdwy Stg 1	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	3.52	4.02	3.32	2.22	-	-	2.22	-	-
Pot Cap-1 Maneuver	246	151	876	216	212	782	1265	-	-	896	-	-
Stage 1	570	579	-	421	460	-	-	-	-	-	-	-
Stage 2	570	352	-	693	576	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	202	127	876	174	179	782	1265	-	-	896	-	-
Mov Cap-2 Maneuver	202	127	-	174	179	-	-	-	-	-	-	-
Stage 1	522	532	-	386	421	-	-	-	-	-	-	-
Stage 2	489	322	-	587	529	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	10.3	87.5	1.1	1.9
HCM LOS	B	F		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	WBLn3	SBL	SBT	SBR
Capacity (veh/h)	1265	-	-	202	127	876	174	179	782	896	-	-
HCM Lane V/C Ratio	0.084	-	-	0.012	0.009	0.075	0.953	0.007	0.06	0.081	-	-
HCM Control Delay (s)	8.1	-	-	23	33.6	9.4	110	25.2	9.9	9.4	-	-
HCM Lane LOS	A	-	-	C	D	A	F	D	A	A	-	-
HCM 95th %tile Q(veh)	0.3	-	-	0	0	0.2	7.4	0	0.2	0.3	-	-

Intersection	
Int Delay, s/veh	9.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	188	0	62	21	29	0	42	66	0	0	44	65
Future Vol, veh/h	188	0	62	21	29	0	42	66	0	0	44	65
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	535	-	200	200	-	200	410	-	155	235	-	155
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	85	85	85	85	85	85	85	85	85	85	85	85
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	221	0	73	25	34	0	49	78	0	0	52	76

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	34	0	0	73	0	0	535	526	0	565	599	17
Stage 1	-	-	-	-	-	-	442	442	-	84	84	-
Stage 2	-	-	-	-	-	-	93	84	-	481	515	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	1576	-	-	1525	-	-	428	455	-	408	414	1058
Stage 1	-	-	-	-	-	-	564	575	-	915	824	-
Stage 2	-	-	-	-	-	-	904	824	-	535	533	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1576	-	-	1525	-	-	311	385	-	-	350	1058
Mov Cap-2 Maneuver	-	-	-	-	-	-	311	385	-	-	350	-
Stage 1	-	-	-	-	-	-	485	495	-	787	811	-
Stage 2	-	-	-	-	-	-	772	811	-	388	458	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	5.8	3.1	17.5	12.1
HCM LOS			C	B

Minor Lane/Major Mvmt	NBLn1	NBLn2	NBLn3	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2	SBLn3
Capacity (veh/h)	311	385	-	1576	-	-	1525	-	-	-	350	1058
HCM Lane V/C Ratio	0.159	0.202	-	0.14	-	-	0.016	-	-	-	0.148	0.072
HCM Control Delay (s)	18.8	16.7	0	7.7	-	-	7.4	-	-	0	17.1	8.7
HCM Lane LOS	C	C	A	A	-	-	A	-	-	A	C	A
HCM 95th %tile Q(veh)	0.6	0.7	-	0.5	-	-	0	-	-	-	0.5	0.2

Intersection	
Int Delay, s/veh	7.5

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	101	96	691	122	75	443
Future Vol, veh/h	101	96	691	122	75	443
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	300	-	-	155	300	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	85	85	85	85	85	85
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	119	113	813	144	88	521

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1250	407	0	0	957	0
Stage 1	813	-	-	-	-	-
Stage 2	437	-	-	-	-	-
Critical Hdwy	6.84	6.94	-	-	4.14	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	-	-	2.22	-
Pot Cap-1 Maneuver	165	593	-	-	714	-
Stage 1	396	-	-	-	-	-
Stage 2	619	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	145	593	-	-	714	-
Mov Cap-2 Maneuver	145	-	-	-	-	-
Stage 1	396	-	-	-	-	-
Stage 2	543	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	53.9	0	1.6
HCM LOS	F		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	145	593	714	-
HCM Lane V/C Ratio	-	-	0.819	0.19	0.124	-
HCM Control Delay (s)	-	-	93.2	12.5	10.8	-
HCM Lane LOS	-	-	F	B	B	-
HCM 95th %tile Q(veh)	-	-	5.2	0.7	0.4	-

Intersection	
Int Delay, s/veh	64.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	122	69	6	8	94	673	3	11	10	440	10	100
Future Vol, veh/h	122	69	6	8	94	673	3	11	10	440	10	100
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	300	-	200	250	-	205	0	-	-	155	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	85	85	85	85	85	85	85	85	85	85	85	85
Heavy Vehicles, %	2	2	88	88	2	2	78	2	78	2	2	2
Mvmt Flow	144	81	7	9	111	792	4	13	12	518	12	118

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	903	0	0	88	0	0	449	1290	41	464	505	56
Stage 1	-	-	-	-	-	-	369	369	-	129	129	-
Stage 2	-	-	-	-	-	-	80	921	-	335	376	-
Critical Hdwy	4.14	-	-	5.86	-	-	9.06	6.54	8.46	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	8.06	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	8.06	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	3.08	-	-	4.28	4.02	4.08	3.52	4.02	3.32
Pot Cap-1 Maneuver	749	-	-	1051	-	-	351	162	820	~ 481	468	999
Stage 1	-	-	-	-	-	-	455	619	-	861	788	-
Stage 2	-	-	-	-	-	-	737	347	-	653	615	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	749	-	-	1051	-	-	256	130	820	~ 372	375	999
Mov Cap-2 Maneuver	-	-	-	-	-	-	256	130	-	~ 372	375	-
Stage 1	-	-	-	-	-	-	368	500	-	696	781	-
Stage 2	-	-	-	-	-	-	635	344	-	~ 506	497	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	6.8	0.1	23.2	178.2
HCM LOS			C	F

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2	SBLn3
Capacity (veh/h)	256	217	749	-	-	1051	-	-	372	375	999
HCM Lane V/C Ratio	0.014	0.114	0.192	-	-	0.009	-	-	1.392	0.031	0.118
HCM Control Delay (s)	19.3	23.7	10.9	-	-	8.5	-	-	220.3	14.9	9.1
HCM Lane LOS	C	C	B	-	-	A	-	-	F	B	A
HCM 95th %tile Q(veh)	0	0.4	0.7	-	-	0	-	-	25.7	0.1	0.4

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	0.6

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	19	249	130	5	0	11
Future Vol, veh/h	19	249	130	5	0	11
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	285	-	-	235	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	85	85	85	85	85	85
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	22	293	153	6	0	13

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	159	0	-	0	-	77
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	4.14	-	-	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	2.22	-	-	-	-	3.32
Pot Cap-1 Maneuver	1418	-	-	-	0	968
Stage 1	-	-	-	-	0	-
Stage 2	-	-	-	-	0	-
Platoon blocked, %			-	-	-	
Mov Cap-1 Maneuver	1418	-	-	-	-	968
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	0.5	0	8.8
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1418	-	-	-	968
HCM Lane V/C Ratio	0.016	-	-	-	0.013
HCM Control Delay (s)	7.6	-	-	-	8.8
HCM Lane LOS	A	-	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0

Intersection	
Int Delay, s/veh	0.1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	4	1	252	105	0
Future Vol, veh/h	0	4	1	252	105	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	200	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	85	85	85	85	85	85
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	5	1	296	124	0

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	422	124	124	0	-	0
Stage 1	124	-	-	-	-	-
Stage 2	298	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	588	927	1463	-	-	-
Stage 1	902	-	-	-	-	-
Stage 2	753	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	587	927	1463	-	-	-
Mov Cap-2 Maneuver	587	-	-	-	-	-
Stage 1	901	-	-	-	-	-
Stage 2	753	-	-	-	-	-

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

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1463	-	927	-	-
HCM Lane V/C Ratio	0.001	-	0.005	-	-
HCM Control Delay (s)	7.5	-	8.9	-	-
HCM Lane LOS	A	-	A	-	-
HCM 95th %tile Q(veh)	0	-	0	-	-

Intersection	
Int Delay, s/veh	13.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	3	1	82	231	1	63	30	231	104	24	354	1
Future Vol, veh/h	3	1	82	231	1	63	30	231	104	24	354	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	250	-	250	485	-	235	435	-	235	385	-	235
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	85	85	85	85	85	85	85	85	85	85	85	85
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	4	1	96	272	1	74	35	272	122	28	416	1

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	679	936	208	607	815	136	417	0	0	394	0	0
Stage 1	472	472	-	342	342	-	-	-	-	-	-	-
Stage 2	207	464	-	265	473	-	-	-	-	-	-	-
Critical Hdwy	7.54	6.54	6.94	7.54	6.54	6.94	4.14	-	-	4.14	-	-
Critical Hdwy Stg 1	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	3.52	4.02	3.32	2.22	-	-	2.22	-	-
Pot Cap-1 Maneuver	338	264	798	380	310	888	1138	-	-	1161	-	-
Stage 1	542	557	-	646	637	-	-	-	-	-	-	-
Stage 2	776	562	-	717	557	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	296	250	798	319	293	888	1138	-	-	1161	-	-
Mov Cap-2 Maneuver	296	250	-	319	293	-	-	-	-	-	-	-
Stage 1	525	544	-	626	617	-	-	-	-	-	-	-
Stage 2	688	545	-	614	544	-	-	-	-	-	-	-

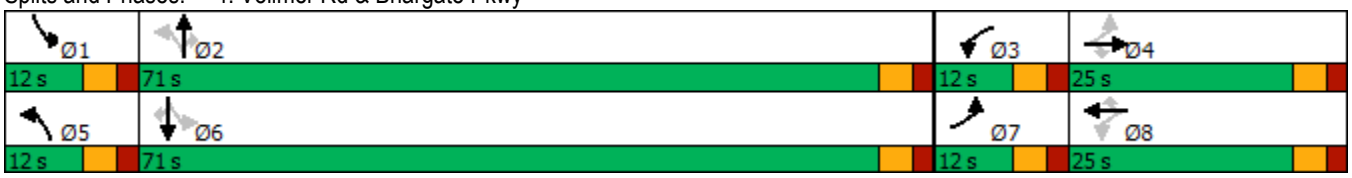
Approach	EB	WB	NB	SB
HCM Control Delay, s	10.5	46.5	0.7	0.5
HCM LOS	B	E		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	WBLn3	SBL	SBT	SBR
Capacity (veh/h)	1138	-	-	296	250	798	319	293	888	1161	-	-
HCM Lane V/C Ratio	0.031	-	-	0.012	0.005	0.121	0.852	0.004	0.083	0.024	-	-
HCM Control Delay (s)	8.3	-	-	17.3	19.5	10.1	56.7	17.3	9.4	8.2	-	-
HCM Lane LOS	A	-	-	C	C	B	F	C	A	A	-	-
HCM 95th %tile Q(veh)	0.1	-	-	0	0	0.4	7.6	0	0.3	0.1	-	-

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	3	1	82	231	1	63	30	231	104	24	354	1
Future Volume (vph)	3	1	82	231	1	63	30	231	104	24	354	1
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4		4	8		8	2		2	6		6
Detector Phase	7	4	4	3	8	8	5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	10.0	23.0	23.0	10.0	23.0	23.0	10.0	23.0	23.0	10.0	23.0	23.0
Total Split (s)	12.0	25.0	25.0	12.0	25.0	25.0	12.0	71.0	71.0	12.0	71.0	71.0
Total Split (%)	10.0%	20.8%	20.8%	10.0%	20.8%	20.8%	10.0%	59.2%	59.2%	10.0%	59.2%	59.2%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	Min	Min	None	Min	Min	None	None	None	None	None	None
Act Effct Green (s)	11.9	6.1	6.1	18.0	16.9	16.9	14.1	13.0	13.0	13.1	11.0	11.0
Actuated g/C Ratio	0.27	0.14	0.14	0.41	0.39	0.39	0.32	0.30	0.30	0.30	0.25	0.25
v/c Ratio	0.01	0.00	0.30	0.52	0.00	0.11	0.09	0.26	0.22	0.07	0.47	0.00
Control Delay	11.7	21.0	7.9	17.7	17.0	3.3	9.0	12.9	4.6	8.9	16.9	0.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	11.7	21.0	7.9	17.7	17.0	3.3	9.0	12.9	4.6	8.9	16.9	0.0
LOS	B	C	A	B	B	A	A	B	A	A	B	A
Approach Delay		8.2			14.7			10.2			16.3	
Approach LOS		A			B			B			B	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 43.8	
Natural Cycle: 70	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.52	
Intersection Signal Delay: 13.3	Intersection LOS: B
Intersection Capacity Utilization 45.9%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 4: Vollmer Rd & Briargate Pkwy



