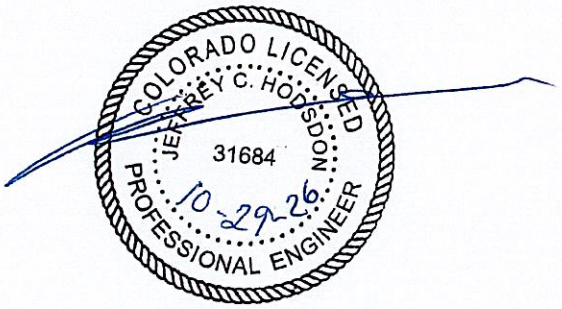
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Sterling Ranch East Filing No. 6
Traffic Impact Study
PCD File No. SF2610
(LSC #S244252)
October 29, 2026

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.



Developer's Statement

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

V.P.

10/29/2026
Date

Sterling Ranch East Filing No. 6

Traffic Impact Study

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

OCTOBER 29, 2026

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

LSC #S244252
PCD File No.: SF2610

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October 29, 2026

Loren J. Moreland
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RE: Sterling Ranch East Filing No. 6
Traffic Impact Study
El Paso County, Colorado
PCD File No.: P2414 and SP244
LSC #S244251

Dear Mr. Moreland:

LSC Transportation Consultants, Inc. has prepared this updated Traffic Impact Study for the proposed Sterling Ranch Filing No. 6 rezone and preliminary plat. As shown in Figure 1, the site is located east of the future Sterling Ranch Road and north of the future Briargate Parkway 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, and posted speed limits;
- 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 within the preliminary plan area;
- The assignment of the projected preliminary-plan 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 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

Most recently, LSC prepared a TIS for Sterling Ranch East Filing No. 4 dated June 25, 2026. Several elements of this report, including existing and total traffic volumes, level of service, and traffic signal warrant analysis have been taken directly from that report.

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 completed within the past five years (that LSC is aware of), is attached for reference.

El Paso County recently studied 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 Sterling Ranch East Filing No. 6 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 extensions of Sterling Ranch Road and Briargate Parkway.

Land Use

Figure 2 shows the proposed Sterling Ranch Filing No. 6. The site is planned to be developed with 198 residential dwelling units.

Pedestrian Plan

Detached sidewalks will be provided along Briargate Parkway and Sterling Ranch Road. The multi-use paved shoulder on Sterling Ranch Road will accommodate bicycles. Attached 5-foot-wide concrete sidewalks are planned on all of the local streets within Sterling Ranch East Filing No. 6.

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 southwest of the site (south of Briargate Parkway and west of Sterling Ranch Road) and an elementary school site further south of Briargate Parkway and east of Sterling Ranch Road. No information or plans are available for the school sites and separate site-specific traffic impact studies 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. Full-movement access points are proposed to Sterling Ranch Road and Oshkosh Road. The proposed spacing is greater than the 330-foot minimum intersection spacing for Urban Non-Residential Collectors when intersecting local roadways, per criteria contained in Table 2-7 of the *El Paso County Engineering Criteria Manual* (*ECM*).

An additional right-in/right-out access is proposed to Briargate Parkway about 1,350 feet east of Sterling Ranch Road. A deviation request was approved for this access with the Preliminary Plan (PCD File No. SF 2404) The Master TIS showed a right-in/right-out only access point in this general location.

Sight Distance Analysis

Figure 4a shows the intersection sight-distance analysis at the intersections of Sterling Ranch Road (Urban Minor Collector)/Vancouver Street (Urban Local), Sterling Ranch Road (Urban Minor Collector)/Oshkosh Road (Uban Minor Collector), and Oshkosh Road (Uban Minor Collector)/Sioux Falls Way (Urban Local). Based on a design speed of 40 miles per hour (mph) and the criteria contained in Table 2-21 of the *ECM*, the required intersection sight distance at these intersections is 445 feet. As shown in Figure 4a, the intersection sight distance can be met at all three intersections.

Figure 4b shows the intersection sight-distance analysis at the proposed right-in/right-out only access (Sioux Falls Way) to Briargate Parkway (Principal Arterial). Based on a design speed of 50 miles per hour (mph) and the criteria contained in Table 2-21 of the *ECM*, the required intersection sight distance at the future intersections is 555 feet. As shown on Figure 4b the intersection sight distance can be met at these intersections.

REPORT SCENARIOS

Short-Term Scenario

The short-term scenario includes the roadway segments to be added in the short term only, as shown in Figure 3. This scenario includes the Sterling Ranch East Filing No. 6 area (“the site”) as well as traffic to be generated in the short term by buildout of the planned 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 5 and 8, and the Villages at Sterling Ranch East. See Appendix Table 1 for the PCD file numbers associated with the above-mentioned projects. 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. 6 street network.

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. 6 boundary are included as short-term "background traffic" in this report.

Intermediate-Term Scenario

This scenario is limited-scope and has been added only for evaluation of the intersection of Briargate Parkway and Vollmer Road assuming the anticipated completion of Briargate Parkway west to Black Forest Road This scenario assumes Briargate not completed east to Banning Lewis Parkway nor farther east to Towner Road. The same nearby development/subdivision completion assumptions as in the short-term scenario apply, but assuming this additional connection and associated shift in trip distribution/trip routing for those TimberRidge, Retreat at Prairie Ridge, and Sterling Ranch East developments.

Long-Term Scenario

The long-term scenario is essentially the same as the 2045 long-term scenario contained in the approved *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/Sioux Falls Way (#104), Sterling Ranch Road/Vancouver Street [#309]), and Sterling Ranch Road/Oshkosh Road (#310).

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 is currently a five-lane urban street within the City of Colorado Springs limits between Black Forest Road and Cowpoke Road and a two-lane, rural, paved roadway north of Cowpoke Road extending to north of Hodgen Road. In the southbound direction, Vollmer Road has a posted speed limit of 45 mph. South of Cowpoke Road, Vollmer Road has a 40-mph posted speed limit. Note: the new *Connect COS* City of Colorado Springs transportation plan shows Vollmer as a Principal Arterial. The 2024 *MTCP* shows Vollmer Road as an Urban – Major Collector in the vicinity of the site. The South Vollmer Road improvements (CDR2116) which provided two through lanes in each direction on Vollmer Road in the vicinity of Marksheffel Road were recently completed.

The North Vollmer Road improvements (CDR217), which provided two through lanes in each direction on Vollmer Road in the vicinity of 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 between Vollmer Road and Sterling Ranch Road was recently constructed to its full-lane cross section (CDR 221). A segment west of Vollmer Road was also recently constructed as part of the Retreat at Prairie Ridge development. It is our understanding that Briargate Parkway is planned to be constructed further west to Black Forest Parkway in the intermediate term (6 to 10 years), but the exact timing is unknown.

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. Note: at the time of the traffic counts, Briargate Parkway was not constructed west of Vollmer Road. 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 intersections of Marksheffel Road/Vollmer Road, Briargate/Vollmer, and Marksheffel/Sterling Ranch 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. 6 boundary area).

Short-Term Scenario Baseline Conditions

Please refer to the description of the short-term scenario above. Projected volumes for the short-term baseline are included in the short-term total volumes. Figure 6a shows the short-term background traffic volumes on key street segments and at the key area intersections.

Note: the short-term baseline scenario assumes only the following approved subdivisions to be developed and generating trips (in the short term): Sterling Ranch East Preliminary Plan 1 (Filing Nos 1, 2, and 3), Villages at Sterling Ranch, Sterling Ranch East Filing No. 5, Sterling Ranch East Filing No. 4 and Sterling Ranch East Filing No. 8. No potential future traffic generation due to future school sites within Sterling Ranch East Preliminary Plan 1 are included in the short-term background volumes. 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.

Intermediate-Term Scenario

Figure 7 shows the projected intermediate-term traffic volumes at the intersection of Briargate Parkway/Vollmer Road. This scenario is limited-scope and has been added only for evaluation of the intersection of Briargate Parkway and Vollmer Road assuming the anticipated completion of Briargate Parkway west to Black Forest Road. This scenario assumes Briargate not completed east to Banning Lewis Parkway nor farther east to Towner Road. The same nearby development/subdivision completion assumptions as in the short-term scenario apply, but assuming this additional connection and associated shift in trip distribution/trip routing for those TimberRidge, Retreat at Prairie Ridge, and Sterling Ranch East developments.

Long-Term Scenario Baseline Conditions

Figure 8a shows the projected 2045 baseline/background daily traffic volumes on key street segments and the projected 2045 peak-hour baseline turning movement 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, based on the traffic projections in the LSC September 13, 2024 Master TIS Addendum. The 2045 baseline daily traffic volumes assume buildout of the land uses within the Sterling Ranch Master Plan that are not included in the Sterling Ranch Filing No. 6 Preliminary Plan area, 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. The long-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 (in conjunction with development of Filing No. 4).

TRIP GENERATION

The site-generated vehicle trips were estimated using the nationally-published trip-generation rates from *Trip Generation, 12th Edition*, 20251 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. 6 is projected to generate about 1,800 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 67 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 37 vehicles would enter and 101 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 114 vehicles would enter and 70 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 9. 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 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 9) are applied to the new, external trip-generation estimates (from Table 2), the resulting site-generated traffic volumes can be determined. Figure 10 shows the short-term site-generated traffic volumes. These volumes

assume only the street network shown in Figure 3. Figure 12 shows the intermediate site-generated traffic volumes at the intersection of Briargate/Vollmer. These volumes assume Briargate Parkway has been constructed west to Black Forest Road but not east to Banning Lewis Parkway. Figure 12 shows the long-term residential site-generated traffic volumes, assuming buildout of the area roadway network.

TOTAL TRAFFIC

Short-Term Total Traffic

Figure 13a 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 include short-term-baseline traffic volumes and short-term site-generated traffic volumes (from Figure 10).

Figure 13b 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.

Intermediate-Term Total Traffic

Figure 14 shows the projected intermediate-term total traffic volumes at the intersection of Briargate Parkway/Vollmer Road. This scenario is limited-scope and has been added only for evaluation of the intersection of Briargate Parkway and Vollmer Road assuming the anticipated completion of Briargate Parkway west to Black Forest Road. This scenario assumes Briargate not completed east to Banning Lewis Parkway nor farther east to Towner Road. The same nearby development/subdivision completion assumptions as in the short-term scenario apply, but assuming this additional connection and associated shift in trip distribution/trip routing for those TimberRidge, Retreat at Prairie Ridge, and Sterling Ranch East developments. These volumes include intermediate-term-baseline traffic volumes (from Figure 7) and intermediate-term site-generated traffic volumes (from Figure 11). The figure also shows the general intersection lane geometry and intersection traffic control used in the analysis.

2045 Total Traffic

Figure 14a 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 and the long-term site-generated traffic volumes (from Figure 10).

Figure 14b 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-THRESHOLD ANALYSIS

The intersections of Briargate/Vollmer, Marksheffel/Vollmer and Marksheffel/Sterling Ranch 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*). The *MUTCD* contains nine traffic signal warrants. However, for evaluation of the intersections listed above, only Warrant Nos. 1, 2 and 7 would likely apply. This report includes analysis of Warrant Nos. 12 and 7.

This warrant analysis is primarily a predictive analysis of the warrants based on the traffic data collected and projected conditions/estimates of short-term future traffic volumes. This has been completed for purposes of estimating the timing when an *MUTCD* warrant would potentially be satisfied.

Prior to installation of a traffic signal, the following from MUTCD Section 4C.01 would apply:

> *[..] before a traffic control signal is installed at a particular location, an engineering study of traffic conditions, pedestrian characteristics, and physical characteristics of the location shall be performed to determine whether installation of a traffic control signal is justified at that location.*

The following regarding projected/predictive warrants is per MUTCD Section 4C.01

> *At a location that is under development or construction or at a location where it is not possible to obtain a traffic count that would represent future traffic conditions, hourly volumes should be estimated as part of an engineering study for comparison with traffic signal warrants. Except for locations where the engineering study uses the satisfaction of Warrant 8 to justify a signal, a traffic control signal installed under projected conditions should have an engineering study done within 1 year of putting the signal into steady (stop-and-go) operation to determine if the signal is justified. If not justified, the signal should be taken out of steady (stop-and-go) operation or removed.*

Briargate Parkway/Vollmer Road

Table 3 shows the results of the analysis for the intersection of Briargate/Vollmer. 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. Four of the hours analyzed are projected to meet the criteria for a Four-Hour Vehicular-Volume Traffic Signal Warrant based on the intermediate-term total-traffic volumes. This analysis indicates that traffic-signal warrant(s) will likely not be met in the short term but may be met once Briargate Parkway is extended west to Black Forest Road.

Based on the three-year crash history data discussed above, this intersection does not currently meet the criteria for Warrant 7 Crash Experience.

Marksheffel Road/Vollmer Road

Table 4 shows the results of the analysis for the intersection of Marksheffel/Vollmer. Based on the projected short-term total traffic volumes, none of the hours analyzed are projected to meet the criteria for a Four-Hour Vehicular Volume Warrant and only six hours of the day are projected to meet the criteria for an Eight-Hour Vehicular-Volume Traffic-Signal Warrant. This analysis indicates that traffic-signal warrant(s) will likely **not** be met in the short-term.

Based on the three-year crash history data discussed above this intersection does not currently meet the criteria for Warrant 7 Crash Experience.

Marksheffel Road/Sterling Ranch Road

Table 5 shows the results of the analysis for the intersection of Marksheffel Road/Sterling Ranch Road. Based on the projected short-term total traffic volumes, only seven hours of the day are projected to meet the criteria for an Eight-Hour Vehicular-Volume Warrant, however, six hours of the day are projected to meet the criteria for a Four-Hour Vehicular-Volume Traffic-Signal Warrant. This analysis indicates that traffic-signal Warrant 2 has the potential to be satisfied in the short-term.

Based on the three-year crash history data discussed above this intersection does not currently meet the criteria for Warrant 7 Crash Experience.

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 total traffic scenarios for the morning and afternoon peak-hour periods using Synchro. The key area future stop-sign-controlled and modern-roundabout-controlled intersections have been analyzed based on the unsignalized-intersection analysis procedures from the *Highway Capacity Manual 6th Edition*. Figures 13b, 13c, 14, and 15b 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. As shown in Figure 13c, if this intersection were to be converted to traffic-signal control in the short-term, it is projected to operate at an overall LOS B during the peak hours.

As discussed in the Signal Warrant Analysis section above, a Four-Hour Vehicular Volume Traffic Signal Warrant is expected to be met based on the projected intermediate total traffic volumes. This intersection is projected to operate at LOS B during the peak hours, based on the intermediate-term total-traffic volumes, the lane geometry, and traffic control shown in Figure 14.

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 15a and the lane geometry shown in Figure 15b.

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 15a and the lane geometry shown in Figure 15b.

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. 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. As shown in Figure 13c, if this intersection were to be converted to traffic-signal control in the short-term, it is projected to operate at an overall LOS A during the peak hours.

By 2045, it was assumed that Marksheffel Road would be constructed west to Briargate Parkway and that the intersection of Marksheffel/Vollmer will be converted to traffic-signal control. The intersection of Marksheffel/Vollmer is projected to operate at an overall LOS C or better during

the peak hours as a signalized intersection, based on the projected 2045 total traffic volumes shown in Figure 15a and the lane geometry shown in Figure 15b.

Intersection #13: Marksheffel Road/Sterling Ranch Road

The final section of Marksheffel Road between Vollmer Road and Woodmen Road was recently opened. Based on the projected short-term total traffic volumes, the southbound left-turn movement 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 #104 Briargate Parkway/Sioux Falls Way

The intersection of Briargate/Sioux Falls is projected to operate at LOS B or better for all movements as a limited access stop-sign-controlled intersection, based on the projected short-term and 2045 total traffic volumes.

Intersection #309 Sterling Ranch Road/Vancouver Street

The intersection of Sterling Ranch/Vancouver Street is projected to operate at LOS C or better for all movements as a stop-sign-controlled intersection, based on the projected short-term and 2045 total traffic volumes.

Intersection #310 Sterling Ranch Road/Oshkosh Road

The intersection of Sterling Ranch/Oshkosh Road is projected to operate at LOS C or better for all movements as a stop-sign controlled intersection, based on the projected short-term and 2045 total traffic volumes.

ROADWAY FUNCTIONAL CLASSIFICATIONS AND LANEAGE

Figure 16 shows the recommended functional classifications for the Filing No. 6 subdivision streets, and adjacent collector/arterial roads. The figure also shows the number of through (travel) lanes for the streets in the study area.

RECOMMENDED IMPROVEMENTS

Intersection Improvements

Figures 13b, 13c, 14, and 15b show the intersection traffic control and lane schematic diagrams. The intersection diagrams indicate with arrows where exclusive auxiliary turn lanes should be provided.

Table 6 shows detailed **intersection** improvements summary. Improvements needed with Sterling Ranch Filing No. 6 have been noted as such. The recommended improvements are based on the short-term and 2045 total traffic volumes shown in Figures 13a and 15a and the criteria contained in the El Paso County *Engineering Criteria Manual* (*ECM*). The following auxiliary lanes will be required with the currently-proposed Sterling Ranch East Filing No. 6:

- A westbound left-turn lane on Briargate Parkway approaching Sterling Ranch Road. This lane should be 285 feet long plus a 180-foot taper.
- A westbound right-turn deceleration lane on Briargate Parkway approaching Sterling Ranch Road. This lane should be 235 feet long plus a 180-foot taper.
- A westbound right-turn deceleration lane on Briargate Parkway approaching Sioux Falls Way. This lane should be 235 feet long plus a 180-foot taper.
- A southbound left-turn lane on Sterling Ranch Road approaching Vancouver Street. A center painted median is part of the standard Urban Minor Collector cross section.
- A northbound right-turn deceleration lane on Sterling Ranch Road approaching Vancouver Street. This lane should be 155 feet long plus a 160-foot taper.

The following auxiliary lane is shown because it is part of the plat. However, the SRE Filing No. 6 traffic for this turning movement would represent a relatively small percentage of the 2045 total traffic volumes shown in Figures 15a. The threshold turning volume would not be reached in the short term with development of this subdivision.

- A northbound right-turn deceleration lane on Sterling Ranch Road approaching Oshkosh Road. This lane should be 155 feet long plus a 160-foot taper.

The following auxiliary lane would be needed based on the 2045 background and total traffic volumes shown in Figures 8a and 15a. SRE Filing No. 6 would add negligible, if any, traffic to the turning movements triggering the requirement for these lanes. However, these have been included for completeness and per EPC staff request.

A northbound-to-eastbound right-turn acceleration lane on Briargate Parkway at Sterling Ranch Road. This lane should be 580 feet long plus a 180-foot taper.

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 below for the site-generated estimate percent impact of Filing 6 contributing to the warrant threshold volumes. The nearest intersection – Briargate/Sterling Ranch Road is included, as are other offsite intersections along Vollmer Road and Marksheffel Road.

Roadway Segment Improvements

Table 7 is the **overall** list of Sterling Ranch/Sterling Ranch East area roadway-segment improvements. Please refer to Figure 17, 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).

Notes specific to **SRE Filing No. 6** have been added to Table 7 and Figure 3.

DEVIATION REQUESTS

A deviation to the criteria contained in *Land Development Code* (*LDC*) and the *El Paso County Engineering Criteria Manual* (*ECM*) to allow for the proposed right-in/right-out access to Briargate Parkway east of Sterling Ranch Road was approved with the Preliminary Plan (PCD File No. SF 2404).

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 8 shows the impact of Filing No. 6 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.

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 198 residential dwelling units would be $390,852. Note: This is based on the current rate, which is subject to change. El Paso County updates this rate periodically.

A road-fee credit agreement, development agreement, and Subdivision Improvements Agreement will be required to address developer's road-fee credits for construction of Vollmer Road. Additional credit agreements will be needed with each phase of construction to account for reimbursement of costs for the additional lanes and major intersection improvements.

CONCLUSIONS AND RECOMMENDATIONS

Trip Generation

- Sterling Ranch East Filing No. 6 is projected to generate about 1,800 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, which generally occurs for one hour between 6:30 and 8:30 a.m., about 37 vehicles would enter and 101 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 114 vehicles would enter and 70 vehicles would exit the site.

Level of Service

- The intersection of Briargate/Sterling Ranch is projected to operate at a satisfactory level of service as stop-sign-controlled intersections in the short-term future. By 2045, this intersection will likely need to be converted to traffic-signal control. As a signalized intersection, all movements are projected to operate at LOS D or better during the peak hours, based on the projected 2045 total traffic volumes.
- Some of the movements at the intersections of Briargate Parkway/Vollmer Road, Marksheffel Road/Vollmer Road and Marksheffel Road/Sterling Ranch Road 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 intersections of Sterling Ranch/Vancouver and Sterling Ranch/Oshkosh are projected to operate at a satisfactory level of service as stop-sign-controlled intersections.

Recommended Improvements

- Table 6 shows detailed **intersection** improvements needed with Sterling Ranch Filing No. 6. The recommended improvements are based on the short-term and 2045 total traffic volumes shown in Figures 13a and 15a and the criteria contained in the El Paso County *Engineering Criteria Manual* (*ECM*). The following auxiliary lanes will be required with the currently-proposed Sterling Ranch East Filing No. 6:
    - A northbound-to-eastbound right-turn acceleration lane on Briargate Parkway at Sterling Ranch Road. This lane should be 580 feet long plus a 180-foot taper.
    - A westbound left-turn lane on Briargate Parkway approaching Sterling Ranch Road. This lane should be 285 feet long plus a 180-foot taper.
    - A westbound right-turn deceleration lane on Briargate Parkway approaching Sterling Ranch Road. This lane should be 235 feet long plus a 180-foot taper.
    - A westbound right-turn deceleration lane on Briargate Parkway approaching Sterling Ranch Road. This lane should be 235 feet long plus a 180-foot taper.
    - A westbound right-turn deceleration lane on Briargate Parkway approaching Sioux Falls Way. This lane should be 235 feet long plus a 180-foot taper.
    - A southbound left-turn lane on Sterling Ranch Road approaching Vancouver Street. A center painted median is part of the standard Urban Minor Collector cross section.
    - A northbound right-turn deceleration lane on Sterling Ranch Road approaching Vancouver Street. This lane should be 155 feet long plus a 160-foot taper.
    - A northbound right-turn deceleration lane on Sterling Ranch Road approaching Oshkosh Drive. This lane should be 155 feet long plus a 160-foot taper.
- Roadway segment improvements specific to **SRE Filing No. 6** are detailed in Table 6 and Figure 3.

Escrow Analysis

Table 8 shows the impact of Sterling Ranch East Filing No. 6 (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/Vollmer Road (#4), 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.

* * * * *

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

Enclosures: Tables 2-8
Figures 1-17
Traffic Count Reports
Level of Service Reports
Appendix Table 1
MTCP Maps
Crash History

Tables 2-8

TRANSPORTATION
CONSULTANTS, INC.

Table 2: Trip Generation Estimate

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	198	DU	9.09	0.19	0.51	0.58	0.35	1,800	37	101	114	70
FOR REFERENCE/ COMPARISON/CONFORMANCE CHECK													
Trip Generation Estimate For the Same Parcel (TAZ 30) From the *Sterling Ranch Sketch Plan Amendment #4 Master Traffic Impact Study* (SKP 241) November 18, 2024													
210	Single-Family Detached Housing	198	DU	9.43	0.18	0.53	0.59	0.35	1,867	35	104	117	69
	Change (Decrease)	**0**	**DU**						**-67**	**2**	**-3**	**-3**	**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
Briargate/Vollmer Road

Hour	Short-Term Background Traffic		Sterling Ranch East Fil 6 Generated Traffic		Short-Term Total Traffic		Warrant Analysis[1]											
							Warrant 1: Eight-Hour Vehicular-Volume Evaluation								Warrant 2: Four-Hour Vehicular-Volume Evaluation			
							Warrant Thresholds				Warrant Threshold Met?				Short-Term Background		Short-Term Total	
											Short-Term Background		Short-Term Total					
	Major[2] Vollmer	Minor[3] WB Briargate	Major Vollmer	Minor Marksheffel	Major Vollmer	Minor WB Briargate	Condition A		Condition B		Condition A	Condition B	Condition A	Condition B	Warrant Threshold Minor Minimum	Warrant Threshold Met? WB	Warrant Threshold Minor Minimum	Warrant Threshold Met? WB
							Major	Minor	Major	Minor								
Short-Term Traffic[4]																		
12-1 AM	35	4	4	1	39	5	600	150	900	75	No	No	No	No	Low Volume	No	Low Volume	No
1-2 AM	14	4	2	1	16	5	600	150	900	75	No	No	No	No	Low Volume	No	Low Volume	No
2-3 AM	10	0	2	0	12	0	600	150	900	75	No	No	No	No	Low Volume	No	Low Volume	No
3-4 AM	21	4	2	1	23	5	600	150	900	75	No	No	No	No	Low Volume	No	Low Volume	No
4-5 AM	40	15	2	3	42	18	600	150	900	75	No	No	No	No	Low Volume	No	Low Volume	No
5-6 AM	90	38	4	7	94	45	600	150	900	75	No	No	No	No	Low Volume	No	Low Volume	No
6-7 AM	350	112	15	21	365	133	600	150	900	75	No	No	No	No	Low Volume	No	Low Volume	No
7-8 AM	716	194	28	36	744	230	600	150	900	75	Yes	No	Yes	No	242	No	228	Yes
8-9 AM	644	164	32	30	676	194	600	150	900	75	Yes	No	Yes	No	272	No	260	No
9-10 AM	527	103	28	19	555	122	600	150	900	75	No	No	No	No	327	No	313	No
10-11 AM	535	103	37	19	572	122	600	150	900	75	No	No	No	No	323	No	304	No
11-12 PM	671	97	47	18	718	115	600	150	900	75	No	No	No	No	262	No	241	No
12-1 PM	626	106	45	19	671	125	600	150	900	75	No	No	No	No	280	No	262	No
1-2 PM	647	112	48	20	695	132	600	150	900	75	No	No	No	No	271	No	252	No
2-3 PM	736	117	57	21	793	138	600	150	900	75	No	No	No	No	232	No	204	No
3-4 PM	837	114	69	20	906	134	600	150	900	75	No	No	No	Yes	191	No	174	No
4-5 PM	956	142	85	25	1041	167	600	150	900	75	No	Yes	Yes	Yes	161	No	138	Yes
5-6 PM	915	140	84	25	999	165	600	150	900	75	No	Yes	Yes	Yes	171	No	150	Yes
6-7 PM	592	112	69	20	661	132	600	150	900	75	No	No	No	No	294	No	266	No
7-8 PM	497	81	50	14	547	95	600	150	900	75	No	No	No	No	342	No	317	No
8-9 PM	414	59	51	10	465	69	600	150	900	75	No	No	No	No	Low Volume	No	358	No
9-10 PM	276	45	37	8	313	53	600	150	900	75	No	No	No	No	Low Volume	No	Low Volume	No
10-11 PM	143	21	18	4	161	25	600	150	900	75	No	No	No	No	Low Volume	No	Low Volume	No
11-12 AM	66	13	10	2	76	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
Intermediate-Term Traffic																		
12-1 AM	37	5	3	1	40	6	600	150	900	75	No	No	No	No	Low Volume	No	Low Volume	No
1-2 AM	16	5	1	1	17	6	600	150	900	75	No	No	No	No	Low Volume	No	Low Volume	No
2-3 AM	12	0	1	0	13	0	600	150	900	75	No	No	No	No	Low Volume	No	Low Volume	No
3-4 AM	23	5	1	1	24	6	600	150	900	75	No	No	No	No	Low Volume	No	Low Volume	No
4-5 AM	41	22	2	4	43	26	600	150	900	75	No	No	No	No	Low Volume	No	Low Volume	No
5-6 AM	92	54	3	9	95	63	600	150	900	75	No	No	No	No	Low Volume	No	Low Volume	No
6-7 AM	359	160	10	27	369	187	600	150	900	75	No	No	No	No	Low Volume	No	Low Volume	No
7-8 AM	736	277	18	46	754	323	600	150	900	75	Yes	No	Yes	No	232	Yes	223	Yes
8-9 AM	664	233	21	39	685	272	600	150	900	75	Yes	No	Yes	No	264	No	256	Yes
9-10 AM	544	146	18	25	562	171	600	150	900	75	No	No	No	No	318	No	309	No
10-11 AM	556	146	23	25	579	171	600	150	900	75	No	No	No	No	312	No	301	No
11-12 PM	697	139	31	23	728	162	600	150	900	75	No	No	Yes	No	251	No	236	No
1-2 PM	626	106	30	23	656	129	600	150	900	75	No	No	No	No	280	No	268	No
2-3 PM	647	112	33	25	680	137	600	150	900	75	No	No	No	No	271	No	258	No
3-4 PM	736	117	38	27	774	144	600	150	900	75	No	No	No	No	232	No	213	No
4-5 PM	837	114	46	25	883	139	600	150	900	75	No	No	No	No	191	No	179	No
5-6 PM	956	142	57	32	1013	174	600	150	900	75	No	Yes	Yes	Yes	161	No	146	Yes
6-7 PM	915	140	56	32	971	172	600	150	900	75	No	Yes	Yes	Yes	171	No	157	Yes
7-8 PM	592	112	46	25	638	137	600	150	900	75	No	No	No	No	294	No	275	No
8-9 PM	497	81	34	18	531	99	600	150	900	75	No	No	No	No	342	No	325	No
9-10 PM	414	59	34	13	448	72	600	150	900	75	No	No	No	No	Low Volume	No	366	No
10-11 PM	276	45	24	10	300	55	600	150	900	75	No	No	No	No	Low Volume	No	Low Volume	No
11-12 AM	143	21	12	5	155	26	600	150	900	75	No	No	No	No	Low Volume	No	Low Volume	No
0:00	66	13	7	3	73	16	600	150	900	75	No	No	No	No	Low Volume	No	Low Volume	No
							Numbers of Hours the Warrant Thresholds Are Met				2	2	5	2		1		4
											Warrant Met?	No	No			No		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 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 turn and through movements 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. *Oct-26*

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 6 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	48	3	4	0	52	3	600	150	900	75	No	No	No	No	Low Volume	No	Low Volume	No
1-2 AM	20	3	2	0	22	3	600	150	900	75	No	No	No	No	Low Volume	No	Low Volume	No
2-3 AM	15	0	2	0	17	0	600	150	900	75	No	No	No	No	Low Volume	No	Low Volume	No
3-4 AM	28	3	2	0	30	3	600	150	900	75	No	No	No	No	Low Volume	No	Low Volume	No
4-5 AM	54	12	2	0	56	12	600	150	900	75	No	No	No	No	Low Volume	No	Low Volume	No
5-6 AM	123	29	4	0	127	29	600	150	900	75	No	No	No	No	Low Volume	No	Low Volume	No
6-7 AM	474	86	13	0	487	86	600	150	900	75	No	No	No	No	353	No	347	No
7-8 AM	974	149	25	0	999	149	600	150	900	75	No	Yes	No	Yes	157	No	150	No
8-9 AM	873	126	29	0	902	126	600	150	900	75	No	No	No	Yes	182	No	175	No
9-10 AM	714	79	25	0	739	79	600	150	900	75	No	No	No	No	243	No	231	No
10-11 AM	725	79	33	0	758	79	600	150	900	75	No	No	No	No	238	No	221	No
11-12 PM	909	75	42	0	951	75	600	150	900	75	No	No	No	No	173	No	162	No
12-1 PM	742	75	40	0	782	75	600	150	900	75	No	No	No	No	229	No	209	No
1-2 PM	758	79	43	0	801	79	600	150	900	75	No	No	No	No	221	No	200	No
2-3 PM	856	83	51	0	907	83	600	150	900	75	No	No	No	Yes	186	No	173	No
3-4 PM	958	81	62	0	1020	81	600	150	900	75	No	Yes	No	Yes	161	No	144	No
4-5 PM	1074	101	76	0	1150	101	600	150	900	75	No	Yes	No	Yes	128	No	110	No
5-6 PM	1022	100	75	0	1097	100	600	150	900	75	No	Yes	No	Yes	143	No	121	No
6-7 PM	610	79	62	0	672	79	600	150	900	75	No	No	No	No	286	No	261	No
7-8 PM	537	58	45	0	582	58	600	150	900	75	No	No	No	No	322	No	299	No
8-9 PM	417	42	46	0	463	42	600	150	900	75	No	No	No	No	Low Volume	No	359	No
9-10 PM	269	32	33	0	302	32	600	150	900	75	No	No	No	No	Low Volume	No	Low Volume	No
10-11 PM	143	15	16	0	159	15	600	150	900	75	No	No	No	No	Low Volume	No	Low Volume	No
11-12 AM	60	9	9	0	69	9	600	150	900	75	No	No	No	No	Low Volume	No	Low Volume	No
							Numbers of Hours the Warrant Thresholds Are Met				0	4	0	6		0		0
							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 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.

