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Grandview Reserve Phase 1
 Traffic Impact Analysis
 PUDSP-21-010
 (LSC #S214240)
 December 10, 2021

**LSC Responses
 to Comments**
3/11/2022

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.

See comment letters
 also (PCD and on-call
 consultant)



Developer's Statement

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

← Sign and date

 Date

LSC Responses to TIS Redline Comments

Page: 1

☰ Number: 1 Author: jchodsdon Subject: Text Box Date: 3/11/2022 08:58:02

LSC Responses to Comments 3/11/2022

☰ Number: 2 Author: dsdrice Subject: Text Box Date: 1/20/2022 16:32:00

[See comment letters also \(PCD and on-call consultant\)](#)

👤 Author: kdferrin Subject: Sticky Note Date: 3/4/2022 15:02:23

LSC Response: See our response in those documents

☰ Number: 3 Author: dsdrice Subject: Callout Date: 1/19/2022 17:10:58

[Sign and date](#)

👤 Author: kdferrin Subject: Sticky Note Date: 3/4/2022 15:02:48

LSC Response: The updated TIS includes the developer signature

PREVIOUS TRAFFIC REPORTS

LSC completed a Master Traffic Impact Study (TIS) for Grandview Reserve (Sketch Plan) dated December 15, 2020. That report assumed the initial development would occur on the parcels on the east end of the overall development with access to US Highway 24 (US Hwy 24) only. Initial development is now planned to occur on the west side of the site with access only to Eastonville Road and the initial segment of Rex Road east of Eastonville.

A list of other traffic studies in the area of study completed within the past five years (that LSC is aware of) is attached for reference. This study accounts for the land use, trip generation, and the roadway network included in these studies. The older previous area studies generally assumed Rex Road would not extend from Eastonville Road to US Hwy 24 in the 20-year horizon as is now planned. The older previous studies also assumed fewer dwelling units on this site.

A traffic report, entitled Eastonville Road Project Conceptual Design Report was also recently completed for Eastonville Road by Wilson & Company (for El Paso County).

LAND USE AND ACCESS

Site Plan

Figure 2 shows the proposed site plan for Phase 1 of Grandview Reserve. The initial phase is planned to contain 568 lots for single-family homes, an 11.2-acre church site, and an “amenity center” that is planned to include a 3,000-square-foot community recreation center. The Phase 1 plan is consistent with the land uses assumed for this same area in the Master TIS.

Site Access

Specify "Road names"
"Road F" 2 1

Two public-street connections are proposed to Eastonville Road and one full-movement access point is proposed to an extension of Rex Road as part of Phase 1. The intersections with Eastonville and Rex are proposed as full-movement intersections.

Specify "Road name" 4

The proposed public-street access to Rex Road is proposed as a “T” intersection. The intention is that this intersection would remain a “T” in perpetuity. If future access is needed for the parcels north of Rex Road, it was assumed this access would occur via a second (offset) “T” intersection east of this currently-proposed Phase 1 access intersection.

Should this be Falcon High School? 5

The proposed public-street access points to Eastonville Road could potentially align with future access points to either the Meridian Ranch school site located north of Meridian High School or future park-facilities development within the Falcon Regional Park. However, as future plans for these parcels have not been determined, it was assumed that the Eastonville access points will also operate as “T” intersections. Figure 2 shows the proposed spacing of the access points.

☰ Number: 1 Author: dsdrice Subject: Text Box Date: 1/20/2022 08:11:59
names

↶ Author: kdferrin Subject: Sticky Note Date: 3/4/2022 15:02:55
LSC Response: Revised as requested

☰ Number: 2 Author: Paul Brown Subject: Callout Date: 12/29/2021 15:38:40
Specify "Road A" and "Road F"

↶ Author: kdferrin Subject: Sticky Note Date: 3/4/2022 15:30:12
LSC Response: Revised to approved street names (Dawlish Drive and Brixham Drive)

☰ Number: 3 Author: dsdrice Subject: Text Box Date: 1/20/2022 08:12:15
name

☰ Number: 4 Author: Paul Brown Subject: Callout Date: 12/29/2021 15:39:08
Specify "Road V"

↶ Author: kdferrin Subject: Sticky Note Date: 3/4/2022 15:30:42
LSC Response: Revised to approved street name, Ivybridge Boulevard

☰ Number: 5 Author: Paul Brown Subject: Callout Date: 12/29/2021 15:40:08
Should this be Falcon High School?

