



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](mailto:lsc@lsctrans.com)  
 Website: <http://www.lsctrans.com>

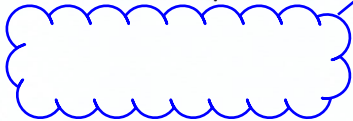
<sup>1</sup> LSC Responses  
 to TIS redline  
 comments.

## Eagleview Subdivision Traffic Impact Study

(LSC #S214750)

December 3, 2021

<sup>2</sup> Please add PCD File  
 # SP-21-06



### Professional Engineer's Statement

The traffic report and supporting information were prepared under my responsible charge and they conform 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

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

✓ *Joseph W. Desjardin*

*12/6/2021*

Date

# LSC Responses to TIS Redline Comments

---

Page: 1

---

☰ Number: 1 Author: jchodsdon Subject: Text Box Date: 8/4/2022 10:28:55 AM

---

LSC Responses to TIS redline comments.

📄 Number: 2 Author: eschoenheit Subject: Cloud+ Date: 1/5/2022 1:19:51 PM -06'00'

---

Please add PCD File # SP-21-06

📌 Author: jchodsdon Subject: Sticky Note Date: 7/31/2022 2:57:30 PM

---

LSC Response: Added as requested.

- Other recommended improvements/modifications to the study-area roads and intersections; and
- Summary of compiled data, analysis, findings, and recommendations.

## SITE DEVELOPMENT AND LAND USE

Figure 2 shows the site plan. The site is located within unincorporated El Paso County. The site is planned to be developed for 38 single-family residential dwelling units. Access to the site is proposed via three existing intersections:

- Raygor Road/Arroya Lane
- Raygor Road/Flaming Sun Drive
- Stapleton Drive/Arroya Lane

Proposed site access (and existing) intersection centerline spacings are shown in Figure 2 and are as follows:

- Arroya Lane/Raygor Road
  - 1,320 feet to Salbeck Lane (to the north)
  - 1,490 feet to Flaming Sun Drive (to the south)
- Flaming Sun Drive/Raygor Road
  - 1,490 feet to Flaming Sun Drive (to the north)
  - 1,507 feet to Old Settlers Trail (to the south)
- Stapleton Drive/Arroya Lane
  - 1,180 feet to Raygor Road (to the west)

## ROADWAY AND TRAFFIC CONDITIONS

### Area Roadways

Figure 1 shows the roadways in the vicinity of the site. The major roadways are identified below, followed by a brief description.

**Raygor Road** is a two-lane paved County road extending between Burgess Road and Stapleton Drive. The rural cross-section is 24 feet (two travel lanes) with no shoulders or lane striping. The surface condition of Raygor Road is good, as it was most recently paved in 2013. The posted speed limit on Raygor Road is 35 miles per hour (mph). The Raygor Road/Burgess Road intersection is currently stop-sign controlled on Raygor Road. The right-of-way is primarily 60 feet, but there appears to be a short section with 30 feet of right-of-way. Raygor Road is not identified as a major transportation corridor on the *El Paso County Major Transportation Corridors Plan (MTCP)*.

Identify the road classification. Per the MTCP this appears to be a rural local road


1

---

Number: 1 Author: dsdlaforce Subject: Callout Date: 1/11/2022 7:17:03 PM -06'00'

---

Identify the road classification. Per the MTCP this appears to be a rural local road

 Author: jchodsdon Subject: Sticky Note Date: 7/31/2022 3:26:57 PM

---

LSC Response: Added as requested.



**Burgess Road** is an east/west two-lane Rural Minor Arterial, with collector  
**Revise. The MTCP appears shows this as collector**

**Arroya Lane** is a Rural Gravel, road with a 15-16-foot width east c  
lanes currently exist at the stop- sign-controlled intersection of A  
are no posted speed limits on Arroya Lane.

**Flaming Sun Drive** is a 24-foot-wide Rural Gravel road serving the surrounding residential area. No auxiliary turn lanes currently exist at the stop-sign-controlled intersection of Flaming Sun Drive/Raygor Road. There is no posted speed limit on Flaming Sun Drive adjacent to the site.