Oct-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. 6 Generated Traffic: Major Marksheffel	Sterling Ranch Filing No. 6 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	53	12	1	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	38	48	1	4	39	52	600	150	900	75	No	No	No	No	Low Volume	No	Low Volume	No
5-6 AM	70	120	1	11	71	131	600	150	900	75	No	No	No	No	Low Volume	No	Low Volume	No
6-7 AM	240	353	5	33	245	386	600	150	900	75	No	No	No	No	Low Volume	No	Low Volume	No
7-8 AM	482	610	9	57	491	667	600	150	900	75	No	No	No	No	Low Volume	No	Low Volume	No
8-9 AM	503	514	10	48	513	562	600	150	900	75	No	No	No	No	Low Volume	No	334	Yes
9-10 AM	425	323	9	30	434	353	600	150	900	75	No	No	No	No	Low Volume	No	Low Volume	No
10-11 AM	516	323	12	30	528	353	600	150	900	75	No	No	No	No	Low Volume	No	Low Volume	No
11-12 PM	656	305	15	29	671	334	600	150	900	75	Yes	No	Yes	No	268	Yes	262	Yes
12-1 PM	547	317	15	29	562	346	600	150	900	75	No	No	No	No	317	Yes	309	Yes
1-2 PM	586	334	16	31	602	365	600	150	900	75	No	No	Yes	No	Low Volume	No	289	Yes
2-3 PM	678	351	19	32	697	383	600	150	900	75	Yes	No	Yes	No	259	Yes	251	Yes
3-4 PM	806	340	23	31	829	371	600	150	900	75	Yes	No	Yes	No	199	Yes	193	Yes
4-5 PM	976	425	28	39	1004	464	600	150	900	75	Yes	Yes	Yes	Yes	156	Yes	149	Yes
5-6 PM	952	419	27	38	979	457	600	150	900	75	Yes	Yes	Yes	Yes	162	Yes	155	Yes
6-7 PM	748	334	23	31	771	365	600	150	900	75	Yes	No	Yes	No	Low Volume	No	215	Yes
7-8 PM	558	244	17	22	575	266	600	150	900	75	No	No	No	No	Low Volume	No	Low Volume	No
8-9 PM	541	176	17	16	558	192	600	150	900	75	No	No	No	No	Low Volume	No	Low Volume	No
9-10 PM	382	136	12	12	394	148	600	150	900	75	No	No	No	No	Low Volume	No	Low Volume	No
10-11 PM	188	62	6	6	194	68	600	150	900	75	No	No	No	No	Low Volume	No	Low Volume	No
11-12 AM	107	40	3	4	110	44	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			Yes		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.

Table 6
Sterling Ranch East Filing No. 6
Intersection Improvements

Item #	Improvement	Trigger	Timing	Responsibility
		4) Briargate Parkway/Vollmer Road		
1	Signalization of the intersection	Once warrants are met. The decision on timing of traffic signal installation rests with El Paso County Public Works.	Not Anticipated With Sterling Ranch Filing No. 6	This intersection may be an eligible intersection under the fee impact program
		5) Briargate Parkway/Sterling Ranch Road		
2	Construct an eastbound left-turn lane on Briargate Parkway approaching Sterling Ranch Road. The lane should be 435' long plus a 200' taper.	eastbound left-turn volume > 10 vph	**COMPLETE**	Sterling Ranch
3	Construct an eastbound right-turn deceleration lane on Briargate Parkway approaching Sterling Ranch Road. The lane should be 235' long plus a 200' taper.	eastbound right-turn volume > 25 vph	**COMPLETE**	Sterling Ranch
4	Construct a northbound to eastbound right-turn acceleration lane on Briargate Parkway at Sterling Ranch Road. The lane should be 580' long plus a 180' taper.	northbound right-turn volume > 50 vph	Long-Term, but to be installed with Sterling Ranch East Filing No. 6	Sterling Ranch
5	Construct a westbound left-turn lane on Briargate Parkway approaching Sterling Ranch Road. The lane should be 285' long plus a 200' taper.	westbound left-turn volume > 10 vph	With Sterling Ranch East Filing No. 6	Sterling Ranch
6	Construct an westbound right-turn deceleration lane on Briargate Parkway approaching Sterling Ranch Road. The lane should be 235' long plus a 200' taper.	westbound right-turn volume > 25 vph	With Sterling Ranch East Filing No. 6	Sterling Ranch
7	Construct a southbound to westbound right-turn acceleration lane on Briargate Parkway at Sterling Ranch Road. The lane should be 580' long plus a 180' taper.	southbound right-turn volume > 50 vph	**COMPLETE**	Sterling Ranch
7	Provide interim stop-sign control with a stop sign on the eastbound approach	with construction of the intersection	**COMPLETE**	Sterling Ranch
8	Signalization of the intersection	If and when warrants are met. The decision on timing of traffic signal installation rests with El Paso County Public Works.	Not Anticipated With Sterling Ranch Filing No. 6	This intersection may be an eligible intersection under the fee impact program
		12) Marksheffel Road/Vollmer Road		
9	Signalization of the intersection	Once warrants are met. The decision on timing of traffic signal installation rests with The City of Colorado Springs.	Not Anticipated With Sterling Ranch Filing No. 6	This intersection may be an eligible intersection under the fee impact program
		13) Marksheffel Road/Sterling Ranch Road		
10	Signalization of the intersection	Once warrants are met. The decision on timing of traffic signal installation rests with The City of Colorado Springs.	A Four-Hour Vehicular Volume Traffic Signal Warrant is Anticipated to be met with Sterling Ranch East Filing No. 6	SRMD#3
		104) Briargate Parkway/Sioux Falls Way		
11	Construct an westbound right-turn deceleration lane on Briargate Parkway approaching Sioux Falls Way. The lane should be 235' long plus a 200' taper.	westbound right-turn volume > 25 vph	With the construction of Briargate Parkway east of the access	Sterling Ranch
		309) Sterling Ranch Road/Vancouver Street		
12	Construct a southbound left-turn lane on Sterling Ranch Road approaching Vancouver Street. The lane should be 205' long plus a 160' taper.	southbound left-turn volume > 25 vph	A center painter median is part of the standard Urban Minor Collector cross section	Sterling Ranch
13	Construct a northbound right-turn deceleration lane on Sterling Ranch Road approaching Vancouver Street. The lane should be 155' long plus a 160' taper.	northboundbound right-turn volume > 50 vph	With Sterling Ranch East Filing 6	Sterling Ranch
		310) Sterling Ranch Road/Oshkosh Road		
14	Construct a southbound left-turn lane on Sterling Ranch Road approaching Oshkosh Road. The lane should be 305' long plus a 160' taper.	southbound left-turn volume > 25 vph	With the construction of Sterling Ranch Road north of Banning Lewis Parkway	Sterling Ranch
15	Construct a northbound right-turn deceleration lane on Sterling Ranch Road approaching Oshkosh Road. The lane should be 155' long plus a 160' taper.	northboundbound right-turn volume > 50 vph	Long-Term, but to be installed with the adjacent	Sterling Ranch

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

Table 7
Roadway Segment Improvements
Sterling Ranch East Filing No. 6 Rezone and Preliminary Plat
(Page 1 of 2)

Segment ID[1] (See Figure 17 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	**Updated September 2024: Complete**	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)	16925	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.	**Updated September 2024: Complete**	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	**Updated September 2024: Complete**	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	**Updated September 2024: Complete**	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	**Updated September 2024: Complete**	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 17

(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 7
Roadway Segment Improvements
Sterling Ranch East Filing No. 6 Rezone and Preliminary Plat
(Page 2 of 2)

Segment ID[(1)] (See Figure 17 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	14,430	Sterling Ranch
SR2	Construct Sterling Ranch Road as an Urban Major Collector from Dines Boulevard to Briargate Parkway	**Short-Term - with SRE Preliminary Plan 1**	20,000	9,760	Sterling Ranch
SR3	Construct Sterling Ranch Road as an Urban Minor Collector from Briargate Parkway to Vancouver Street	**Short-Term - with SRE Preliminary Plan 1**	10,000	8,075	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	23,000	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**	To be completed **in 2024**	40,000	28,180	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	24,190	Sterling Ranch
B2	Construct Briargate Parkway **(full section)** as a 4-Lane Principal Arterial between Wheatland Drive and Sterling Ranch Road	**Updated September 2024: In Progress Anticipated Completion Fall 2024**	40,000	25,220	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	21,930	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 17

(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 8: Traffic Signal Escrow Calculations

SRE Filing No. 6

#4 Briargate Parkway/Vollmer Road

AM Peak Hour

	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	Minor Approach Volume[1]		LT	TH	RT	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	%		
2045 Background Traffic	153	139	94		0	107	310	139		0	68	828	153	238	1,016	79					
Long-Term Sterling Ranch East Filing No. 6	0	0	6	0%	0	0	0	0	0%	0	0	4	0	11	17	1					
Site-Generated Traffic																					
Total	**153**	**139**	**100**		**0**	**107**	**310**	**139**		**0**	**68**	**828**	**153**	**238**	**1,016**	**79**					

PM Peak Hour

2045 Background Traffic	291	414	239		0	89	211	118		0	227	865	176	176	707	69					
Long-Term Sterling Ranch East Filing No. 6	0	0	23	0%	0	2	0	0	0%	0	0	22	0	9	13	1					
Site-Generated Traffic																					
Total	**291**	**414**	**262**		**0**	**91**	**211**	**118**		**0**	**227**	**879**	**176**	**187**	**720**	**69**					

AM Peak Hour + PM Peak Hour

2045 Background Traffic	444	554	333		0	196	521	257		0	295	1,470	329	395	1,705	143					
Long-Term Sterling Ranch East Filing No. 6	0	0	29	0%	0	2	0	0	0%	0	0	26	0	20	30	2					
Site-Generated Traffic																					
Total	**444**	**554**	**362**		**0**	**198**	**521**	**257**		**0**	**295**	**1,496**	**329**	**415**	**1,735**	**145**					

																	1,722	39.8%			
																	2	0.1%	$650,000	$762	$949,238
																	1,797				

#5 Briargate Parkway/Sterling Ranch Road

AM Peak Hour

2045 Background Traffic	241	91	123		0	42	606	140		0	45	805	135	108	912	0					
Long-Term Sterling Ranch East Filing No. 6	0	13	0	0%	0	0	18	6	0%	0	11	0	0	16	26	1					
Site-Generated Traffic																					
Total	**241**	**104**	**123**		**0**	**47**	**623**	**146**		**0**	**56**	**805**	**135**	**140**	**938**	**10**					

PM Peak Hour

2045 Background Traffic	140	92	84		0	33	51	101		0	215	802	134	144	812	32					
Long-Term Sterling Ranch East Filing No. 6	6	22	0	0%	0	4	8	5	0%	0	47	0	0	10	18	7					
Site-Generated Traffic																					
Total	**146**	**114**	**84**		**0**	**37**	**59**	**106**		**0**	**262**	**802**	**134**	**154**	**830**	**39**					

AM Peak Hour + PM Peak Hour

2045 Background Traffic	387	184	207		0	75	656	241		0	260	1,607	269	408	1,724	61					
Long-Term Sterling Ranch East Filing No. 6	0	34	0	0%	0	0	26	11	0%	0	58	0	0	26	44	8					
Site-Generated Traffic																					
Total	**387**	**218**	**207**		**0**	**84**	**682**	**252**		**0**	**318**	**1,607**	**269**	**434**	**1,768**	**69**					

																	822	46.1%			
																	69	7.9%	$650,000	$51,493	$596,507
																	871				

#12 Marksheffel Road/Research Parkway/Vollmer Road[2]

AM Peak Hour

2045 Background Traffic	108	240	104		53	121	897	135		68	68	832	42	102	895	63					
Long-Term Sterling Ranch East Filing No. 6	0	6	0	50%	0	0	0	11	50%	0	0	1	0	0	4	0					
Site-Generated Traffic																					
Total	**108**	**246**	**104**		**53**	**121**	**897**	**135**		**68**	**68**	**833**	**42**	**102**	**897**	**63**					

PM Peak Hour

2045 Background Traffic	169	719	176		88	126	972	196		96	136	909	89	187	997	139					
Long-Term Sterling Ranch East Filing No. 6	0	0	0	50%	0	0	0	0	50%	0	0	6	0	0	3	0					
Site-Generated Traffic																					
Total	**169**	**719**	**176**		**88**	**126**	**991**	**196**		**96**	**136**	**912**	**89**	**187**	**1,000**	**139**					

AM Peak Hour + PM Peak Hour

2045 Background Traffic	277	887	280		140	247	938	331		166	204	1,737	131	289	1,892	202					
Long-Term Sterling Ranch East Filing No. 6	0	29	0	50%	0	0	20	0	50%	0	0	7	0	6	7	0					
Site-Generated Traffic																					
Total	**277**	**1,016**	**280**		**140**	**247**	**958**	**331**		**166**	**204**	**1,744**	**131**	**369**	**1,897**	**212**					

																	7,215	99.1%			
																			$650,000	$5,581	$644,419
																	7,339				

#13 Marksheffel Road/Sterling Ranch Road[2]

AM Peak Hour

Short-Term Background Traffic	10	3	0		0	501	0	142		71	74	59	4	8	60	235					
Short-Term Sterling Ranch East Filing No. 6	0	0	0	100%	0	68	0	0	50%	0	0	0	0	0	0	0					
Site-Generated Traffic																					
Short-Term Total	**10**	**3**	**0**		**0**	**669**	**0**	**142**		**71**	**74**	**59**	**4**	**8**	**60**	**248**					

2045 Background Traffic	7	2	7		7	488	8	364		152	140	884	12	63	807	170					
Long-Term Sterling Ranch East Filing No. 6	0	0	0	100%	0	15	1	4	50%	2	2	0	0	0	0	2					
Site-Generated Traffic																					
Total	**7**	**2**	**7**		**7**	**488**	**9**	**368**		**154**	**142**	**884**	**12**	**63**	**807**	**172**					

PM Peak Hour

Short-Term Background Traffic	3	11	10		10	410	10	95		48	114	69	6	6	94	637					
Short-Term Sterling Ranch East Filing No. 6	0	0	0	100%	0	39	0	0	50%	0	0	0	0	0	0	28					
Site-Generated Traffic																					
Short-Term Total	**3**	**11**	**10**		**10**	**457**	**10**	**95**		**48**	**114**	**69**	**6**	**6**	**94**	**749**					

2045 Background Traffic	18	4	24		24	307	15	177		89	269	845	6	62	838	539					
Long-Term Sterling Ranch East Filing No. 6	0	0	0	100%	0	11	1	3	50%	2	6	0	0	0	0	11					
Site-Generated Traffic																					
Total	**18**	**4**	**24**		**24**	**328**	**16**	**180**		**91**	**295**	**845**	**6**	**62**	**838**	**549**					

AM Peak Hour + PM Peak Hour

Short-Term Background Traffic	13	14	10		10	1,210	10	237		119	188	1,553	10	14	154	911					
Short-Term Sterling Ranch East Filing No. 6	0	0	0	100%	0	97	0	0	50%	0	0	0	0	0	0	28					
Site-Generated Traffic																					
Short-Term Total	**13**	**14**	**10**		**10**	**1,116**	**10**	**237**		**119**	**188**	**1,553**	**10**	**14**	**154**	**939**					

2045 Background Traffic	25	6	31		31	818	23	481		241	429	1,829	18	125	1,845	709					
Long-Term Sterling Ranch East Filing No. 6	0	0	0	100%	0	26	2	7	50%	4	8	0	0	0	0	13					
Site-Generated Traffic																					
Total	**25**	**6**	**31**		**31**	**826**	**25**	**488**		**245**	**437**	**1,829**	**18**	**125**	**1,845**	**722**					

																	3,672	50.1%			
																	53	0.8%	$650,000	$5,811	$644,189
																	3,725				

Notes:

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

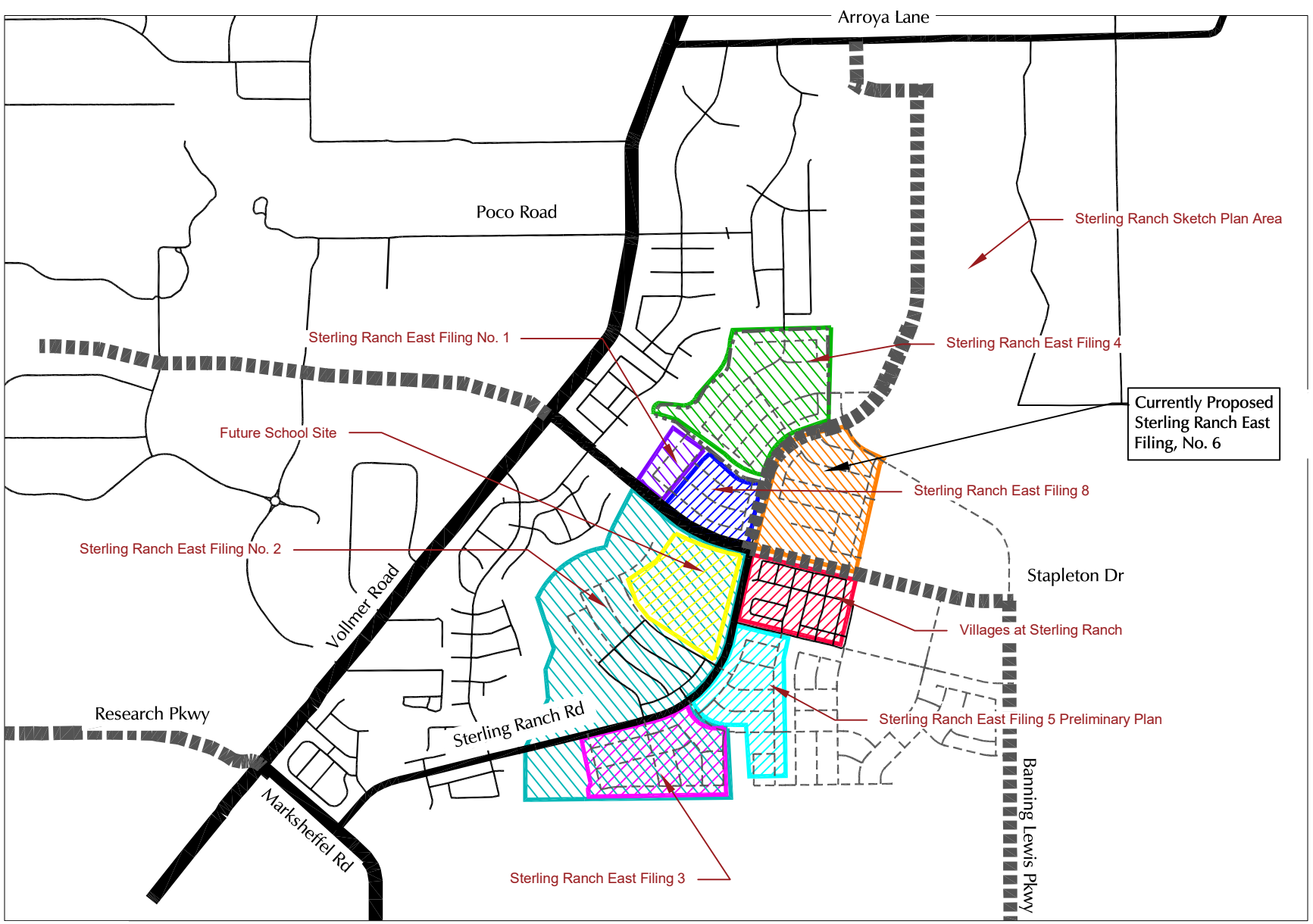
(2) Intersections No. 12 and 13 are City of Colorado Springs intersections. The City may modify this formula (or use their own formula) for signal participation based on City-standard methodology.

Source: LSC Transportation Consultants, Inc.

10/16/2026

Figures 1-17

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TRANSPORTATION CONSULTANTS, INC.

Figure 1

Vicinity Map

Sterling Ranch East Filing No. 6 (LSC #S244252)

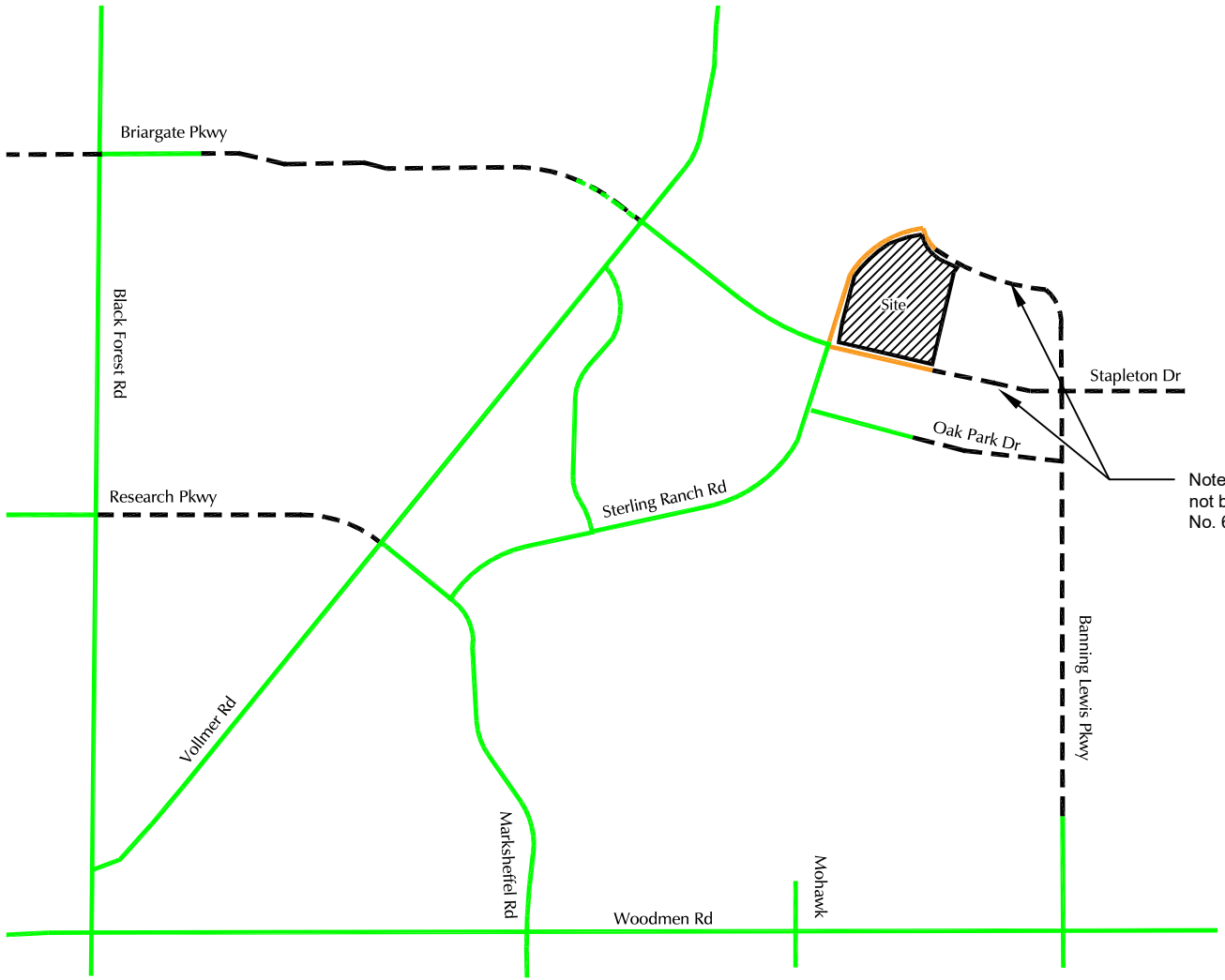


TRANSPORTATION CONSULTANTS, INC.

Figure 2

Site Plan

Sterling Ranch East Filing No. 6 (LSC #S244252)



TRANSPORTATION CONSULTANTS, INC.

Roadway connection planned with Sterling Ranch East Fil. No. 6
Existing Roadway
Future Roadway

Figure 3

Short-Term Roadway Connections

Sterling Ranch East Filing No. 6 (LSC #S244252)

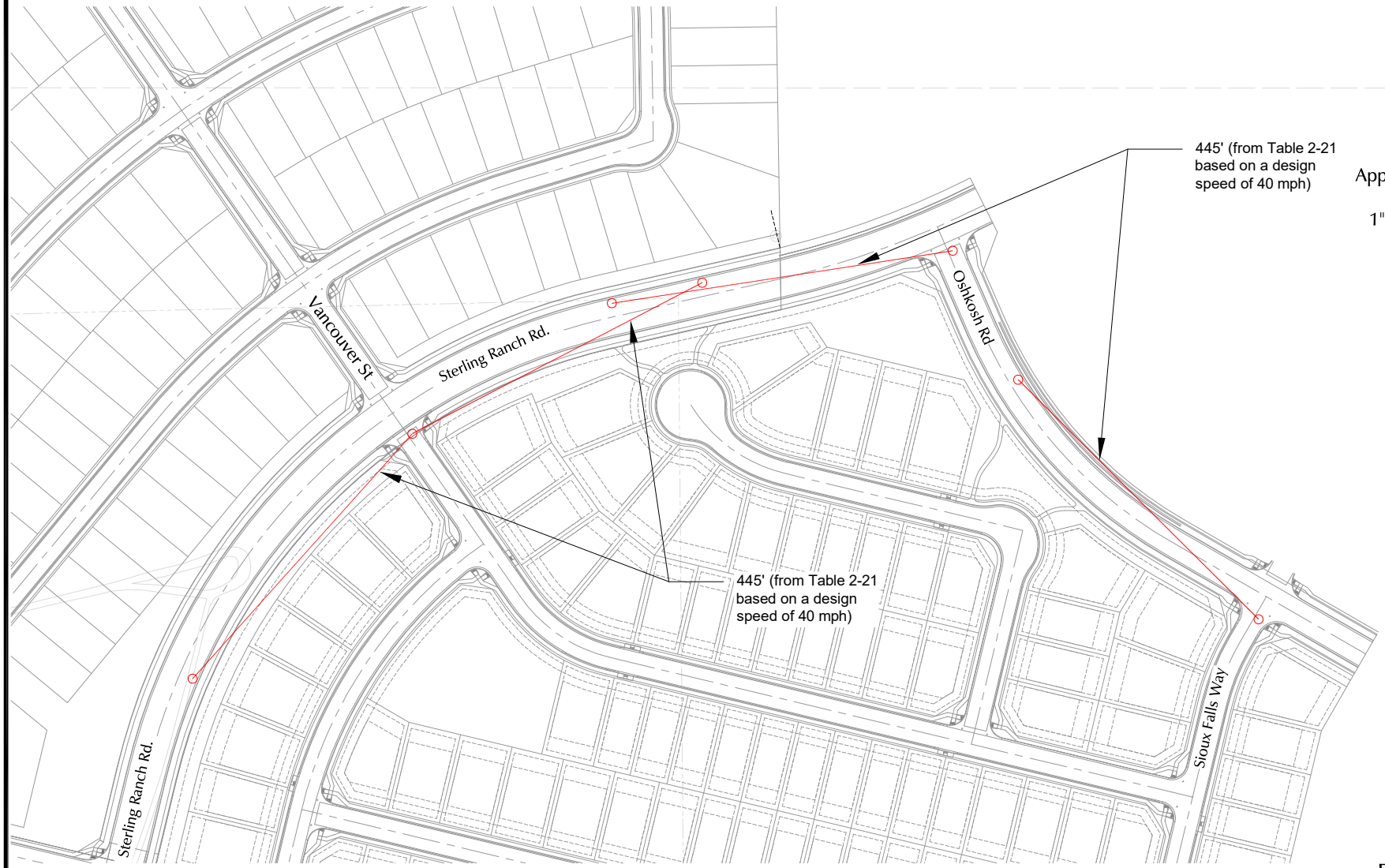


Figure 4a

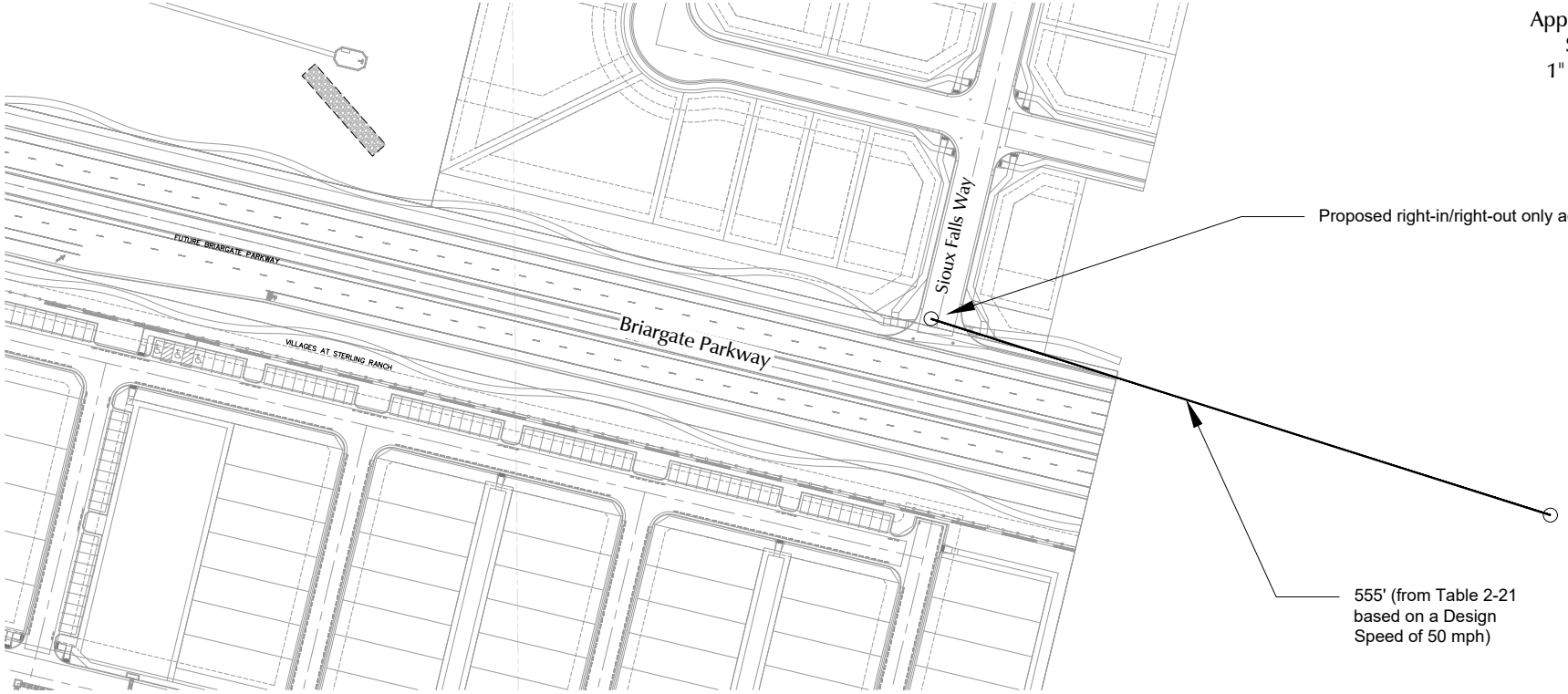
Sight Distance Analysis- Collector Intersections

Sterling Ranch East Filing No. 6 (LSC #S244252)

LEGEND:

ECM Required Intersection Sight Distance

LSC TRANSPORTATION CONSULTANTS, INC.