↶ Author: kdferrin Subject: Sticky Note Date: 3/4/2022 15:30:56
LSC Response: Revised to Falcon High School

☑ Number: 6 Author: Paul Brown Subject: Highlight Date: 12/29/2021 15:39:39
Meridian High School

Based on the criteria contained in the El Paso County *Engineering Criteria Manual (ECM)*, the required intersection spacing for Minor Arterial roadways is ¼ mile (1,320 feet). Both proposed public street access points to Eastonville Road meet the intersection spacing criteria. However, the access to Rex Road is proposed to be located about 575 feet east of Eastonville Road. This access will require a deviation to the *ECM* criteria.

Two access points are proposed from Road V to the church site. The north access point is proposed as a full-movement access (allowing left and right turns). The south access point is proposed as a right-in/right-out access. A right-in-only access from northbound Eastonville road may be beneficial to both the church and the area street network.

Deviation Request

Specify "Road name" 2 1

A deviation request for the proposed full-movement intersection on Rex Road 575 feet east of Eastonville Road (centerline spacing) is part of this application. The proposed plan for Grandview Reserve Phase 1 is to extend a public street south from Rex Road at this location to serve as one of the access points to this relatively large development. Given this proposed spacing and limited distance for future back-to-back left-turn lanes between this proposed intersection and the Eastonville/Rex intersection, the intent would be that this intersection would be a T intersection with a street on the south side only. Please refer to the associated deviation request form for additional detail.

Pedestrian and Bicycle Accommodations

There are two existing school sites located within two miles of the site, Falcon High School and Meridian Ranch Elementary. A future K-8 school is planned just north of Falcon High School. These schools are located north of Londonderry Drive and west of Eastonville Road. There is also a regional park located just west of the site.

The likely pedestrian path to the school and park sites is Eastonville Road to Londonderry Drive. There are currently sidewalks and school crossings on Londonderry Drive. There are currently no sidewalks on Eastonville Road. However, the *2016 Major Transportation Corridors Plan (MTCP)* shows a proposed primary regional trail along this corridor. Figure 2 shows the proposed trails within the Grandview Reserve development. All of the internal streets within the Phase 1 area will have sidewalks.

Could not locate Figure 2 of proposed trails 4

The Rock Island Regional Trail extends southwest to northeast along the US Hwy 24 site frontage (on the north side of the highway).

Sight Distance Analysis

Figure 3a shows a sight-distance analysis at the proposed future intersection with Rex Road just east of Eastonville Road. Figures 3b and 3c show the sight-distance analysis at the future site access points to Eastonville Road. 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

☰ Number: 1 Author: dsdrice Subject: Text Box Date: 1/20/2022 08:11:21

name

↶ Author: kdferrin Subject: Sticky Note Date: 3/4/2022 15:31:14

LSC Response: Revised as requested

☰ Number: 2 Author: Paul Brown Subject: Callout Date: 12/29/2021 15:41:28

Specify "Road V"

↶ Author: kdferrin Subject: Sticky Note Date: 3/4/2022 15:31:22

LSC Response: Revised to approved street name, Ivybridge
Boulevard

📄 Number: 3 Author: Paul Brown Subject: Highlight Date: 12/29/2021 15:42:18
Figure 2

☰ Number: 4 Author: Paul Brown Subject: Callout Date: 12/29/2021 15:43:15

Could not locate Figure 2 of proposed trails

↶ Author: kdferrin Subject: Sticky Note Date: 3/4/2022 15:32:47

LSC Response: The figure has been updated to show the proposed trail in green so they are
more visible

for an approach occurs during an interval other than the peak 15 minutes of the entire intersection, the suggested peak-hour value based on the total approach volume from Table 9-1 of the Synchro Studio 10 User Guide was used instead. The level of service reports are attached.

The eastbound and westbound left-turn and through lanes at the two-way, stop-sign-controlled intersection of US 24/Stapleton are currently operating at LOS E or LOS F during the peak hours.

The eastbound approach at the two-way, stop-sign-controlled intersection of Stapleton/Eastonville is currently operating at LOS F during the morning peak hour and LOS C during the afternoon peak hour.

The eastbound left-turn movement at the two-way, stop-sign-controlled intersection of Eastonville/Londonderry is currently operating at a LOS D during the morning peak hour and LOS B during the afternoon peak hour.

SHORT-TERM (YEAR 2026) BACKGROUND TRAFFIC

Background 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. Background traffic includes the through traffic and the traffic generated by nearby developments but assumes zero traffic generated by the site. Figure 5a shows the projected short-term (Year 2026) background traffic volumes.

