



LSC TRANSPORTATION CONSULTANTS, INC.
2504 East Pikes Peak Avenue, Suite 304
Colorado Springs, CO 80909
(719) 633-2868
FAX (719) 633-5430
E-mail: lsc@lsctrans.com
Website: <http://www.lsctrans.com>

Sterling Ranch East Filing No. 6
Traffic Impact Study
PCD File No. P2414 and SP244
(LSC #S244251)
March 20, 2025

SF2610 1

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.

LSC revision notes regarding the August 7, 2026 TIS for the SRE Plat resubmittal: 2

The TIS for this plat application includes numerous updates/ changes since the March 2025 Preliminary Plan TIS for SRE 6 was completed. A number of elements of the recent TIS completed for SRE Filing No. 4 have been incorporated into this report and modified, as needed, for use in this Filing No. 6 report.

LSC Responses to TIS Redline Comments

Page: 1

 Number: 1 Author: CDurham Subject: Text Box Date: 6/9/2026 14:32:37
[SF2610](#)

 Author: kdfer Subject: Sticky Note Date: 6/25/2026 10:11:59
LSC Response: Revised as requested

 Number: 2 Author: jeff Subject: Text Box Date: 8/7/2026 17:39:23

LSC revision notes regarding the August 7, 2026 TIS for the SRE Plat resubmittal:

The TIS for this plat application includes numerous updates/changes since the March 2025 Preliminary Plan TIS for SRE 6 was completed. A number of elements of the recent TIS completed for SRE Filing No. 4 have been incorporated into this report and modified, as needed, for use in this Filing No. 6 report.

Proposed Access Points

Figure 3 shows the roadway connections that are planned to be constructed in the short term. As shown in Figure 3, in the short term, Briargate Parkway is planned to be constructed to its final cross section between Vollmer Road and Sterling Ranch Road, Marksheffel Road is planned to be completed between Vollmer Road and Woodmen Road, and Sterling Ranch Road is planned to be constructed from Marksheffel Road to the northern boundary of the currently-proposed Sterling Ranch East Filing No. 6.

Figure 2 shows the proposed access plan. Full-movement access points are proposed to Sterling Ranch Road and Appleton Drive. 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. This access will require a deviation to the criteria contained in the *ECM*. The Master TIS showed a right-in/right-out only access point in this general location.

Please add note that deviation request was approved with the preliminary plan, SP2404

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)/Appleton Drive (Urban Minor Collector), and Appleton Drive (Urban 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 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 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, the Retreat at TimberRidge Filings 1-4, the planned FourSquare at Sterling Ranch East development, the approved filings within Sterling

 Number: 1 Author: CDurham Subject: Text Box Date: 6/9/2026 14:38:40

Please add note that deviation request was approved with the preliminary plan, SP2404

 Author: kdfer Subject: Sticky Note Date: 6/25/2026 10:16:01
LSC Response: Revised as requested

2045 Total Traffic

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

Figure 12c 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.

PRELIMINARY SIGNAL-WARRANT-THRESHOLD ANALYSIS (AM AND PM PEAK HOURS) – MARKSHEFFEL ROAD/VOLLMER ROAD AND MARKSHEFFEL ROAD/STERLING RANCH ROAD

Include analysis to see if signal is yet warranted at Vollmer/Briargate & Briargate/Sterling Ranch. ¹

The intersections of 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 only. In order for an Eight-Hour Vehicular-Volume Traffic-Signal Warrant to be satisfied, the volume threshold would need to be met for six additional hours of the day and in order for a Four-Hour Vehicular Volume Traffic Signal Warrant to be satisfied, the volume threshold would need to be met for two additional hours of the day. For example, the four-hour warrant would be satisfied with the volume thresholds met for one hour in the morning, two hours (instead of the one-hour peak) during the afternoon peak period, and an hour during the mid-afternoon.

