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Homestead North Phase 1 Updated Traffic Impact Study

SP-20-008
(LSC #204380)
October 19, 2021

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.

Provide Date

Date

LSC Responses to TIS Redline Comments

Page: 1



Number: 1 Author: CDurham Subject: Callout Date: 12/1/2021 11:50:06 AM

[Provide Date](#)



Author: kdferrin Subject: Sticky Note Date: 1/11/2022 9:38:26 AM

LSC Response: An updated certification page that has been signed and dated has been included with the updated TIS

- The project's obligation to the County roadway improvement fee program; and
- Recommended roadway improvements

RECENT TRAFFIC REPORTS

LSC prepared a traffic impact study (TIS) for the entire Sterling Ranch development dated June 5, 2008. LSC also prepared a traffic impact analysis for the first phase of the Sterling Ranch development, dated March 16, 2015; a memorandum for Phases 1-3, dated October 2, 2017; and a traffic impact analysis for the Sterling Ranch Phase 2 Preliminary Plan, dated December 20, 2018. The following site-specific, final plat traffic reports have also been prepared:

- Branding Iron at Sterling Ranch Filing No. 1 and Homestead at Sterling Ranch Filing No. 1, dated December 19, 2017
- Sterling Ranch Filing No. 2, dated April 3, 2018
- *Sterling Ranch Phase 2*, dated December 20, 2018
- Copper Chase at Sterling Ranch, dated December 20, 2018
- Homestead at Sterling Ranch Filing No. 2, dated March 3, 2020
- *Branding Iron at Sterling Ranch Filing No. 2*, dated March 31, 2020 (revised May 6, 2020)
Sterling Ranch Filing No. 2 and Sterling Ranch Phase 2, dated May 19, 2021

LSC prepared a TIS for the Retreat at TimberRidge, located just north of the Homestead North development, dated January 25, 2018. LSC also prepared transportation memoranda for the Retreat at TimberRidge Preliminary Plan dated June 29th, 2018 and the Retreat at TimberRidge Filing No. 1 dated April 3, 2020.

Previously approved plans for Vollmer Road showed a northbound right-turn acceleration lane on Vollmer Road at Briargate Parkway. As acceleration lanes are not typically required on Minor Arterials, this lane is no longer shown on the currently-proposed plans. None of the recent area traffic reports assumed this lane in the analysis. 

STUDY AREA

Study Area Land Use

Sketch Plan

Figure 2 shows the location of currently-proposed Homestead North Phase 1 development. These parcels were included as part of traffic analysis zone (TAZ) 21 in the 2008 master traffic impact report. Table 1 shows the land uses assumed for TAZ 21 in the 2008 report and the land uses assumed in this report. A copy of the TAZ map from the 2008 report has been attached. As shown in Table 1, the 2008 report assumed the study area would be developed with 327 single-family homes. This same area is now planned to be developed with about 224 single-family homes. This



DEVIATION REQUESTS

The following deviation requests to the criteria contained in the *El Paso County Engineering Criteria Manual* (ECM) will be included with this submittal:

- The proposed spacing of internal local roads within Homestead North Phase 1
- The proposed spacing for a right-in only access. This “access” would be a public street connection-one-way eastbound with an “intersection” with Vollmer, but would only include the “departure lane” from the connection at Vollmer Road (Urban Minor Arterial).

TRANSPORTATION IMPROVEMENT FEE PROGRAM

Reference the deviation request in the appendix. Will noise walls be needed for the adjacent lots?

The applicant will be required to participate in the Countywide Transportation Improvement Fee Program. These projects will annex into the 10 mil PID, which has a per-lot upfront building permit fee of \$1,221 per dwelling unit. The total building permit fee amount for the 147 lots within Homestead North Phase 1 would be \$179,487.

CONCLUSIONS AND RECOMMENDATIONS

Trip Generation

Homestead North Phase 1 is projected to generate about 1,388 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 27 vehicles would enter and 82 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 92 vehicles would enter and 54 vehicles would exit the site.

Level of Service

- In the short term, the intersection of Briargate/Vollmer is projected to operate at a satisfactory level of service as a stop sign-controlled “T” intersection. By 2040, it was assumed that Briargate Road/Stapleton Road would be extended west to Black Forest Road and east to connect to its current terminus. It was also assumed that the intersection of Briargate/Vollmer would be signal controlled by 2040. This intersection is projected to operate at an overall satisfactory level of service (LOS D or better) as a signalized intersection.
- The proposed site access points to Vollmer Road and Briargate Parkway are projected to operate at a satisfactory level of service as stop sign-controlled intersections, based on the short-term and 2040 total traffic volumes and lane geometry shown in Figures 10 and 11.

[Reference the deviation request in the appendix. Will noise walls be needed for the adjacent lots?](#)

 Author: kdferrin Subject: Sticky Note Date: 1/11/2022 10:10:16 AM

LSC Response: A copy of the deviation request has been included in the appendix. An updated noise analysis has been submitted that shows noise mitigation will not be needed for lots adjacent to Vollmer Road.

Tables

Table 1 is missing?





Number: 1 Author: dsdrice Subject: Text Box Date: 12/12/2021 11:51:10 AM

Table 1 is missing?



Author: kdferin Subject: Sticky Note Date: 1/11/2022 9:46:30 AM

LSC Response: Table 1 will be included with the updated TIS