Intersection	
Int Delay, s/veh	9.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	62	0	18	30	41	0	59	32	0	0	98	97
Future Vol, veh/h	62	0	18	30	41	0	59	32	0	0	98	97
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	535	-	200	200	-	200	410	-	155	235	-	155
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	85	85	85	85	85	85	85	85	85	85	85	85
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	73	0	21	35	48	0	69	38	0	0	115	114

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	48	0	0	21	0	0	298	264	0	283	285	24
Stage 1	-	-	-	-	-	-	146	146	-	118	118	-
Stage 2	-	-	-	-	-	-	152	118	-	165	167	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	1557	-	-	1593	-	-	632	640	-	647	623	1047
Stage 1	-	-	-	-	-	-	842	775	-	874	797	-
Stage 2	-	-	-	-	-	-	835	797	-	821	759	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1557	-	-	1593	-	-	453	596	-	-	581	1047
Mov Cap-2 Maneuver	-	-	-	-	-	-	453	596	-	-	581	-
Stage 1	-	-	-	-	-	-	802	739	-	833	779	-
Stage 2	-	-	-	-	-	-	620	779	-	743	723	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	5.8	3.1	13.3	10.8
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	NBLn2	NBLn3	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2	SBLn3
Capacity (veh/h)	453	596	-	1557	-	-	1593	-	-	-	581	1047
HCM Lane V/C Ratio	0.153	0.063	-	0.047	-	-	0.022	-	-	-	0.198	0.109
HCM Control Delay (s)	14.4	11.4	0	7.4	-	-	7.3	-	-	0	12.7	8.9
HCM Lane LOS	B	B	A	A	-	-	A	-	-	A	B	A
HCM 95th %tile Q(veh)	0.5	0.2	-	0.1	-	-	0.1	-	-	-	0.7	0.4

Intersection	
Int Delay, s/veh	12.1

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	149	70	383	68	108	649
Future Vol, veh/h	149	70	383	68	108	649
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	300	-	-	155	300	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	85	85	85	85	85	85
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	175	82	451	80	127	764

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1087	226	0	0	531	0
Stage 1	451	-	-	-	-	-
Stage 2	636	-	-	-	-	-
Critical Hdwy	6.84	6.94	-	-	4.14	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	-	-	2.22	-
Pot Cap-1 Maneuver	211	777	-	-	1033	-
Stage 1	609	-	-	-	-	-
Stage 2	489	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	185	777	-	-	1033	-
Mov Cap-2 Maneuver	185	-	-	-	-	-
Stage 1	609	-	-	-	-	-
Stage 2	429	-	-	-	-	-

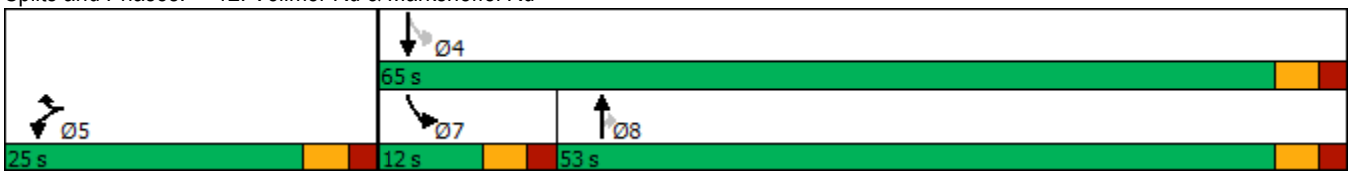
Approach	WB	NB	SB
HCM Control Delay, s	74.4	0	1.3
HCM LOS	F		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	185	777	1033	-
HCM Lane V/C Ratio	-	-	0.948	0.106	0.123	-
HCM Control Delay (s)	-	-	104.5	10.2	9	-
HCM Lane LOS	-	-	F	B	A	-
HCM 95th %tile Q(veh)	-	-	7.5	0.4	0.4	-

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	149	70	383	68	108	649
Future Volume (vph)	149	70	383	68	108	649
Turn Type	Prot	Prot	NA	Perm	pm+pt	NA
Protected Phases	5	5	8		7	4
Permitted Phases				8	4	
Detector Phase	5	5	8	8	7	4
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	10.0	10.0	23.0	23.0	10.0	23.0
Total Split (s)	25.0	25.0	53.0	53.0	12.0	65.0
Total Split (%)	27.8%	27.8%	58.9%	58.9%	13.3%	72.2%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag			Lag	Lag	Lead	
Lead-Lag Optimize?			Yes	Yes	Yes	
Recall Mode	None	None	None	None	None	None
Act Effct Green (s)	10.7	10.7	16.8	16.8	22.6	25.2
Actuated g/C Ratio	0.27	0.27	0.43	0.43	0.57	0.64
v/c Ratio	0.36	0.17	0.30	0.11	0.21	0.34
Control Delay	17.8	5.7	13.1	4.5	6.1	6.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	17.8	5.7	13.1	4.5	6.1	6.0
LOS	B	A	B	A	A	A
Approach Delay	13.9		11.8			6.0
Approach LOS	B		B			A

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 39.4	
Natural Cycle: 45	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.36	
Intersection Signal Delay: 9.0	Intersection LOS: A
Intersection Capacity Utilization 37.3%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 12: Vollmer Rd & Marksheffel Rd



Intersection	
Int Delay, s/veh	107

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	73	99	4	8	60	251	10	3	5	667	1	150
Future Vol, veh/h	73	99	4	8	60	251	10	3	5	667	1	150
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	300	-	200	250	-	205	0	-	-	155	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	85	85	85	85	85	85	85	85	85	85	85	85
Heavy Vehicles, %	2	2	70	70	2	2	88	2	88	2	2	2
Mvmt Flow	86	116	5	9	71	295	12	4	6	785	1	176

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	366	0	0	121	0	0	342	672	58	321	382	36
Stage 1	-	-	-	-	-	-	288	288	-	89	89	-
Stage 2	-	-	-	-	-	-	54	384	-	232	293	-
Critical Hdwy	4.14	-	-	5.5	-	-	9.26	6.54	8.66	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	8.26	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	8.26	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.9	-	-	4.38	4.02	4.18	3.52	4.02	3.32
Pot Cap-1 Maneuver	1189	-	-	1083	-	-	417	376	775	~ 608	550	1029
Stage 1	-	-	-	-	-	-	503	672	-	908	820	-
Stage 2	-	-	-	-	-	-	750	610	-	~ 750	669	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1189	-	-	1083	-	-	324	346	775	~ 562	507	1029
Mov Cap-2 Maneuver	-	-	-	-	-	-	324	346	-	~ 562	507	-
Stage 1	-	-	-	-	-	-	467	624	-	843	813	-
Stage 2	-	-	-	-	-	-	615	605	-	~ 687	621	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	3.4	0.2	14.5	172.9
HCM LOS			B	F

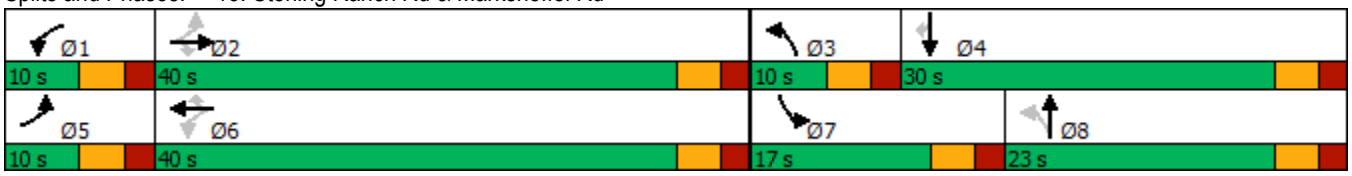
Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2	SBLn3
Capacity (veh/h)	324	529	1189	-	-	1083	-	-	562	507	1029
HCM Lane V/C Ratio	0.036	0.018	0.072	-	-	0.009	-	-	1.396	0.002	0.171
HCM Control Delay (s)	16.5	11.9	8.3	-	-	8.4	-	-	210	12.1	9.2
HCM Lane LOS	C	B	A	-	-	A	-	-	F	B	A
HCM 95th %tile Q(veh)	0.1	0.1	0.2	-	-	0	-	-	36	0	0.6

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	73	99	4	8	60	251	10	3	667	1	150
Future Volume (vph)	73	99	4	8	60	251	10	3	667	1	150
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Prot	NA	Perm
Protected Phases	5	2		1	6		3	8	7	4	
Permitted Phases	2		2	6		6	8				4
Detector Phase	5	2	2	1	6	6	3	8	7	4	4
Switch Phase											
Minimum Initial (s)	5.0	15.0	15.0	5.0	15.0	15.0	5.0	10.0	5.0	10.0	10.0
Minimum Split (s)	10.0	23.0	23.0	10.0	23.0	23.0	10.0	23.0	10.0	23.0	23.0
Total Split (s)	10.0	40.0	40.0	10.0	40.0	40.0	10.0	23.0	17.0	30.0	30.0
Total Split (%)	11.1%	44.4%	44.4%	11.1%	44.4%	44.4%	11.1%	25.6%	18.9%	33.3%	33.3%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	Min	Min	None	Min	Min	None	None	None	None	None
Act Effct Green (s)	20.2	19.5	19.5	18.3	15.6	15.6	6.7	10.4	12.4	13.2	13.2
Actuated g/C Ratio	0.44	0.42	0.42	0.40	0.34	0.34	0.15	0.23	0.27	0.29	0.29
v/c Ratio	0.15	0.08	0.01	0.03	0.06	0.40	0.09	0.04	0.85	0.00	0.30
Control Delay	9.0	10.9	0.0	9.0	14.0	4.7	16.3	15.1	30.7	15.0	5.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	9.0	10.9	0.0	9.0	14.0	4.7	16.3	15.1	30.7	15.0	5.1
LOS	A	B	A	A	B	A	B	B	C	B	A
Approach Delay		9.9			6.6			15.8		26.0	
Approach LOS		A			A			B		C	

Intersection Summary		
Cycle Length: 90		
Actuated Cycle Length: 46		
Natural Cycle: 80		
Control Type: Actuated-Uncoordinated		
Maximum v/c Ratio: 0.85		
Intersection Signal Delay: 19.1	Intersection LOS: B	
Intersection Capacity Utilization 46.5%	ICU Level of Service A	
Analysis Period (min) 15		

Splits and Phases: 13: Sterling Ranch Rd & Marksheffel Rd



Intersection	
Int Delay, s/veh	1.9

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	20	81	194	4	0	58
Future Vol, veh/h	20	81	194	4	0	58
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	285	-	-	235	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	85	85	85	85	85	85
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	24	95	228	5	0	68

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	233	0	-	0	-	114
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	4.14	-	-	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	2.22	-	-	-	-	3.32
Pot Cap-1 Maneuver	1332	-	-	-	0	917
Stage 1	-	-	-	-	0	-
Stage 2	-	-	-	-	0	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1332	-	-	-	-	917
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	1.5	0	9.2
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1332	-	-	-	917
HCM Lane V/C Ratio	0.018	-	-	-	0.074
HCM Control Delay (s)	7.8	-	-	-	9.2
HCM Lane LOS	A	-	-	-	A
HCM 95th %tile Q(veh)	0.1	-	-	-	0.2

Intersection	
Int Delay, s/veh	1.7

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	43	12	82	152	0
Future Vol, veh/h	0	43	12	82	152	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	200	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	85	85	85	85	85	85
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	51	14	96	179	0

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	303	179	179	0	-	0
Stage 1	179	-	-	-	-	-
Stage 2	124	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	689	864	1397	-	-	-
Stage 1	852	-	-	-	-	-
Stage 2	902	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	682	864	1397	-	-	-
Mov Cap-2 Maneuver	682	-	-	-	-	-
Stage 1	843	-	-	-	-	-
Stage 2	902	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.4	1	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1397	-	864	-	-
HCM Lane V/C Ratio	0.01	-	0.059	-	-
HCM Control Delay (s)	7.6	-	9.4	-	-
HCM Lane LOS	A	-	A	-	-
HCM 95th %tile Q(veh)	0	-	0.2	-	-

Intersection	
Int Delay, s/veh	24.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	2	1	56	168	1	44	90	377	257	69	246	3
Future Vol, veh/h	2	1	56	168	1	44	90	377	257	69	246	3
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	250	-	250	485	-	235	435	-	235	385	-	235
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	85	85	85	85	85	85	85	85	85	85	85	85
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	2	1	66	198	1	52	106	444	302	81	289	4