²This “cursory”/planning-level analysis has been provided at the Preliminary Plan level to identify intersections which may need to be signalized in the short-term future. Detailed analysis of all applicable signal warrants should be evaluated with each filing submitted. The satisfaction of warrants does not indicate that a signal must be installed. ³As this is a final plat stage, please provide more detailed analysis for signal warrants.

Table 3 shows the results of the analysis for the intersection of Marksheffel/Vollmer. Based on the projected short-term total traffic volumes, six of the eight hours analyzed are projected to meet the criteria for a Four-Hour Vehicular Volume Warrant. However, only three of the eight hours analyzed are projected to meet the criteria for an Eight-Hour Vehicular-Volume Traffic-Signal Warrant. This analysis indicates that traffic-signal warrant(s) may be met in the short-term. Detailed analysis should be provided with each future filing within Sterling Ranch. Escrow towards this improvement may also need to be provided at the final plat stage of the process.

Table 4 shows the results of the analysis for the intersection of Marksheffel/Sterling Ranch. Based on the projected short-term total traffic volumes, only five of the eight hours analyzed are projected to meet the criteria for an Eight-Hour Vehicular-Volume Warrant and only three of the

 Number: 1 Author: CDurham Subject: Text Box Date: 6/9/2026 14:39:51

[Include analysis to see if signal is yet warranted at Vollmer/Briargate & Briargate/Sterling Ranch.](#)

 Author: jeff Subject: Sticky Note Date: 8/7/2026 17:09:17

LSC Response: Signal warrant analysis tables have been included for Vollmer/Marksheffel and Marksheffel/Sterling Ranch Road to be consistent with the tables submitted with Filing No. 4. The short-term projected LOS at Vollmer/Briargate is projected to be C for the WB LT with stop sign control (T intersection).

 Number: 2 Author: CDurham Subject: Highlight Date: 6/9/2026 14:40:28

This "cursory"/planning-level analysis has been provided at the Preliminary Plan level to identify intersections which may need to be signalized in the short-term future. Detailed analysis of all applicable signal warrants should be evaluated with each filing submitted.

 Number: 3 Author: CDurham Subject: Text Box Date: 6/9/2026 14:41:16

[As this is a final plat stage, please provide more detailed analysis for signal warrants.](#)

 Author: kdfer Subject: Sticky Note Date: 6/25/2026 10:29:12

LSC Response: Revised as requested

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

Intersection #12: Marksheffel Road/Vollmer Road

Marksheffel Road has been recently constructed between Vollmer Road and Sterling Ranch Road. Based on the projected short-term total traffic volumes, the westbound left-turn movement is projected to operate at LOS E during the morning and afternoon peak hours. This intersection is planned as a future signalized intersection. However, traffic-signal warrant(s) may not be met in the short term. It is not uncommon for the minor movements at a stop-sign-controlled intersection to operate at LOS E or F as the traffic volumes approach the levels needed to meet vehicular-volume traffic-signal warrants.

By 2045, it was assumed 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 12b and the lane geometry shown in Figure 12c. An escrow analysis for these improvements may need to be provided with the final plat.

Intersection #13: Marksheffel Road/Sterling Ranch Road

Revise first few sentences as Marksheffel to Vollmer has all been completed. 1

Marksheffel Road was recently constructed between Sterling Ranch Road and Vollmer Road and the section southeast of Sterling Ranch Road (to connect to the segment recently constructed) will be completed in the short term and will open the connection to Woodmen Road. Based on the projected short-term total traffic volumes, the southbound left-turn movement is projected to operate at LOS F during the afternoon peak hour if it remains stop-sign controlled. This intersection is planned as a future signalized intersection. However, 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. 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. An escrow analysis for these improvements may need to be provided with the final plat.

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.

 Number: 1 Author: CDurham Subject: Text Box Date: 6/9/2026 14:42:48

[Revise first few sentences as Marksheffel to Vollmer has all been completed.](#)

 Author: kdfer Subject: Sticky Note Date: 6/25/2026 10:31:29
LSC Response: Revised as requested

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 will be submitted as part of the Sterling Ranch East Filing No. 6 Preliminary Plan submittal.