LEGEND:

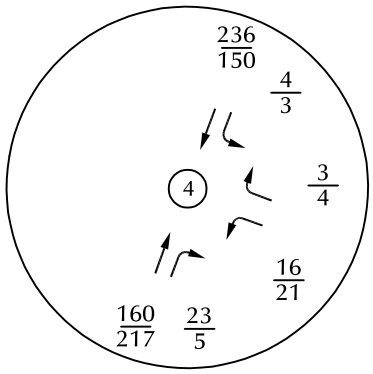
— ECM Required Intersection Sight Distance

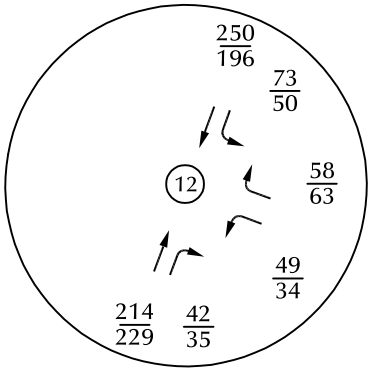
Figure 4b

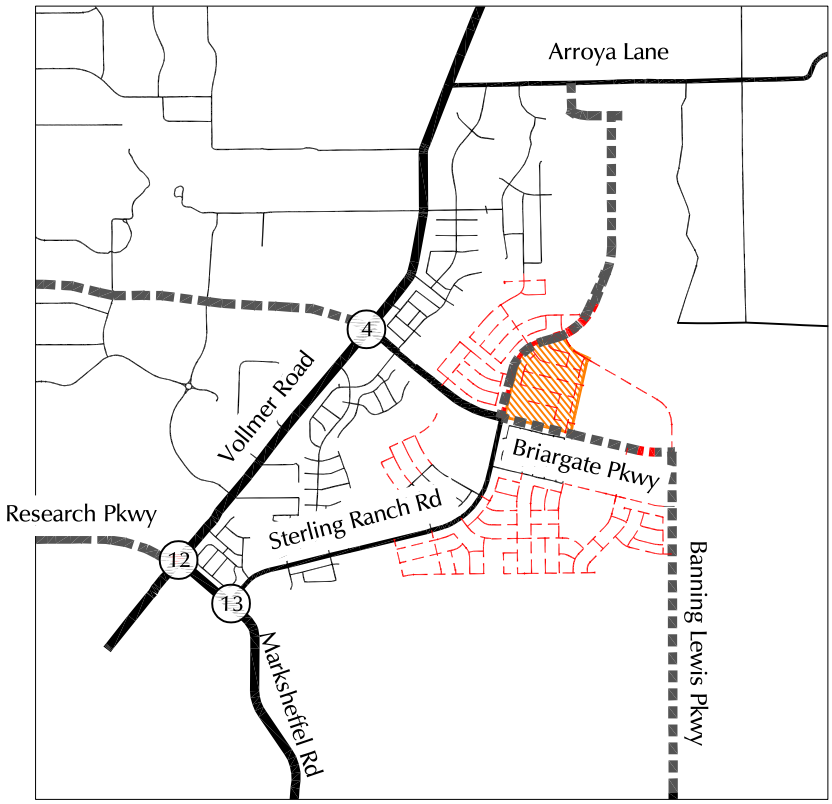
Sight Distance Analysis - Briargate Pkwy
Right-in/Right-out Only Access (Sioux Falls Way)

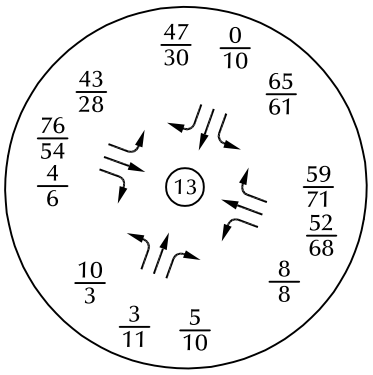
Sterling Ranch East Filing No. 6 (LSC #S244252)

TRANSPORTATION CONSULTANTS, INC.









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

TRANSPORTATION CONSULTANTS, INC.

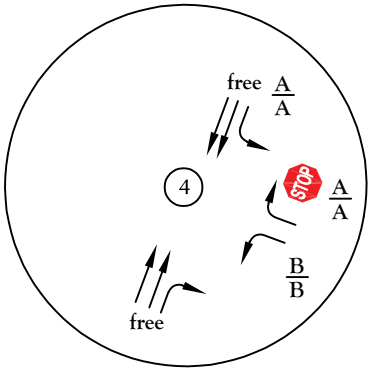
Figure 5a

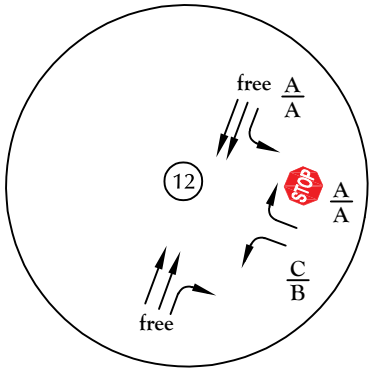
Existing Peak-Hour Traffic**

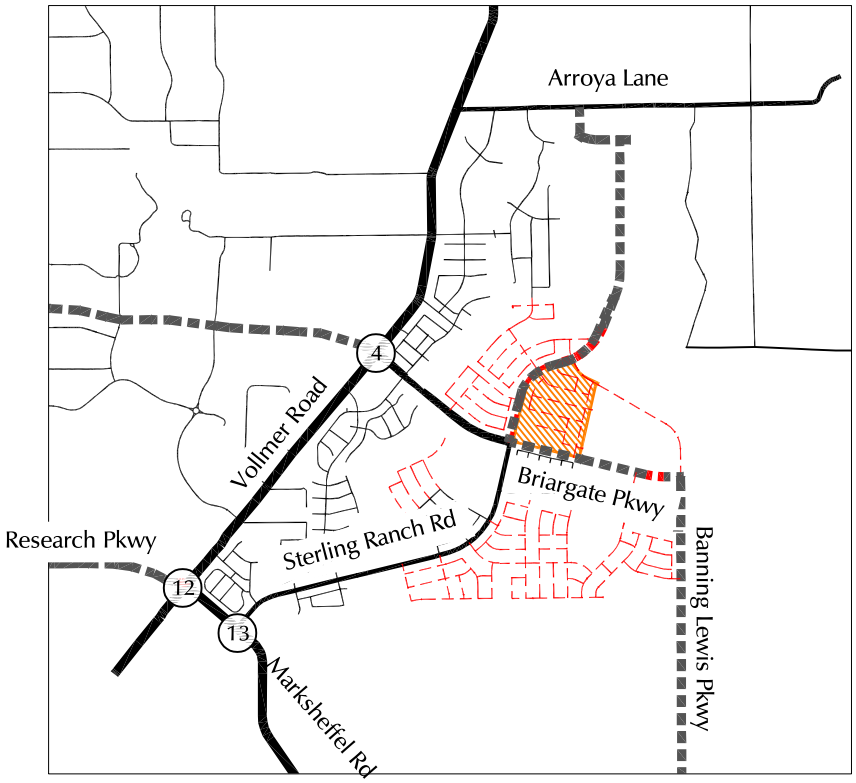
Sterling Ranch East Filing No. 6 (LSC #S244252)

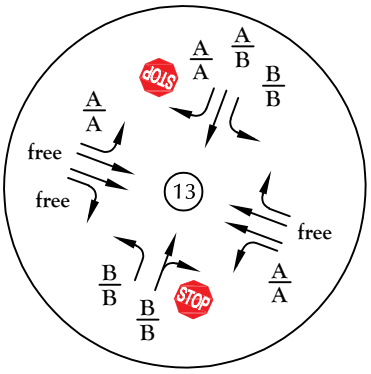


1"=4,000'
scale









*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

TRANSPORTATION CONSULTANTS, INC.

Figure 5b

2025 Existing Traffic, Lane Geometry, Traffic Control, and LOS*

Sterling Ranch East Filing No. 6 (LSC #S244252)

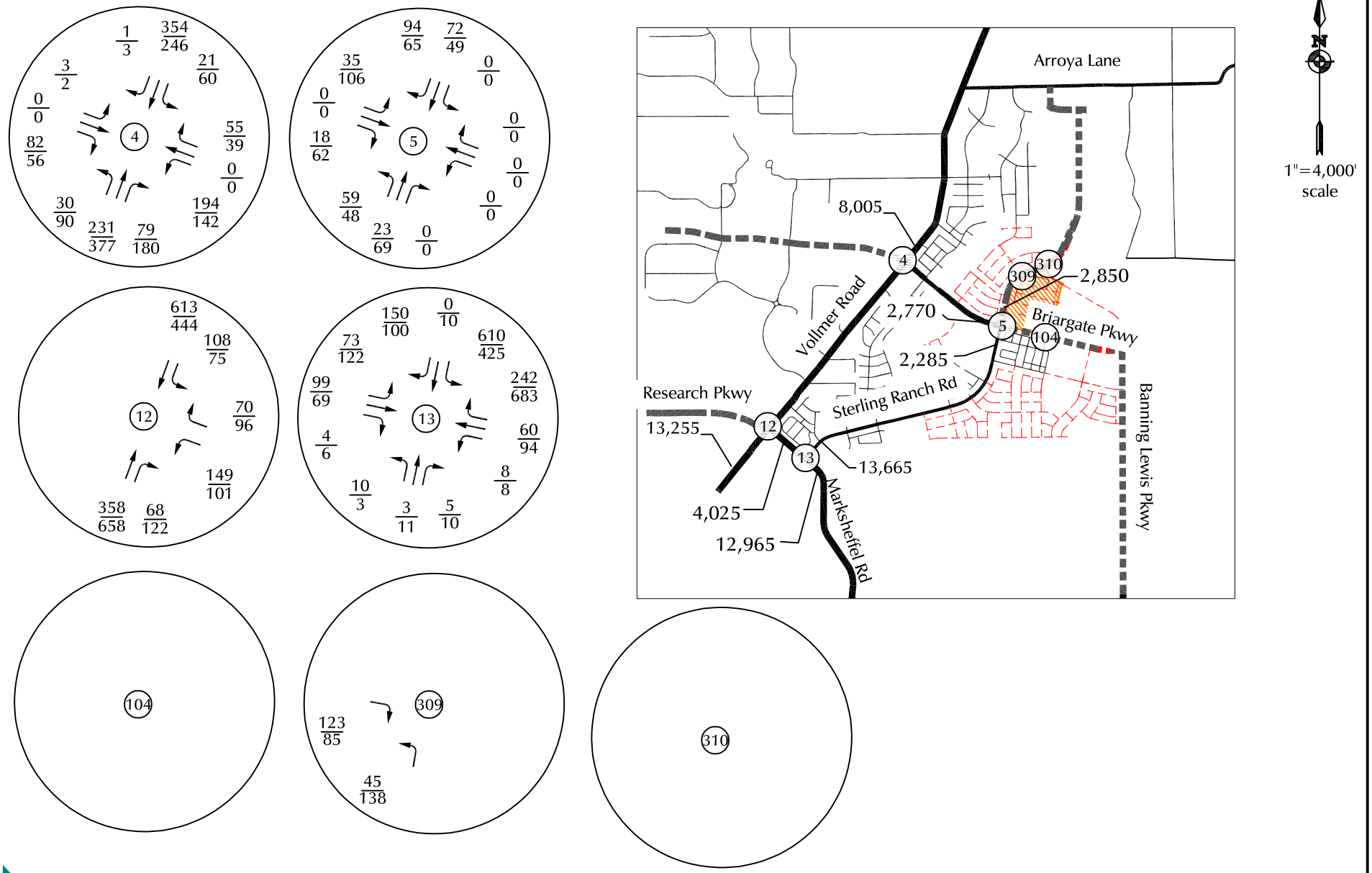
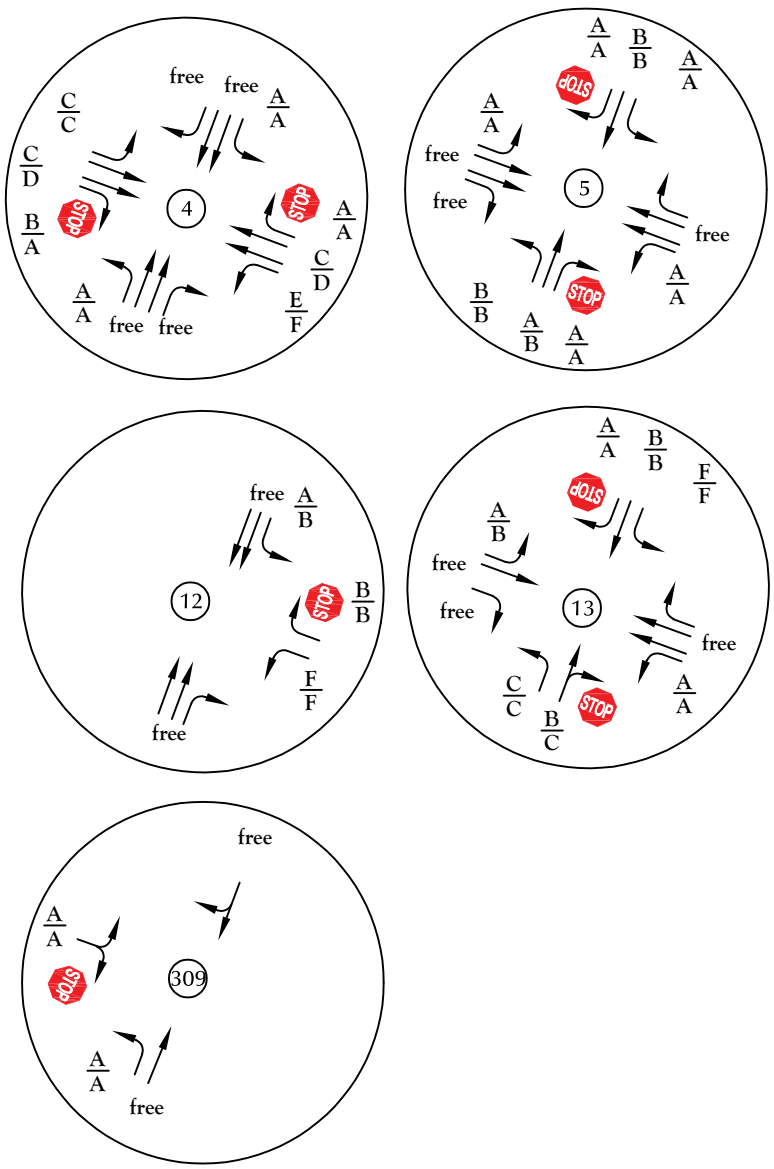
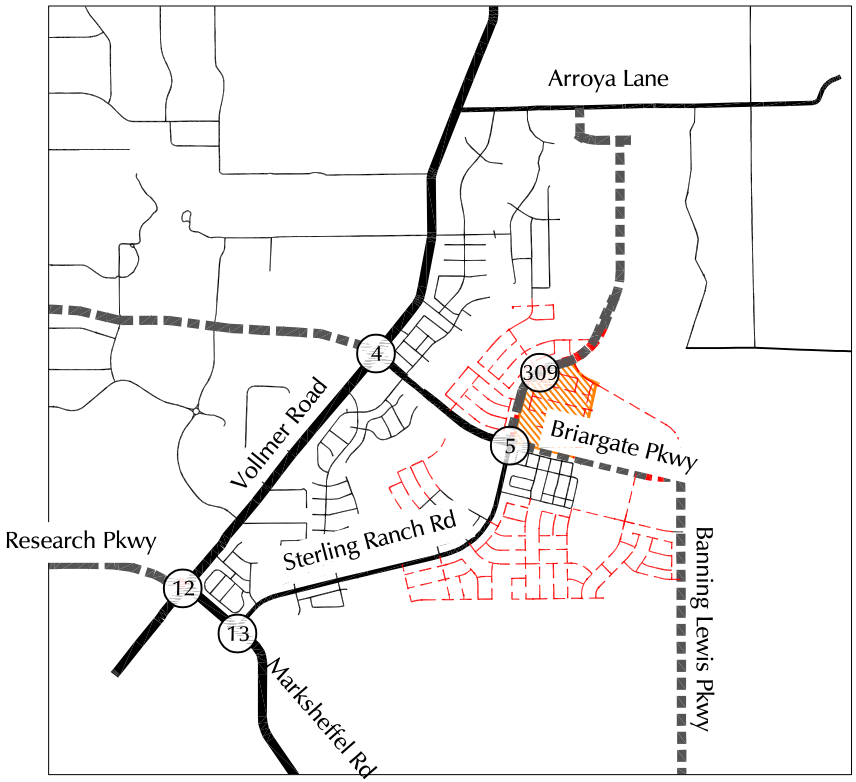


Figure 6a

Short-Term Background Traffic

Sterling Ranch East Filing No. 6 (LSC #S244252)





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

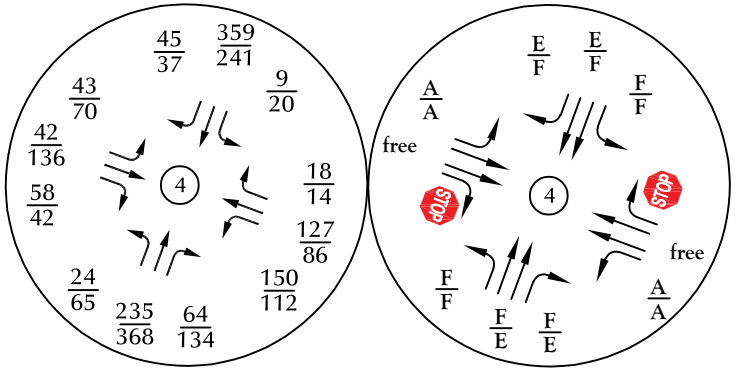
= Stop Sign

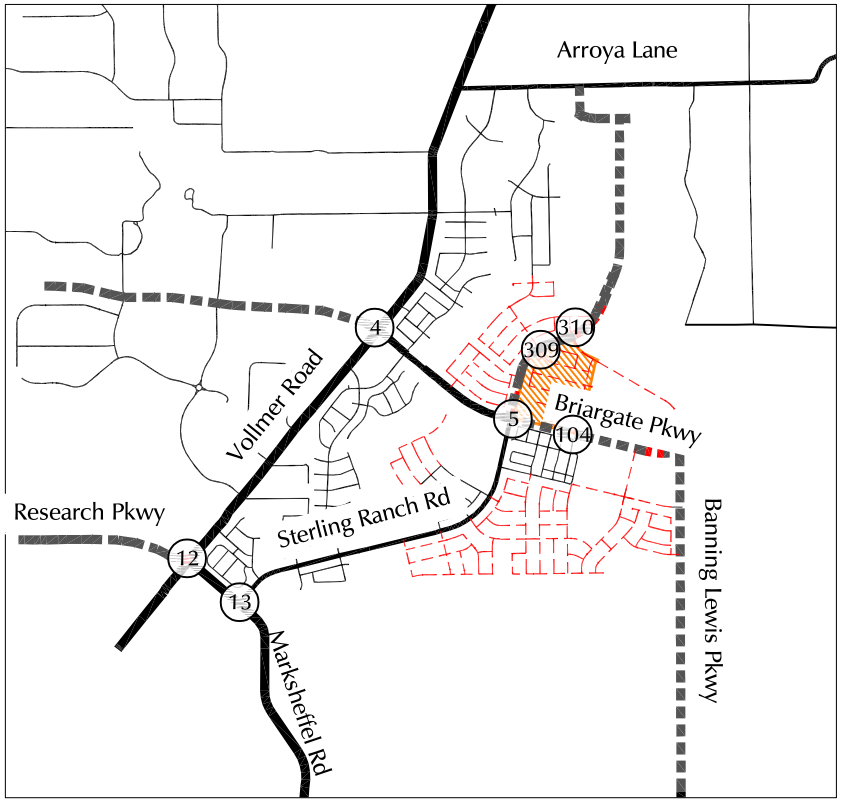
TRANSPORTATION CONSULTANTS, INC.

Figure 6b

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

Sterling Ranch East Filing No. 6 (LSC #S244252)





N

1"=4,000'
scale

TRANSPORTATION CONSULTANTS, INC.

LEGEND:

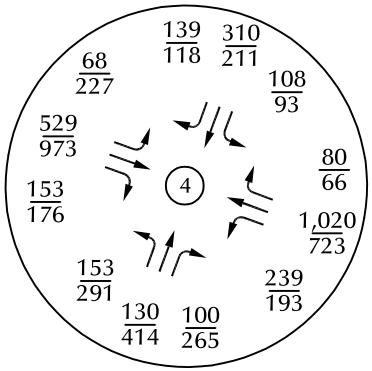
XX/XX = AM Peak-Hour Traffic (Veh/Hr) / PM Peak-Hour Traffic (Veh/Hr)

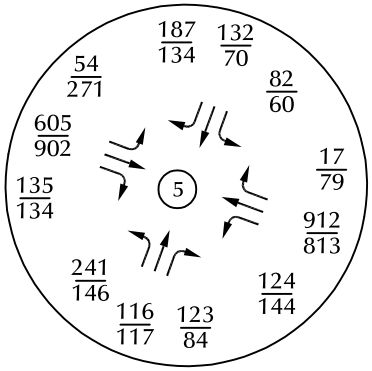
Existing Roadway
Future Roadway

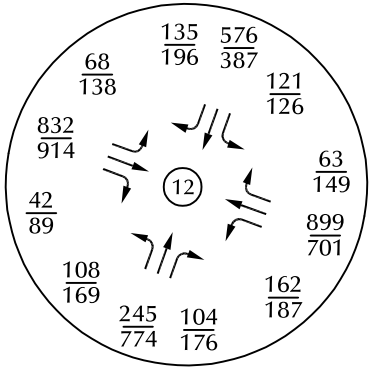
Figure 7

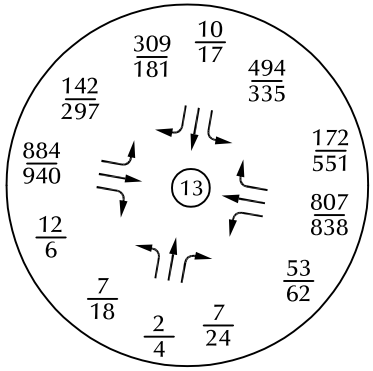
Intermediate-Term Background Traffic

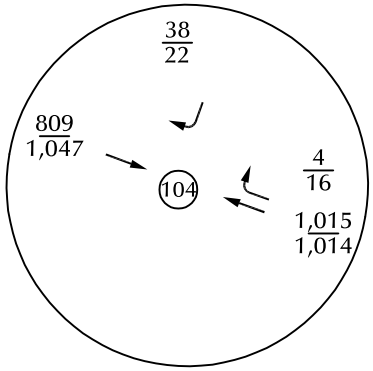
Sterling Ranch East Filing No. 6 (LSC #S244252)

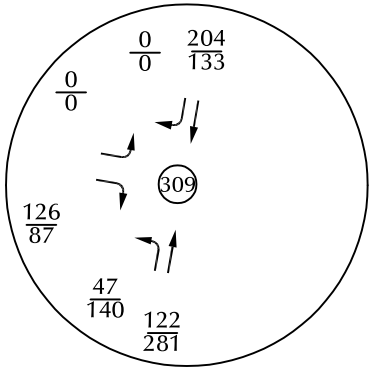


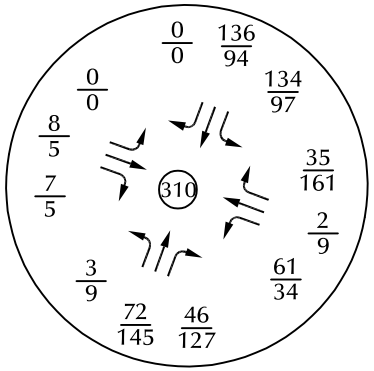


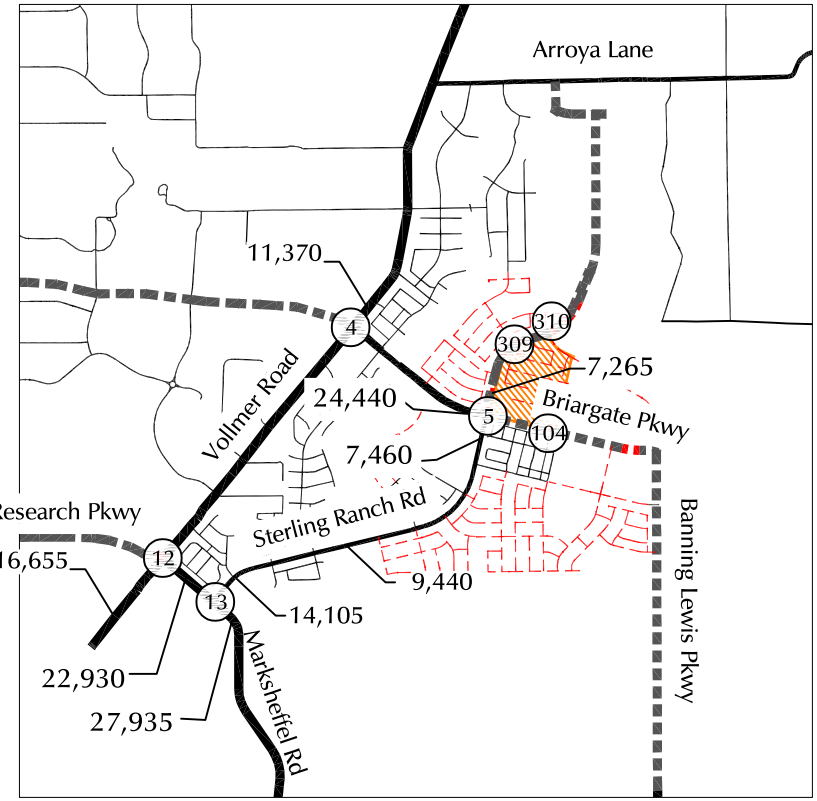












N

1"=4,000' scale

LEGEND:

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

Existing Roadway

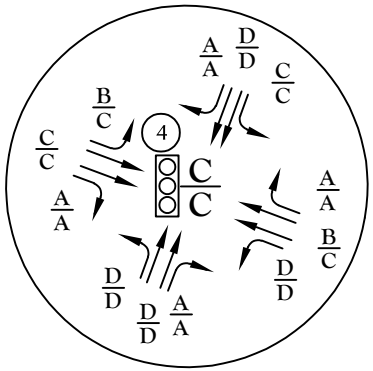
Future Roadway

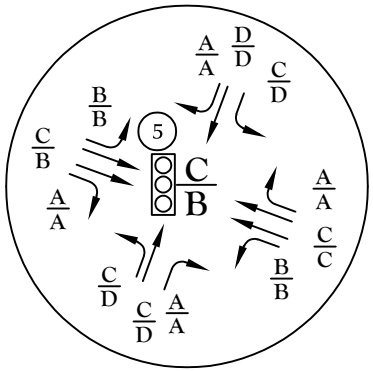
TRANSPORTATION CONSULTANTS, INC.