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	886	1409	145	963	1111	222	293	0	0	746	0	0
Stage 1	451	451	-	656	656	-	-	-	-	-	-	-
Stage 2	435	958	-	307	455	-	-	-	-	-	-	-
Critical Hdwy	7.54	6.54	6.94	7.54	6.54	6.94	4.14	-	-	4.14	-	-
Critical Hdwy Stg 1	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	3.52	4.02	3.32	2.22	-	-	2.22	-	-
Pot Cap-1 Maneuver	239	137	876	210	208	782	1265	-	-	858	-	-
Stage 1	557	569	-	421	460	-	-	-	-	-	-	-
Stage 2	570	334	-	678	567	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	193	114	876	~ 168	173	782	1265	-	-	858	-	-
Mov Cap-2 Maneuver	193	114	-	~ 168	173	-	-	-	-	-	-	-
Stage 1	510	516	-	386	421	-	-	-	-	-	-	-
Stage 2	486	306	-	567	514	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	10.4	144	1	2.1
HCM LOS	B	F		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	WBLn3	SBL	SBT	SBR
Capacity (veh/h)	1265	-	-	193	114	876	168	173	782	858	-	-
HCM Lane V/C Ratio	0.084	-	-	0.012	0.01	0.075	1.176	0.007	0.066	0.095	-	-
HCM Control Delay (s)	8.1	-	-	23.9	36.9	9.4	179.8	26	9.9	9.6	-	-
HCM Lane LOS	A	-	-	C	E	A	F	D	A	A	-	-
HCM 95th %tile Q(veh)	0.3	-	-	0	0	0.2	10.7	0	0.2	0.3	-	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	2	1	56	168	1	44	90	377	257	69	246	3
Future Volume (vph)	2	1	56	168	1	44	90	377	257	69	246	3
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4		4	8		8	2		2	6		6
Detector Phase	7	4	4	3	8	8	5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	10.0	23.0	23.0	10.0	23.0	23.0	10.0	23.0	23.0	10.0	23.0	23.0
Total Split (s)	12.0	25.0	25.0	12.0	25.0	25.0	12.0	71.0	71.0	12.0	71.0	71.0
Total Split (%)	10.0%	20.8%	20.8%	10.0%	20.8%	20.8%	10.0%	59.2%	59.2%	10.0%	59.2%	59.2%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	Min	Min	None	Min	Min	None	None	None	None	None	None
Act Effct Green (s)	11.5	5.8	5.8	17.3	16.1	16.1	18.0	12.8	12.8	17.7	12.7	12.7
Actuated g/C Ratio	0.23	0.12	0.12	0.35	0.32	0.32	0.36	0.26	0.26	0.35	0.25	0.25
v/c Ratio	0.01	0.00	0.24	0.45	0.00	0.09	0.22	0.49	0.48	0.19	0.32	0.01
Control Delay	13.5	22.0	4.7	18.1	18.0	1.5	9.0	18.3	5.3	8.9	16.8	0.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	13.5	22.0	4.7	18.1	18.0	1.5	9.0	18.3	5.3	8.9	16.8	0.0
LOS	B	C	A	B	B	A	A	B	A	A	B	A
Approach Delay		5.2			14.7			12.5			14.9	
Approach LOS		A			B			B			B	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 49.9	
Natural Cycle: 70	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.49	
Intersection Signal Delay: 13.1	Intersection LOS: B
Intersection Capacity Utilization 43.1%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 4: Vollmer Rd & Briargate Pkwy



Intersection	
Int Delay, s/veh	10.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	191	0	62	21	29	0	48	98	0	0	67	67
Future Vol, veh/h	191	0	62	21	29	0	48	98	0	0	67	67
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	535	-	200	200	-	200	410	-	155	235	-	155
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	85	85	85	85	85	85	85	85	85	85	85	85
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	225	0	73	25	34	0	56	115	0	0	79	79

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	34	0	0	73	0	0	557	534	0	592	607	17
Stage 1	-	-	-	-	-	-	450	450	-	84	84	-
Stage 2	-	-	-	-	-	-	107	84	-	508	523	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	1576	-	-	1525	-	-	413	451	-	390	409	1058
Stage 1	-	-	-	-	-	-	558	570	-	915	824	-
Stage 2	-	-	-	-	-	-	887	824	-	516	529	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1576	-	-	1525	-	-	278	380	-	-	345	1058
Mov Cap-2 Maneuver	-	-	-	-	-	-	278	380	-	-	345	-
Stage 1	-	-	-	-	-	-	478	488	-	784	811	-
Stage 2	-	-	-	-	-	-	729	811	-	338	453	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	5.8	3.1	19.4	13.6
HCM LOS			C	B

Minor Lane/Major Mvmt	NBLn1	NBLn2	NBLn3	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2	SBLn3
Capacity (veh/h)	278	380	-	1576	-	-	1525	-	-	-	345	1058
HCM Lane V/C Ratio	0.203	0.303	-	0.143	-	-	0.016	-	-	-	0.228	0.075
HCM Control Delay (s)	21.2	18.5	0	7.7	-	-	7.4	-	-	0	18.5	8.7
HCM Lane LOS	C	C	A	A	-	-	A	-	-	A	C	A
HCM 95th %tile Q(veh)	0.7	1.3	-	0.5	-	-	0	-	-	-	0.9	0.2

Intersection	
Int Delay, s/veh	9

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	101	96	734	122	75	469
Future Vol, veh/h	101	96	734	122	75	469
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	300	-	-	155	300	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	85	85	85	85	85	85
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	119	113	864	144	88	552

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1316	432	0	0	1008	0
Stage 1	864	-	-	-	-	-
Stage 2	452	-	-	-	-	-
Critical Hdwy	6.84	6.94	-	-	4.14	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	-	-	2.22	-
Pot Cap-1 Maneuver	149	572	-	-	683	-
Stage 1	373	-	-	-	-	-
Stage 2	608	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	130	572	-	-	683	-
Mov Cap-2 Maneuver	130	-	-	-	-	-
Stage 1	373	-	-	-	-	-
Stage 2	530	-	-	-	-	-

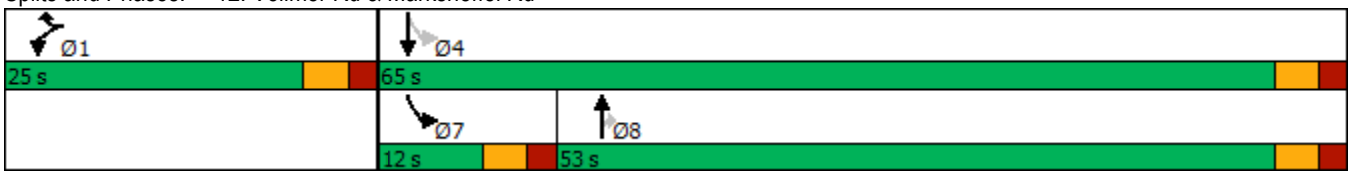
Approach	WB	NB	SB
HCM Control Delay, s	68.7	0	1.5
HCM LOS	F		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	130	572	683	-
HCM Lane V/C Ratio	-	-	0.914	0.197	0.129	-
HCM Control Delay (s)	-	-	121.8	12.8	11.1	-
HCM Lane LOS	-	-	F	B	B	-
HCM 95th %tile Q(veh)	-	-	6	0.7	0.4	-

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	101	96	734	122	75	469
Future Volume (vph)	101	96	734	122	75	469
Turn Type	Prot	Prot	NA	Perm	pm+pt	NA
Protected Phases	1	1	8		7	4
Permitted Phases				8	4	
Detector Phase	1	1	8	8	7	4
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	10.0	10.0	23.0	23.0	10.0	23.0
Total Split (s)	25.0	25.0	53.0	53.0	12.0	65.0
Total Split (%)	27.8%	27.8%	58.9%	58.9%	13.3%	72.2%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag			Lag	Lag	Lead	
Lead-Lag Optimize?			Yes	Yes	Yes	
Recall Mode	None	None	Max	Max	Max	None
Act Effct Green (s)	10.7	10.7	48.1	48.1	60.1	60.1
Actuated g/C Ratio	0.13	0.13	0.60	0.60	0.74	0.74
v/c Ratio	0.51	0.37	0.41	0.14	0.19	0.21
Control Delay	40.3	10.3	9.9	2.0	4.2	3.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	40.3	10.3	9.9	2.0	4.2	3.6
LOS	D	B	A	A	A	A
Approach Delay	25.7		8.7			3.7
Approach LOS	C		A			A

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 80.8	
Natural Cycle: 45	
Control Type: Semi Act-Uncoord	
Maximum v/c Ratio: 0.51	
Intersection Signal Delay: 9.1	Intersection LOS: A
Intersection Capacity Utilization 42.6%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 12: Vollmer Rd & Marksheffel Rd



Intersection	
Int Delay, s/veh	77.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	122	69	6	8	94	711	3	11	10	464	10	100
Future Vol, veh/h	122	69	6	8	94	711	3	11	10	464	10	100
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	300	-	200	250	-	205	0	-	-	155	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	85	85	85	85	85	85	85	85	85	85	85	85
Heavy Vehicles, %	2	2	88	88	2	2	78	2	78	2	2	2
Mvmt Flow	144	81	7	9	111	836	4	13	12	546	12	118

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	947	0	0	88	0	0	449	1334	41	464	505	56
Stage 1	-	-	-	-	-	-	369	369	-	129	129	-
Stage 2	-	-	-	-	-	-	80	965	-	335	376	-
Critical Hdwy	4.14	-	-	5.86	-	-	9.06	6.54	8.46	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	8.06	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	8.06	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	3.08	-	-	4.28	4.02	4.08	3.52	4.02	3.32
Pot Cap-1 Maneuver	721	-	-	1051	-	-	351	153	820	~ 481	468	999
Stage 1	-	-	-	-	-	-	455	619	-	861	788	-
Stage 2	-	-	-	-	-	-	737	331	-	653	615	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	721	-	-	1051	-	-	254	121	820	~ 367	371	999
Mov Cap-2 Maneuver	-	-	-	-	-	-	254	121	-	~ 367	371	-
Stage 1	-	-	-	-	-	-	364	495	-	689	781	-
Stage 2	-	-	-	-	-	-	635	328	-	~ 502	492	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	7	0.1	24.4	212.7
HCM LOS			C	F

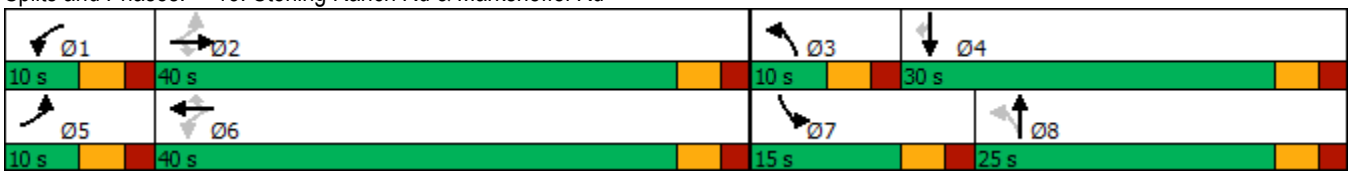
Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2	SBLn3
Capacity (veh/h)	254	204	721	-	-	1051	-	-	367	371	999
HCM Lane V/C Ratio	0.014	0.121	0.199	-	-	0.009	-	-	1.487	0.032	0.118
HCM Control Delay (s)	19.4	25.1	11.2	-	-	8.5	-	-	260.8	15	9.1
HCM Lane LOS	C	D	B	-	-	A	-	-	F	C	A
HCM 95th %tile Q(veh)	0	0.4	0.7	-	-	0	-	-	29.3	0.1	0.4

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	122	69	6	8	94	711	3	11	464	10	100
Future Volume (vph)	122	69	6	8	94	711	3	11	464	10	100
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Prot	NA	Perm
Protected Phases	5	2		1	6		3	8	7	4	
Permitted Phases	2		2	6		6	8				4
Detector Phase	5	2	2	1	6	6	3	8	7	4	4
Switch Phase											
Minimum Initial (s)	5.0	15.0	15.0	5.0	15.0	15.0	5.0	10.0	5.0	10.0	10.0
Minimum Split (s)	10.0	23.0	23.0	10.0	23.0	23.0	10.0	23.0	10.0	23.0	23.0
Total Split (s)	10.0	40.0	40.0	10.0	40.0	40.0	10.0	25.0	15.0	30.0	30.0
Total Split (%)	11.1%	44.4%	44.4%	11.1%	44.4%	44.4%	11.1%	27.8%	16.7%	33.3%	33.3%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	Min	Min	None	Min	Min	None	None	None	None	None
Act Effct Green (s)	25.8	25.1	25.1	22.5	18.6	18.6	6.6	10.7	10.7	11.3	11.3
Actuated g/C Ratio	0.52	0.51	0.51	0.45	0.37	0.37	0.13	0.22	0.22	0.23	0.23
v/c Ratio	0.22	0.05	0.01	0.03	0.08	0.75	0.03	0.09	0.74	0.03	0.25
Control Delay	7.5	8.2	0.0	6.8	11.7	6.3	19.0	17.6	30.4	20.2	5.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	7.5	8.2	0.0	6.8	11.7	6.3	19.0	17.6	30.4	20.2	5.0
LOS	A	A	A	A	B	A	B	B	C	C	A
Approach Delay		7.5			6.9			17.8		25.8	
Approach LOS		A			A			B		C	