The addition of new roadways, notably the future completion of Rex Road east to Eastonville Road, will greatly affect the existing traffic patterns. In lieu of a general/"blanket" growth rate, LSC has developed small-area traffic models for Meridian Ranch, Waterbury, and the Latigo Trails as part of previous work completed in the area. The results of these modeling efforts have been combined to estimate the background traffic volumes. These background traffic volumes have been based on the existing traffic volumes (from Figure 4a) plus increases in traffic due to regional growth, including buildout of the following subdivisions in the vicinity of the site:

- The existing and currently proposed subdivisions within Waterbury (located just south of the Grandview Reserve);
- Meridian Ranch Filings 1-3 and Filings 6-8;
- Meridian Ranch Estates Filings 2-3;
- Meridian Ranch Filing 11;
- Stonebridge at Meridian Ranch Filings 1, 2, and 3;
- Meridian Ranch Filing 9;
- The Vistas at Meridian Ranch Filing 1;
- WindingWalk at Meridian Ranch Filing 1;
- The Enclave at Stonebridge at Meridian Ranch;
- The Estates at Rolling Hills Ranch Filing Nos. 1 and 2;
- The Rolling Hills Ranch at Meridian Ranch PUD;
- The areas included in the Meridian Ranch 2021 Sketch Plan Amendment; and
- Latigo Trails Filing Nos. 1 and 2.

Was the small-area traffic model used to determine both short-term and long-term growth rates? Discuss any difference between the short-term and long-term growth.

1

Number: 1 Author: Paul Brown Subject: Callout Date: 12/29/2021 15:48:58

Was the small-area traffic model used to determine both short-term and long-term growth rates? Discuss any difference between the short-term and long-term growth.

Author: kdferrin Subject: Sticky Note Date: 3/4/2022 15:35:59

LSC Response: The small-area traffic model was used for both short-term and long-term growth. The text in the 2041 section below has been revised to make this more clear.

The **short-term** background traffic volumes assume Rex Road extended from its existing terminus in Meridian Ranch, across Eastonville to the first Grandview Reserve access east of Eastonville Road but **not** further east. Essentially, there would be no short-term background traffic use of this initial segment east of Eastonville – only site traffic.

Figure 5b shows the lane geometry, traffic control, and level of service at the key area intersections, based on the short-term background volumes.

2041 BACKGROUND TRAFFIC

Figure 6a shows the projected 2041 background-traffic volumes. The 2041 background traffic volumes assume buildout of the Meridian Ranch development, buildout of Grandview Reserve (except trips to be generated by land uses within the Phase 1 area, as these trips are included in the “site-generated traffic.”), buildout of the Waterbury developments, buildout of Latigo Trails, and buildout of the area generally north of Rex Road between Eastonville Road and US Hwy 24 with 2 ½ acre residential lots. The 2041 background-traffic scenario assumes Stapleton Drive extended west to connect with the Briargate Parkway extension and Rex Road extended east through the future phases of Grandview Reserve to US Hwy 24.

Figure 6b shows the projected 2041-background average weekday-traffic volumes on key internal street segments within Phase 1 due to the development of Phase 1 land uses plus future Grandview Reserve phases.

Figure 6c shows the lane geometry, traffic control, and level of service at the key area intersections, based on the 2041 background volumes.

TRIP GENERATION

The site-generated vehicle trips were estimated using the nationally-published trip-generation rates from *Trip Generation, 11th Edition, 2021* by the Institute of Transportation Engineers (ITE). Table 3 shows the trip-generation estimates.

Following Phase 1, Grandview Reserve is expected to generate about 5,434 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 121 vehicles would enter and 319 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 350 vehicles would enter and 216 vehicles would exit the site.

DIRECTIONAL DISTRIBUTION AND ASSIGNMENT

The directional distribution of the site-generated traffic volumes on the area roadways is an important factor in determining the site’s traffic impacts. Figures 7 and 8 show the short-term and

Provide additional discussion on land use types and total units. Discussion and support on internal site trip assumptions associated with the Community Center. 1

Number: 1 Author: Paul Brown Subject: Callout Date: 12/29/2021 15:52:35

Provide additional discussion on land use types and total units. Discussion and support on internal site trip assumptions associated with the Community Center.

Author: kdferrin Subject: Sticky Note Date: 3/4/2022 16:02:33

LSC Response: The additional discussion has been added as requested

0.85. In those cases, the existing peak-hour factor was used. A peak-hour factor of 0.95 was used for the long-term (Year 2041). The results of the analysis are contained in Figures 5b, 6b, 9b, 9c, and 12c-12e. The level of service reports are attached.