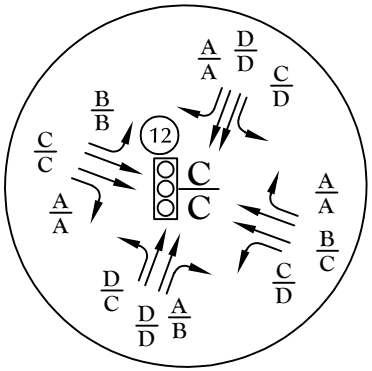
Figure 8a

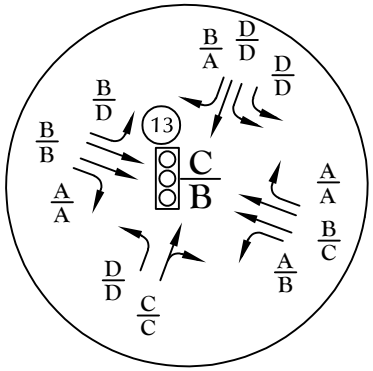
2045 Background Traffic

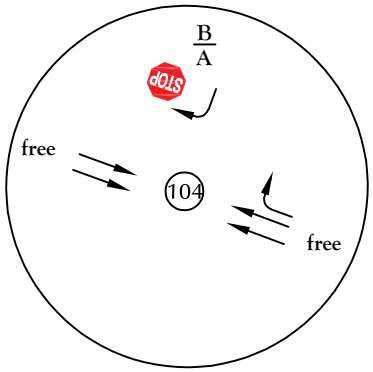
Sterling Ranch East Filing No. 6 (LSC #S244252)

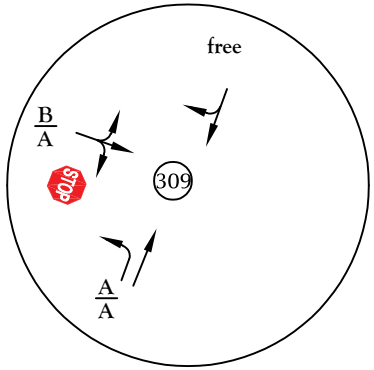


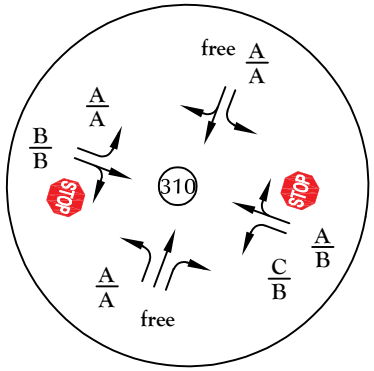


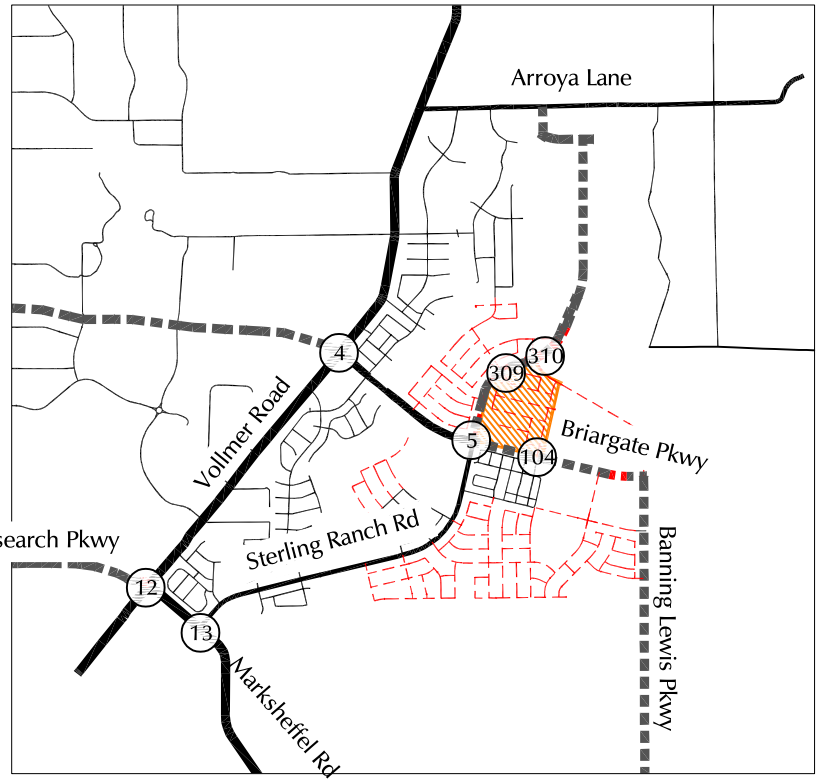












1"=4,000' scale

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

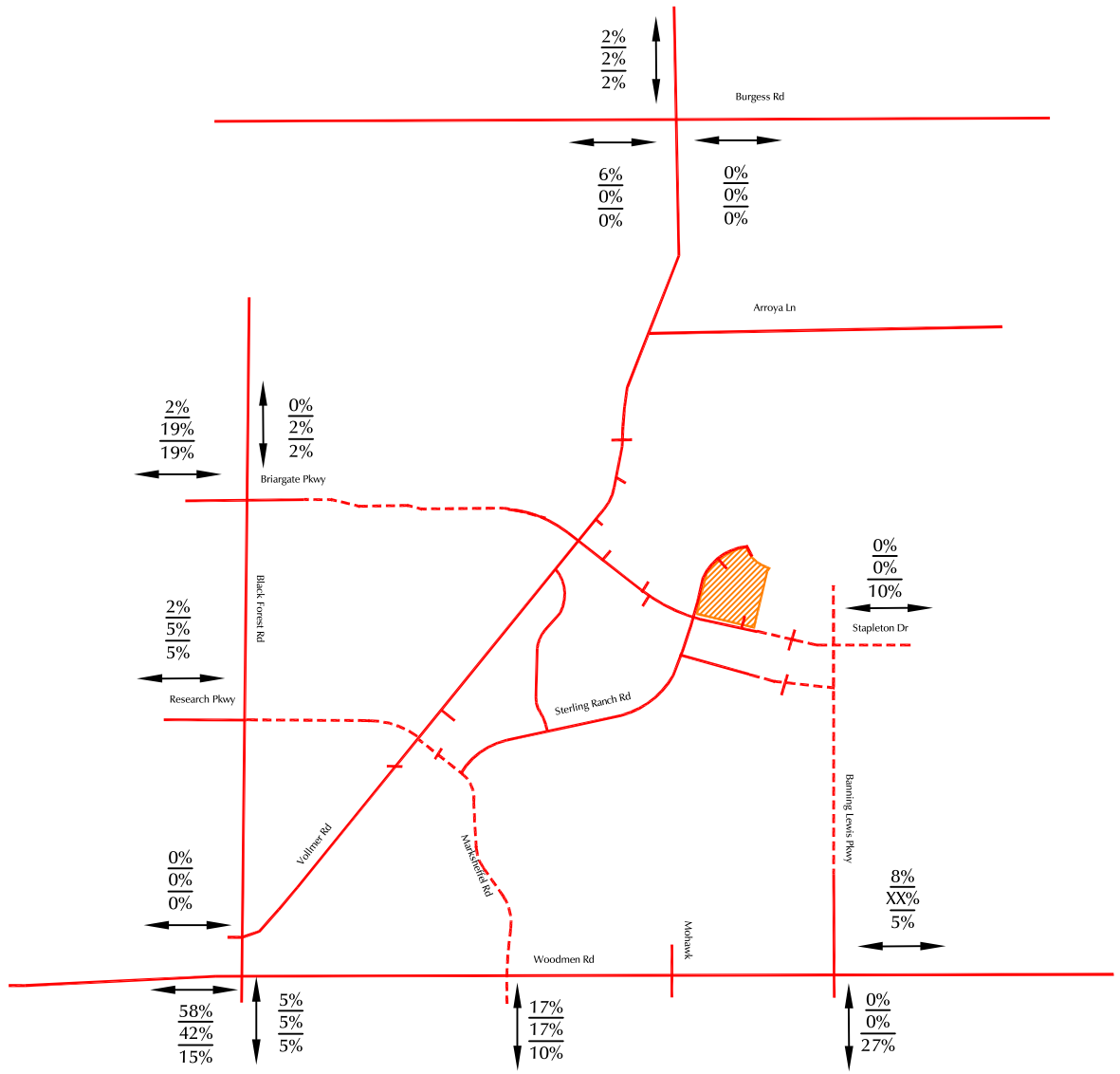
STOP = Stop Sign

TRANSPORTATION CONSULTANTS, INC.

Figure 8b

2045 Background Lane Geometry, Traffic Control, and LOS

Sterling Ranch East Filing No. 4 (LSC #S244300)



N

Not to scale

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

TRANSPORTATION CONSULTANTS, INC.

Figure 9

Estimated Directional Distribution of Site-Generated Trips

Sterling Ranch East Filing No. 6 (LSC #S244252)



LEGEND:

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

Existing Roadway

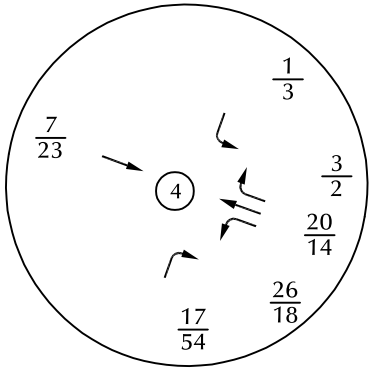
Future Roadway

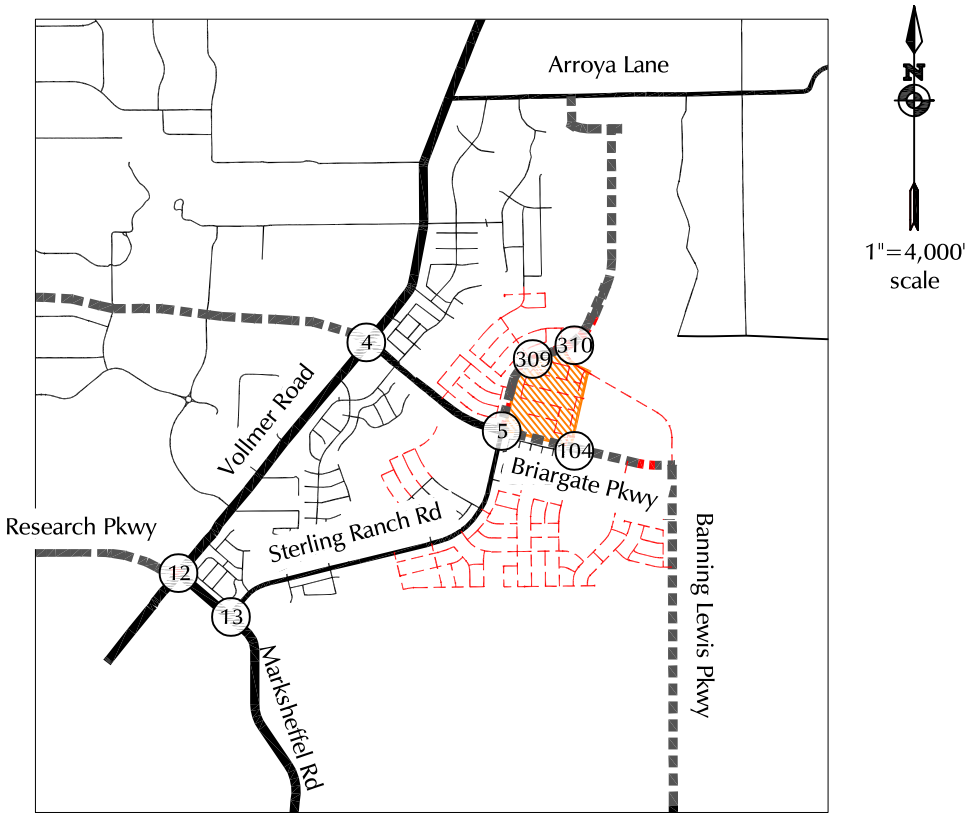
TRANSPORTATION CONSULTANTS, INC.

Figure 10

Short-Term Site-Generated Traffic

Sterling Ranch East Filing No. 6 (LSC #S244252)





TRANSPORTATION CONSULTANTS, INC.

LEGEND:

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

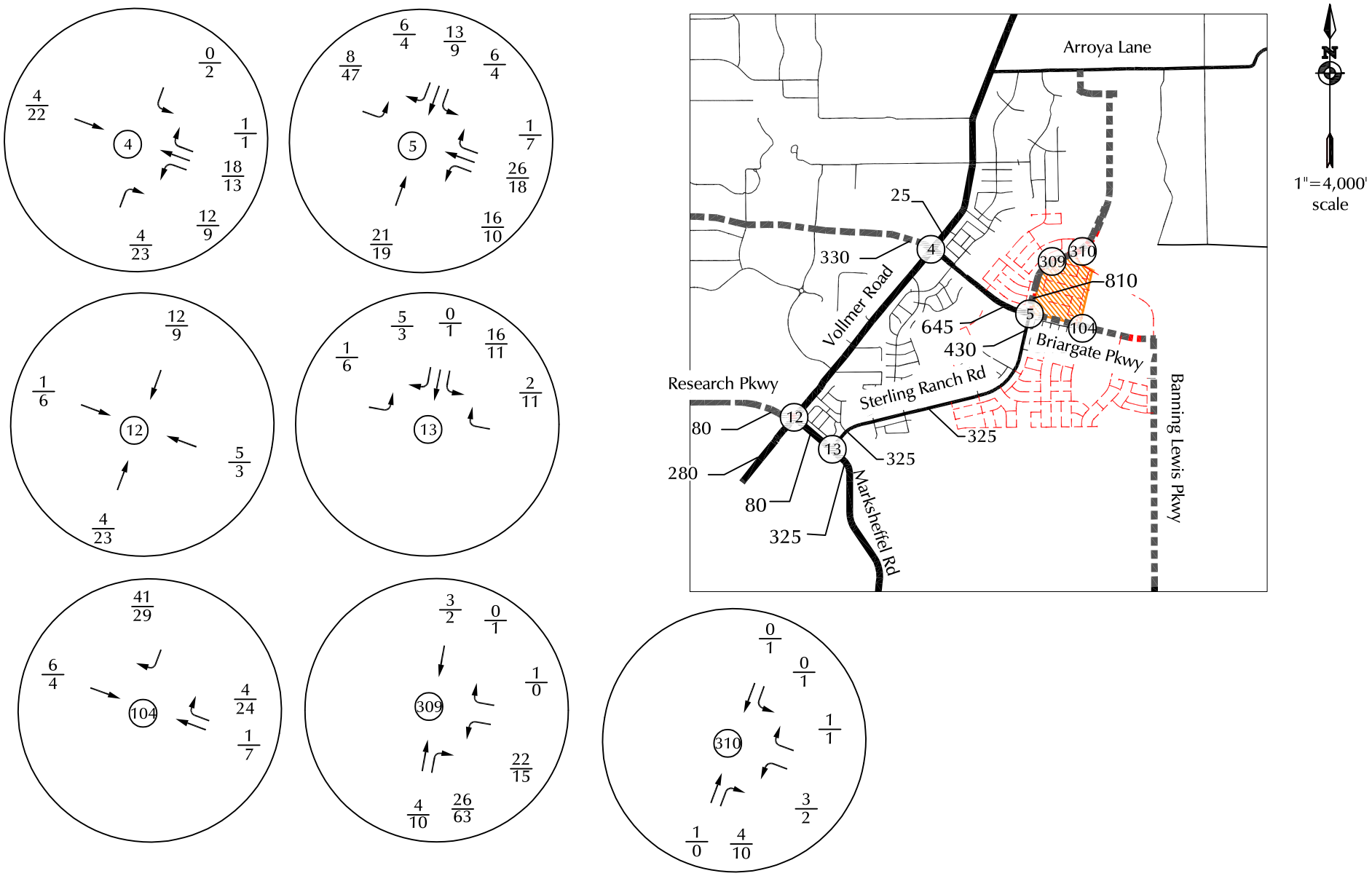
Existing Roadway

Future Roadway

Figure 11

Intermediate-Term Site-Generated Traffic

Sterling Ranch East Filing No. 6 (LSC #S244252)



LEGEND:

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

Existing Roadway

Future Roadway

TRANSPORTATION CONSULTANTS, INC.

Figure 12

Long-Term Site-Generated Traffic

Sterling Ranch East Filing No. 6 (LSC #S244252)

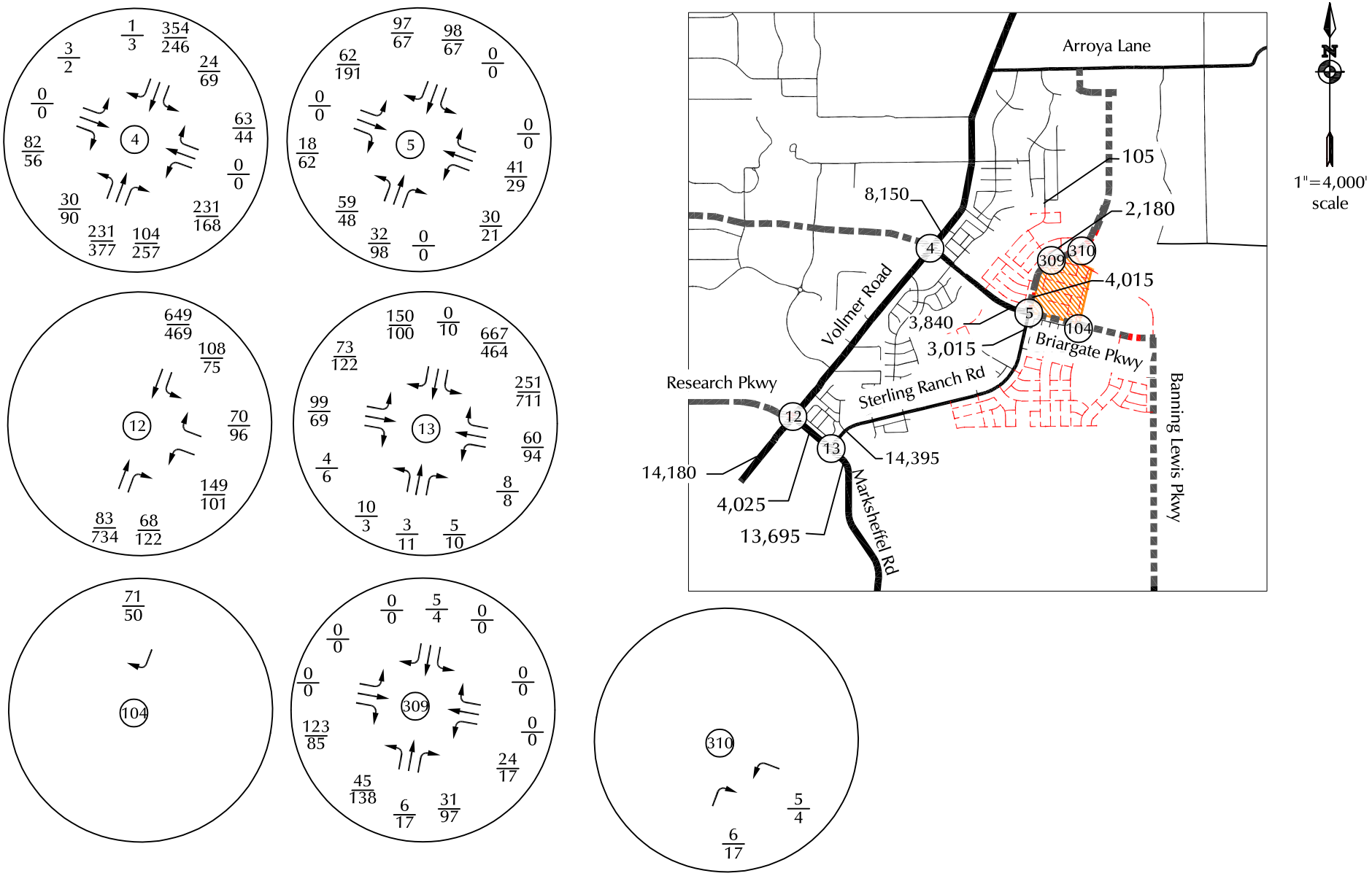
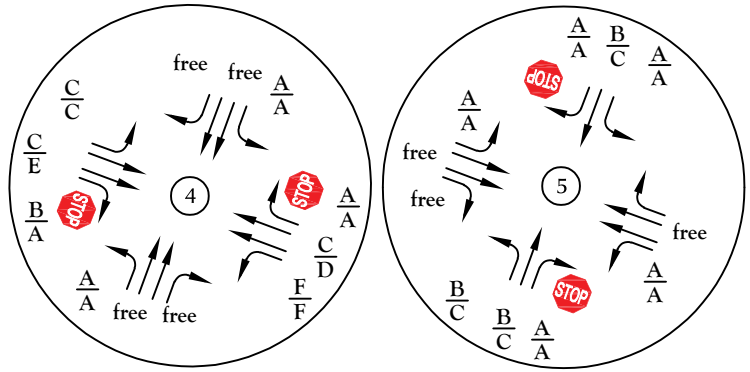


Figure 13a

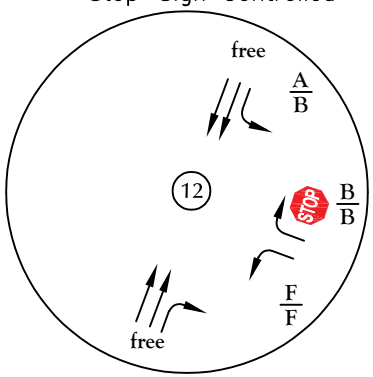
Short-Term Total Traffic

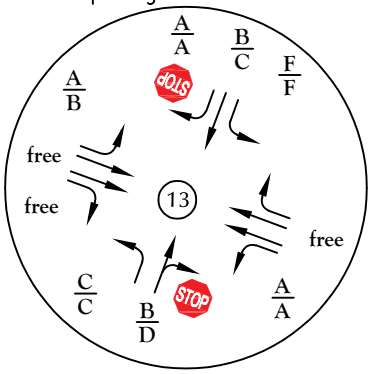
Sterling Ranch East Filing No. 6 (LSC #S244252)

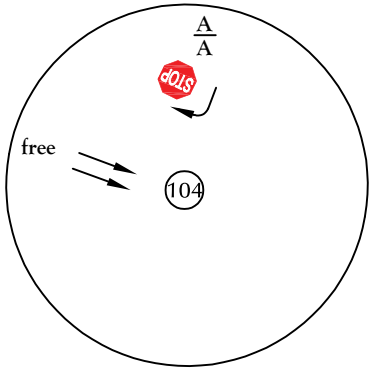


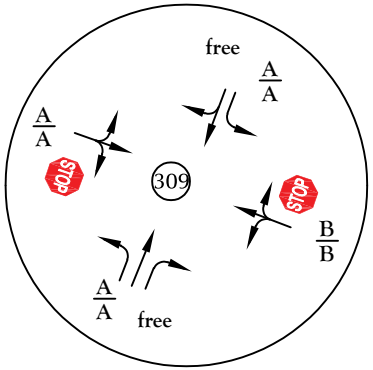
Stop–Sign Controlled

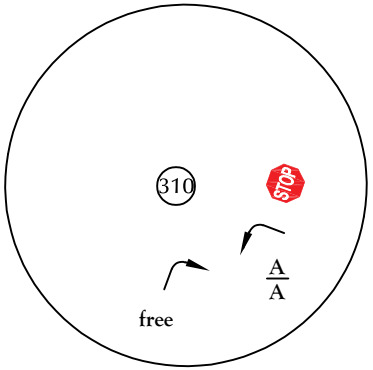
Stop–Sign Controlled

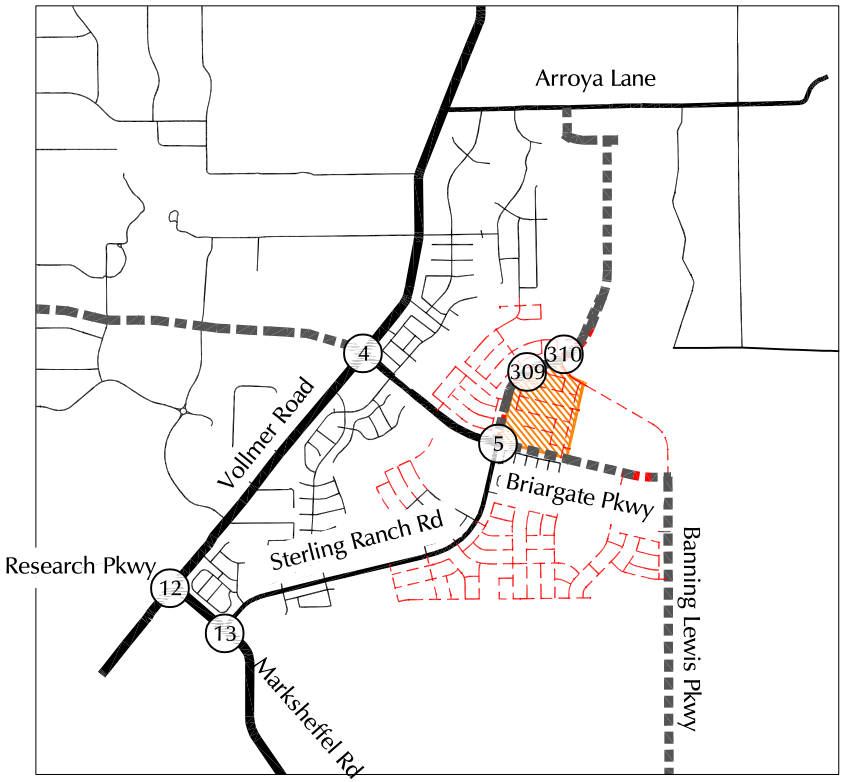


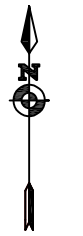












1"=4,000' scale

TRANSPORTATION CONSULTANTS, INC.

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

= Yield Sign

= Traffic Signal

= Stop Sign

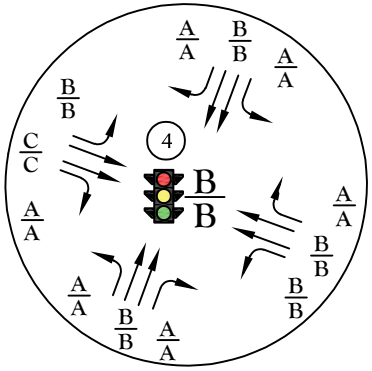
Existing Roadway

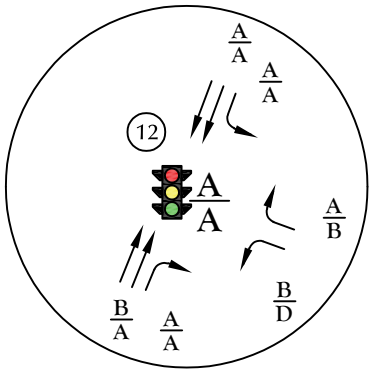
Future Roadway

Figure 13b

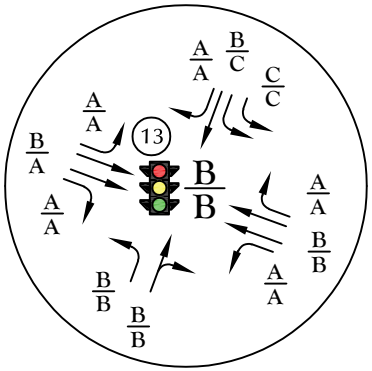
Short-Term Total Lane Geometry, Traffic Control, and LOS

Sterling Ranch East Filing No. 6 (LSC #S244252)

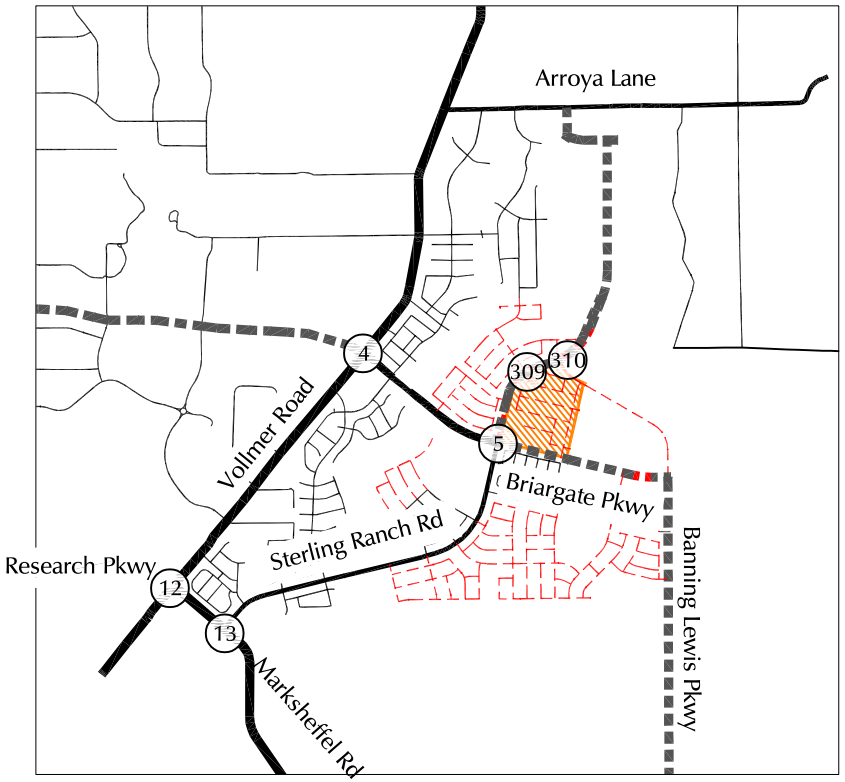




Signal Controlled



Signal Controlled



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

= Yield Sign

= Traffic Signal

= Stop Sign

Existing Roadway

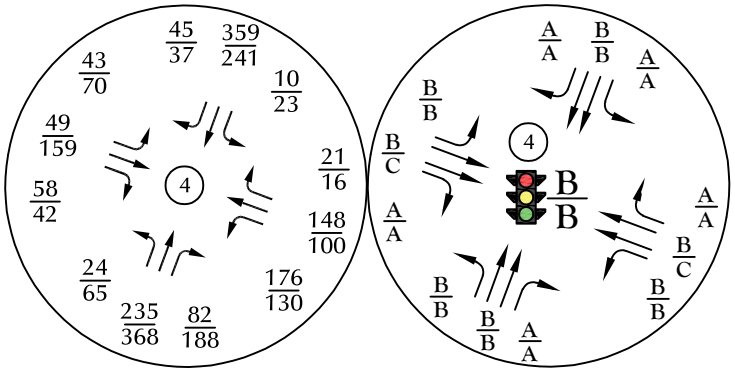
Future Roadway

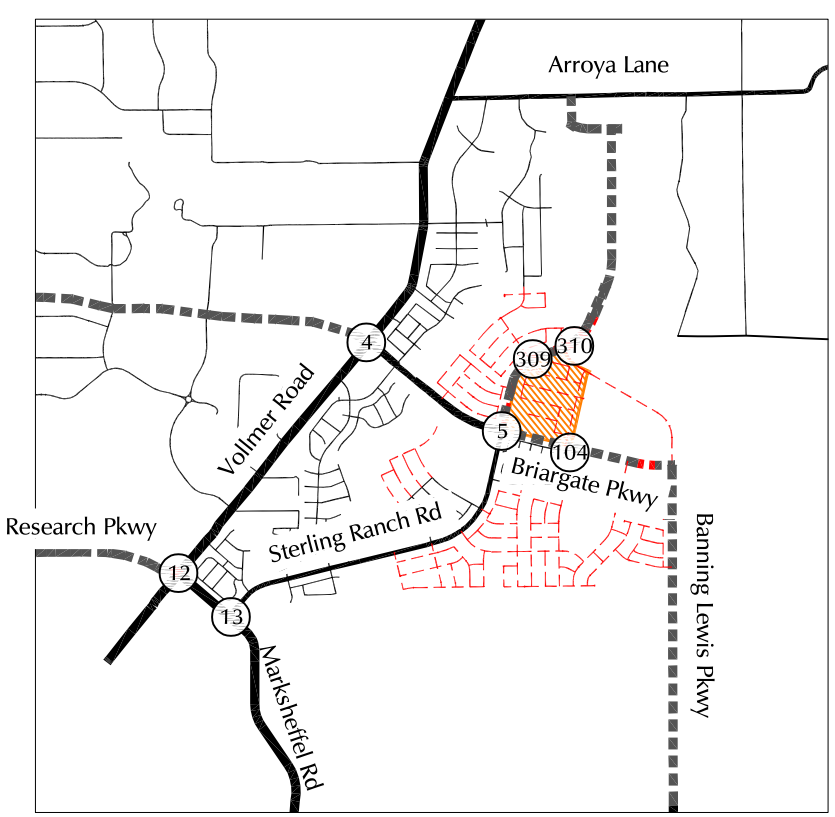
TRANSPORTATION CONSULTANTS, INC.