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 49.7	
Natural Cycle: 80	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.75	
Intersection Signal Delay: 13.9	Intersection LOS: B
Intersection Capacity Utilization 71.6%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 13: Sterling Ranch Rd & Marksheffel Rd



Intersection	
Int Delay, s/veh	1.7

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	65	253	132	12	0	40
Future Vol, veh/h	65	253	132	12	0	40
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	285	-	-	235	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	85	85	85	85	85	85
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	76	298	155	14	0	47

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	169	0	-	0	-	78
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	4.14	-	-	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	2.22	-	-	-	-	3.32
Pot Cap-1 Maneuver	1406	-	-	-	0	967
Stage 1	-	-	-	-	0	-
Stage 2	-	-	-	-	0	-
Platoon blocked, %			-	-	-	
Mov Cap-1 Maneuver	1406	-	-	-	-	967
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	1.6	0	8.9
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1406	-	-	-	967
HCM Lane V/C Ratio	0.054	-	-	-	0.049
HCM Control Delay (s)	7.7	-	-	-	8.9
HCM Lane LOS	A	-	-	-	A
HCM 95th %tile Q(veh)	0.2	-	-	-	0.2

Intersection	
Int Delay, s/veh	1.3

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	29	37	252	105	0
Future Vol, veh/h	0	29	37	252	105	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	200	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	85	85	85	85	85	85
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	34	44	296	124	0

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	508	124	124	0	-	0
Stage 1	124	-	-	-	-	-
Stage 2	384	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	525	927	1463	-	-	-
Stage 1	902	-	-	-	-	-
Stage 2	688	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	509	927	1463	-	-	-
Mov Cap-2 Maneuver	509	-	-	-	-	-
Stage 1	875	-	-	-	-	-
Stage 2	688	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9	1	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1463	-	927	-	-
HCM Lane V/C Ratio	0.03	-	0.037	-	-
HCM Control Delay (s)	7.5	-	9	-	-
HCM Lane LOS	A	-	A	-	-
HCM 95th %tile Q(veh)	0.1	-	0.1	-	-

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	68	528	153	237	1025	80	153	130	98	108	310	139
Future Volume (vph)	68	528	153	237	1025	80	153	130	98	108	310	139
Turn Type	pm+pt	NA	Perm	Prot	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases	2		2			6	8		8	4		4
Detector Phase	5	2	2	1	6	6	3	8	8	7	4	4
Switch Phase												
Minimum Initial (s)	5.0	15.0	15.0	15.0	15.0	15.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	10.0	20.0	20.0	20.0	20.0	20.0	10.0	10.0	10.0	10.0	10.0	10.0
Total Split (s)	12.0	57.0	57.0	20.0	65.0	65.0	17.0	28.0	28.0	15.0	26.0	26.0
Total Split (%)	10.0%	47.5%	47.5%	16.7%	54.2%	54.2%	14.2%	23.3%	23.3%	12.5%	21.7%	21.7%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	Max	Max	None	Max	Max	None	None	None	None	None	None
Act Effct Green (s)	58.7	52.1	52.1	15.0	62.7	62.7	29.2	17.9	17.9	25.3	16.0	16.0
Actuated g/C Ratio	0.51	0.46	0.46	0.13	0.55	0.55	0.26	0.16	0.16	0.22	0.14	0.14
v/c Ratio	0.25	0.33	0.20	0.55	0.56	0.09	0.60	0.24	0.27	0.36	0.66	0.41
Control Delay	12.2	21.3	3.7	52.5	19.5	1.7	42.1	43.1	3.2	34.7	53.4	9.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	12.2	21.3	3.7	52.5	19.5	1.7	42.1	43.1	3.2	34.7	53.4	9.6
LOS	B	C	A	D	B	A	D	D	A	C	D	A
Approach Delay		16.8			24.3			32.3			38.8	
Approach LOS		B			C			C			D	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 114.4	
Natural Cycle: 60	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.66	
Intersection Signal Delay: 26.2	Intersection LOS: C
Intersection Capacity Utilization 66.2%	ICU Level of Service C
Analysis Period (min) 15	

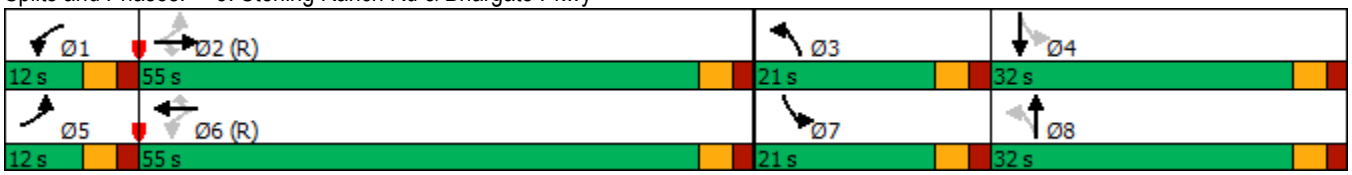
Splits and Phases: 4: Vollmer Rd & Briargate Pkwy



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	60	605	135	140	935	11	240	130	123	60	123	187
Future Volume (vph)	60	605	135	140	935	11	240	130	123	60	123	187
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Free	pm+pt	NA	Free
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases	2		2	6		6	8		Free	4		Free
Detector Phase	5	2	2	1	6	6	3	8		7	4	
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	20.0		5.0	20.0	
Minimum Split (s)	10.0	10.0	10.0	10.0	10.0	10.0	10.0	25.0		10.0	25.0	
Total Split (s)	12.0	55.0	55.0	12.0	55.0	55.0	21.0	32.0		21.0	32.0	
Total Split (%)	10.0%	45.8%	45.8%	10.0%	45.8%	45.8%	17.5%	26.7%		17.5%	26.7%	
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0		5.0	5.0	
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Yes	
Recall Mode	None	C-Max	C-Max	None	C-Max	C-Max	None	Max		None	Max	
Act Effct Green (s)	56.7	50.0	50.0	58.0	52.4	52.4	48.0	37.0	120.0	36.2	28.1	120.0
Actuated g/C Ratio	0.47	0.42	0.42	0.48	0.44	0.44	0.40	0.31	1.00	0.30	0.23	1.00
v/c Ratio	0.28	0.43	0.19	0.42	0.64	0.02	0.51	0.24	0.08	0.15	0.30	0.12
Control Delay	18.0	26.1	4.1	19.8	29.3	0.0	29.4	34.0	0.1	24.1	40.6	0.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	18.0	26.1	4.1	19.8	29.3	0.0	29.4	34.0	0.1	24.1	40.6	0.2
LOS	B	C	A	B	C	A	C	C	A	C	D	A
Approach Delay		21.7			27.8			23.4			17.4	
Approach LOS		C			C			C			B	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 63 (53%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green	
Natural Cycle: 70	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.64	
Intersection Signal Delay: 23.8	Intersection LOS: C
Intersection Capacity Utilization 76.6%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 5: Sterling Ranch Rd & Briargate Pkwy



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	67	833	42	162	904	63	108	245	104	121	578	132
Future Volume (vph)	67	833	42	162	904	63	108	245	104	121	578	132
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases	2		2	6		6	8		8	4		4
Detector Phase	5	2	2	1	6	6	3	8	8	7	4	4
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	10.0	23.0	23.0	10.0	23.0	23.0	10.0	23.0	23.0	10.0	23.0	23.0
Total Split (s)	12.0	60.0	60.0	12.0	60.0	60.0	13.0	35.0	35.0	13.0	35.0	35.0
Total Split (%)	10.0%	50.0%	50.0%	10.0%	50.0%	50.0%	10.8%	29.2%	29.2%	10.8%	29.2%	29.2%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	C-Max	None	C-Max	C-Max	None	Max	Max	None	Max	Max
Act Effct Green (s)	61.7	55.0	55.0	63.0	57.4	57.4	37.9	30.1	30.1	38.1	30.2	30.2
Actuated g/C Ratio	0.51	0.46	0.46	0.52	0.48	0.48	0.32	0.25	0.25	0.32	0.25	0.25
v/c Ratio	0.26	0.54	0.06	0.59	0.56	0.08	0.52	0.29	0.23	0.34	0.68	0.28
Control Delay	14.9	25.0	0.1	23.9	15.4	0.3	35.9	37.5	7.8	29.9	45.3	9.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	14.9	25.0	0.1	23.9	15.4	0.3	35.9	37.5	7.8	29.9	45.3	9.6
LOS	B	C	A	C	B	A	D	D	A	C	D	A
Approach Delay		23.1			15.8			30.4			37.4	
Approach LOS		C			B			C			D	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 0 (0%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green	
Natural Cycle: 70	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.68	
Intersection Signal Delay: 25.2	Intersection LOS: C
Intersection Capacity Utilization 70.6%	ICU Level of Service C
Analysis Period (min) 15	

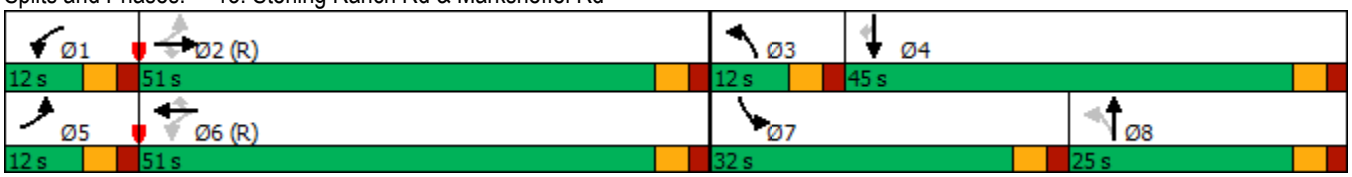
Splits and Phases: 12: Vollmer Rd & Marksheffel Rd



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	143	884	12	53	807	170	7	2	501	10	314
Future Volume (vph)	143	884	12	53	807	170	7	2	501	10	314
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Prot	NA	Perm
Protected Phases	5	2		1	6		3	8	7	4	
Permitted Phases	2		2	6		6	8				4
Detector Phase	5	2	2	1	6	6	3	8	7	4	4
Switch Phase											
Minimum Initial (s)	5.0	15.0	15.0	5.0	15.0	15.0	5.0	10.0	20.0	10.0	10.0
Minimum Split (s)	10.0	20.0	20.0	10.0	20.0	20.0	10.0	15.0	25.0	20.0	20.0
Total Split (s)	12.0	51.0	51.0	12.0	51.0	51.0	12.0	25.0	32.0	45.0	45.0
Total Split (%)	10.0%	42.5%	42.5%	10.0%	42.5%	42.5%	10.0%	20.8%	26.7%	37.5%	37.5%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	C-Max	None	C-Max	C-Max	None	None	None	None	None
Act Effct Green (s)	81.6	73.8	73.8	76.1	69.3	69.3	8.0	10.0	23.5	24.2	24.2
Actuated g/C Ratio	0.68	0.62	0.62	0.63	0.58	0.58	0.07	0.08	0.20	0.20	0.20
v/c Ratio	0.36	0.43	0.01	0.15	0.42	0.18	0.06	0.06	0.78	0.03	0.60
Control Delay	13.5	12.0	0.0	8.9	16.7	3.2	41.1	33.0	54.6	36.2	11.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	13.5	12.0	0.0	8.9	16.7	3.2	41.1	33.0	54.6	36.2	11.7
LOS	B	B	A	A	B	A	D	C	D	D	B
Approach Delay		12.0			14.1			36.6		38.0	
Approach LOS		B			B			D		D	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 0 (0%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green	
Natural Cycle: 75	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.78	
Intersection Signal Delay: 20.3	Intersection LOS: C
Intersection Capacity Utilization 63.7%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 13: Sterling Ranch Rd & Marksheffel Rd



Intersection	
Int Delay, s/veh	0.1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	2	788	1352	3	0	9
Future Vol, veh/h	2	788	1352	3	0	9
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	285	-	-	235	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	2	829	1423	3	0	9

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	1426	0	-	0	-	712
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	4.14	-	-	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	2.22	-	-	-	-	3.32
Pot Cap-1 Maneuver	473	-	-	-	0	375
Stage 1	-	-	-	-	0	-
Stage 2	-	-	-	-	0	-
Platoon blocked, %			-	-	-	
Mov Cap-1 Maneuver	473	-	-	-	-	375
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	14.8
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	473	-	-	-	375
HCM Lane V/C Ratio	0.004	-	-	-	0.025
HCM Control Delay (s)	12.6	-	-	-	14.8
HCM Lane LOS	B	-	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0.1

Intersection	
Int Delay, s/veh	0.2

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	13	1	199	356	0
Future Vol, veh/h	0	13	1	199	356	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	200	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	14	1	209	375	0