Update paragraph as deviation request was approved with preliminary plan, SF2404 ¹

AREA MTCP 2050 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 I
- 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

- Escrow for proportionate shares of the cost of some future roadway improvements may be required. An escrow analysis for each intersection, including traffic signals, will be provided with the final plat, if needed.

Analysis is needed as this is final plat stage. ²

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 1,867 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

Provide discussion on all turn lanes needed. Include: northbound RT on Sterling Ranch to Briargate, westbound RT on Briargate to Sterling Ranch, eastbound RT on Briargate to Sioux Falls & Northbound RT on Sterling Ranch to Appleton ³

 Number: 1 Author: CDurham Subject: Text Box Date: 6/9/2026 14:43:52

Update paragraph as deviation request was approved with preliminary plan, SF2404

 Author: kdfer Subject: Sticky Note Date: 6/25/2026 10:31:44

LSC Response: Revised as requested

 Number: 2 Author: CDurham Subject: Text Box Date: 6/9/2026 14:28:25

Analysis is needed as this is final plat stage.

 Author: kdfer Subject: Sticky Note Date: 6/25/2026 10:33:39

LSC Reponse: The additional analysis has been included with the updated TIS as requested.

 Number: 3 Author: CDurham Subject: Text Box Date: 6/9/2026 17:39:53

Provide discussion on all turn lanes needed. Include: northbound RT on Sterling Ranch to Briargate, westbound RT on Briargate to Sterling Ranch, eastbound RT on Briargate to Sioux Falls & Northbound RT on Sterling Ranch to Appleton

 Author: kdfer Subject: Sticky Note Date: 6/25/2026 10:43:57

LSC Response: Revised as requested

between 6:30 and 8:30 a.m., about 35 vehicles would enter and 104 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 117 vehicles would enter and 69 vehicles would exit the site.

Level of Service

- The stop-sign-controlled intersection of Vollmer/Burgess projected to operate at LOS C or better for all approaches based on the short-term total traffic volumes. LSC recommends this intersection be reconstructed as a modern one-lane roundabout by 2045. As a modern roundabout, it is projected to operate at LOS C or better for all approaches during the peak hours, based on the projected 2045 total traffic volumes.
- The intersections of Vollmer/Briargate and Briargate/Sterling Ranch are projected to operate at a satisfactory level of service as stop-sign-controlled intersections in the short-term future. By 2045, these intersections will likely need to be converted to traffic-signal control. As signalized intersections, all movements are projected to operate at LOS D or better during the peak hours, based on the projected 2045 total traffic volumes.
- Some of the movements at the intersections of 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. An escrow analysis for these future traffic signals may need to be provided with the final plat.
- The intersections of Sterling Ranch/Vancouver and Sterling Ranch/Appleton are projected to operate at a satisfactory level of service as stop-sign-controlled intersections.

Recommended Improvements

Intersection and roadway segment improvements are recommended. Please refer to the "Roadway Improvements" section above for details. Also, Roadway improvements are detailed in Tables 5 and 6.

Escrow Analysis

Escrow for proportionate shares of the cost of some future roadway improvements will be required. An escrow analysis for each intersection will be provided with the final plat.

See earlier comment ¹
regarding escrow

* * * * *

 Number: 1 Author: CDurham Subject: Text Box Date: 6/9/2026 14:44:55

[See earlier comment regarding escrow](#)

 Author: kdfer Subject: Sticky Note Date: 6/25/2026 10:44:14
LSC Response: Escrow analysis has been provided in the updated TIS