Figure 13c

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

Sterling Ranch East Filing No. 6 (LSC #S244252)





1"=4,000' scale

LEGEND:

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

Existing Roadway

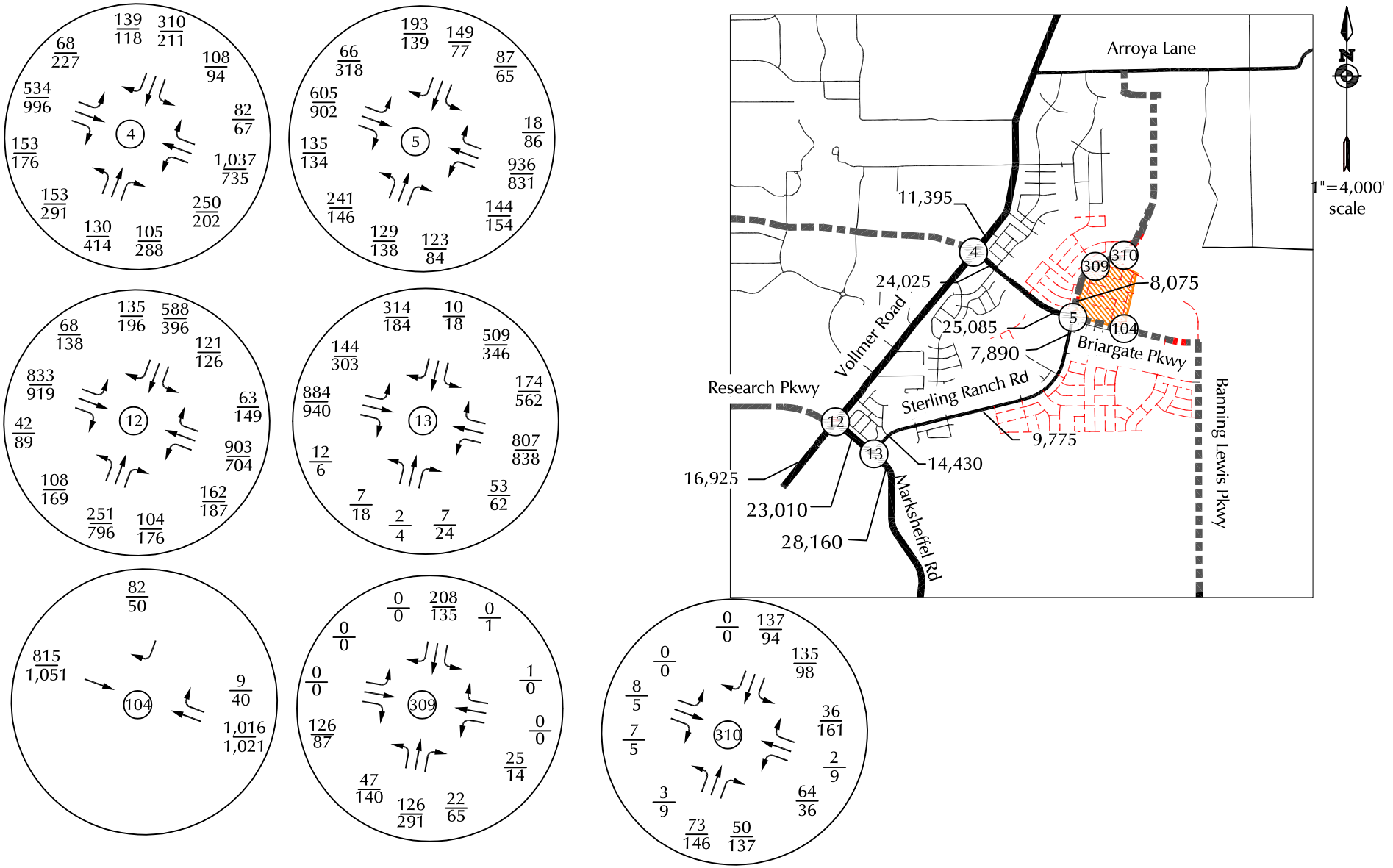
Future Roadway

TRANSPORTATION CONSULTANTS, INC.

Figure 14

Intermediate-Term Total Traffic

Sterling Ranch East Filing No. 6 (LSC #S244252)



LEGEND:

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

Existing Roadway

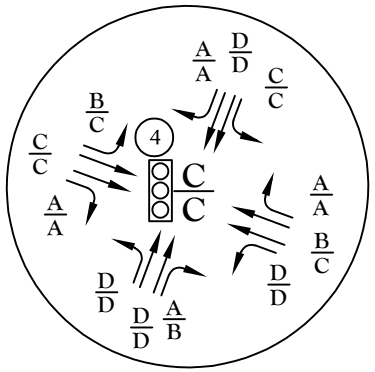
Future Roadway

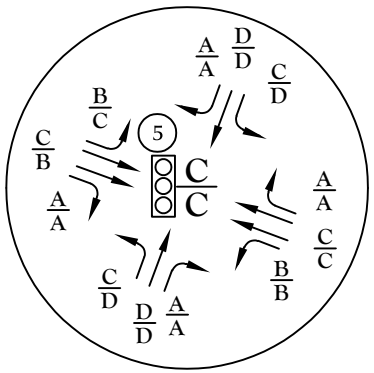
TRANSPORTATION CONSULTANTS, INC.

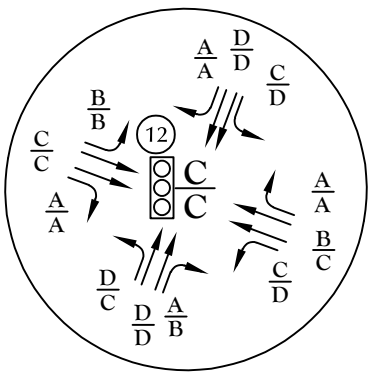
Figure 15a

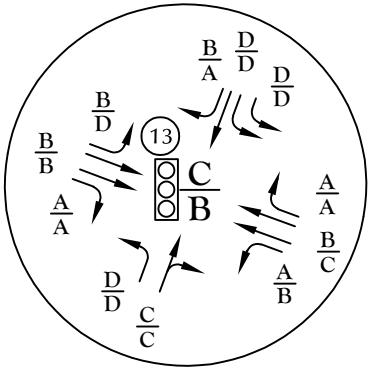
2045 Total Traffic

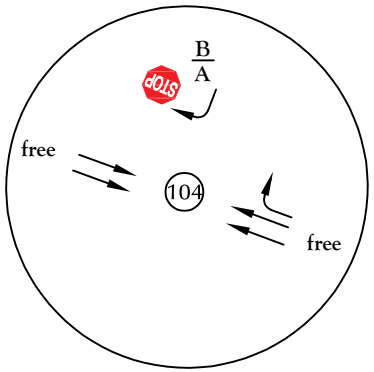
Sterling Ranch East Filing No. 6 (LSC #S244252)

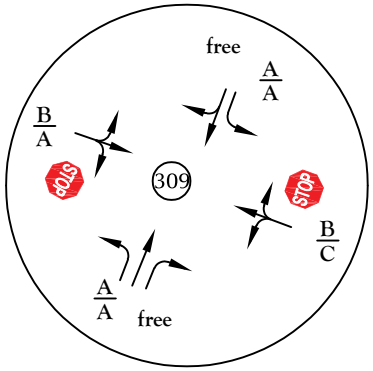


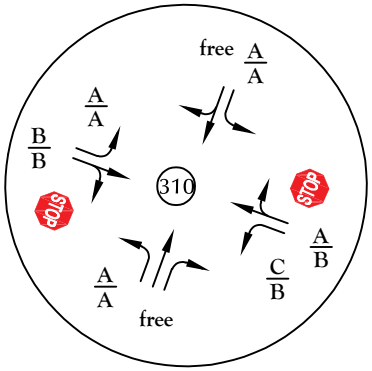


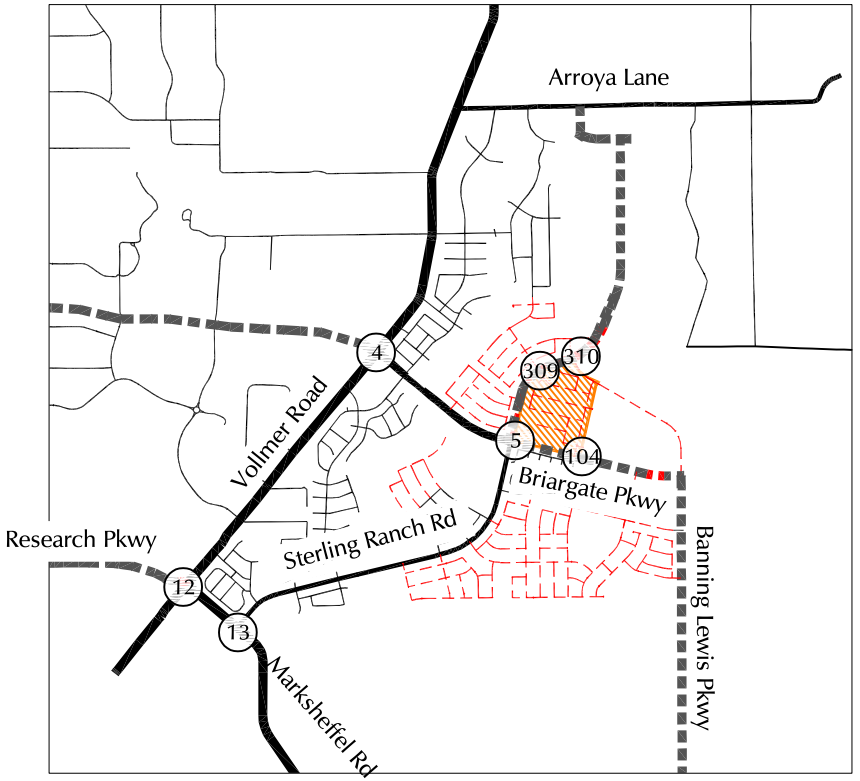












1"=4,000'
scale

LEGEND:

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

C/D = AM Entire Intersection Peak-Hour Level of Service / PM Entire Intersection Peak-Hour Level of Service

Existing Roadway
Future Roadway

= Traffic Signal
= Yield Sign
= Stop Sign
= Roundabout

TRANSPORTATION CONSULTANTS, INC.

Figure 15b

2045 Total Lane Geometry, Traffic Control, and LOS

Sterling Ranch East Filing No. 6 (LSC #S244252)



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Figure 16

Roadway Classification

Sterling Ranch East Filing No. 6 (LSC #S244252)



???
scale

V1, B4, SR3, etc - Segment Identifier*

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

Figure 17

Roadway Improvement Segments*

Sterling Ranch East Filing No. 6 (LSC #S244252)

TRANSPORTATION CONSULTANTS, INC.

Traffic Counts

TRANSPORTATION
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

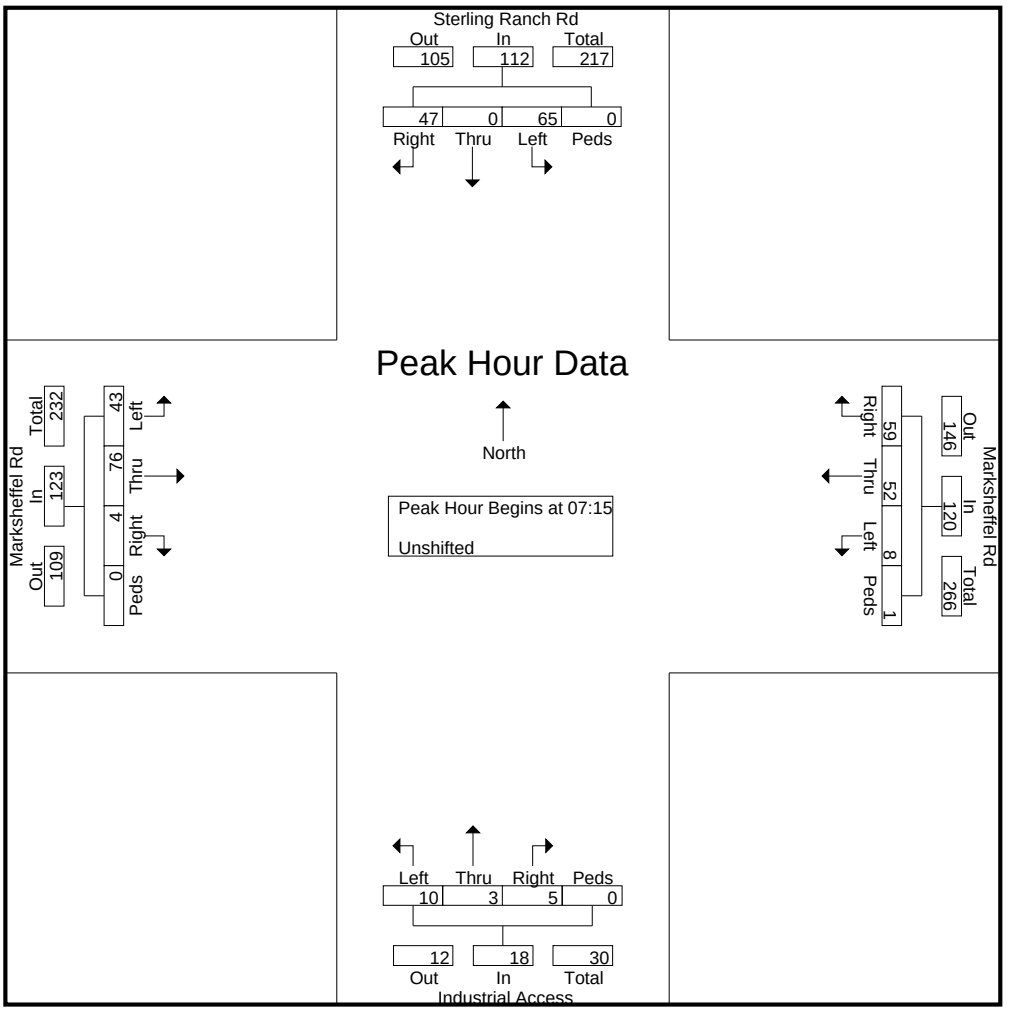
	Sterling Ranch Rd Southbound					Marksheffel Rd Westbound					Industrial Access Northbound					Marksheffel Rd Eastbound					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
06:30	3	0	13	0	16	13	6	2	0	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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File Name : Sterling Rannch Rd - Marksheffel Rd AM
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

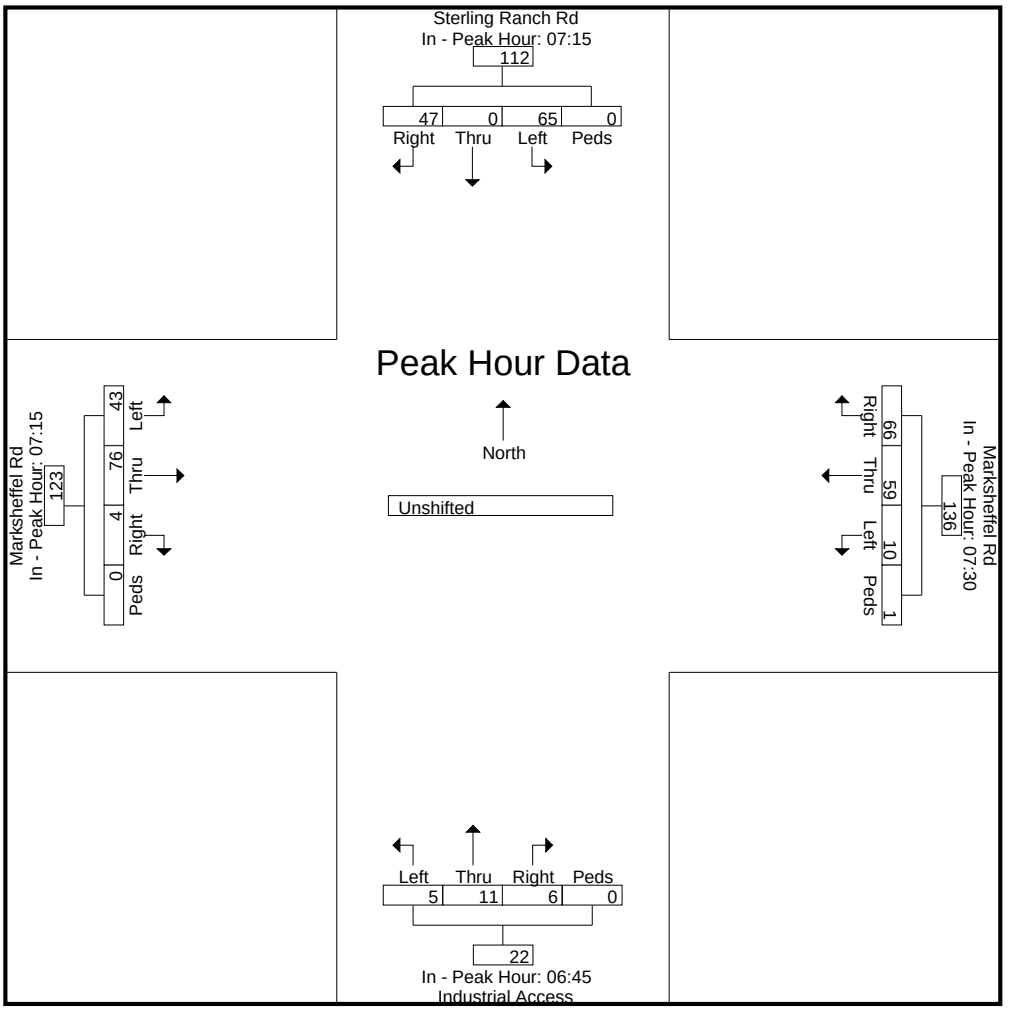


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File Name : Sterling Rannch Rd - Marksheffel Rd AM
Site Code : S224580
Start Date : 3/6/2025
Page No : 3

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

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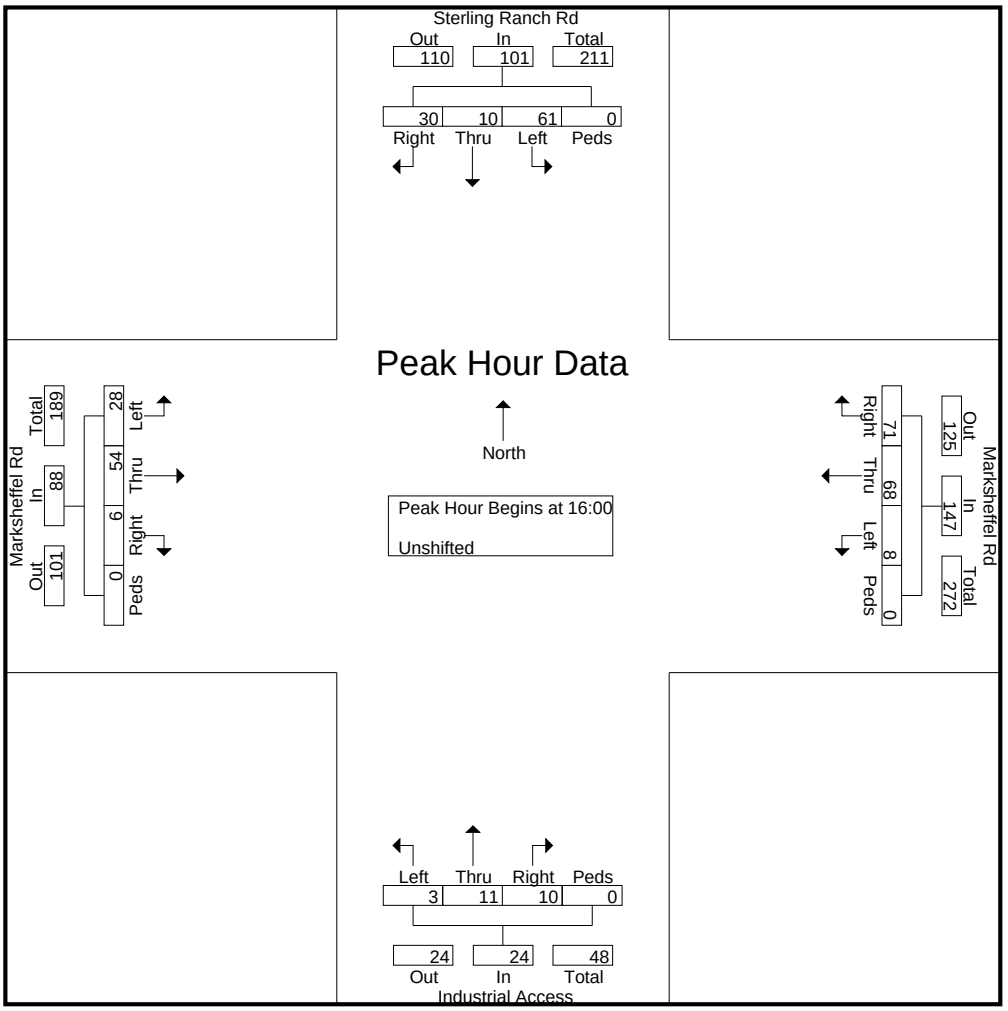
	Sterling Ranch Rd Southbound					Marksheffel Rd Westbound					Industrial Access Northbound					Marksheffel Rd Eastbound					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
16:00	5	6	20	0	31	14	13	5	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
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 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

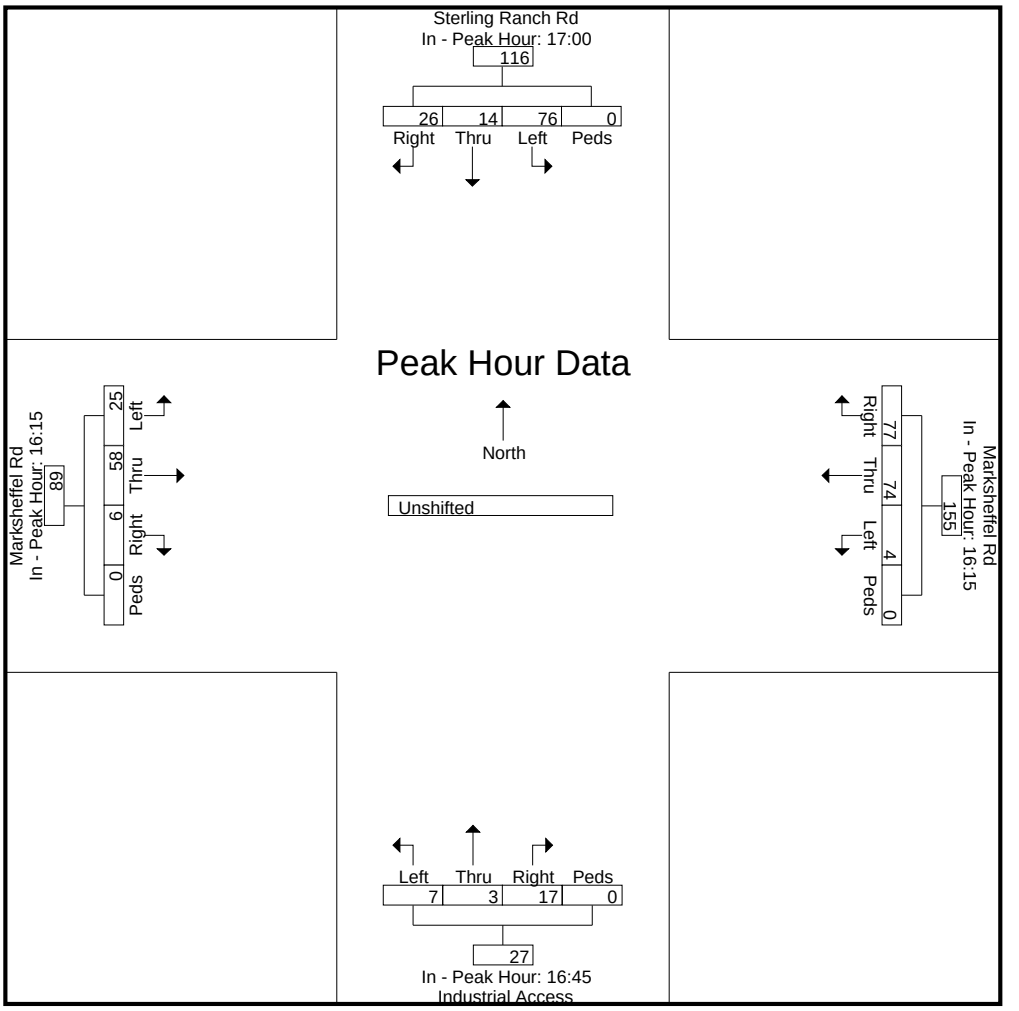


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719-633-2868

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	



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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

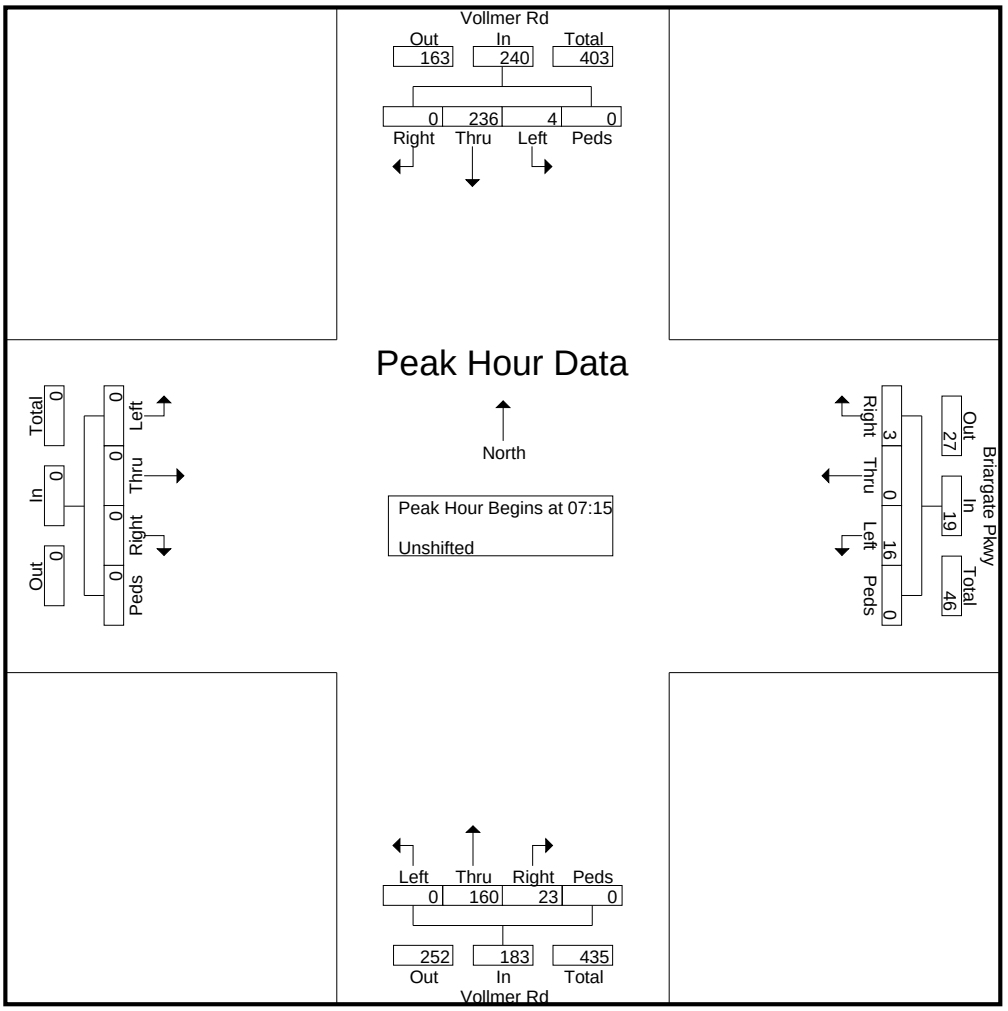
	Vollmer Rd Southbound					Briargate Pkwy Westbound					Vollmer Rd Northbound					Eastbound					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
06:30	0	27	0	0	27	0	0	2	0	2	0	16	0	0	16	0	0	0	0	0	45
06:45	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	

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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 : 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

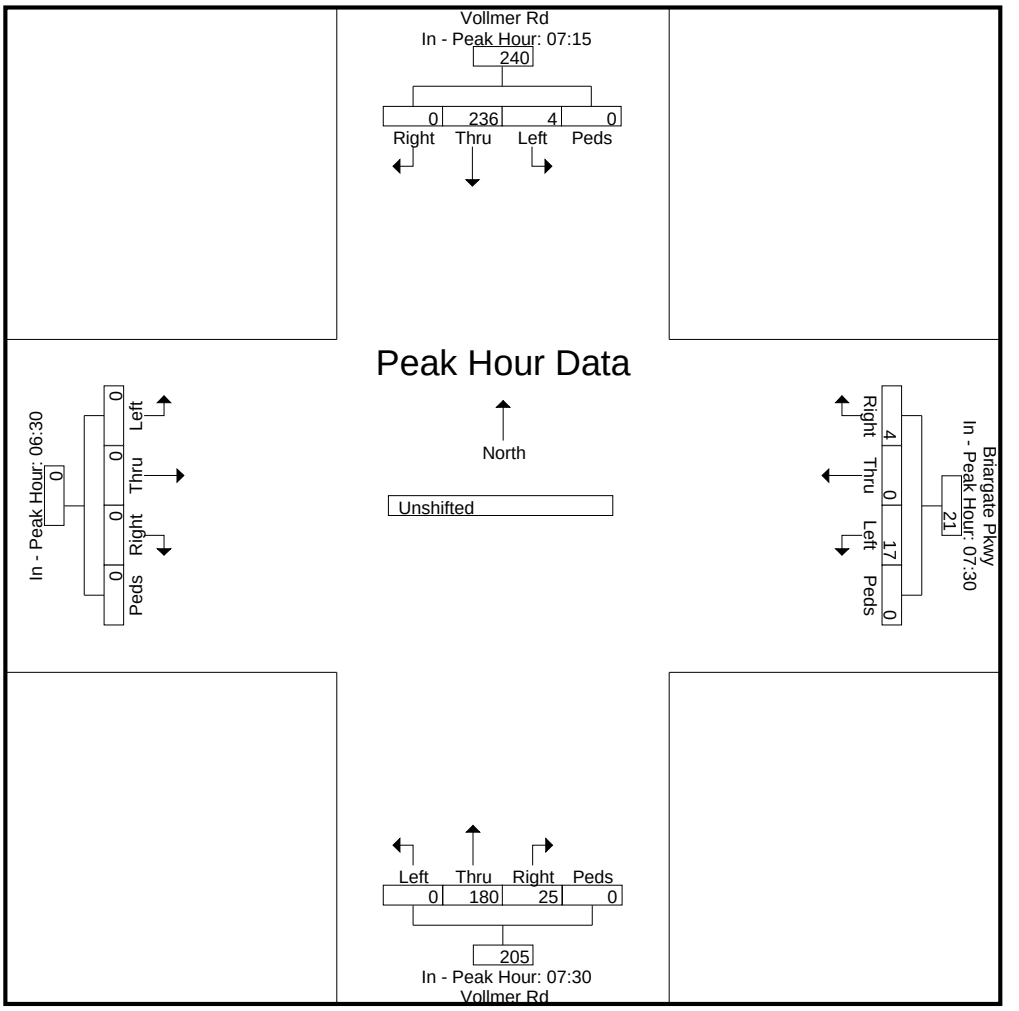


LSC Transportation Consultants, Inc.