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	586	375	375	0	-	0
Stage 1	375	-	-	-	-	-
Stage 2	211	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	473	671	1183	-	-	-
Stage 1	695	-	-	-	-	-
Stage 2	824	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	473	671	1183	-	-	-
Mov Cap-2 Maneuver	473	-	-	-	-	-
Stage 1	694	-	-	-	-	-
Stage 2	824	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	10.5	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1183	-	671	-	-
HCM Lane V/C Ratio	0.001	-	0.02	-	-
HCM Control Delay (s)	8	-	10.5	-	-
HCM Lane LOS	A	-	B	-	-
HCM 95th %tile Q(veh)	0	-	0.1	-	-

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	227	978	176	191	725	65	291	414	270	92	211	118
Future Volume (vph)	227	978	176	191	725	65	291	414	270	92	211	118
Turn Type	pm+pt	NA	Perm	Prot	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases	2		2			6	8		8	4		4
Detector Phase	5	2	2	1	6	6	3	8	8	7	4	4
Switch Phase												
Minimum Initial (s)	5.0	15.0	15.0	15.0	15.0	15.0	8.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	10.0	20.0	20.0	20.0	20.0	20.0	13.0	10.0	10.0	10.0	10.0	10.0
Total Split (s)	12.0	53.0	53.0	20.0	61.0	61.0	22.0	28.0	28.0	19.0	25.0	25.0
Total Split (%)	10.0%	44.2%	44.2%	16.7%	50.8%	50.8%	18.3%	23.3%	23.3%	15.8%	20.8%	20.8%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	Max	Max	None	Max	Max	None	None	None	None	None	None
Act Effct Green (s)	55.1	48.1	48.1	15.0	56.1	56.1	34.9	20.2	20.2	23.8	13.7	13.7
Actuated g/C Ratio	0.49	0.42	0.42	0.13	0.49	0.49	0.31	0.18	0.18	0.21	0.12	0.12
v/c Ratio	0.64	0.67	0.24	0.44	0.44	0.08	0.82	0.67	0.55	0.38	0.52	0.38
Control Delay	23.8	29.5	4.2	49.7	20.0	1.1	51.3	49.5	9.2	33.0	51.0	6.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	23.8	29.5	4.2	49.7	20.0	1.1	51.3	49.5	9.2	33.0	51.0	6.7
LOS	C	C	A	D	C	A	D	D	A	C	D	A
Approach Delay		25.3			24.6			38.7			34.6	
Approach LOS		C			C			D			C	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 113.4	
Natural Cycle: 75	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.82	
Intersection Signal Delay: 29.6	Intersection LOS: C
Intersection Capacity Utilization 78.2%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 4: Vollmer Rd & Briargate Pkwy



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	309	902	134	155	820	61	143	123	84	42	69	133
Future Volume (vph)	309	902	134	155	820	61	143	123	84	42	69	133
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Free	pm+pt	NA	Free
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases	2		2	6		6	8		Free	4		Free
Detector Phase	5	2	2	1	6	6	3	8		7	4	
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	20.0		5.0	20.0	
Minimum Split (s)	10.0	23.0	23.0	10.0	23.0	23.0	10.0	25.0		10.0	25.0	
Total Split (s)	22.0	68.0	68.0	12.0	58.0	58.0	15.0	30.0		10.0	25.0	
Total Split (%)	18.3%	56.7%	56.7%	10.0%	48.3%	48.3%	12.5%	25.0%		8.3%	20.8%	
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0		5.0	5.0	
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Yes	
Recall Mode	None	C-Max	C-Max	None	C-Max	C-Max	None	None		None	None	
Act Effct Green (s)	77.6	66.1	66.1	65.1	58.2	58.2	32.0	24.0	120.0	21.0	20.0	120.0
Actuated g/C Ratio	0.65	0.55	0.55	0.54	0.48	0.48	0.27	0.20	1.00	0.18	0.17	1.00
v/c Ratio	0.76	0.49	0.15	0.49	0.50	0.08	0.44	0.35	0.06	0.18	0.24	0.09
Control Delay	23.1	18.4	2.7	15.7	23.6	0.2	38.5	43.8	0.1	33.4	45.7	0.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	23.1	18.4	2.7	15.7	23.6	0.2	38.5	43.8	0.1	33.4	45.7	0.1
LOS	C	B	A	B	C	A	D	D	A	C	D	A
Approach Delay		17.9			21.1			31.2			18.8	
Approach LOS		B			C			C			B	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 0 (0%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green	
Natural Cycle: 80	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.76	
Intersection Signal Delay: 20.6	Intersection LOS: C
Intersection Capacity Utilization 81.0%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 5: Sterling Ranch Rd & Briargate Pkwy



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	134	919	89	187	704	149	169	782	176	126	387	193
Future Volume (vph)	134	919	89	187	704	149	169	782	176	126	387	193
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases	2		2	6		6	8		8	4		4
Detector Phase	5	2	2	1	6	6	3	8	8	7	4	4
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	20.0	20.0	5.0	20.0	20.0
Minimum Split (s)	10.0	23.0	23.0	10.0	23.0	23.0	10.0	25.0	25.0	10.0	25.0	25.0
Total Split (s)	20.0	50.0	50.0	20.0	50.0	50.0	15.0	37.0	37.0	13.0	35.0	35.0
Total Split (%)	16.7%	41.7%	41.7%	16.7%	41.7%	41.7%	12.5%	30.8%	30.8%	10.8%	29.2%	29.2%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	C-Max	None	C-Max	C-Max	None	Max	Max	None	Max	Max
Act Effct Green (s)	58.0	47.7	47.7	62.0	49.7	49.7	41.8	32.0	32.0	38.2	30.2	30.2
Actuated g/C Ratio	0.48	0.40	0.40	0.52	0.41	0.41	0.35	0.27	0.27	0.32	0.25	0.25
v/c Ratio	0.40	0.69	0.14	0.67	0.51	0.21	0.54	0.87	0.36	0.74	0.46	0.37
Control Delay	17.6	33.5	3.8	46.5	20.6	4.4	33.3	53.4	14.5	52.0	40.1	6.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	17.6	33.5	3.8	46.5	20.6	4.4	33.3	53.4	14.5	52.0	40.1	6.9
LOS	B	C	A	D	C	A	C	D	B	D	D	A
Approach Delay		29.3			22.9			44.3			33.1	
Approach LOS		C			C			D			C	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 0 (0%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green	
Natural Cycle: 70	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.87	
Intersection Signal Delay: 32.6	Intersection LOS: C
Intersection Capacity Utilization 81.0%	ICU Level of Service D
Analysis Period (min) 15	

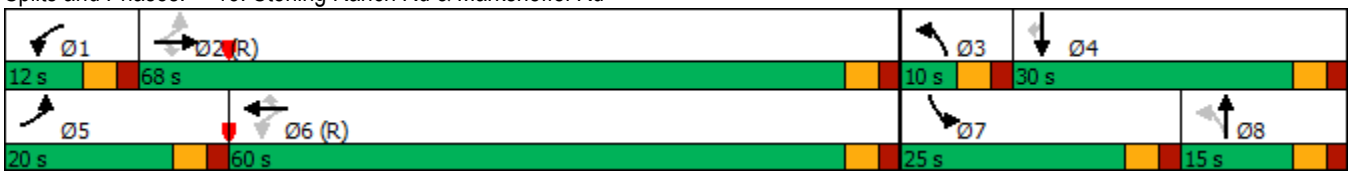
Splits and Phases: 12: Vollmer Rd & Marksheffel Rd



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	303	940	6	62	838	549	18	4	338	17	184
Future Volume (vph)	303	940	6	62	838	549	18	4	338	17	184
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Prot	NA	Perm
Protected Phases	5	2		1	6		3	8	7	4	
Permitted Phases	2		2	6		6	8				4
Detector Phase	5	2	2	1	6	6	3	8	7	4	4
Switch Phase											
Minimum Initial (s)	5.0	15.0	15.0	5.0	15.0	15.0	5.0	10.0	20.0	10.0	10.0
Minimum Split (s)	10.0	20.0	20.0	10.0	20.0	20.0	10.0	15.0	25.0	20.0	20.0
Total Split (s)	20.0	68.0	68.0	12.0	60.0	60.0	10.0	15.0	25.0	30.0	30.0
Total Split (%)	16.7%	56.7%	56.7%	10.0%	50.0%	50.0%	8.3%	12.5%	20.8%	25.0%	25.0%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	C-Max	None	C-Max	C-Max	None	None	None	None	None
Act Effct Green (s)	81.0	71.6	71.6	69.3	62.7	62.7	11.0	10.0	20.0	25.0	25.0
Actuated g/C Ratio	0.68	0.60	0.60	0.58	0.52	0.52	0.09	0.08	0.17	0.21	0.21
v/c Ratio	0.75	0.47	0.01	0.19	0.48	0.52	0.13	0.18	0.62	0.05	0.40
Control Delay	39.7	10.2	0.0	10.2	20.8	3.5	35.7	24.2	51.9	37.5	8.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	39.7	10.2	0.0	10.2	20.8	3.5	35.7	24.2	51.9	37.5	8.2
LOS	D	B	A	B	C	A	D	C	D	D	A
Approach Delay		17.3			13.8			28.8		36.5	
Approach LOS		B			B			C		D	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 0 (0%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.75	
Intersection Signal Delay: 19.1	Intersection LOS: B
Intersection Capacity Utilization 71.6%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 13: Sterling Ranch Rd & Marksheffel Rd



Intersection	
Int Delay, s/veh	0.1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	12	1346	1081	13	0	7
Future Vol, veh/h	12	1346	1081	13	0	7
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	285	-	-	235	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	13	1417	1138	14	0	7

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	1152	0	-	0	-	569
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	4.14	-	-	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	2.22	-	-	-	-	3.32
Pot Cap-1 Maneuver	602	-	-	-	0	465
Stage 1	-	-	-	-	0	-
Stage 2	-	-	-	-	0	-
Platoon blocked, %			-	-	-	
Mov Cap-1 Maneuver	602	-	-	-	-	465
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	0.1	0	12.9
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	602	-	-	-	465
HCM Lane V/C Ratio	0.021	-	-	-	0.016
HCM Control Delay (s)	11.1	-	-	-	12.9
HCM Lane LOS	B	-	-	-	B
HCM 95th %tile Q(veh)	0.1	-	-	-	0

Intersection	
Int Delay, s/veh	0.1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	8	1	493	237	0
Future Vol, veh/h	0	8	1	493	237	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	200	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	8	1	519	249	0

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	770	249	249	0	-	0
Stage 1	249	-	-	-	-	-
Stage 2	521	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	369	790	1317	-	-	-
Stage 1	792	-	-	-	-	-
Stage 2	596	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	369	790	1317	-	-	-
Mov Cap-2 Maneuver	369	-	-	-	-	-
Stage 1	791	-	-	-	-	-
Stage 2	596	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.6	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1317	-	790	-	-
HCM Lane V/C Ratio	0.001	-	0.011	-	-
HCM Control Delay (s)	7.7	-	9.6	-	-
HCM Lane LOS	A	-	A	-	-
HCM 95th %tile Q(veh)	0	-	0	-	-

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	68	533	153	251	1038	82	153	130	103	108	310	139
Future Volume (vph)	68	533	153	251	1038	82	153	130	103	108	310	139
Turn Type	pm+pt	NA	Perm	Prot	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases	2		2			6	8		8	4		4
Detector Phase	5	2	2	1	6	6	3	8	8	7	4	4
Switch Phase												
Minimum Initial (s)	5.0	15.0	15.0	15.0	15.0	15.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	10.0	20.0	20.0	20.0	20.0	20.0	10.0	10.0	10.0	10.0	10.0	10.0
Total Split (s)	12.0	57.0	57.0	20.0	65.0	65.0	17.0	28.0	28.0	15.0	26.0	26.0
Total Split (%)	10.0%	47.5%	47.5%	16.7%	54.2%	54.2%	14.2%	23.3%	23.3%	12.5%	21.7%	21.7%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	Max	Max	None	Max	Max	None	None	None	None	None	None
Act Effct Green (s)	58.7	52.1	52.1	15.0	62.7	62.7	29.2	17.9	17.9	25.3	16.0	16.0
Actuated g/C Ratio	0.51	0.46	0.46	0.13	0.55	0.55	0.26	0.16	0.16	0.22	0.14	0.14
v/c Ratio	0.26	0.34	0.20	0.59	0.56	0.09	0.60	0.24	0.28	0.36	0.66	0.41
Control Delay	12.3	21.4	3.7	53.4	19.7	1.9	42.1	43.1	3.8	34.7	53.4	9.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	12.3	21.4	3.7	53.4	19.7	1.9	42.1	43.1	3.8	34.7	53.4	9.6
LOS	B	C	A	D	B	A	D	D	A	C	D	A
Approach Delay		16.9			24.8			32.1			38.8	
Approach LOS		B			C			C			D	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 114.4	
Natural Cycle: 60	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.66	
Intersection Signal Delay: 26.4	Intersection LOS: C
Intersection Capacity Utilization 66.6%	ICU Level of Service C
Analysis Period (min) 15	