Rex/Eastonville

The short term assumes Rex Road completed between Sunrise Ridge Drive and Eastonville Road, as well as the initial segment of Rex east of Eastonville (with this development) to the first Grandview Reserve access point east of Eastonville Road. The future four-leg intersection of Rex/Eastonville is projected to operate at LOS D or better for all movements during the peak hours as a two-way, stop-sign-controlled (TWSC) intersection, based on the projected short-term total-traffic volumes.

Should this be Eastonville? ¹

By 2041, it was assumed that Rex Road would be completed through the remainder of Grandview Reserve to US Highway 24. Based on the projected 2041 total-traffic volumes, the intersection of Rex/²Meridian is projected to operate at LOS F for some of the minor approaches and turning movements, assuming stop-sign control. If this intersection is constructed as a one-lane modern roundabout or assuming it is eventually traffic-signal controlled, all movements are projected to operate at LOS D or better during the peak hours.

Specify which movements are LOS E/F ³

Rex Road Site Access Point

Specify "Road name" ⁵ ⁴

The first Grandview Reserve access point to Rex Road east of Eastonville Road planned as part of Phase 1 is projected to operate at LOS C or better for all movements as a two-way, stop-sign-controlled "T" intersection. As discussed on page 2, this access to Rex Road is intended to remain a "T" intersection in perpetuity. If future access is needed for the parcels north of Rex Road, it was assumed this access would occur via a second "T" intersection east of the currently-proposed access.

Specify short-term vs long-term operations ⁶

Eastonville Site Access Points

Specify "Road names" ⁷ ⁸

The two site-access points to Eastonville Road are projected to operate at LOS C or better for all movements during the peak hours as stop-sign-controlled "T" intersections, based on the short-term (Year 2026) total traffic volumes. By 2041 the westbound left-turn movement at the north access (Road "F") is projected to operate at LOS E during the morning peak hour. These intersections are projected to operate at a satisfactory level of service as one-lane modern roundabouts.

Londonderry/Eastonville

Eastbound right is also LOS F in AM ⁹

The eastbound left-turn movement at the stop-sign-controlled intersection of Londonderry/Eastonville is projected to operate at LOS F during the morning peak hour and LOS E during the afternoon peak hour, based on the projected short-term (Year 2026) total traffic volumes. The level of service at this intersection could potentially be improved if it were

Number: 1 Author: Paul Brown Subject: Callout Date: 12/29/2021 15:57:16

Should this be Eastonville?

Author: kdferrin Subject: Sticky Note Date: 3/4/2022 16:06:35

LSC Response: Revised to Eastonville.

Number: 2 Author: Paul Brown Subject: Highlight Date: 12/29/2021 15:56:42
Meridian

Number: 3 Author: Paul Brown Subject: Callout Date: 12/29/2021 16:01:18

Specify which movements are LOS E/F

Author: kdferrin Subject: Sticky Note Date: 3/4/2022 16:06:58

LSC Response: The additional information has been added as requested.

Number: 4 Author: dsdrice Subject: Text Box Date: 1/20/2022 08:49:25

name

Author: kdferrin Subject: Sticky Note Date: 3/4/2022 16:16:54

LSC Response: Revised as requested

Number: 5 Author: Paul Brown Subject: Callout Date: 12/29/2021 15:58:19

Specify "Road V"

Author: kdferrin Subject: Sticky Note Date: 3/4/2022 16:17:31

LSC Response: Revised to the approved street name of Ivybridge Boulevard

Number: 6 Author: Paul Brown Subject: Callout Date: 12/29/2021 16:01:15

Specify short-term vs long-term operations

Author: kdferrin Subject: Sticky Note Date: 3/4/2022 16:17:43

LSC Response: Revised as requested

Number: 7 Author: dsdrice Subject: Text Box Date: 1/20/2022 08:49:12

names

Author: kdferrin Subject: Sticky Note Date: 3/4/2022 16:33:48

LSC Response: Revised as requested

Number: 8 Author: Paul Brown Subject: Callout Date: 12/29/2021 16:00:31

Specify "Road F" and "Road A"

Author: kdferrin Subject: Sticky Note Date: 3/4/2022 16:34:44

LSC Response: Revised to the approved street names of Dawlish Drive and Brixham Drive

Number: 9 Author: Paul Brown Subject: Callout Date: 12/29/2021 16:01:54

Eastbound right is also LOS F in AM

Author: kdferrin Subject: Sticky Note Date: 3/4/2022 16:34:57

LSC Response: The text has been revised

constructed as a channelized “T”. All movements at this intersection are projected to operate at a satisfactory level of service, assuming modern roundabout or traffic-signal control.