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 : 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	



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 : 1

Groups Printed- Unshifted

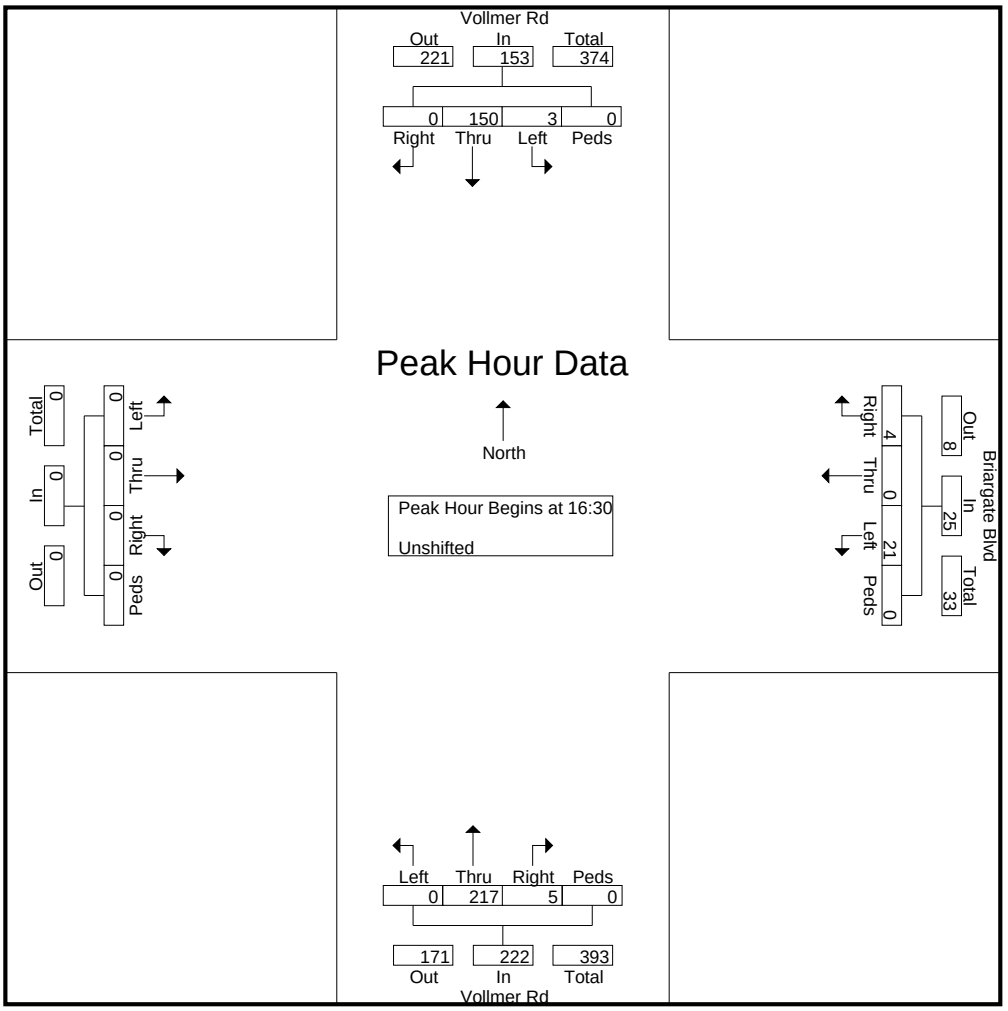
	Vollmer Rd Southbound					Briargate Blvd Westbound					Vollmer Rd Northbound					Eastbound					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
16:00	0	27	2	0	29	0	0	5	0	5	0	35	0	0	35	0	0	0	0	0	69
16:15	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
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719-633-2868

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

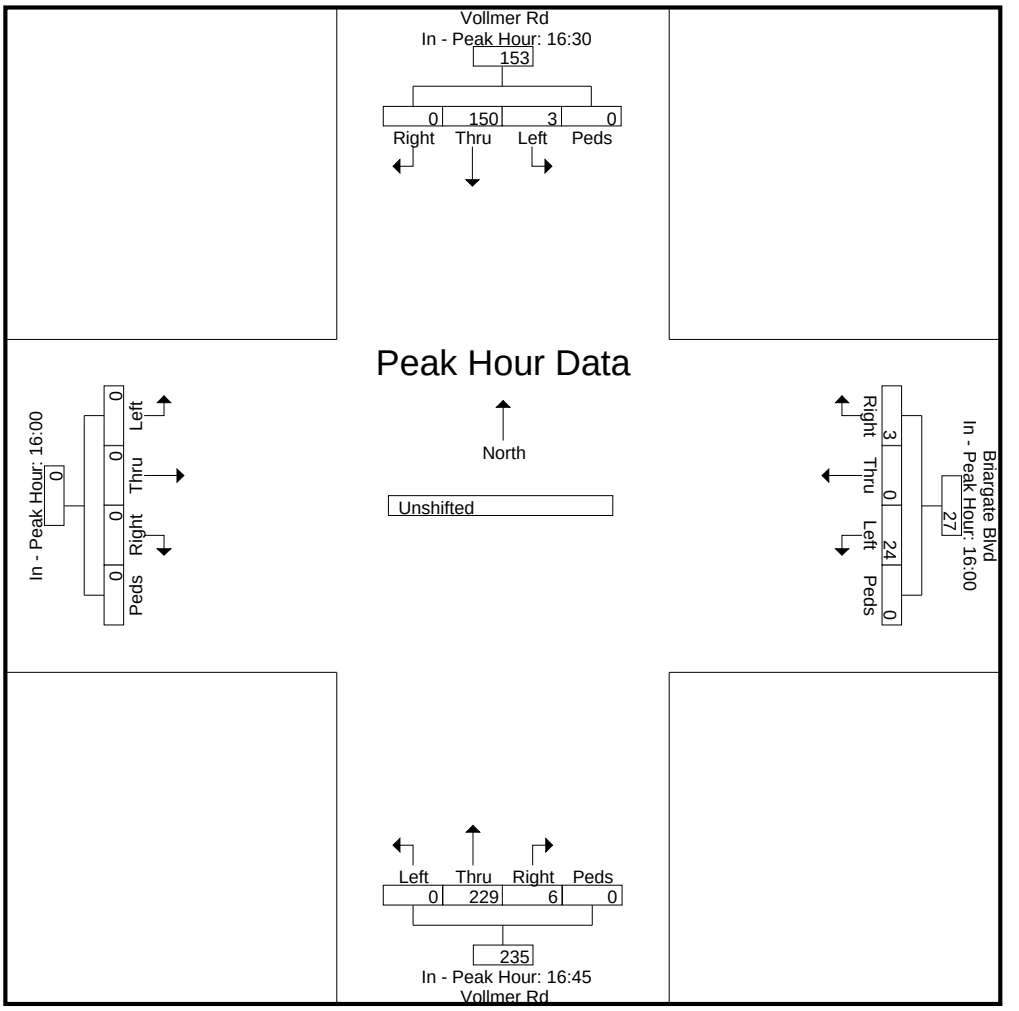


LSC Transportation Consultants, Inc.

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
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719-633-2868

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

Groups Printed- Unshifted

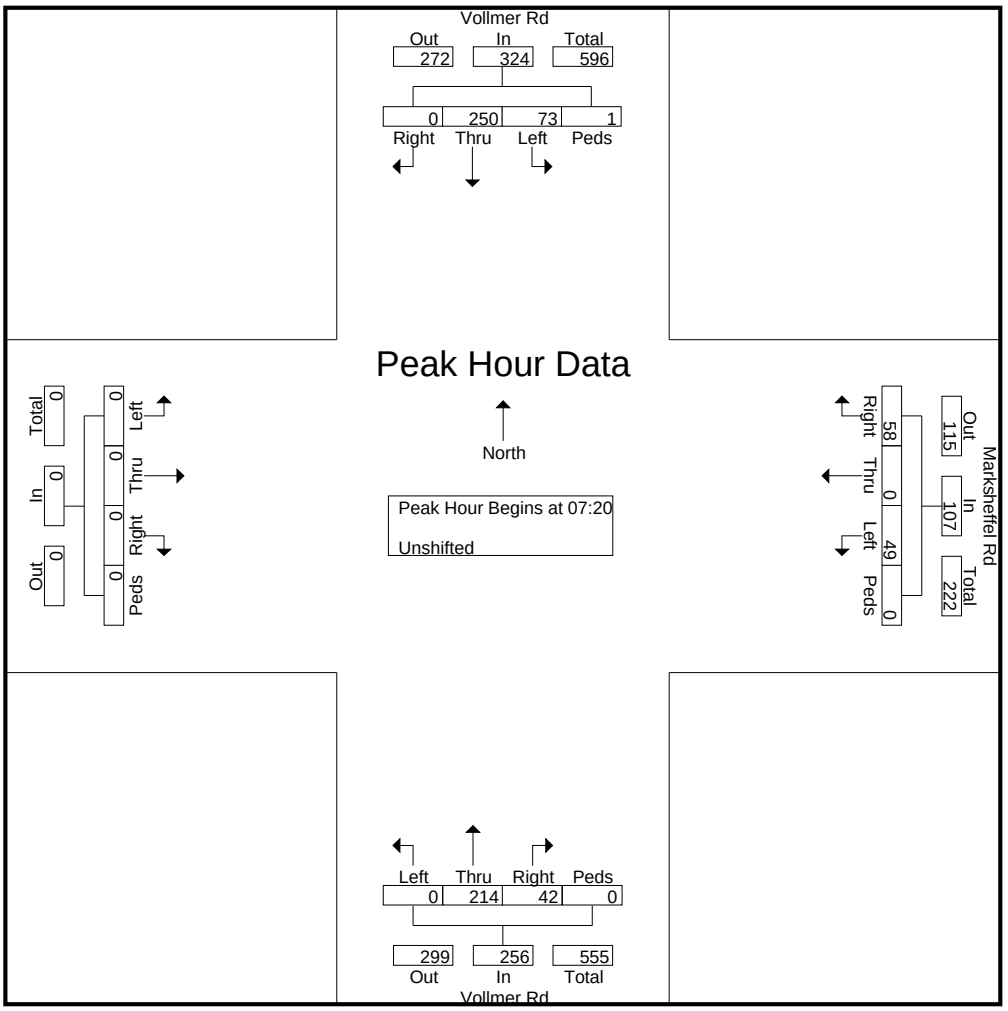
	Vollmer Rd Southbound					Marksheffel Rd Westbound					Vollmer Rd Northbound					Eastbound					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
06:30	0	14	3	0	17	2	0	0	0	2	3	4	0	0	7	0	0	0	0	0	26
06:35	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

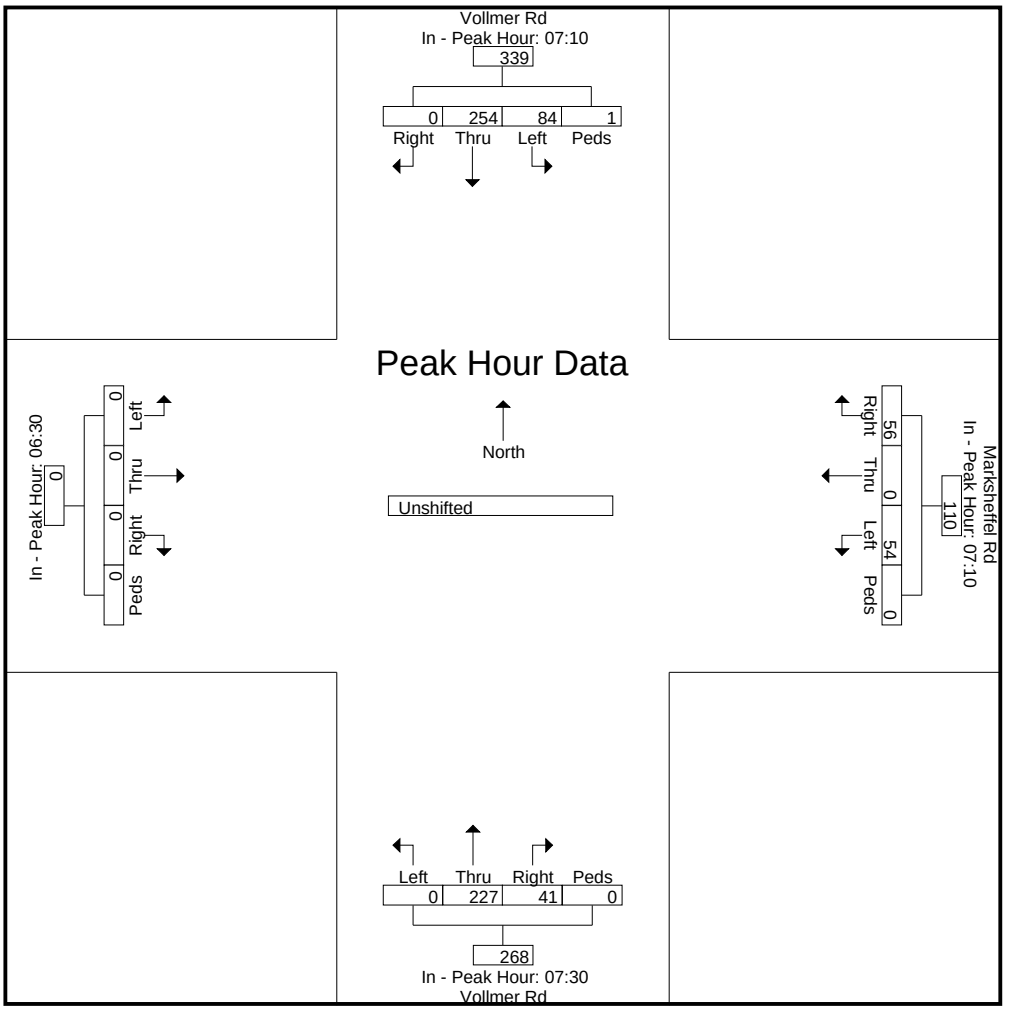


LSC Transportation Consultants, Inc.

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

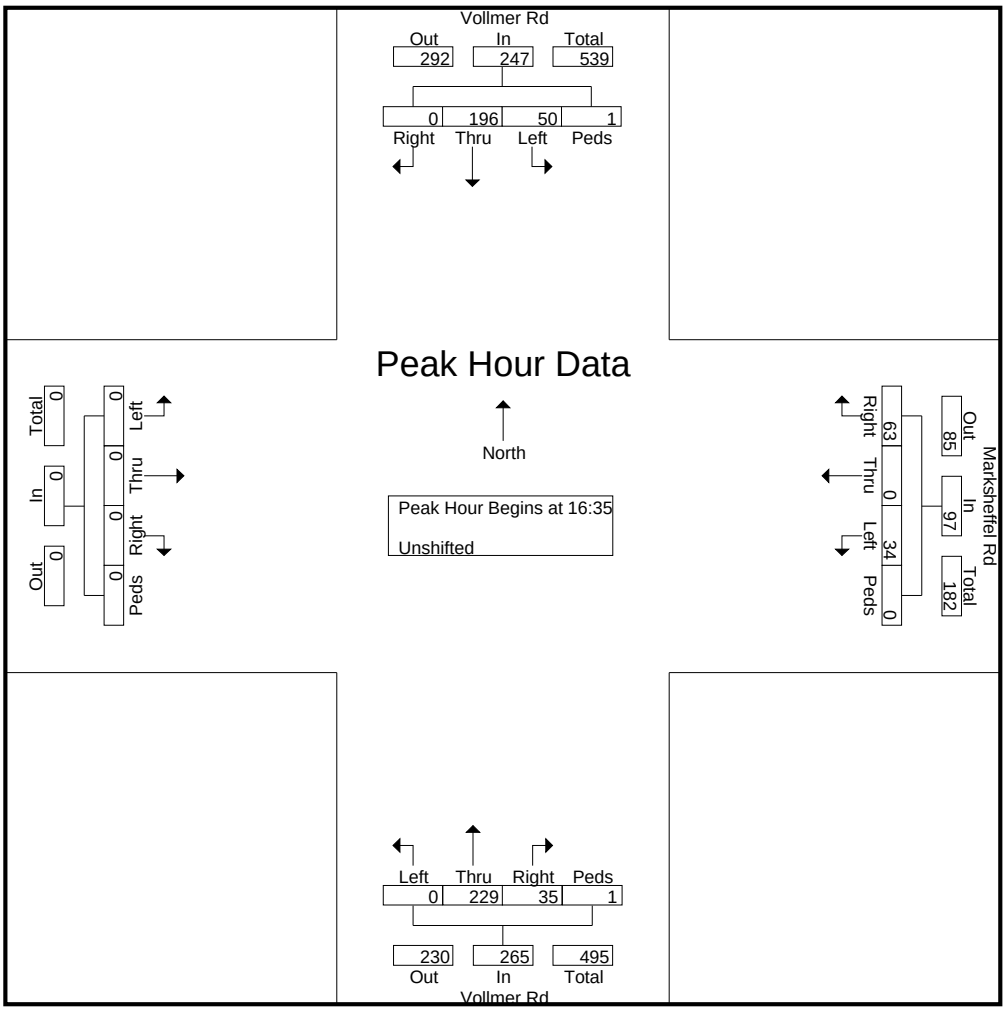
	Vollmer Rd Southbound					Marksheffel Rd Westbound					Vollmer Rd Northbound					Eastbound					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
16:00	0	10	3	0	13	7	0	1	0	8	3	9	0	0	12	0	0	0	0	0	33
16:05	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

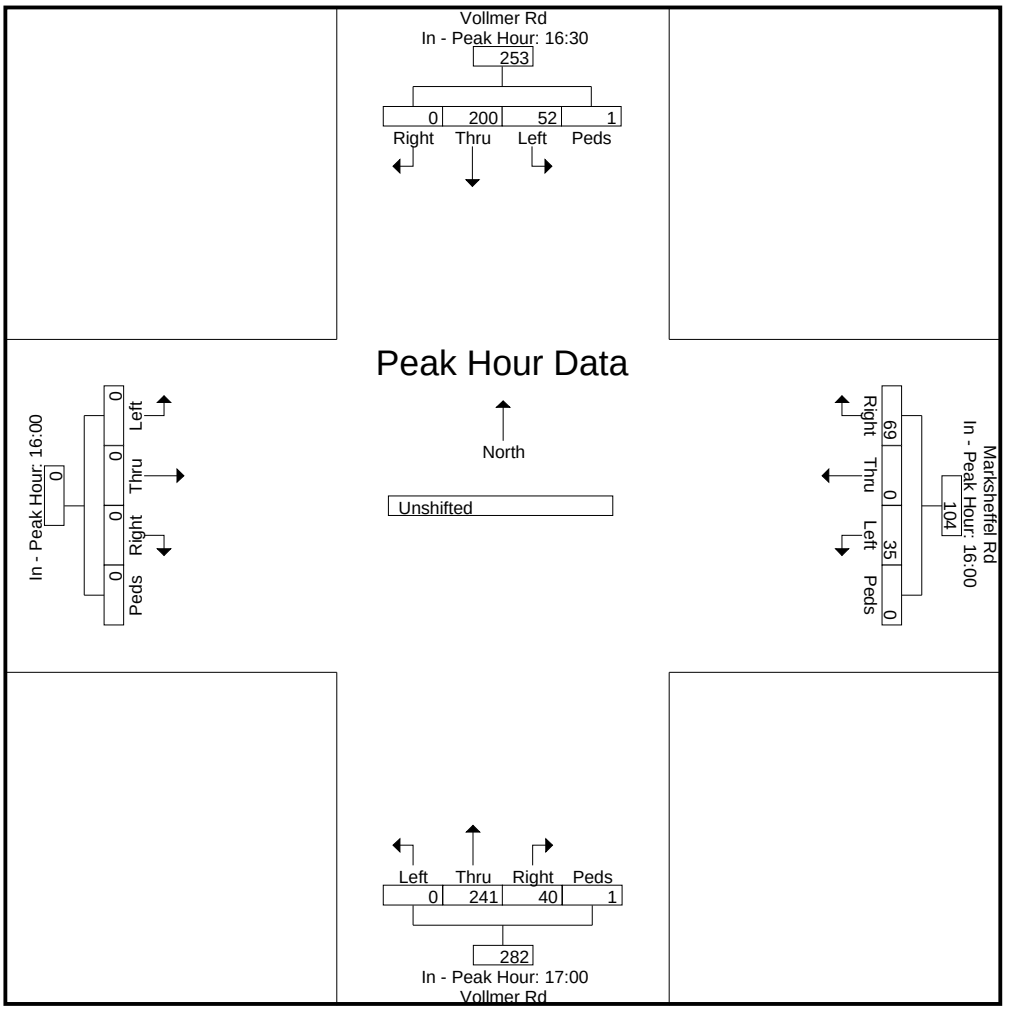


LSC Transportation Consultants, Inc.

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	10.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	3	1	82	194	1	55	30	231	79	21	354	1
Future Vol, veh/h	3	1	82	194	1	55	30	231	79	21	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	-	-	385	-	-
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	228	1	65	35	272	93	25	416	1

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	674	902	209	648	856	183	417	0	0	365	0	0
Stage 1	467	467	-	389	389	-	-	-	-	-	-	-
Stage 2	207	435	-	259	467	-	-	-	-	-	-	-
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	276	797	355	294	828	1138	-	-	1190	-	-
Stage 1	545	560	-	606	607	-	-	-	-	-	-	-
Stage 2	776	579	-	723	560	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	300	262	797	299	279	828	1138	-	-	1190	-	-
Mov Cap-2 Maneuver	300	262	-	299	279	-	-	-	-	-	-	-
Stage 1	528	548	-	587	588	-	-	-	-	-	-	-
Stage 2	692	561	-	621	548	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	10.4	38.9	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	-	-	300	262	797	299	279	828	1190	-	-
HCM Lane V/C Ratio	0.031	-	-	0.012	0.004	0.121	0.763	0.004	0.078	0.021	-	-
HCM Ctrl Dly (s/v)	8.3	-	-	17.1	18.8	10.1	47.3	18	9.7	8.1	-	-
HCM Lane LOS	A	-	-	C	C	B	E	C	A	A	-	-
HCM 95th %tile Q (veh)	0.1	-	-	0	0	0.4	5.8	0	0.3	0.1	-	-

Intersection	
Int Delay, s/veh	8.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	35	0	18	0	0	0	59	23	0	0	72	94
Future Vol, veh/h	35	0	18	0	0	0	59	23	0	0	72	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	41	0	21	0	0	0	69	27	0	0	85	111

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1	0	0	21	0	0	125	83	0	97	104	1
Stage 1	-	-	-	-	-	-	82	82	-	1	1	-
Stage 2	-	-	-	-	-	-	43	1	-	96	103	-
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	1620	-	-	1593	-	-	836	806	-	875	785	1083
Stage 1	-	-	-	-	-	-	917	826	-	1021	895	-
Stage 2	-	-	-	-	-	-	966	895	-	900	809	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1620	-	-	1593	-	-	674	786	-	-	765	1083
Mov Cap-2 Maneuver	-	-	-	-	-	-	674	786	-	-	765	-
Stage 1	-	-	-	-	-	-	894	805	-	995	895	-
Stage 2	-	-	-	-	-	-	785	895	-	848	789	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	4.8	0	10.6	9.4
HCM LOS			B	A

Minor Lane/Major Mvmt	NBLn1	NBLn2	NBLn3	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2	SBLn3
Capacity (veh/h)	674	786	-	1620	-	-	1593	-	-	-	765	1083
HCM Lane V/C Ratio	0.103	0.034	-	0.025	-	-	-	-	-	-	0.111	0.102
HCM Ctrl Dly (s/v)	11	9.7	0	7.3	-	-	0	-	-	0	10.3	8.7
HCM Lane LOS	B	A	A	A	-	-	A	-	-	A	B	A
HCM 95th %tile Q (veh)	0.3	0.1	-	0.1	-	-	0	-	-	-	0.4	0.3

Intersection	
Int Delay, s/veh	10.4

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	149	70	358	68	108	613
Future Vol, veh/h	149	70	358	68	108	613
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	421	80	127	721

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1036	211	0	0	501	0
Stage 1	421	-	-	-	-	-
Stage 2	615	-	-	-	-	-
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	227	794	-	-	1059	-
Stage 1	630	-	-	-	-	-
Stage 2	502	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	200	794	-	-	1059	-
Mov Cap-2 Maneuver	200	-	-	-	-	-
Stage 1	554	-	-	-	-	-
Stage 2	502	-	-	-	-	-

Approach	WB	NB	SB
HCM Ctrl Dly, s/v	60.3	0	1.3
HCM LOS	F		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	200	794	1059	-
HCM Lane V/C Ratio	-	-	0.876	0.104	0.12	-
HCM Ctrl Dly (s/v)	-	-	83.9	10.1	8.9	-
HCM Lane LOS	-	-	F	B	A	-
HCM 95th %tile Q (veh)	-	-	6.7	0.3	0.4	-

Intersection	
Int Delay, s/veh	79.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	73	99	4	8	60	242	10	3	5	610	1	150
Future Vol, veh/h	73	99	4	8	60	242	10	3	5	610	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	285	12	4	6	718	1	176

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	356	0	0	121	0	0	342	662	58	321	382	36
Stage 1	-	-	-	-	-	-	288	288	-	89	89	-
Stage 2	-	-	-	-	-	-	54	374	-	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	1199	-	-	1083	-	-	417	381	775	~ 608	550	1029
Stage 1	-	-	-	-	-	-	503	672	-	908	820	-
Stage 2	-	-	-	-	-	-	750	616	-	750	669	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1199	-	-	1083	-	-	324	351	775	~ 562	507	1029
Mov Cap-2 Maneuver	-	-	-	-	-	-	324	351	-	~ 562	507	-
Stage 1	-	-	-	-	-	-	467	624	-	843	813	-
Stage 2	-	-	-	-	-	-	615	611	-	~ 687	621	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	3.4	0.2	14.5	130.6
HCM LOS			B	F

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2	SBLn3
Capacity (veh/h)	324	533	1199	-	-	1083	-	-	562	507	1029
HCM Lane V/C Ratio	0.036	0.018	0.072	-	-	0.009	-	-	1.277	0.002	0.171
HCM Ctrl Dly (s/v)	16.5	11.9	8.2	-	-	8.4	-	-	160.7	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	-	-	28.8	0	0.6

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

Intersection	
Int Delay, s/veh	8.3

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	123	45	0	0	0
Future Vol, veh/h	0	123	45	0	0	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	145	53	0	0	0

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	107	1	1	0	-	0
Stage 1	1	-	-	-	-	-
Stage 2	106	-	-	-	-	-
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	891	1084	1622	-	-	-
Stage 1	1022	-	-	-	-	-
Stage 2	918	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	862	1084	1622	-	-	-
Mov Cap-2 Maneuver	862	-	-	-	-	-
Stage 1	988	-	-	-	-	-
Stage 2	918	-	-	-	-	-

Approach	EB	NB	SB
HCM Ctrl Dly, s/v	8.8	7.3	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1622	-	1084	-	-
HCM Lane V/C Ratio	0.033	-	0.133	-	-
HCM Ctrl Dly (s/v)	7.3	-	8.8	-	-
HCM Lane LOS	A	-	A	-	-
HCM 95th %tile Q (veh)	0.1	-	0.5	-	-

Intersection	
Int Delay, s/veh	16.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	43	42	58	150	127	18	24	235	64	9	359	45
Future Vol, veh/h	43	42	58	150	127	18	24	235	64	9	359	45
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	250	-	250	485	-	235	435	-	-	385	-	-
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	51	49	68	176	149	21	28	276	75	11	422	53

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	170	0	0	117	0	0	789	673	25	766	720	75
Stage 1	-	-	-	-	-	-	151	151	-	501	501	-
Stage 2	-	-	-	-	-	-	638	522	-	265	219	-
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	1405	-	-	1469	-	-	281	375	1045	292	~ 352	971
Stage 1	-	-	-	-	-	-	836	771	-	521	541	-
Stage 2	-	-	-	-	-	-	431	529	-	717	721	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1405	-	-	1469	-	-	-	318	1045	64	~ 298	971
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	318	-	64	~ 298	-
Stage 1	-	-	-	-	-	-	806	743	-	502	476	-
Stage 2	-	-	-	-	-	-	40	466	-	403	695	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	2.3	4		42.7
HCM LOS			-	E

Minor Lane/Major Mvmt	NBLn1	NBLn2	NBLn3	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2	SBLn3
Capacity (veh/h)	-	-	-	1405	-	-	1469	-	-	64	298	346
HCM Lane V/C Ratio	-	-	-	0.036	-	-	0.12	-	-	0.165	0.709	0.763
HCM Ctrl Dly (s/v)	-	-	-	7.7	-	-	7.8	-	-	72.1	41.8	42.2
HCM Lane LOS	-	-	-	A	-	-	A	-	-	F	E	E
HCM 95th %tile Q (veh)	-	-	-	0.1	-	-	0.4	-	-	0.5	5	6.1