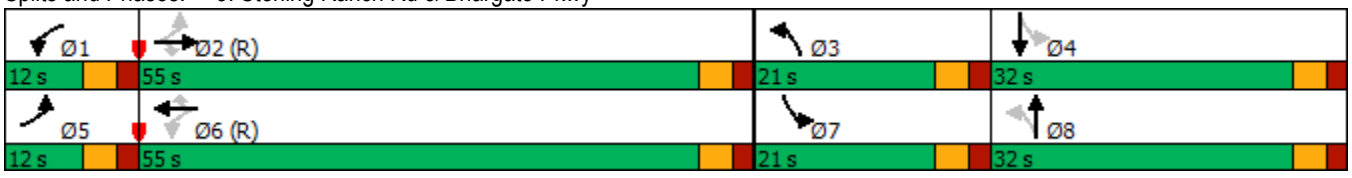
Splits and Phases: 4: Vollmer Rd & Briargate Pkwy



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	62	605	135	140	937	18	241	138	123	87	146	194
Future Volume (vph)	62	605	135	140	937	18	241	138	123	87	146	194
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Free	pm+pt	NA	Free
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases	2		2	6		6	8		Free	4		Free
Detector Phase	5	2	2	1	6	6	3	8		7	4	
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	20.0		5.0	20.0	
Minimum Split (s)	10.0	10.0	10.0	10.0	10.0	10.0	10.0	25.0		10.0	25.0	
Total Split (s)	12.0	55.0	55.0	12.0	55.0	55.0	21.0	32.0		21.0	32.0	
Total Split (%)	10.0%	45.8%	45.8%	10.0%	45.8%	45.8%	17.5%	26.7%		17.5%	26.7%	
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0		5.0	5.0	
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Yes	
Recall Mode	None	C-Max	C-Max	None	C-Max	C-Max	None	Max		None	Max	
Act Effct Green (s)	56.7	50.0	50.0	58.0	52.4	52.4	47.7	33.5	120.0	37.5	28.1	120.0
Actuated g/C Ratio	0.47	0.42	0.42	0.48	0.44	0.44	0.40	0.28	1.00	0.31	0.23	1.00
v/c Ratio	0.29	0.43	0.19	0.42	0.64	0.03	0.54	0.28	0.08	0.21	0.35	0.13
Control Delay	18.0	26.1	4.1	19.7	29.4	0.1	30.2	36.3	0.1	24.7	41.7	0.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	18.0	26.1	4.1	19.7	29.4	0.1	30.2	36.3	0.1	24.7	41.7	0.2
LOS	B	C	A	B	C	A	C	D	A	C	D	A
Approach Delay		21.7			27.7			24.6			19.4	
Approach LOS		C			C			C			B	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 63 (53%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green	
Natural Cycle: 70	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.64	
Intersection Signal Delay: 24.2	Intersection LOS: C
Intersection Capacity Utilization 76.8%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 5: Sterling Ranch Rd & Briargate Pkwy



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	68	833	42	162	904	63	108	249	104	121	588	135
Future Volume (vph)	68	833	42	162	904	63	108	249	104	121	588	135
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases	2		2	6		6	8		8	4		4
Detector Phase	5	2	2	1	6	6	3	8	8	7	4	4
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	10.0	23.0	23.0	10.0	23.0	23.0	10.0	23.0	23.0	10.0	23.0	23.0
Total Split (s)	12.0	60.0	60.0	12.0	60.0	60.0	13.0	35.0	35.0	13.0	35.0	35.0
Total Split (%)	10.0%	50.0%	50.0%	10.0%	50.0%	50.0%	10.8%	29.2%	29.2%	10.8%	29.2%	29.2%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	C-Max	None	C-Max	C-Max	None	Max	Max	None	Max	Max
Act Effct Green (s)	61.7	55.0	55.0	63.0	57.4	57.4	37.9	30.1	30.1	38.1	30.2	30.2
Actuated g/C Ratio	0.51	0.46	0.46	0.52	0.48	0.48	0.32	0.25	0.25	0.32	0.25	0.25
v/c Ratio	0.27	0.54	0.06	0.59	0.56	0.08	0.53	0.30	0.23	0.34	0.70	0.29
Control Delay	14.9	25.0	0.1	23.9	15.3	0.3	36.4	37.5	7.8	30.0	45.7	10.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	14.9	25.0	0.1	23.9	15.3	0.3	36.4	37.5	7.8	30.0	45.7	10.0
LOS	B	C	A	C	B	A	D	D	A	C	D	A
Approach Delay		23.1			15.7			30.6			37.7	
Approach LOS		C			B			C			D	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 0 (0%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green	
Natural Cycle: 70	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.70	
Intersection Signal Delay: 25.3	Intersection LOS: C
Intersection Capacity Utilization 70.9%	ICU Level of Service C
Analysis Period (min) 15	

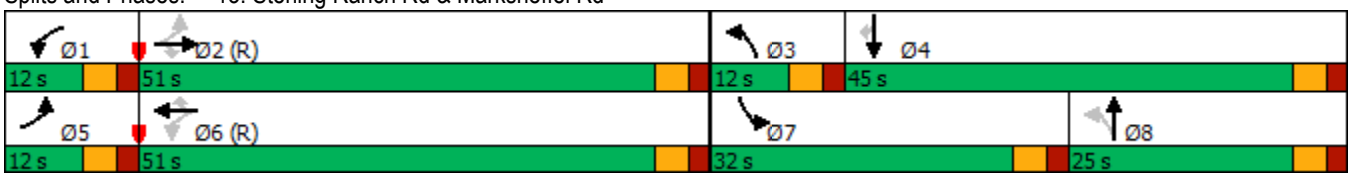
Splits and Phases: 12: Vollmer Rd & Marksheffel Rd



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	143	884	12	53	807	173	7	2	511	10	314
Future Volume (vph)	143	884	12	53	807	173	7	2	511	10	314
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Prot	NA	Perm
Protected Phases	5	2		1	6		3	8	7	4	
Permitted Phases	2		2	6		6	8				4
Detector Phase	5	2	2	1	6	6	3	8	7	4	4
Switch Phase											
Minimum Initial (s)	5.0	15.0	15.0	5.0	15.0	15.0	5.0	10.0	20.0	10.0	10.0
Minimum Split (s)	10.0	20.0	20.0	10.0	20.0	20.0	10.0	15.0	25.0	20.0	20.0
Total Split (s)	12.0	51.0	51.0	12.0	51.0	51.0	12.0	25.0	32.0	45.0	45.0
Total Split (%)	10.0%	42.5%	42.5%	10.0%	42.5%	42.5%	10.0%	20.8%	26.7%	37.5%	37.5%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	C-Max	None	C-Max	C-Max	None	None	None	None	None
Act Effct Green (s)	81.4	73.5	73.5	75.9	69.0	69.0	8.0	10.0	23.7	24.4	24.4
Actuated g/C Ratio	0.68	0.61	0.61	0.63	0.58	0.58	0.07	0.08	0.20	0.20	0.20
v/c Ratio	0.36	0.43	0.01	0.15	0.42	0.18	0.06	0.06	0.79	0.03	0.60
Control Delay	13.7	12.1	0.0	9.0	16.9	3.2	41.1	33.0	54.9	36.0	11.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	13.7	12.1	0.0	9.0	16.9	3.2	41.1	33.0	54.9	36.0	11.6
LOS	B	B	A	A	B	A	D	C	D	D	B
Approach Delay		12.1			14.2			36.6		38.3	
Approach LOS		B			B			D		D	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 0 (0%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green	
Natural Cycle: 75	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.79	
Intersection Signal Delay: 20.5	Intersection LOS: C
Intersection Capacity Utilization 64.0%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 13: Sterling Ranch Rd & Marksheffel Rd



Intersection	
Int Delay, s/veh	0.3

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	10	791	1358	7	0	31
Future Vol, veh/h	10	791	1358	7	0	31
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	285	-	-	235	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	11	833	1429	7	0	33

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	1436	0	-	0	-	715
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	4.14	-	-	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	2.22	-	-	-	-	3.32
Pot Cap-1 Maneuver	469	-	-	-	0	373
Stage 1	-	-	-	-	0	-
Stage 2	-	-	-	-	0	-
Platoon blocked, %			-	-	-	
Mov Cap-1 Maneuver	469	-	-	-	-	373
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	0.2	0	15.6
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	469	-	-	-	373
HCM Lane V/C Ratio	0.022	-	-	-	0.087
HCM Control Delay (s)	12.9	-	-	-	15.6
HCM Lane LOS	B	-	-	-	C
HCM 95th %tile Q(veh)	0.1	-	-	-	0.3

Intersection	
Int Delay, s/veh	1.4

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	70	19	199	356	0
Future Vol, veh/h	0	70	19	199	356	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	200	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	74	20	209	375	0

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	624	375	375	0	-	0
Stage 1	375	-	-	-	-	-
Stage 2	249	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	449	671	1183	-	-	-
Stage 1	695	-	-	-	-	-
Stage 2	792	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	441	671	1183	-	-	-
Mov Cap-2 Maneuver	441	-	-	-	-	-
Stage 1	683	-	-	-	-	-
Stage 2	792	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	11	0.7	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1183	-	671	-	-
HCM Lane V/C Ratio	0.017	-	0.11	-	-
HCM Control Delay (s)	8.1	-	11	-	-
HCM Lane LOS	A	-	B	-	-
HCM 95th %tile Q(veh)	0.1	-	0.4	-	-

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	227	995	176	202	735	67	291	414	288	94	211	118
Future Volume (vph)	227	995	176	202	735	67	291	414	288	94	211	118
Turn Type	pm+pt	NA	Perm	Prot	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases	2		2			6	8		8	4		4
Detector Phase	5	2	2	1	6	6	3	8	8	7	4	4
Switch Phase												
Minimum Initial (s)	5.0	15.0	15.0	15.0	15.0	15.0	8.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	10.0	20.0	20.0	20.0	20.0	20.0	13.0	10.0	10.0	10.0	10.0	10.0
Total Split (s)	12.0	53.0	53.0	20.0	61.0	61.0	22.0	28.0	28.0	19.0	25.0	25.0
Total Split (%)	10.0%	44.2%	44.2%	16.7%	50.8%	50.8%	18.3%	23.3%	23.3%	15.8%	20.8%	20.8%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	Max	Max	None	Max	Max	None	None	None	None	None	None
Act Effct Green (s)	55.1	48.1	48.1	15.0	56.1	56.1	35.2	20.3	20.3	24.2	14.0	14.0
Actuated g/C Ratio	0.48	0.42	0.42	0.13	0.49	0.49	0.31	0.18	0.18	0.21	0.12	0.12
v/c Ratio	0.65	0.68	0.24	0.47	0.44	0.08	0.81	0.67	0.59	0.38	0.51	0.37
Control Delay	24.6	30.0	4.4	50.4	20.3	1.2	50.9	49.5	11.2	32.9	50.6	6.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	24.6	30.0	4.4	50.4	20.3	1.2	50.9	49.5	11.2	32.9	50.6	6.6
LOS	C	C	A	D	C	A	D	D	B	C	D	A
Approach Delay		25.8			25.1			38.7			34.4	
Approach LOS		C			C			D			C	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 113.7	
Natural Cycle: 80	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.81	
Intersection Signal Delay: 29.9	Intersection LOS: C
Intersection Capacity Utilization 78.6%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 4: Vollmer Rd & Briargate Pkwy



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	318	902	134	155	831	86	146	136	84	65	78	138
Future Volume (vph)	318	902	134	155	831	86	146	136	84	65	78	138
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Free	pm+pt	NA	Free
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases	2		2	6		6	8		Free	4		Free
Detector Phase	5	2	2	1	6	6	3	8		7	4	
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	20.0		5.0	20.0	
Minimum Split (s)	10.0	23.0	23.0	10.0	23.0	23.0	10.0	25.0		10.0	25.0	
Total Split (s)	22.0	68.0	68.0	12.0	58.0	58.0	15.0	30.0		10.0	25.0	
Total Split (%)	18.3%	56.7%	56.7%	10.0%	48.3%	48.3%	12.5%	25.0%		8.3%	20.8%	
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0		5.0	5.0	
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Yes	
Recall Mode	None	C-Max	C-Max	None	C-Max	C-Max	None	None		None	None	
Act Effct Green (s)	77.7	66.1	66.1	64.8	57.9	57.9	32.0	24.0	120.0	21.0	20.0	120.0
Actuated g/C Ratio	0.65	0.55	0.55	0.54	0.48	0.48	0.27	0.20	1.00	0.18	0.17	1.00
v/c Ratio	0.78	0.49	0.15	0.49	0.51	0.11	0.45	0.38	0.06	0.28	0.26	0.09
Control Delay	25.3	18.4	2.7	15.7	24.0	0.4	38.8	44.6	0.1	36.6	46.2	0.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	25.3	18.4	2.7	15.7	24.0	0.4	38.8	44.6	0.1	36.6	46.2	0.1
LOS	C	B	A	B	C	A	D	D	A	D	D	A
Approach Delay		18.4			20.9			32.1			21.3	
Approach LOS		B			C			C			C	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 0 (0%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green	
Natural Cycle: 80	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.78	
Intersection Signal Delay: 21.2	Intersection LOS: C
Intersection Capacity Utilization 82.0%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 5: Sterling Ranch Rd & Briargate Pkwy