**Stapleton Drive/Briargate Parkway (Future)** is shown on *El Paso County Major Transportation Corridors Plan (MTCP)* as a four-lane Urban Principal Arterial. Note: locally (about a half-mile south of the site), a segment of road called “Stapleton Drive” in the vicinity of the site is a two-lane local roadway that extends east-to-west for 0.9 miles between just west of Tomahawk Trail and east of Arroya Lane.

**Explain that Stapleton Drive does not currently provide access from the south or connect to Raygor or Arroya Lane which are roads used to access Eagleview subdivision**

### INTERSECTION SIGHT DISTANCE

Three existing intersections would provide access to the site (via Raygor Road and Stapleton Drive) and would remain stop-sign controlled, full-movement intersections. These existing intersections must meet El Paso County’s *Engineering Criteria Manual (ECM)* standards for sight distance.

LSC recorded sight distance field measurements utilizing a driver’s eye height of 3.5 feet and a height of 3.5 feet for northbound and southbound vehicles traveling on Raygor Road. The minimum intersection sight distance for passenger vehicles (per *ECM* Table 2-21) is 445 feet. Field-measured sight distances for passenger vehicles at the site access intersections are as follows:

- Raygor Road/Arroya Lane
  - To the north – 938 feet
  - To the south – 572 feet
- Raygor Road/Flaming Sun Drive
  - To the north – greater than 1/4-mile
  - To the south – greater than 1/4-mile
- Stapleton Drive/Arroya Lane
  - To the west – 1,180 feet (unobstructed to Raygor Road)
  - To the east – greater than 1/4-mile

**Include intersection sight distance analysis at Raygor/Burgess**

Therefore, entering sight distance at all proposed site-access connections is acceptable.

---


Number: 1 Author: dsdlaforce Subject: Image Date: 1/11/2022 7:05:39 PM -06'00'

---

 Number: 2 Author: dsdlaforce Subject: Callout Date: 1/11/2022 7:05:39 PM -06'00'


---

Revise. The MTCP appears shows this as collector

 Author: jchodsdon Subject: Sticky Note Date: 7/31/2022 3:18:01 PM


---

LSC Response: The TIS has been revised to reflect this.

 Number: 3 Author: eschoenheit Subject: Text Box Date: 1/4/2022 7:15:23 PM -06'00'

---

Explain that Stapleton Drive does not currently provide access from the south or connect to Raygor or Arroya Lane which are roads used to access Eagleview subdivision

 Author: jchodsdon Subject: Sticky Note Date: 7/31/2022 3:38:18 PM


---

LSC Response: The report has been updated to explain this, as requested.

 Number: 4 Author: dsdlaforce Subject: Text Box Date: 1/11/2022 7:18:48 PM -06'00'

---

Include intersection sight distance analysis at Raygor/Burgess

 Author: jchodsdon Subject: Sticky Note Date: 7/31/2022 3:43:09 PM

---

LSC Response: Added as Requested.

### Existing Traffic Volumes

Existing traffic volumes at the following intersections are shown on Figure 3. The traffic volumes are from traffic counts conducted by LSC in August 2021. Traffic count reports are attached.

- Burgess Road/Raygor Road
- Raygor Road/Arroya Lane

### Short-Term Baseline Traffic Volumes

Figure 4 shows estimated “short-term baseline” traffic volumes on the study-area roadways and at the study-area intersections (short-term peak-hour turning-movement volumes). These estimates do not include the planned future Raygor extension south of the Raygor Road/Stapleton Drive intersection. These estimates also do not assume significant potential future development (such as “The Ranch” development – PCD No. SK-18-006), as those were assumed to have been completed during the long term.