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

Intersection	
Int Delay, s/veh	66.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	70	136	42	112	86	14	65	368	134	20	241	37
Future Vol, veh/h	70	136	42	112	86	14	65	368	134	20	241	37
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	250	-	250	485	-	235	435	-	-	385	-	-
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	82	160	49	132	101	16	76	433	158	24	284	44

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	117	0	0	209	0	0	781	705	80	826	738	51
Stage 1	-	-	-	-	-	-	324	324	-	365	365	-
Stage 2	-	-	-	-	-	-	457	381	-	461	373	-
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	1469	-	-	1359	-	-	285	~ 359	964	264	344	1006
Stage 1	-	-	-	-	-	-	662	648	-	627	622	-
Stage 2	-	-	-	-	-	-	553	612	-	550	617	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1469	-	-	1359	-	-	~ 30	~ 306	964	-	293	1006
Mov Cap-2 Maneuver	-	-	-	-	-	-	~ 30	~ 306	-	-	293	-
Stage 1	-	-	-	-	-	-	625	612	-	592	562	-
Stage 2	-	-	-	-	-	-	237	553	-	127	582	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	2.1	4.2	153	
HCM LOS			F	-

Minor Lane/Major Mvmt	NBLn1	NBLn2	NBLn3	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2	SBLn3
Capacity (veh/h)	30	306	430	1469	-	-	1359	-	-	-	-	-
HCM Lane V/C Ratio	2.549	0.707	0.87	0.056	-	-	0.097	-	-	-	-	-
HCM Ctrl Dly (s/v)	$ 982.6	40.8	48.4	7.6	-	-	7.9	-	-	-	-	-
HCM Lane LOS	F	E	E	A	-	-	A	-	-	-	-	-
HCM 95th %tile Q (veh)	9	5	8.9	0.2	-	-	0.3	-	-	-	-	-

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

Intersection	
Int Delay, s/veh	14.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	2	1	56	142	1	39	90	377	180	60	246	3
Future Vol, veh/h	2	1	56	142	1	39	90	377	180	60	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	167	1	46	106	444	212	71	289	4

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	866	1299	145	943	1091	222	293	0	0	656	0	0
Stage 1	431	431	-	656	656	-	-	-	-	-	-	-
Stage 2	435	868	-	287	435	-	-	-	-	-	-	-
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	247	160	876	217	213	782	1265	-	-	927	-	-
Stage 1	573	581	-	421	460	-	-	-	-	-	-	-
Stage 2	570	368	-	696	579	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	204	135	876	176	180	782	1265	-	-	927	-	-
Mov Cap-2 Maneuver	204	135	-	176	180	-	-	-	-	-	-	-
Stage 1	525	536	-	386	421	-	-	-	-	-	-	-
Stage 2	490	337	-	593	534	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	10.2	86.7	1.1	1.8
HCM LOS	B	F		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	WBLn3	SBL	SBT	SBR
Capacity (veh/h)	1265	-	-	204	135	876	176	180	782	927	-	-
HCM Lane V/C Ratio	0.084	-	-	0.012	0.009	0.075	0.949	0.007	0.059	0.076	-	-
HCM Ctrl Dly (s/v)	8.1	-	-	22.9	31.9	9.4	108.2	25.1	9.9	9.2	-	-
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	0.2	-	-

Intersection	
Int Delay, s/veh	8.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	106	0	62	0	0	0	48	69	0	0	49	65
Future Vol, veh/h	106	0	62	0	0	0	48	69	0	0	49	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	125	0	73	0	0	0	56	81	0	0	58	76

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1	0	0	73	0	0	280	251	0	292	324	1
Stage 1	-	-	-	-	-	-	250	250	-	1	1	-
Stage 2	-	-	-	-	-	-	30	1	-	291	323	-
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	1620	-	-	1525	-	-	650	651	-	638	592	1083
Stage 1	-	-	-	-	-	-	732	699	-	1021	895	-
Stage 2	-	-	-	-	-	-	983	895	-	693	649	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1620	-	-	1525	-	-	523	601	-	-	546	1083
Mov Cap-2 Maneuver	-	-	-	-	-	-	523	601	-	-	546	-
Stage 1	-	-	-	-	-	-	676	645	-	942	895	-
Stage 2	-	-	-	-	-	-	855	895	-	559	599	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	4.7	0	12.2	10.2
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	NBLn2	NBLn3	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2	SBLn3
Capacity (veh/h)	523	601	-	1620	-	-	1525	-	-	-	546	1083
HCM Lane V/C Ratio	0.108	0.135	-	0.077	-	-	-	-	-	-	0.106	0.071
HCM Ctrl Dly (s/v)	12.7	11.9	0	7.4	-	-	0	-	-	0	12.4	8.6
HCM Lane LOS	B	B	A	A	-	-	A	-	-	A	B	A
HCM 95th %tile Q (veh)	0.4	0.5	-	0.3	-	-	0	-	-	-	0.4	0.2

Intersection	
Int Delay, s/veh	6.7

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	101	96	658	122	75	444
Future Vol, veh/h	101	96	658	122	75	444
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	774	144	88	522

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1211	387	0	0	918	0
Stage 1	774	-	-	-	-	-
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	175	611	-	-	739	-
Stage 1	415	-	-	-	-	-
Stage 2	619	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	154	611	-	-	739	-
Mov Cap-2 Maneuver	154	-	-	-	-	-
Stage 1	366	-	-	-	-	-
Stage 2	619	-	-	-	-	-

Approach	WB	NB	SB
HCM Ctrl Dly, s/v	47.3	0	1.5
HCM LOS	E		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	154	611	739	-
HCM Lane V/C Ratio	-	-	0.772	0.185	0.119	-
HCM Ctrl Dly (s/v)	-	-	80.7	12.2	10.5	-
HCM Lane LOS	-	-	F	B	B	-
HCM 95th %tile Q (veh)	-	-	4.8	0.7	0.4	-

Intersection	
Int Delay, s/veh	57.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	122	69	6	8	94	683	3	11	10	425	10	100
Future Vol, veh/h	122	69	6	8	94	683	3	11	10	425	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	804	4	13	12	500	12	118

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	915	0	0	88	0	0	449	1302	41	464	505	56
Stage 1	-	-	-	-	-	-	369	369	-	129	129	-
Stage 2	-	-	-	-	-	-	80	933	-	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	741	-	-	1051	-	-	351	160	820	~ 481	468	999
Stage 1	-	-	-	-	-	-	455	619	-	861	788	-
Stage 2	-	-	-	-	-	-	737	343	-	653	615	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	741	-	-	1051	-	-	256	128	820	~ 371	374	999
Mov Cap-2 Maneuver	-	-	-	-	-	-	256	128	-	~ 371	374	-
Stage 1	-	-	-	-	-	-	367	499	-	694	781	-
Stage 2	-	-	-	-	-	-	635	340	-	505	496	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	6.8	0.1	23.4	162.8
HCM LOS			C	F

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2	SBLn3
Capacity (veh/h)	256	214	741	-	-	1051	-	-	371	374	999
HCM Lane V/C Ratio	0.014	0.115	0.194	-	-	0.009	-	-	1.348	0.031	0.118
HCM Ctrl Dly (s/v)	19.3	24	11	-	-	8.5	-	-	202.5	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	-	-	24	0.1	0.4

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

Intersection	
Int Delay, s/veh	7.9

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	85	138	0	0	0
Future Vol, veh/h	0	85	138	0	0	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	100	162	0	0	0

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	325	1	1	0	-	0
Stage 1	1	-	-	-	-	-
Stage 2	324	-	-	-	-	-
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	669	1084	1622	-	-	-
Stage 1	1022	-	-	-	-	-
Stage 2	733	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	602	1084	1622	-	-	-
Mov Cap-2 Maneuver	602	-	-	-	-	-
Stage 1	920	-	-	-	-	-
Stage 2	733	-	-	-	-	-

Approach	EB	NB	SB
HCM Ctrl Dly, s/v	8.7	7.5	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1622	-	1084	-	-
HCM Lane V/C Ratio	0.1	-	0.092	-	-
HCM Ctrl Dly (s/v)	7.5	-	8.7	-	-
HCM Lane LOS	A	-	A	-	-
HCM 95th %tile Q (veh)	0.3	-	0.3	-	-

Intersection	
Int Delay, s/veh	17.8

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	-	-	385	-	-
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	680	937	209	668	876	197	417	0	0	394	0	0
Stage 1	473	473	-	403	403	-	-	-	-	-	-	-
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	337	263	797	344	286	811	1138	-	-	1161	-	-
Stage 1	541	557	-	595	598	-	-	-	-	-	-	-
Stage 2	776	562	-	717	557	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	293	249	797	289	271	811	1138	-	-	1161	-	-
Mov Cap-2 Maneuver	293	249	-	289	271	-	-	-	-	-	-	-
Stage 1	524	544	-	577	579	-	-	-	-	-	-	-
Stage 2	682	545	-	614	544	-	-	-	-	-	-	-

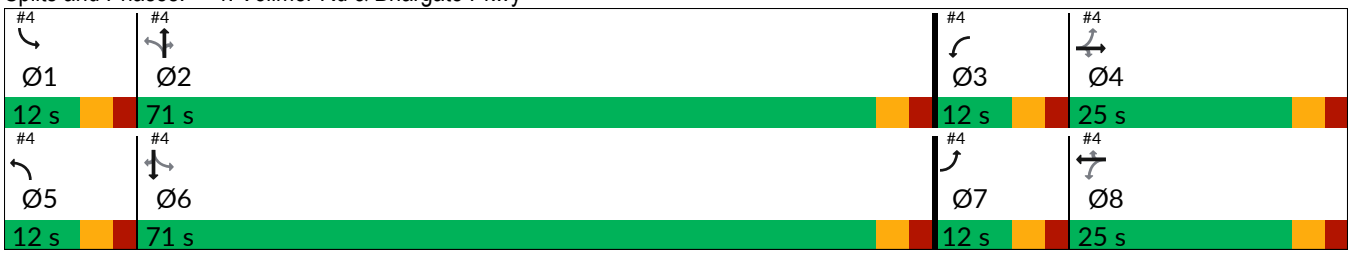
Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	10.5	63.2	0.7	0.5
HCM LOS	B	F		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	WBLn3	SBL	SBT	SBR
Capacity (veh/h)	1138	-	-	293	249	797	289	271	811	1161	-	-
HCM Lane V/C Ratio	0.031	-	-	0.012	0.005	0.121	0.94	0.004	0.091	0.024	-	-
HCM Ctrl Dly (s/v)	8.3	-	-	17.4	19.5	10.1	77.9	18.3	9.9	8.2	-	-
HCM Lane LOS	A	-	-	C	C	B	F	C	A	A	-	-
HCM 95th %tile Q (veh)	0.1	-	-	0	0	0.4	9.1	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 (s/veh)	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 (s/veh)	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 (s/veh)		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 (s/veh): 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 Ctrl Dly, s/v	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 Ctrl Dly (s/v)	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	534	-	-	-	-	-
Stage 2	489	-	-	-	-	-

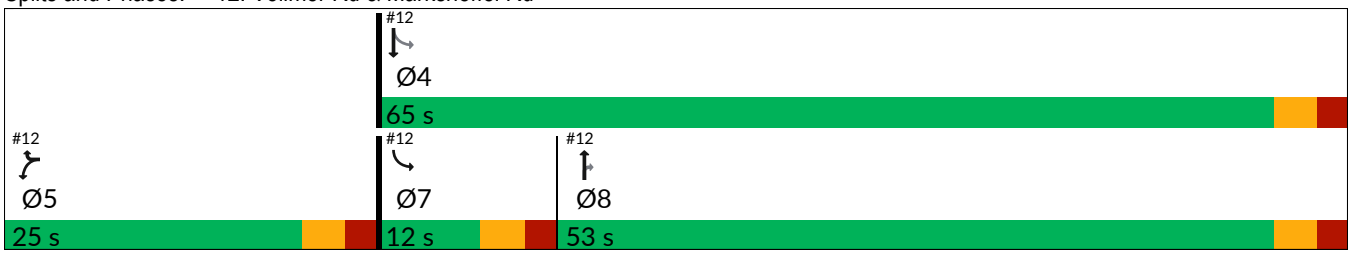
Approach	WB	NB	SB
HCM Ctrl Dly, s/v	74.4	0	1.3
HCM LOS	F		

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 Ctrl Dly (s/v)	-	-	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 (s/veh)	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 (s/veh)	17.8	5.7	13.1	4.5	6.1	6.0
LOS	B	A	B	A	A	A
Approach Delay (s/veh)	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 (s/veh): 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 Ctrl Dly, s/v	3.4	0.2	14.5	172.9
HCM LOS			B	F

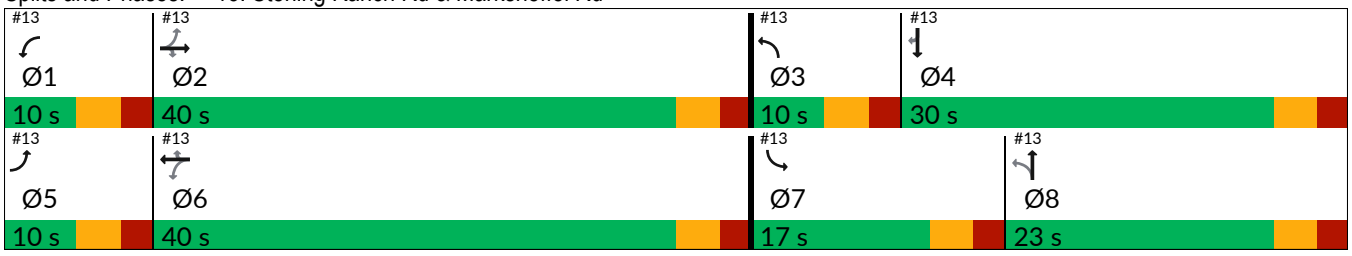
Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2	SBLn3
Capacity (veh/h)	324	529	1189	-	-	1083	-	-	562	507	1029
HCM Lane V/C Ratio	0.036	0.018	0.072	-	-	0.009	-	-	1.396	0.002	0.171
HCM Ctrl Dly (s/v)	16.5	11.9	8.3	-	-	8.4	-	-	210	12.1	9.2
HCM Lane LOS	C	B	A	-	-	A	-	-	F	B	A
HCM 95th %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 (s/veh)	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 (s/veh)	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 (s/veh)		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 (s/veh): 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	8.5

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑	↑↑	↱		↱
Traffic Vol, veh/h	0	0	0	0	0	71
Future Vol, veh/h	0	0	0	0	0	71
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	0	-	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	0	0	0	0	0	84

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	-	0	-	0	-	1
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.32
Pot Cap-1 Maneuver	0	-	-	-	0	1083
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	-	-	-	-	-	1083
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

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

Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	1083
HCM Lane V/C Ratio	-	-	-	0.077
HCM Ctrl Dly (s/v)	-	-	-	8.6
HCM Lane LOS	-	-	-	A
HCM 95th %tile Q (veh)	-	-	-	0.3

Intersection	
Int Delay, s/veh	7.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	123	24	0	0	45	6	31	0	5	0
Future Vol, veh/h	0	0	123	24	0	0	45	6	31	0	5	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	200	-	200	200	-	-
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	0	0	145	28	0	0	53	7	36	0	6	0

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	137	155	6	192	119	7	6	0	0	43	0	0
Stage 1	6	6	-	113	113	-	-	-	-	-	-	-
Stage 2	131	149	-	79	6	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	834	737	1077	768	771	1075	1615	-	-	1566	-	-
Stage 1	1016	891	-	892	802	-	-	-	-	-	-	-
Stage 2	873	774	-	930	891	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	813	713	1077	648	746	1075	1615	-	-	1566	-	-
Mov Cap-2 Maneuver	813	713	-	648	746	-	-	-	-	-	-	-
Stage 1	982	891	-	863	776	-	-	-	-	-	-	-
Stage 2	844	748	-	805	891	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	8.9	10.8	4	0
HCM LOS	A	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1615	-	-	1077	648	1566	-	-
HCM Lane V/C Ratio	0.033	-	-	0.134	0.044	-	-	-
HCM Ctrl Dly (s/v)	7.3	-	-	8.9	10.8	0	-	-
HCM Lane LOS	A	-	-	A	B	A	-	-
HCM 95th %tile Q (veh)	0.1	-	-	0.5	0.1	0	-	-

Intersection	
Int Delay, s/veh	3.5

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	5	0	0	6	0	0
Future Vol, veh/h	5	0	0	6	0	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	-	200	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	6	0	0	7	0	0

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1	0	0	0	7	0
Stage 1	0	-	-	-	-	-
Stage 2	1	-	-	-	-	-
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	1022	-	-	-	1614	-
Stage 1	-	-	-	-	-	-
Stage 2	1022	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	1022	-	-	-	1614	-
Mov Cap-2 Maneuver	1022	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	1022	-	-	-	-	-

Approach	WB	NB	SB
HCM Ctrl Dly, s/v	8.5	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	1022	-	1614	-
HCM Lane V/C Ratio	-	-	0.006	-	-	-
HCM Ctrl Dly (s/v)	-	-	8.5	0	0	-
HCM Lane LOS	-	-	A	A	A	-
HCM 95th %tile Q (veh)	-	-	0	-	0	-

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 Ctrl Dly, s/v	10.4	144	1	2.1
HCM LOS	B	F		

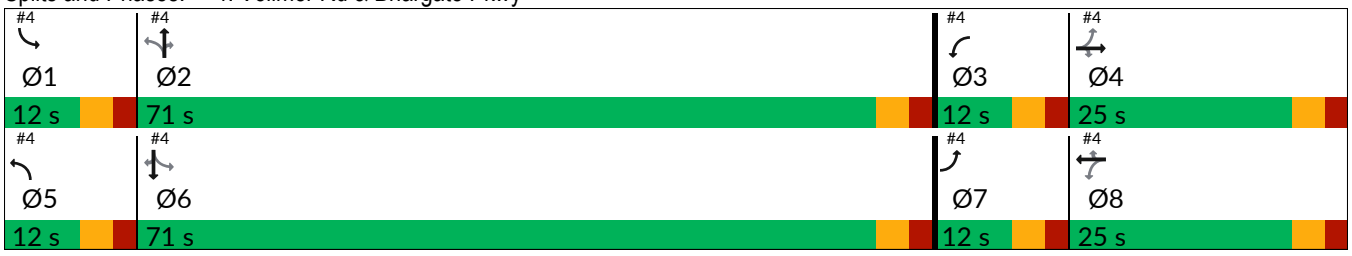
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	WBLn3	SBL	SBT	SBR
Capacity (veh/h)	1265	-	-	193	114	876	168	173	782	858	-	-
HCM Lane V/C Ratio	0.084	-	-	0.012	0.01	0.075	1.176	0.007	0.066	0.095	-	-
HCM Ctrl Dly (s/v)	8.1	-	-	23.9	36.9	9.4	179.8	26	9.9	9.6	-	-
HCM Lane LOS	A	-	-	C	E	A	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 (s/veh)	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 (s/veh)	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 (s/veh)		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 (s/veh): 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 Ctrl Dly, s/v	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 Ctrl Dly (s/v)	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	325	-	-	-	-	-
Stage 2	608	-	-	-	-	-

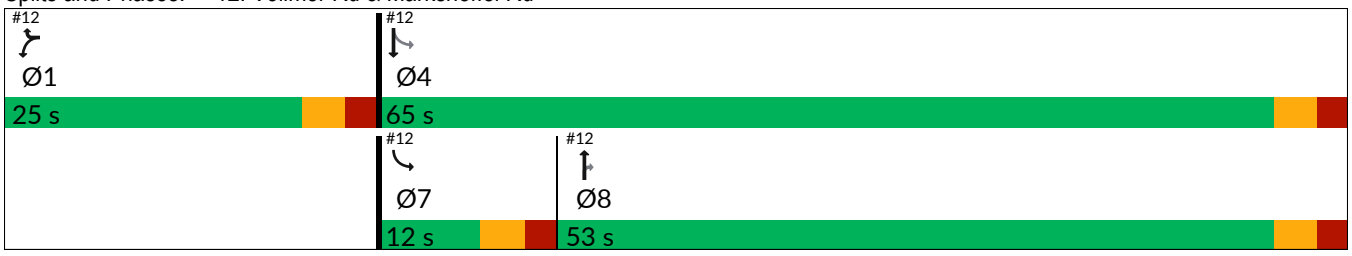
Approach	WB	NB	SB
HCM Ctrl Dly, s/v	68.7	0	1.5
HCM LOS	F		

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 Ctrl Dly (s/v)	-	-	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 (s/veh)	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 (s/veh)	40.3	10.3	9.9	2.0	4.2	3.6
LOS	D	B	A	A	A	A
Approach Delay (s/veh)	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 (s/veh): 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 Ctrl Dly, s/v	7	0.1	24.4	212.7
HCM LOS			C	F

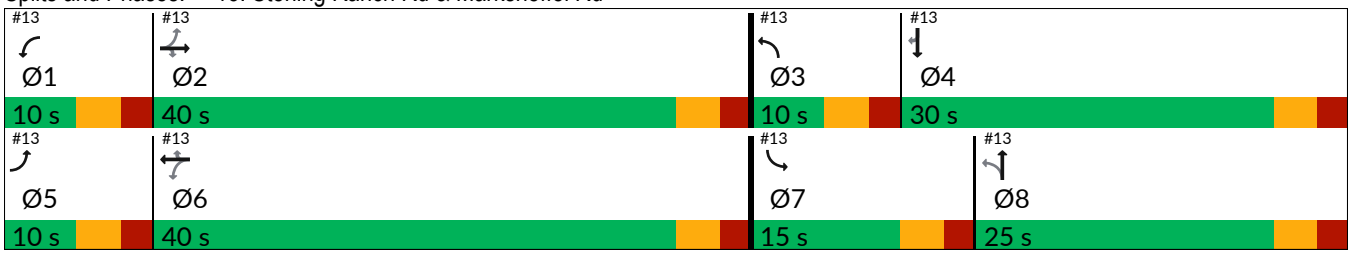
Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2	SBLn3
Capacity (veh/h)	254	204	721	-	-	1051	-	-	367	371	999
HCM Lane V/C Ratio	0.014	0.121	0.199	-	-	0.009	-	-	1.487	0.032	0.118
HCM Ctrl Dly (s/v)	19.4	25.1	11.2	-	-	8.5	-	-	260.8	15	9.1
HCM Lane LOS	C	D	B	-	-	A	-	-	F	C	A
HCM 95th %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 (s/veh)	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 (s/veh)	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 (s/veh)		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 (s/veh): 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	8.3

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑	↑↑	↱		↱
Traffic Vol, veh/h	0	0	0	0	0	50
Future Vol, veh/h	0	0	0	0	0	50
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	0	-	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	0	0	0	0	0	59

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	-	0	-	0	-	1
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.32
Pot Cap-1 Maneuver	0	-	-	-	0	1083
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	-	-	-	-	-	1083
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	SB
HCM Ctrl Dly, s/v	0	0	8.5
HCM LOS			A

Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	1083
HCM Lane V/C Ratio	-	-	-	0.054
HCM Ctrl Dly (s/v)	-	-	-	8.5
HCM Lane LOS	-	-	-	A
HCM 95th %tile Q (veh)	-	-	-	0.2

Intersection	
Int Delay, s/veh	5.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	85	17	0	0	138	17	97	0	4	0
Future Vol, veh/h	0	0	85	17	0	0	138	17	97	0	4	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	200	-	200	200	-	-
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	0	0	100	20	0	0	162	20	114	0	5	0

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	406	463	5	399	349	20	5	0	0	134	0	0
Stage 1	5	5	-	344	344	-	-	-	-	-	-	-
Stage 2	401	458	-	55	5	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	555	496	1078	561	575	1058	1616	-	-	1451	-	-
Stage 1	1017	892	-	671	637	-	-	-	-	-	-	-
Stage 2	626	567	-	957	892	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	512	446	1078	470	518	1058	1616	-	-	1451	-	-
Mov Cap-2 Maneuver	512	446	-	470	518	-	-	-	-	-	-	-
Stage 1	915	892	-	604	573	-	-	-	-	-	-	-
Stage 2	563	510	-	868	892	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	8.7	13	4.1	0
HCM LOS	A	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1616	-	-	1078	470	1451	-	-
HCM Lane V/C Ratio	0.1	-	-	0.093	0.043	-	-	-
HCM Ctrl Dly (s/v)	7.5	-	-	8.7	13	0	-	-
HCM Lane LOS	A	-	-	A	B	A	-	-
HCM 95th %tile Q (veh)	0.3	-	-	0.3	0.1	0	-	-

Intersection	
Int Delay, s/veh	1.5

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	4	0	0	17	0	0
Future Vol, veh/h	4	0	0	17	0	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	-	200	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	5	0	0	20	0	0

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1	0	0	0	20	0
Stage 1	0	-	-	-	-	-
Stage 2	1	-	-	-	-	-
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	1022	-	-	-	1596	-
Stage 1	-	-	-	-	-	-
Stage 2	1022	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	1022	-	-	-	1596	-
Mov Cap-2 Maneuver	1022	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	1022	-	-	-	-	-

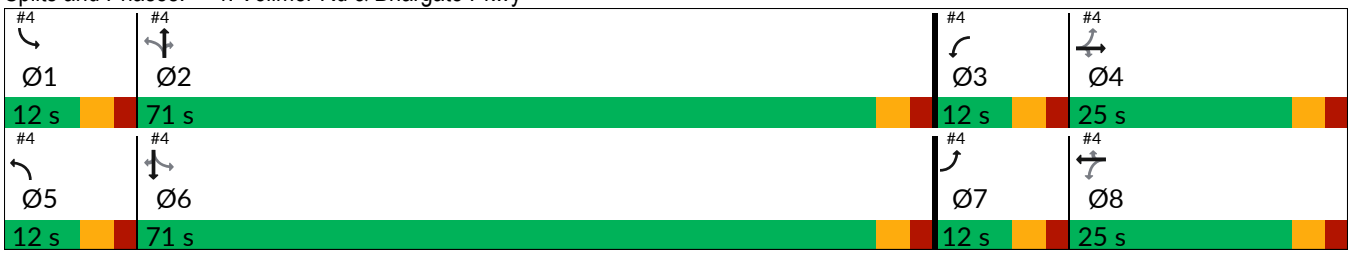
Approach	WB	NB	SB
HCM Ctrl Dly, s/v	8.5	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	1022	-	1596	-
HCM Lane V/C Ratio	-	-	0.005	-	-	-
HCM Ctrl Dly (s/v)	-	-	8.5	0	0	-
HCM Lane LOS	-	-	A	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)	43	49	58	176	148	21	24	235	82	10	359	45
Future Volume (vph)	43	49	58	176	148	21	24	235	82	10	359	45
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)	14.0	7.4	7.4	17.1	13.2	13.2	12.8	11.8	11.8	12.6	11.7	11.7
Actuated g/C Ratio	0.32	0.17	0.17	0.39	0.30	0.30	0.29	0.27	0.27	0.29	0.27	0.27
v/c Ratio	0.11	0.10	0.19	0.40	0.16	0.04	0.07	0.29	0.19	0.03	0.44	0.11
Control Delay (s/veh)	10.0	17.9	3.7	12.7	16.7	0.1	10.3	14.2	4.4	9.9	15.7	1.3
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 (s/veh)	10.0	17.9	3.7	12.7	16.7	0.1	10.3	14.2	4.4	9.9	15.7	1.3
LOS	B	B	A	B	B	A	B	B	A	A	B	A
Approach Delay (s/veh)		10.2			13.6			11.6			14.0	
Approach LOS		B			B			B			B	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 43.6	
Natural Cycle: 70	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.44	
Intersection Signal Delay (s/veh): 12.8	Intersection LOS: B
Intersection Capacity Utilization 44.7%	ICU Level of Service A
Analysis Period (min) 15	

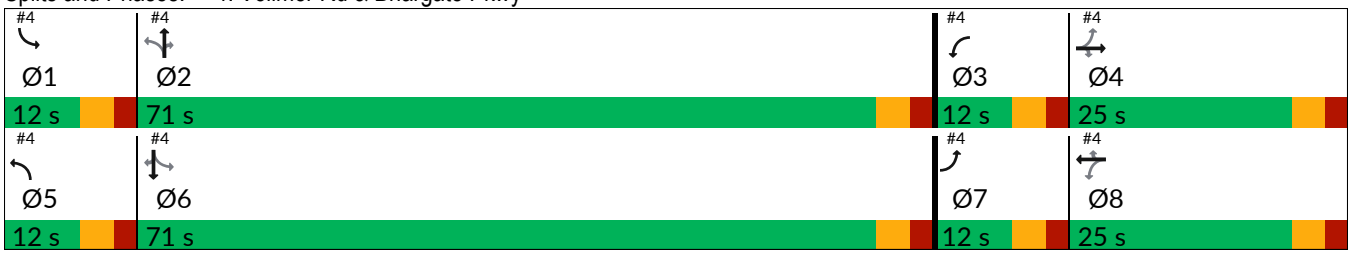
Splits and Phases: 4: Vollmer Rd & Briargate Pkwy



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	70	159	42	130	100	16	65	368	188	23	241	37
Future Volume (vph)	70	159	42	130	100	16	65	368	188	23	241	37
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)	13.7	8.7	8.7	13.8	8.7	8.7	17.1	16.1	16.1	15.0	11.8	11.8
Actuated g/C Ratio	0.30	0.19	0.19	0.30	0.19	0.19	0.37	0.35	0.35	0.32	0.25	0.25
v/c Ratio	0.18	0.28	0.13	0.34	0.18	0.05	0.16	0.35	0.32	0.06	0.32	0.09
Control Delay (s/veh)	12.7	21.2	1.4	14.3	20.7	0.3	10.3	13.6	4.2	9.5	17.7	0.4
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 (s/veh)	12.7	21.2	1.4	14.3	20.7	0.3	10.3	13.6	4.2	9.5	17.7	0.4
LOS	B	C	A	B	C	A	B	B	A	A	B	A
Approach Delay (s/veh)		15.9			16.0			10.4			14.9	
Approach LOS		B			B			B			B	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 46.4	
Natural Cycle: 70	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.35	
Intersection Signal Delay (s/veh): 13.3	Intersection LOS: B
Intersection Capacity Utilization 42.6%	ICU Level of Service A
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)	68	529	153	239	1020	80	153	130	100	108	310	139
Future Volume (vph)	68	529	153	239	1020	80	153	130	100	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	0.34	0.20	0.56	0.55	0.09	0.60	0.24	0.28	0.36	0.66	0.41
Control Delay	12.2	21.3	3.7	52.7	19.5	1.7	42.1	43.1	3.5	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	52.7	19.5	1.7	42.1	43.1	3.5	34.7	53.4	9.6
LOS	B	C	A	D	B	A	D	D	A	C	D	A
Approach Delay		16.8			24.4			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 66.1%	ICU Level of Service C
Analysis Period (min) 15	