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	138	919	89	187	704	149	169	796	176	126	396	196
Future Volume (vph)	138	919	89	187	704	149	169	796	176	126	396	196
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases	2		2	6		6	8		8	4		4
Detector Phase	5	2	2	1	6	6	3	8	8	7	4	4
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	20.0	20.0	5.0	20.0	20.0
Minimum Split (s)	10.0	23.0	23.0	10.0	23.0	23.0	10.0	25.0	25.0	10.0	25.0	25.0
Total Split (s)	20.0	50.0	50.0	20.0	50.0	50.0	15.0	37.0	37.0	13.0	35.0	35.0
Total Split (%)	16.7%	41.7%	41.7%	16.7%	41.7%	41.7%	12.5%	30.8%	30.8%	10.8%	29.2%	29.2%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	C-Max	None	C-Max	C-Max	None	Max	Max	None	Max	Max
Act Effct Green (s)	58.1	47.7	47.7	61.9	49.5	49.5	41.8	32.0	32.0	38.2	30.2	30.2
Actuated g/C Ratio	0.48	0.40	0.40	0.52	0.41	0.41	0.35	0.27	0.27	0.32	0.25	0.25
v/c Ratio	0.41	0.69	0.14	0.67	0.51	0.21	0.55	0.89	0.36	0.74	0.47	0.37
Control Delay	17.7	33.5	3.8	46.3	20.7	4.4	33.7	54.9	14.8	52.0	40.3	6.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	17.7	33.5	3.8	46.3	20.7	4.4	33.7	54.9	14.8	52.0	40.3	6.9
LOS	B	C	A	D	C	A	C	D	B	D	D	A
Approach Delay		29.3			23.0			45.6			33.2	
Approach LOS		C			C			D			C	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 0 (0%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green	
Natural Cycle: 70	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.89	
Intersection Signal Delay: 33.0	Intersection LOS: C
Intersection Capacity Utilization 81.4%	ICU Level of Service D
Analysis Period (min) 15	

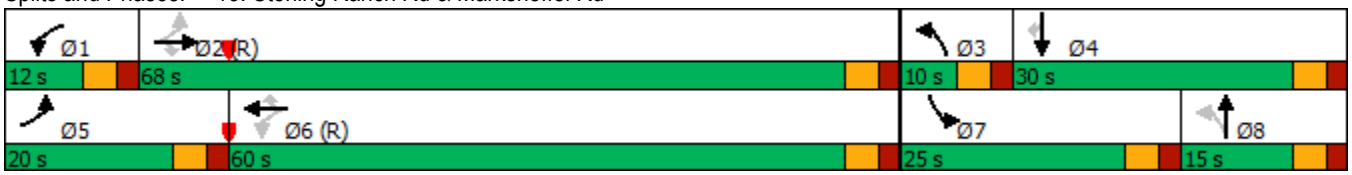
Splits and Phases: 12: Vollmer Rd & Marksheffel Rd



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	303	940	6	62	838	562	18	4	346	18	184
Future Volume (vph)	303	940	6	62	838	562	18	4	346	18	184
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Prot	NA	Perm
Protected Phases	5	2		1	6		3	8	7	4	
Permitted Phases	2		2	6		6	8				4
Detector Phase	5	2	2	1	6	6	3	8	7	4	4
Switch Phase											
Minimum Initial (s)	5.0	15.0	15.0	5.0	15.0	15.0	5.0	10.0	20.0	10.0	10.0
Minimum Split (s)	10.0	20.0	20.0	10.0	20.0	20.0	10.0	15.0	25.0	20.0	20.0
Total Split (s)	20.0	68.0	68.0	12.0	60.0	60.0	10.0	15.0	25.0	30.0	30.0
Total Split (%)	16.7%	56.7%	56.7%	10.0%	50.0%	50.0%	8.3%	12.5%	20.8%	25.0%	25.0%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	C-Max	None	C-Max	C-Max	None	None	None	None	None
Act Effct Green (s)	81.0	71.6	71.6	69.3	62.7	62.7	11.0	10.0	20.0	25.0	25.0
Actuated g/C Ratio	0.68	0.60	0.60	0.58	0.52	0.52	0.09	0.08	0.17	0.21	0.21
v/c Ratio	0.75	0.47	0.01	0.19	0.48	0.53	0.13	0.18	0.64	0.05	0.40
Control Delay	39.6	10.3	0.0	10.2	20.8	3.5	35.7	24.2	52.3	37.5	8.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	39.6	10.3	0.0	10.2	20.8	3.5	35.7	24.2	52.3	37.5	8.2
LOS	D	B	A	B	C	A	D	C	D	D	A
Approach Delay		17.3			13.7			28.8		37.0	
Approach LOS		B			B			C		D	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 0 (0%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.75	
Intersection Signal Delay: 19.2	Intersection LOS: B
Intersection Capacity Utilization 72.4%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 13: Sterling Ranch Rd & Marksheffel Rd



Intersection	
Int Delay, s/veh	0.3

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	41	1355	1086	26	0	25
Future Vol, veh/h	41	1355	1086	26	0	25
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	285	-	-	235	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	43	1426	1143	27	0	26

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	1170	0	-	0	-	572
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	4.14	-	-	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	2.22	-	-	-	-	3.32
Pot Cap-1 Maneuver	593	-	-	-	0	463
Stage 1	-	-	-	-	0	-
Stage 2	-	-	-	-	0	-
Platoon blocked, %			-	-	-	
Mov Cap-1 Maneuver	593	-	-	-	-	463
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	0.3	0	13.2
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	593	-	-	-	463
HCM Lane V/C Ratio	0.073	-	-	-	0.057
HCM Control Delay (s)	11.5	-	-	-	13.2
HCM Lane LOS	B	-	-	-	B
HCM 95th %tile Q(veh)	0.2	-	-	-	0.2

Intersection	
Int Delay, s/veh	1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	44	47	493	237	0
Future Vol, veh/h	0	44	47	493	237	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	200	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	46	49	519	249	0

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	866	249	249	0	-	0
Stage 1	249	-	-	-	-	-
Stage 2	617	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	324	790	1317	-	-	-
Stage 1	792	-	-	-	-	-
Stage 2	538	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	312	790	1317	-	-	-
Mov Cap-2 Maneuver	312	-	-	-	-	-
Stage 1	763	-	-	-	-	-
Stage 2	538	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.8	0.7	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1317	-	790	-	-
HCM Lane V/C Ratio	0.038	-	0.059	-	-
HCM Control Delay (s)	7.8	-	9.8	-	-
HCM Lane LOS	A	-	A	-	-
HCM 95th %tile Q(veh)	0.1	-	0.2	-	-

Appendix Table 1

TRANSPORTATION
CONSULTANTS, INC.

Appendix Table 1: Area Traffic Impact Studies

Study	PCD File No[1]	Consultant	Date
Sterling Ranch Reports			
Sterling Ranch Updated Traffic Impact Analysis	SKP07007	LSC Transportation Consultants, Inc	June 5, 2008
Sterling Ranch Phase 1 Traffic Impact Study	P151	LSC Transportation Consultants, Inc	March 16, 2015
Sterling Ranch Phases 1-3 Transportation Memorandum	SP1415	LSC Transportation Consultants, Inc	October 2, 2017
Branding Iron at Sterling Ranch Filing No. 1 and Homestead at Sterling Ranch Filing No. 1 Transportation Memorandum	SF1724 SF1725	LSC Transportation Consultants, Inc	December 19, 2017
Sterling Ranch Filing No. 2 Transportation Memorandum	SF1820	LSC Transportation Consultants, Inc	April 3, 2018
Sterling Ranch Phase 2 Preliminary Plan Traffic Impact Study	SP203	LSC Transportation Consultants, Inc	December 20, 2018
Homestead at Sterling Ranch Filing No. 2 Transportation Memorandum	SF194	LSC Transportation Consultants, Inc	March 3, 2020
Branding Iron at Sterling Ranch Filing No. 2 Transportation Memorandum	SF1918	LSC Transportation Consultants, Inc	May 6, 2020
Sterling Ranch Filing No. 2 and Phase 2 Traffic Impact Study	SF2015 SP191	LSC Transportation Consultants, Inc	June 23, 2021
Sterling Ranch Filing No. 3 Transportation Memorandum	SF2132	LSC Transportation Consultants, Inc	April 19, 2022
Homestead North Phase 1 Updated Transportation Memorandum	SP208	LSC Transportation Consultants, Inc	January 11, 2022
Homestead North Filing No. 1 Traffic Technical Memorandum	SF2213	LSC Transportation Consultants, Inc	February 2, 2022
Homestead North Filing No. 2 Traffic Technical Memorandum	SF2218	LSC Transportation Consultants, Inc	April 15, 2022
Homestead North Filing 3 Traffic Impact Study	SF2229	LSC Transportation Consultants, Inc	June 17, 2022
The Villages at Sterling Ranch East Preliminary Plan/Traffic Generation Analysis	PUDSP226	SM Rocha, LLC	July 1, 2022
Sterling Ranch Sketch Plan Amendment Master Traffic Impact Study	SKP224	LSC Transportation Consultants, Inc	March 17, 2023
Sterling Ranch East - Rezoning & Preliminary Plan Traffic Impact Study	SP-22-004, P-22-012, P-22-013	LSC Transportation Consultants, Inc	March 17, 2023[2]
Foursquare at Sterling Ranch East Transportation Memorandum	PUDSP226 SF2239	LSC Transportation Consultants, Inc	April 20, 2023
Sterling Ranch East Filing Nos 1 & 2 Traffic Technical Memorandum	SF2235 SF2237	LSC Transportation Consultants, Inc	February 10, 2023
Sterling Ranch Filing No. 4 Transportation Memorandum	SF2230	LSC Transportation Consultants, Inc	February 21, 2023
Copper Chase at Sterling Ranch Traffic Impact Study	PUDSP222	LSC Transportation Consultants, Inc	April 28, 2023
Sterling Ranch Filing No. 5 Traffic Impact Study	PUDSP-23-002	LSC Transportation Consultants, Inc	November 15, 2023
Sterling Ranch East - Filing 5 Rezone & Preliminary Plan Traffic Impact Study	P237 & SP235	LSC Transportation Consultants, Inc	January 15, 2024
Sterling Ranch Sketch Plan 2023 Amendment & Rezone Traffic Technical Memorandum	SKP235, P239, P2311	LSC Transportation Consultants, Inc	January 17, 2024
Sterling Ranch Sketch Plan Amendment #4 & Sterling Ranch East Filing No. 7 Rezone Master Traffic Impact Addendum/Technical	SKP241 & P2415	LSC Transportation Consultants, Inc	November 18, 2024
Sterling Ranch East Filing No. 3 Traffic Impact Study	SF2428	LSC Transportation Consultants, Inc	January 7, 2025
Sterling Ranch East - Filing 6 Rezone & Preliminary Plan Traffic Impact Study	P2414 & SP244	LSC Transportation Consultants, Inc	March 20, 2025
Villages at Sterling Ranch East Traffic Impact Study	SF2439	LSC Transportation Consultants, Inc	April 24, 2025
Sterling Ranch East Filing No. 4Traffic Impact Study	SF2615	LSC Transportation Consultants, Inc	June 25, 2026
Sterling Ranch East Filing No. 6 Traffic Impact Study	SF2610	LSC Transportation Consultants, Inc	August 14, 2026
Retreat at TimberRidge Reports			
The Retreat at TimberRidge Traffic Impact Analysis	PUD173	LSC Transportation Consultants, Inc	
The Retreat at TimberRidge Preliminary Plan Traffic Technical Memorandum	SP182	LSC Transportation Consultants, Inc	
The Retreat at TimberRidge Filing No. 1 Traffic Technical Memorandum	SF199	LSC Transportation Consultants, Inc	
The Retreat at TimberRidge Filing No. 2 Updated Traffic Technical Memorandum	SF2121	LSC Transportation Consultants, Inc	
The Retreat at TimberRidge Filing No. 3 Traffic Technical Memorandum	SF2241	LSC Transportation Consultants, Inc	
The Retreat at TimberRidge Filing No. 4 Traffic Technical Memorandum	SF1827	LSC Transportation Consultants, Inc	
Retreat at PrairieRidge Reports			
Retreat at PrairieRidge Filings 1-3 Preliminary Plan & Rezones Traffic Impact Analysis	SP239	SM Rocha, LLC	June 2024
Retreat at PrairieRidge Filing 1 Transportation Memorandum	SF257	SM Rocha, LLC	December 10, 2025
Retreat at PrairieRidge Filing 2 Transportation Memorandum	SF 259	SM Rocha, LLC	January 15, 2026
Retreat at PrairieRidge Filing 3 Traffic Generation Analysis	SF2520	SM Rocha, LLC	August 15, 2025
Retreat at PrairieRidge Filing No. 4 Final Plat Transportation Memorandum	SF2523	SM Rocha, LLC	August 11, 2025
Other Area Reports			
Wolf Ranch School Site Traffic Impact Study	OAR1720	Matrix Design Group, Inc.	May 5, 2017
The Ranch Sketch Plan Traffic Impact Analysis	SKP186	LSC Transportation Consultants, Inc	July 9, 2019
Lodge III Traffic Impact Study	OAR	LSC Transportation Consultants, Inc	December 13, 2019
Continental 613 Traffic Impact Study	OAR2177	LSC Transportation Consultants, Inc	July 16, 2021
Solace at Black Forest Traffic Impact and Access Analysis	OAR2134	LSC Transportation Consultants, Inc	August 13, 2021
Traffic Impact Study Addendum for Percheron	OAR2173	SM Rocha, LLC	October, 2021
Woodmen East Commercial Center Traffic Impact Analysis	OAR2191	LSC Transportation Consultants, Inc	December 8, 2021
Briargate-Stapleton Corridor Study	briargate-stapleton.com	Wilson & Company	December 7, 2023
Sterling Recycling Facility Transportation Memorandum	PPR2341	LSC Transportation Consultants, Inc	August 24, 2023