Previous and other current LSC traffic counts in the study area were also referenced to establish short-term baseline traffic volumes. The short-term baseline estimates are intended to estimate (and compensate for) traffic volumes and travel patterns due to the COVID-19 pandemic. Other factors such as road construction activity in Falcon may also have also contributed to some higher peak volumes. Additionally, a “COVID-19 adjustment factor” of approximately 2 percent per year has been applied to the August 2021 counts, in order to account for growth in the study area that may be affected by remaining effects of the COVID-19 pandemic.

Clarify. What was the resulting adjustment factor.  
Unclear how the 2% adjustment factor changes the EBRT from Burgess to Raygor change the PM trip from 34 vph to 50 vph while the AM trip remains the same. Similar situation occurs on the NBLT.

### TRIP GENERATION

Estimates of the existing and proposed trip generation are based on using the following national, published average trip generation rates for use code “210 – Single-Family (Detached) Housing” in *Trip Generation, 11<sup>th</sup> Edition, 2017* by the Institute of Transportation Engineers (ITE).

Table 1 below presents a summary of the estimated site trip generation. A detailed trip-generation estimate for the development, including ITE rates for the proposed land use, is presented in Table 3 (attached).

**Table 1: Estimated Site Vehicle-Trip Generation**

| Analysis Period   | Weekday |     |       |
|-------------------|---------|-----|-------|
|                   | In      | Out | Total |
| Morning Peak Hour | 7       | 21  | 28    |
| Evening Peak Hour | 24      | 14  | 38    |
| Daily/24-hour     | 180     | 180 | 359   |

---

Number: 1 Author: dsdlaforce Subject: Callout Date: 1/11/2022 7:30:45 PM -06'00'

---

Clarify. What was the resulting adjustment factor. Unclear how the 2% adjustment factor changes the EBRT from Burgess to Raygor change the PM trip from 34 vph to 50 vph while the AM trip remains the same. Similar situation occurs on the NBLT.

Author: jchodsdon Subject: Sticky Note Date: 8/4/2022 10:29:28 AM

---

LSC Response: This paragraph has been rewritten to address the comment and clarify the basis of the short-term baseline traffic estimates.



## SUBDIVISION ROAD CLASSIFICATIONS

The subdivision roads should be classified as Rural Local.

## CONFORMANCE WITH THE MTCP

Raygor Road is identified as a Local roadway on the MTCP.

### Reimbursable Improvements

1  
State whether or not any improvements by the developer are reimbursable under the current MTCP

The following roadway improvement projects have been identified as being needed by the year 2040, per Map 13 and Table 4 of El Paso County's 2016 *MTCP*:

- N5 – Stapleton Road from Towner Road to Black Forest Road (\$55,771,000)
  - Existing conditions – roadway does not exist
  - Future conditions – 4-lane Urban Principal Arterial

See the attached *MTCP* maps for reference.

## COUNTY ROAD IMPROVEMENT FEE PROGRAM

The applicant will be required to participate in this program. The PID option will be identified with the Plat submittal.

## MULTI-MODAL TRANSPORTATION AND TRANSPORTATION DEMAND MANAGEMENT (TDM) OPPORTUNITIES

The following roadway improvement projects have been identified as being needed by the year 2040 per Map 15 and Table 5 of El Paso County's 2016 *MTCP*:

- Proposed bicycle route on Burgess Road (Milam Road to Meridian Road – via Goodson and Ayer Roads)

No sidewalks would be required, as all study-area roadways are Rural.

There is a park and ride lot to the southeast at the intersection of US Hwy 24/Meridian Road in Falcon.

## DEVIATIONS

Three deviation requests are included with this application.

- Deviation No. 1 – Right turn lane on Burgess Road
- Deviation No. 2 – Length of non-through road (cul-de-sac)
- Deviation No. 3 – Rural Minor Collector criteria

---

Number: 1 Author: eschoenheit Subject: Cloud+ Date: 1/12/2022 11:31:35 AM -06'00'

---

[State whether or not any improvements by the developer are reimbursable under the current MTCP](#)

Author: jchodsdon Subject: Sticky Note Date: 7/31/2022 3:52:25 PM

---

LSC Response: This TIS report has been updated to address this comment.