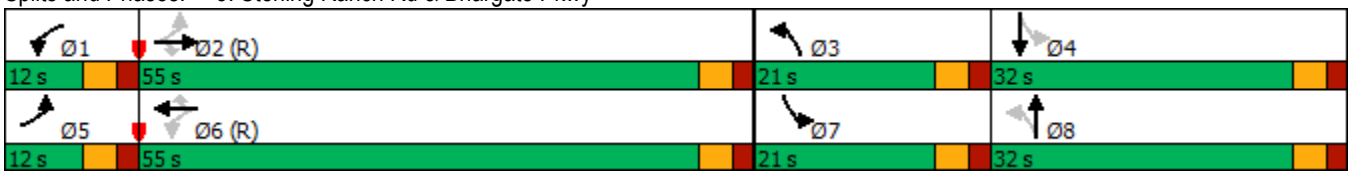
Splits and Phases: 4: Vollmer Rd & Briargate Pkwy



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	54	605	135	124	912	17	241	116	123	82	132	187
Future Volume (vph)	54	605	135	124	912	17	241	116	123	82	132	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)	56.6	50.0	50.0	58.1	52.5	52.5	47.8	36.1	120.0	37.2	28.1	120.0
Actuated g/C Ratio	0.47	0.42	0.42	0.48	0.44	0.44	0.40	0.30	1.00	0.31	0.23	1.00
v/c Ratio	0.25	0.43	0.19	0.38	0.62	0.02	0.52	0.22	0.08	0.20	0.32	0.12
Control Delay	17.3	26.1	4.1	18.8	28.9	0.1	29.8	34.7	0.1	24.6	41.0	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	17.3	26.1	4.1	18.8	28.9	0.1	29.8	34.7	0.1	24.6	41.0	0.2
LOS	B	C	A	B	C	A	C	C	A	C	D	A
Approach Delay		21.7			27.3			23.4			18.6	
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: 0.62	
Intersection Signal Delay: 23.7	Intersection LOS: C
Intersection Capacity Utilization 76.1%	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	832	42	162	899	63	108	245	104	121	576	135
Future Volume (vph)	68	832	42	162	899	63	108	245	104	121	576	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	0.26	0.54	0.06	0.59	0.56	0.08	0.52	0.29	0.23	0.34	0.68	0.29
Control Delay	14.9	25.0	0.1	23.9	15.3	0.3	35.9	37.5	7.8	29.9	45.2	9.5
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	35.9	37.5	7.8	29.9	45.2	9.5
LOS	B	C	A	C	B	A	D	D	A	C	D	A
Approach Delay		23.1			15.7			30.4			37.2	
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: 25.1	Intersection LOS: C
Intersection Capacity Utilization 70.5%	ICU Level of Service C
Analysis Period (min) 15	

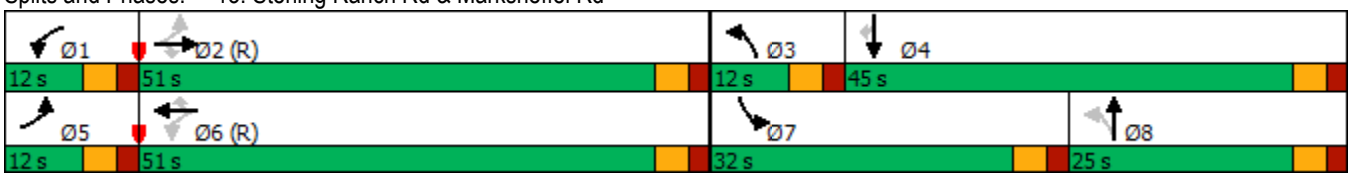
Splits and Phases: 12: Vollmer Rd & Marksheffel Rd



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	142	884	12	53	807	172	7	2	494	10	309
Future Volume (vph)	142	884	12	53	807	172	7	2	494	10	309
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)	81.7	73.9	73.9	76.3	69.5	69.5	8.0	10.0	23.4	24.1	24.1
Actuated g/C Ratio	0.68	0.62	0.62	0.64	0.58	0.58	0.07	0.08	0.20	0.20	0.20
v/c Ratio	0.35	0.43	0.01	0.15	0.41	0.18	0.06	0.06	0.78	0.03	0.59
Control Delay	13.2	11.9	0.0	8.8	16.6	3.2	41.1	33.0	54.4	36.3	11.2
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	13.2	11.9	0.0	8.8	16.6	3.2	41.1	33.0	54.4	36.3	11.2
LOS	B	B	A	A	B	A	D	C	D	D	B
Approach Delay		12.0			14.0			36.6		37.7	
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: 20.0	Intersection LOS: C
Intersection Capacity Utilization 63.4%	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	0	809	1015	4	0	38
Future Vol, veh/h	0	809	1015	4	0	38
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	200	-	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	0	852	1068	4	0	40

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	-	0	-	0	-	534
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.32
Pot Cap-1 Maneuver	0	-	-	-	0	491
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	-	-	-	-	-	491
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	13
HCM LOS			B

Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	491
HCM Lane V/C Ratio	-	-	-	0.081
HCM Control Delay (s)	-	-	-	13
HCM Lane LOS	-	-	-	B
HCM 95th %tile Q(veh)	-	-	-	0.3

Intersection	
Int Delay, s/veh	3.3

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	126	47	122	204	0
Future Vol, veh/h	0	126	47	122	204	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	133	49	128	215	0

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	441	215	215	0	-	0
Stage 1	215	-	-	-	-	-
Stage 2	226	-	-	-	-	-
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	574	825	1355	-	-	-
Stage 1	821	-	-	-	-	-
Stage 2	812	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	553	825	1355	-	-	-
Mov Cap-2 Maneuver	553	-	-	-	-	-
Stage 1	791	-	-	-	-	-
Stage 2	812	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	10.2	2.2	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1355	-	825	-	-
HCM Lane V/C Ratio	0.037	-	0.161	-	-
HCM Control Delay (s)	7.8	-	10.2	-	-
HCM Lane LOS	A	-	B	-	-
HCM 95th %tile Q(veh)	0.1	-	0.6	-	-

Intersection	
Int Delay, s/veh	4.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	8	7	61	2	35	3	72	46	134	136	0
Future Vol, veh/h	0	8	7	61	2	35	3	72	46	134	136	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	0	-	-	0	-	-	0	-	200	200	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	8	7	64	2	37	3	76	48	141	143	0

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	551	555	143	515	507	76	143	0	0	124	0	0
Stage 1	425	425	-	82	82	-	-	-	-	-	-	-
Stage 2	126	130	-	433	425	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	445	440	905	470	468	985	1440	-	-	1463	-	-
Stage 1	607	586	-	926	827	-	-	-	-	-	-	-
Stage 2	878	789	-	601	586	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	395	397	905	424	422	985	1440	-	-	1463	-	-
Mov Cap-2 Maneuver	395	397	-	424	422	-	-	-	-	-	-	-
Stage 1	606	530	-	924	825	-	-	-	-	-	-	-
Stage 2	841	787	-	530	530	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	11.9	12.8	0.2	3.8
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1440	-	-	-	538	424	919	1463	-	-
HCM Lane V/C Ratio	0.002	-	-	-	0.029	0.151	0.042	0.096	-	-
HCM Control Delay (s)	7.5	-	-	0	11.9	15	9.1	7.7	-	-
HCM Lane LOS	A	-	-	A	B	C	A	A	-	-
HCM 95th %tile Q(veh)	0	-	-	-	0.1	0.5	0.1	0.3	-	-

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	227	973	176	193	723	66	291	414	265	93	211	118
Future Volume (vph)	227	973	176	193	723	66	291	414	265	93	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	23.9	13.8	13.8
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	0.66	0.24	0.45	0.43	0.08	0.82	0.67	0.55	0.38	0.52	0.38
Control Delay	23.8	29.5	4.1	49.8	20.0	1.1	51.3	49.6	9.2	33.0	50.9	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	4.1	49.8	20.0	1.1	51.3	49.6	9.2	33.0	50.9	6.7
LOS	C	C	A	D	C	A	D	D	A	C	D	A
Approach Delay		25.2			24.6			38.9			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: 29.7	Intersection LOS: C
Intersection Capacity Utilization 78.0%	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)	271	902	134	144	813	79	146	117	84	60	70	134
Future Volume (vph)	271	902	134	144	813	79	146	117	84	60	70	134
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)	77.4	66.1	66.1	66.3	59.4	59.4	32.0	24.0	120.0	21.0	20.0	120.0
Actuated g/C Ratio	0.64	0.55	0.55	0.55	0.50	0.50	0.27	0.20	1.00	0.18	0.17	1.00
v/c Ratio	0.68	0.49	0.15	0.45	0.49	0.10	0.45	0.33	0.06	0.26	0.24	0.09
Control Delay	18.1	18.3	2.7	14.6	22.7	0.2	38.8	43.5	0.1	35.8	45.8	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	18.1	18.3	2.7	14.6	22.7	0.2	38.8	43.5	0.1	35.8	45.8	0.1
LOS	B	B	A	B	C	A	D	D	A	D	D	A
Approach Delay		16.7			19.9			31.0			20.4	
Approach LOS		B			B			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: 75	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.68	
Intersection Signal Delay: 19.8	Intersection LOS: B
Intersection Capacity Utilization 66.7%	ICU Level of Service C
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	914	89	187	701	149	169	774	176	126	387	196
Future Volume (vph)	138	914	89	187	701	149	169	774	176	126	387	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)	58.2	47.7	47.7	61.8	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	0.68	0.14	0.67	0.51	0.21	0.54	0.86	0.36	0.74	0.46	0.37
Control Delay	17.7	33.4	3.8	45.9	20.7	4.4	33.3	52.7	14.4	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	17.7	33.4	3.8	45.9	20.7	4.4	33.3	52.7	14.4	52.0	40.1	6.9
LOS	B	C	A	D	C	A	C	D	B	D	D	A
Approach Delay		29.2			22.9			43.8			33.0	
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: 0.86	
Intersection Signal Delay: 32.3	Intersection LOS: C
Intersection Capacity Utilization 80.7%	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)	297	940	6	62	838	551	18	4	335	17	181
Future Volume (vph)	297	940	6	62	838	551	18	4	335	17	181
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	69.4	62.8	62.8	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	0.74	0.47	0.01	0.19	0.48	0.52	0.13	0.18	0.62	0.05	0.40
Control Delay	38.7	10.2	0.0	10.2	20.8	3.5	35.7	24.2	51.7	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	38.7	10.2	0.0	10.2	20.8	3.5	35.7	24.2	51.7	37.5	8.2
LOS	D	B	A	B	C	A	D	C	D	D	A
Approach Delay		17.0			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: 0.74	
Intersection Signal Delay: 18.9	Intersection LOS: B
Intersection Capacity Utilization 71.4%	ICU Level of Service C
Analysis Period (min) 15	

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



Intersection	
Int Delay, s/veh	0.1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑	↑↑	↱		↱
Traffic Vol, veh/h	0	1047	1014	16	0	22
Future Vol, veh/h	0	1047	1014	16	0	22
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	200	-	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	0	1102	1067	17	0	23

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	-	0	-	0	-	534
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.32
Pot Cap-1 Maneuver	0	-	-	-	0	491
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	-	-	-	-	-	491
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	12.7
HCM LOS			B

Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	491
HCM Lane V/C Ratio	-	-	-	0.047
HCM Control Delay (s)	-	-	-	12.7
HCM Lane LOS	-	-	-	B
HCM 95th %tile Q(veh)	-	-	-	0.1

Intersection	
Int Delay, s/veh	3

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	87	140	281	133	0
Future Vol, veh/h	0	87	140	281	133	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	92	147	296	140	0

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	730	140	140	0	-	0
Stage 1	140	-	-	-	-	-
Stage 2	590	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	389	908	1443	-	-	-
Stage 1	887	-	-	-	-	-
Stage 2	554	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	349	908	1443	-	-	-
Mov Cap-2 Maneuver	349	-	-	-	-	-
Stage 1	797	-	-	-	-	-
Stage 2	554	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.4	2.6	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1443	-	908	-	-
HCM Lane V/C Ratio	0.102	-	0.101	-	-
HCM Control Delay (s)	7.8	-	9.4	-	-
HCM Lane LOS	A	-	A	-	-
HCM 95th %tile Q(veh)	0.3	-	0.3	-	-

Intersection	
Int Delay, s/veh	4.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	5	5	34	9	161	9	145	127	97	94	0
Future Vol, veh/h	0	5	5	34	9	161	9	145	127	97	94	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	0	-	-	0	-	-	0	-	200	200	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	5	5	36	9	169	9	153	134	102	99	0

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	630	608	99	479	474	153	99	0	0	287	0	0
Stage 1	303	303	-	171	171	-	-	-	-	-	-	-
Stage 2	327	305	-	308	303	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	394	410	957	497	489	893	1494	-	-	1275	-	-
Stage 1	706	664	-	831	757	-	-	-	-	-	-	-
Stage 2	686	662	-	702	664	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	294	375	957	457	447	893	1494	-	-	1275	-	-
Mov Cap-2 Maneuver	294	375	-	457	447	-	-	-	-	-	-	-
Stage 1	702	611	-	826	752	-	-	-	-	-	-	-
Stage 2	546	658	-	637	611	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	11.8	10.9	0.2	4.1
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1494	-	-	-	539	457	848	1275	-	-
HCM Lane V/C Ratio	0.006	-	-	-	0.02	0.078	0.211	0.08	-	-
HCM Control Delay (s)	7.4	-	-	0	11.8	13.5	10.4	8.1	-	-
HCM Lane LOS	A	-	-	A	B	B	B	A	-	-
HCM 95th %tile Q(veh)	0	-	-	-	0.1	0.3	0.8	0.3	-	-

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	

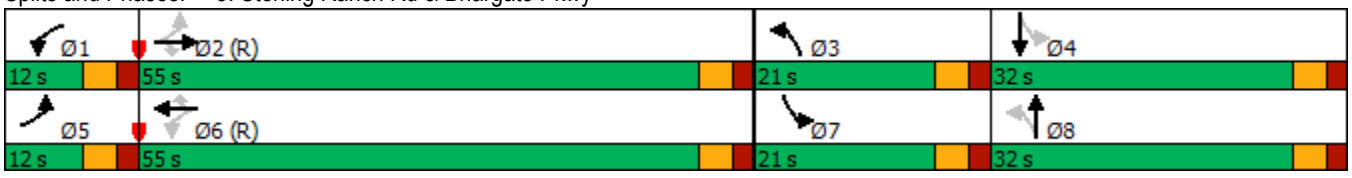
Splits and Phases: 4: Vollmer Rd & Briargate Pkwy



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	

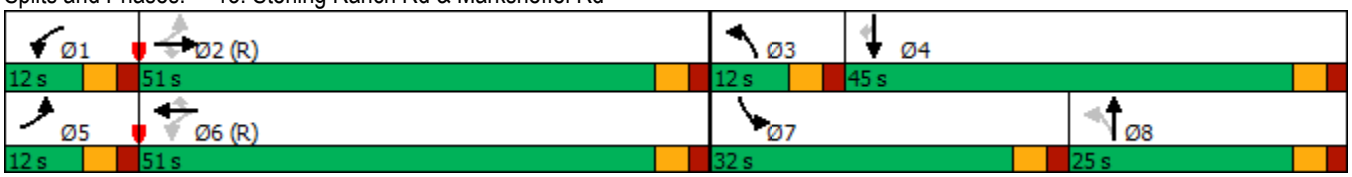
Splits and Phases: 12: Vollmer Rd & Marksheffel Rd



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	0.6

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑	↑↑	↱		↱
Traffic Vol, veh/h	0	815	1016	8	0	80
Future Vol, veh/h	0	815	1016	8	0	80
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	200	-	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	0	858	1069	8	0	84

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	-	0	-	0	-	535
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.32
Pot Cap-1 Maneuver	0	-	-	-	0	490
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	-	-	-	-	-	490
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	13.9
HCM LOS			B

Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	490
HCM Lane V/C Ratio	-	-	-	0.172
HCM Control Delay (s)	-	-	-	13.9
HCM Lane LOS	-	-	-	B
HCM 95th %tile Q(veh)	-	-	-	0.6

Intersection	
Int Delay, s/veh	3.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	126	22	0	1	47	126	26	0	208	0
Future Vol, veh/h	0	0	126	22	0	1	47	126	26	0	208	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	200	-	200	200	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	133	23	0	1	49	133	27	0	219	0

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	464	477	219	517	450	133	219	0	0	160	0	0
Stage 1	219	219	-	231	231	-	-	-	-	-	-	-
Stage 2	245	258	-	286	219	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	508	487	821	469	504	916	1350	-	-	1419	-	-
Stage 1	783	722	-	772	713	-	-	-	-	-	-	-
Stage 2	759	694	-	721	722	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	493	469	821	382	486	916	1350	-	-	1419	-	-
Mov Cap-2 Maneuver	493	469	-	382	486	-	-	-	-	-	-	-
Stage 1	755	722	-	744	687	-	-	-	-	-	-	-
Stage 2	731	669	-	605	722	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	10.2	14.8	1.8	0
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1350	-	-	821	392	1419	-	-
HCM Lane V/C Ratio	0.037	-	-	0.162	0.062	-	-	-
HCM Control Delay (s)	7.8	-	-	10.2	14.8	0	-	-
HCM Lane LOS	A	-	-	B	B	A	-	-
HCM 95th %tile Q(veh)	0.1	-	-	0.6	0.2	0	-	-

Intersection	
Int Delay, s/veh	5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	8	7	64	2	36	3	73	51	135	137	0
Future Vol, veh/h	0	8	7	64	2	36	3	73	51	135	137	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	0	-	-	0	-	-	0	-	200	200	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	8	7	67	2	38	3	77	54	142	144	0

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	558	565	144	519	511	77	144	0	0	131	0	0
Stage 1	428	428	-	83	83	-	-	-	-	-	-	-
Stage 2	130	137	-	436	428	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	440	434	903	467	466	984	1438	-	-	1454	-	-
Stage 1	605	585	-	925	826	-	-	-	-	-	-	-
Stage 2	874	783	-	599	585	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	389	391	903	421	419	984	1438	-	-	1454	-	-
Mov Cap-2 Maneuver	389	391	-	421	419	-	-	-	-	-	-	-
Stage 1	604	528	-	923	824	-	-	-	-	-	-	-
Stage 2	836	781	-	528	528	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	12	12.9	0.2	3.8
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1438	-	-	-	532	421	919	1454	-	-
HCM Lane V/C Ratio	0.002	-	-	-	0.03	0.16	0.044	0.098	-	-
HCM Control Delay (s)	7.5	-	-	0	12	15.2	9.1	7.7	-	-
HCM Lane LOS	A	-	-	A	B	C	A	A	-	-
HCM 95th %tile Q(veh)	0	-	-	-	0.1	0.6	0.1	0.3	-	-

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	

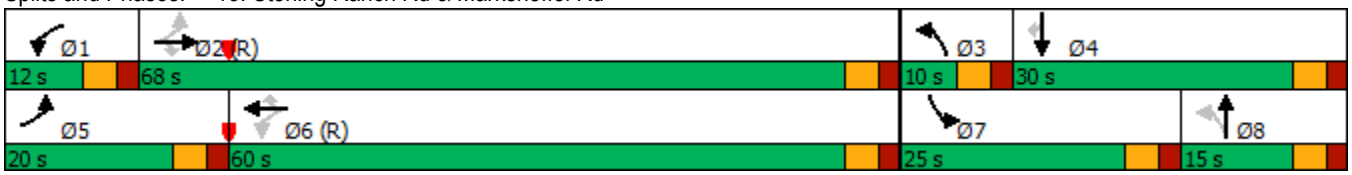
Splits and Phases: 12: Vollmer Rd & Marksheffel Rd



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	0	1051	1021	40	0	51
Future Vol, veh/h	0	1051	1021	40	0	51
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	200	-	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	0	1106	1075	42	0	54

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	-	0	-	0	-	538
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.32
Pot Cap-1 Maneuver	0	-	-	-	0	488
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	-	-	-	-	-	488
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	13.3
HCM LOS			B

Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	488
HCM Lane V/C Ratio	-	-	-	0.11
HCM Control Delay (s)	-	-	-	13.3
HCM Lane LOS	-	-	-	B
HCM 95th %tile Q(veh)	-	-	-	0.4

Intersection	
Int Delay, s/veh	3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	87	15	0	0	140	291	63	1	135	0
Future Vol, veh/h	0	0	87	15	0	0	140	291	63	1	135	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	200	-	200	200	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	92	16	0	0	147	306	66	1	142	0

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	777	810	142	790	744	306	142	0	0	372	0	0
Stage 1	144	144	-	600	600	-	-	-	-	-	-	-
Stage 2	633	666	-	190	144	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	314	314	906	308	343	734	1441	-	-	1186	-	-
Stage 1	859	778	-	488	490	-	-	-	-	-	-	-
Stage 2	468	457	-	812	778	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	289	282	906	255	308	734	1441	-	-	1186	-	-
Mov Cap-2 Maneuver	289	282	-	255	308	-	-	-	-	-	-	-
Stage 1	771	777	-	438	440	-	-	-	-	-	-	-
Stage 2	420	410	-	729	777	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	9.4	20	2.2	0.1
HCM LOS	A	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1441	-	-	906	255	1186	-	-
HCM Lane V/C Ratio	0.102	-	-	0.101	0.062	0.001	-	-
HCM Control Delay (s)	7.8	-	-	9.4	20	8	-	-
HCM Lane LOS	A	-	-	A	C	A	-	-
HCM 95th %tile Q(veh)	0.3	-	-	0.3	0.2	0	-	-

Intersection	
Int Delay, s/veh	4.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	5	5	36	9	161	9	146	137	98	94	0
Future Vol, veh/h	0	5	5	36	9	161	9	146	137	98	94	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	0	-	-	0	-	-	0	-	200	200	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	5	5	38	9	169	9	154	144	103	99	0

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	638	621	99	482	477	154	99	0	0	298	0	0
Stage 1	305	305	-	172	172	-	-	-	-	-	-	-
Stage 2	333	316	-	310	305	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	389	403	957	495	487	892	1494	-	-	1263	-	-
Stage 1	705	662	-	830	756	-	-	-	-	-	-	-
Stage 2	681	655	-	700	662	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	289	368	957	454	444	892	1494	-	-	1263	-	-
Mov Cap-2 Maneuver	289	368	-	454	444	-	-	-	-	-	-	-
Stage 1	701	608	-	825	751	-	-	-	-	-	-	-
Stage 2	541	651	-	634	608	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	11.9	11	0.2	4.1
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1494	-	-	-	532	454	847	1263	-	-
HCM Lane V/C Ratio	0.006	-	-	-	0.02	0.083	0.211	0.082	-	-
HCM Control Delay (s)	7.4	-	-	0	11.9	13.7	10.4	8.1	-	-
HCM Lane LOS	A	-	-	A	B	B	B	A	-	-
HCM 95th %tile Q(veh)	0	-	-	-	0.1	0.3	0.8	0.3	-	-

Appendix Table 1

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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. 8 Traffic Impact Study	SF2526	LSC Transportation Consultants, Inc	October 1, 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. *Oct-26*

MTCP Maps

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Figure 22. 2045 Roadway Functional Classifications

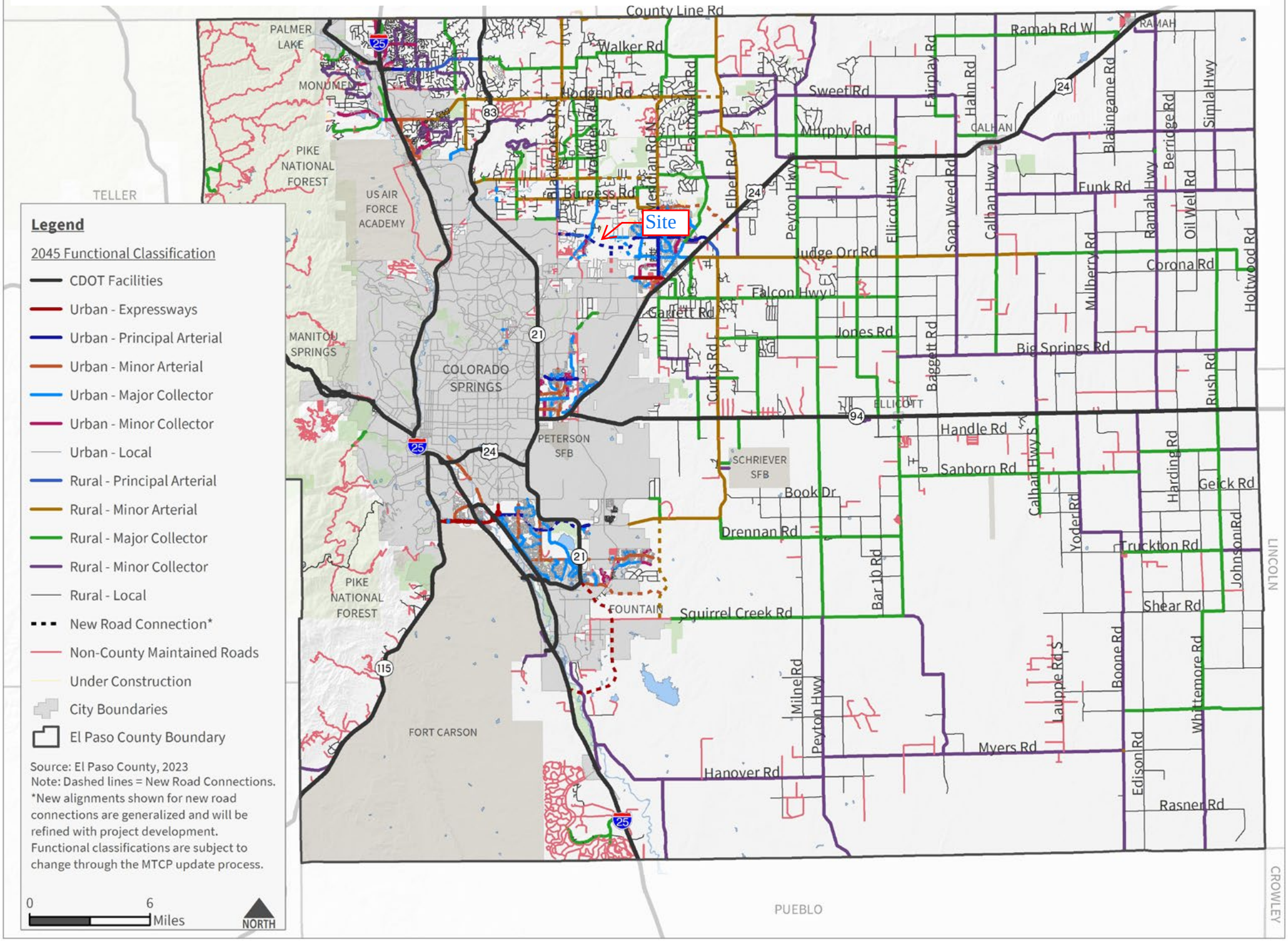
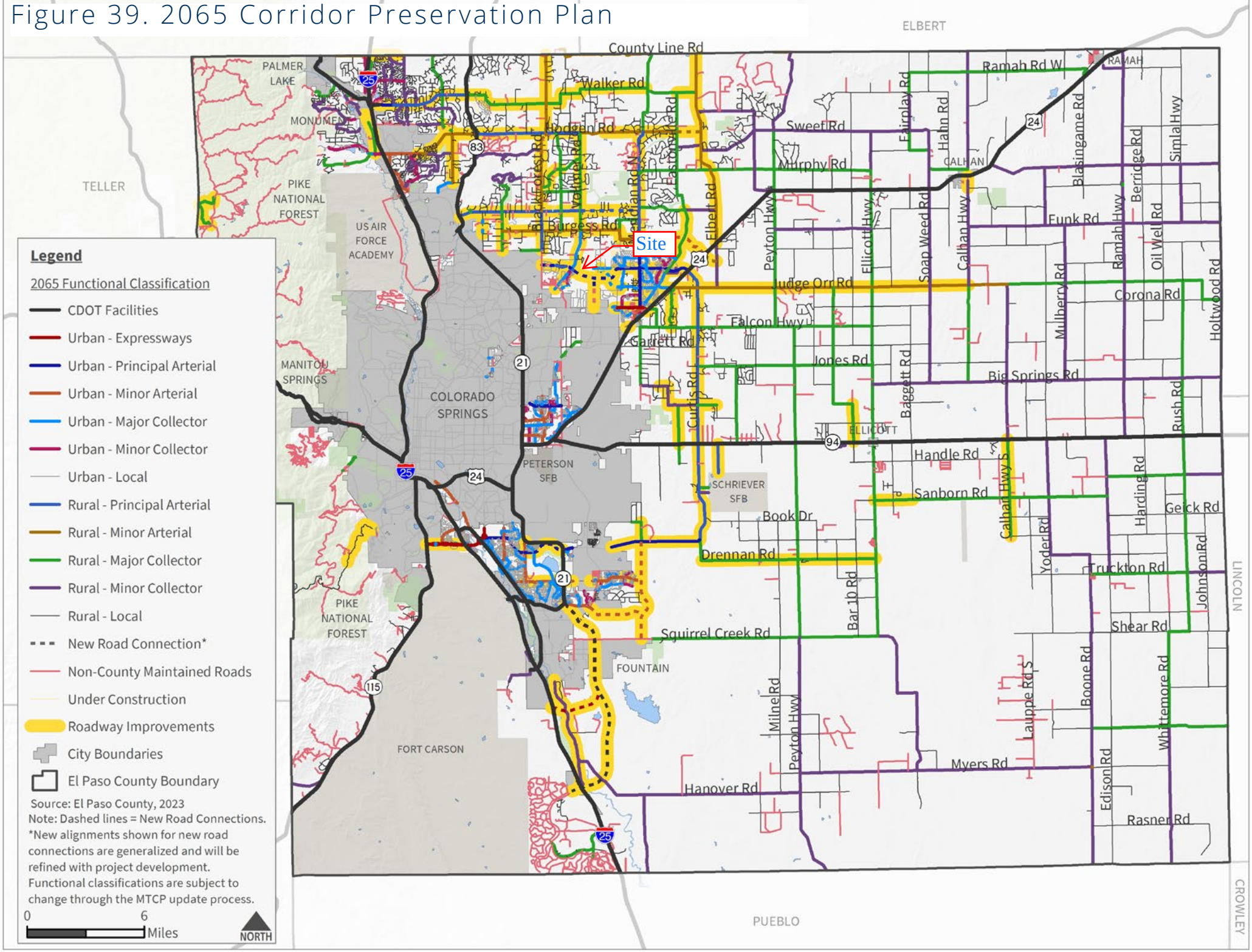


Figure 39. 2065 Corridor Preservation Plan



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