Notes:

(1) Follow the links listed below to obtain the most recent version of each listed study. To obtain a copy of the version of each study used in preparing this report please contact LSC Transportation Consultants, Inc.

Source: LSC Transportation Consultants, Inc. *Aug-26*

MTCP Maps

TRANSPORTATION
CONSULTANTS, INC.

Figure 22. 2045 Roadway Functional Classifications

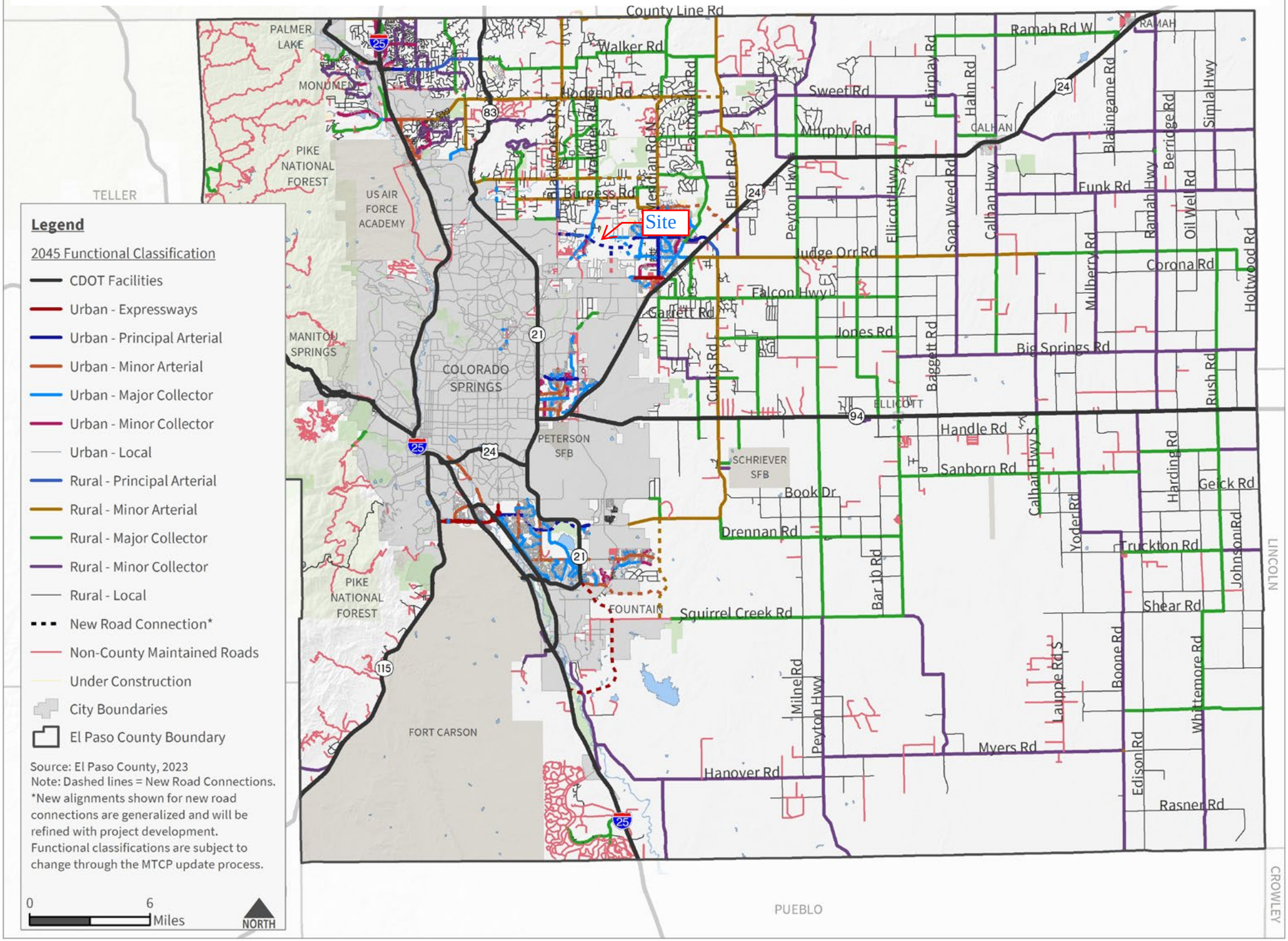
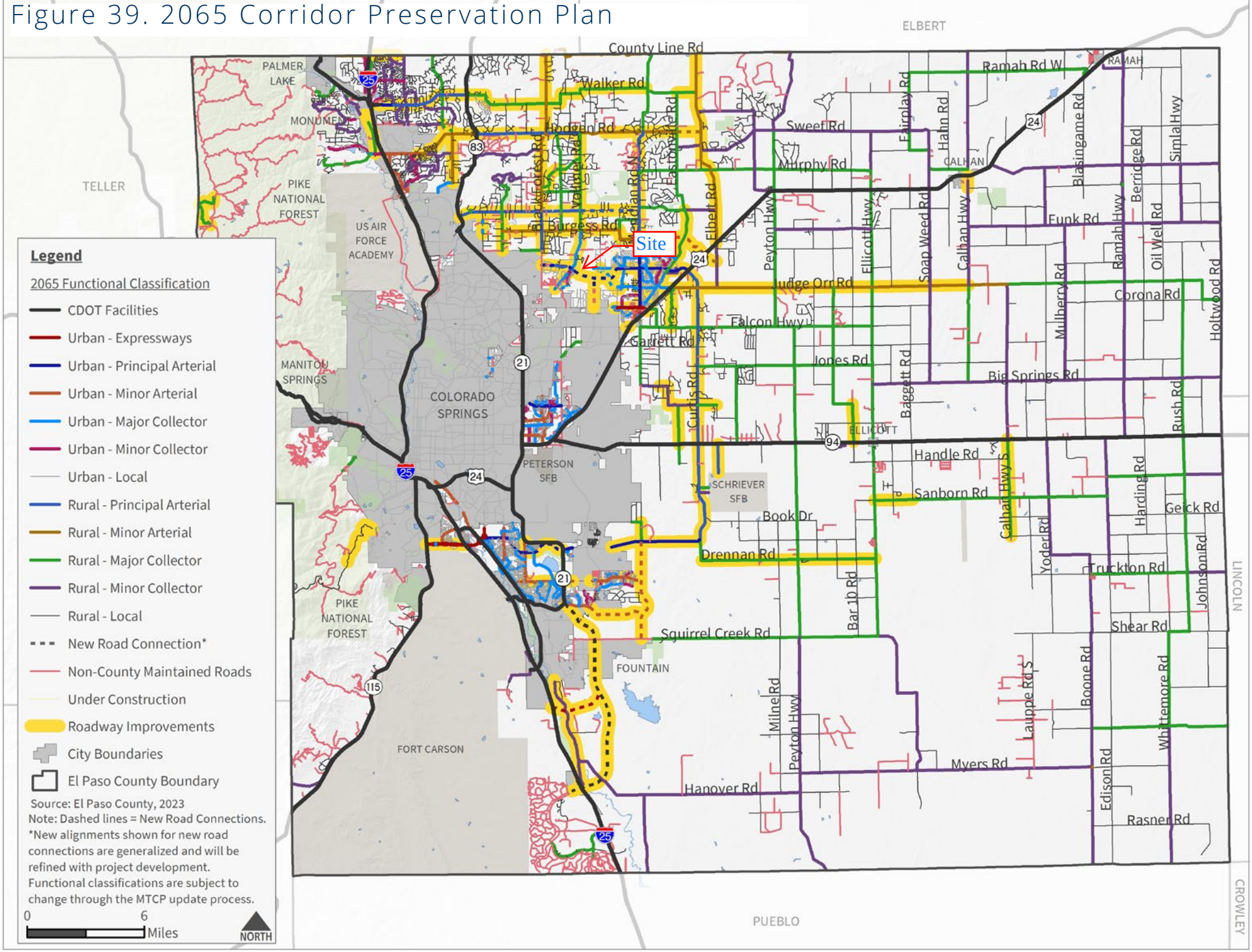


Figure 39. 2065 Corridor Preservation Plan



Crash History

TRANSPORTATION
CONSULTANTS, INC.

CUID	System Code	Crash Date	Crash Time	Location 1	Location 2	Location	Road Description	First HE	Second HE	MHE	Crash Type	Approach Overtaking Turn	Number Killed	Number Injured	Total Vehicles	Road Contour Curves	Road Contour Grade	Road Condition	Lighting Conditions	Weather Condition	Lane Position	TU-1 Direction	TU-1 Movement	TU-1 Type	TU-1 Speed Limit	TU-1 Estimated Speed	TU-1 Speed	TU-1 Driver Action	TU-1 Human Contributing Factor	Record Status	Processing Status	Last Updated
Briargate Parkway/Vollmer Road																																
July 1 - Dec 31, 2023																																
NONE REPORTED																																
FY 2024																																
1253336	County Road	12/1/2024	04:00:00	VOLLMER RD	BRIARGATE PKWY	Center median/ Island	At Intersection	Curb	Sign	Curb	Curb	Not Applicable	0	0	1	Curve Right	Level	Dry W/Visible Icy Road Treatment	Dark – Unlighted	Clear	N01	Northeast	Making Right Turn	SUV	45	50	25	Careless Driving	Aggressive Driving	Coded	Completed	Dec 31 2024 1:59AM
FY 2025																																
NONE REPORTED																																
Jan 1 - Jun 30, 2026																																
NONE REPORTED																																

Marksheffel Road/Vollmer Road

July 1 - Dec 31, 2023

NONE REPORTED

FY 2024

NONE REPORTED

FY 2025

CUID	System Code	Crash Date	Crash Time	Location 1	Location 2	Location	Road Description	First HE	Second HE	Third HE	Fourth HE	MHE	Crash Type	Approach Overtaking Turn	Number Killed	Number Injured	Injury 01	Total Vehicles	Road Contour Curves	Road Contour Grade	Road Condition	Lighting Conditions	Weather Condition	Lane Position	TU-1 Direction	TU-1 Movement	TU-1 Type	TU-1 Speed Limit	TU-1 Estimated Speed	TU-1 Driver Action	TU-1 Human Contributing Factor
2593823	County Road	9/9/2025	11:05:00	VOLLMER RD	MARKSHEFFEL RD	Ran off left side	Non-Intersection	Curb	Sign	Barricade	Fence	Curb	Curb	Not Applicable	0	1	1	1	Straight	Level	Dry	Daylight	Clear	SLS	Southwest	Going Straight	Passenger Car/ Passenger Van	35	50	Careless Driving	Asleep or Fatigued

Jan 1 - Jun 30, 2026

NONE REPORTED

CUID	System Cc	Rd_Numbe	Rd_Sectio	City_Stree	Crash Date

Marksheffel Road/Sterling Ranch Road

July 1 - Dec 31, 2023

NONE REPORTED

FY 2024

NONE REPORTED

FY 2025

NONE REPORTED

Jan 1 - Jun 30, 2026

NONE REPORTED