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 11b and 12b_ show the level of service analysis results. The level of service reports are attached.

Intersection #4: Vollmer Road/Briargate Parkway

The intersection of Vollmer/Briargate could operate at a satisfactory level of service (LOS C or better) in the short term as a stop-sign-controlled intersection.

Briargate is built west thru Prairie Ridge already and plans to Black Forest Road are in design. Extension will be done well before 2045. Does this change the scenario for the future signal? [1]

By [2]2045, it was assumed Briargate Parkway would be extended west to Black Forest Road and East to Towner Avenue and that the intersection of Vollmer/Briargate will be converted to traffic-signal control. The intersection of Vollmer/Briargate is projected to operate at an overall LOS C during the peak hours as a signalized intersection, based on the projected 2045 total traffic volumes shown in Figure 12a and the lane geometry shown in Figure 12b.

Intersection #5: Briargate Parkway/Sterling Ranch Road

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

By 2[3]045, 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 12a and the lane geometry shown in Figure 12b.

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.

LSC Responses to 2nd Review Comments

Page: 16

Number: 1 Author: CDurham Subject: Callout Date: 10/7/2026 2:05:40 PM

Briargate is built west thru Prairie Ridge already and plans to Black Forest Road are in design. Extension will be done well before 2045. Does this change the scenario for the future signal?

Author: kdfer Subject: Sticky Note Date: 10/28/2026 2:47:10 PM

LSC Response: The short-term scenario has been updated to assume buildout of Retreat at Prairie Ridge Filing No. 1 through 4 and to assume the existing section of Briargate Parkway which has been constructed to the internal access points for the Retreat at Prairie Ridge but not to Black Forest Road. A limited scope "Intermediate-Term" scenario has also been added to the TIS. 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.

Number: 2 Author: CDurham Subject: Highlight Date: 10/7/2026 2:03:57 PM

2045,

Number: 3 Author: CDurham Subject: Highlight Date: 10/7/2026 3:52:57 PM

045,

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 6 is the **overall** list of Sterling Ranch/Sterling Ranch East area roadway-segment improvements. Please refer to Figure 14, 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 6 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).

2045 [1]

AREA MTCP 2050 ROADWAY IMPROVEMENT PROJECTS [2]

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

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Number: 1 Author: CDurham Subject: Text Box Date: 10/7/2026 3:53:30 PM

2045

Author: kdfer Subject: Sticky Note Date: 10/16/2026 10:29:49 AM

LSC Response: Revised as requested

Number: 2 Author: CDurham Subject: Highlight Date: 10/7/2026 3:53:24 PM

2050

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Table 5
Sterling Ranch East Filing No. 6
Intersection Improvements

Item #	Improvement	Trigger	Timing	Responsibility
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	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.	Long Term (note: to be analyzed at the time of developmer of the school at which point a determination would be made regarding the intersection traffi control beyond TWSC)	Sterling Ranch or potentially the school district
12) Marksheffel Road/Vollmer Road				
9	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
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 eas 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 Appleton Drive. The lane should be 305' long plus a 160' taper.	southbound left-turn volume > 25 vph	With the construction of Sterling Ranch Parkway north of Banning Lewis Parkway	Sterling Ranch
15	Construct a northbound right-turn deceleration lane on Sterling Ranch Road approaching Appleton Drive. 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. (August 2026)

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Number: 1 Author: CDurham Subject: Text Box Date: 10/7/2026 3:29:51 PM

Can we highlight items required with this filing and scale back or mark items that have been completed?

Author: kdfer Subject: Sticky Note Date: 10/16/2026 10:30:12 AM

LSC Response: Revised as requested