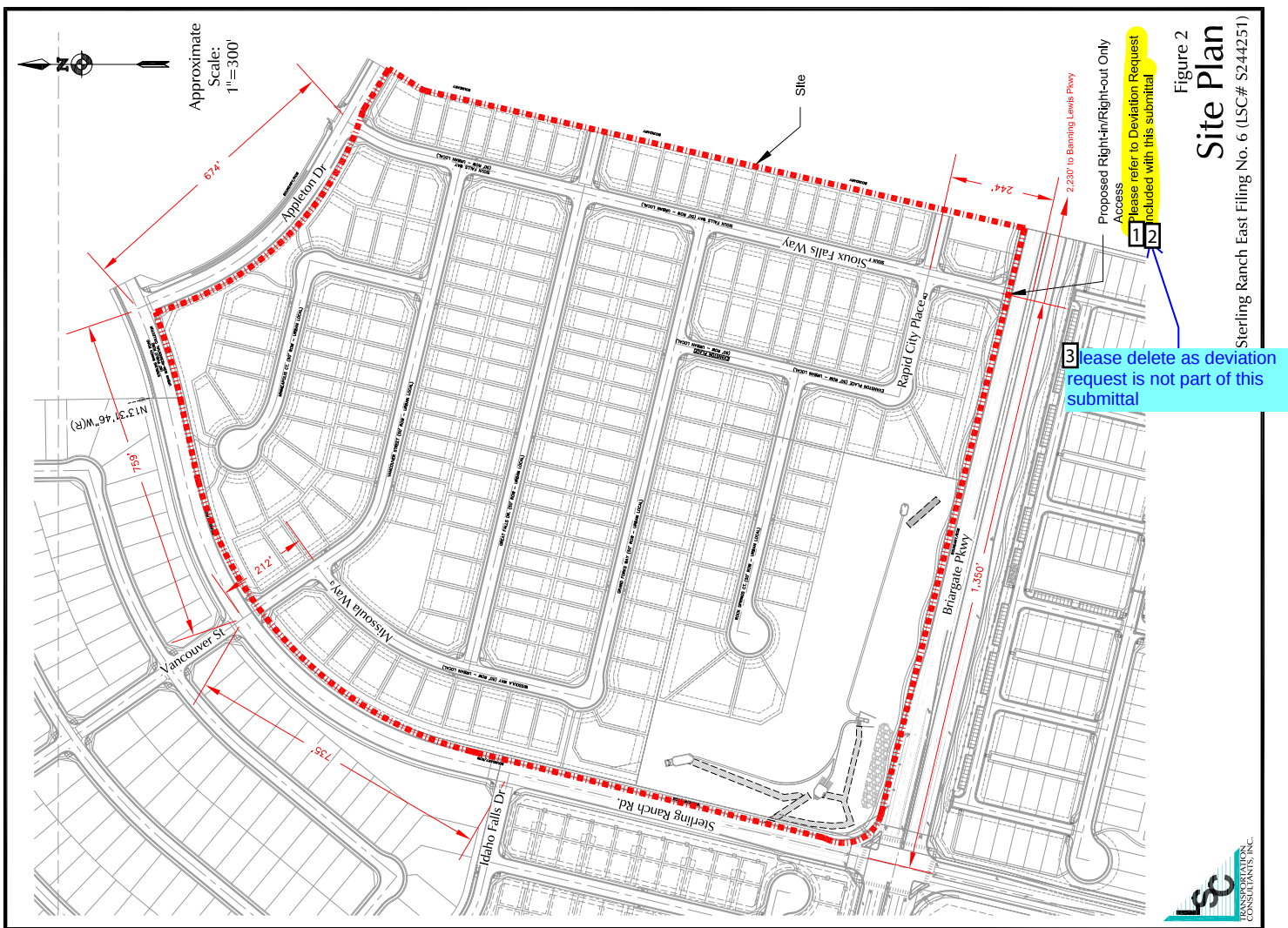


Figure 2
Site Plan
 Sterling Ranch East Filing No. 6 (LSC# S244251)

 Number: 1 Author: CDurham Subject: Highlight Date: 6/9/2026 14:47:07

 Number: 2 Author: CDurham Subject: Highlight Date: 6/9/2026 14:47:09

 Number: 3 Author: CDurham Subject: Callout Date: 6/9/2026 14:47:28

[Please delete as deviation request is not part of this submittal](#)

 Author: kdfer Subject: Sticky Note Date: 6/25/2026 10:44:33
LSC Response: Revised as requested