Stapleton/Eastonville

The eastbound approach at the intersection of Stapleton/Eastonville is currently operating at LOS F during the morning peak hour. A PPRTA project is currently planned to improve Eastonville Road in the vicinity of the site. However, the timing of this project is unknown. It is our understanding that, in the short-term, Stapleton Drive is planned to be restriped to provide eastbound and westbound left-turn lanes approaching Eastonville Road, short northbound and southbound left-turn lanes are planned to be constructed on Eastonville Road approaching Stapleton Drive, and the intersection is planned to be converted to all-way, stop-sign control. Even with these improvements it will likely be necessary to convert this intersection to traffic-signal control by 2026 to maintain an acceptable level of service.

By 2041, it was assumed that Stapleton Drive would be constructed to its full Principal Arterial cross section. Based on the lane geometry shown in Figure 11e, this intersection is projected to operate at LOS D or better for all movements, except for the eastbound left-turn movement which is projected to operate at LOS E during the morning peak hour, as a signal-controlled intersection. The eastbound left-turn movement has projected delays in the LOS E range simply because they arrive at the traffic signal at the beginning of the red phase at an intersection with many phases and a long cycle length. This movement would not be considered “failing” since the volume-to-capacity ratios are less than one. The justification is that to progress through traffic along an arterial corridor, the traffic-signal offsets and left-turn phase times have been adjusted to favor the through band, which can result in higher delay for the left-turn movements even though there is sufficient capacity for them. [2]

EBL appears to be LOS E in PM not AM.
And SBL is also LOS E in PM

US Hwy 24 Intersection/Stapleton

The intersection of US Hwy 24/Stapleton is currently stop-sign controlled. The northbound and southbound left-turn movements and the northbound through movements are currently operating at LOS F during the peak hours. This intersection is planned to be signalized in the (potentially near-term) future. Once signalized, all movements are projected to operate at LOS D or better during the peak hours, based on the projected short-term total traffic volumes. [3]

Specify all 4 left turn movements are LOS E/F in both AM and PM

By 2040, some movements at this intersection are projected to operate at LOS E or F during the peak hours. To maintain an overall LOS D or better as a “conventional” four-leg signalized intersection, it may be necessary to provide three approach through lanes in all directions. Alternate traffic-control options were presented in the US Hwy 24 PEL Study. Alternatives to a “conventional” four-leg signalized intersection may include a jug-handle intersection, a continuous-flow intersection (or partial/half CFI), or a junior interchange. An alternate intersection design may be needed long term to maintain an acceptable level of service.

 Number: 1 Author: Paul Brown Subject: Highlight Date: 12/29/2021 16:30:19
LOS E during the morning peak hour

 Number: 2 Author: Paul Brown Subject: Callout Date: 12/29/2021 16:34:20
EBL appears to be LOS E in PM not AM. And SBL is also LOS E in PM

 Author: kdferrin Subject: Sticky Note Date: 3/4/2022 16:38:55
LSC Response: The text has been revised

 Number: 3 Author: Paul Brown Subject: Callout Date: 12/29/2021 16:43:12
Specify all 4 left turn movements are LOS E/F in both AM and PM

 Author: kdferrin Subject: Sticky Note Date: 3/4/2022 16:41:13
LSC Response: Revised as requested

 Number: 4 Author: Paul Brown Subject: Highlight Date: 12/29/2021 16:35:13
some movements

US Hwy 24/Rex

The intersection of US 24/Rex is not planned to be constructed as part of Phase 1. By 2041, it was assumed that Rex Road would be constructed from Eastonville to US Hwy 24 and that intersection with US Hwy 24 would be constructed as a signal-controlled, channelized “T” intersection. All movements are projected to operate at LOS D, based on the projected 2041 total traffic volumes.

QUEUING ANALYSIS

A queuing analysis was performed using Synchro/SimTraffic for Rex Road between Eastonville and a potential future access point for Four-Way Ranch. The 2041-total morning and afternoon peak-hour traffic volumes were entered into the Synchro model. Each simulation was run five times and the results were averaged. The SimTraffic queuing reports are attached.

The projected maximum westbound left-turn queue on Rex Road approaching Eastonville Road is 251 feet during the morning peak hour and 159 feet during the afternoon peak hour. As shown in Figure 2, the proposed spacing between Eastonville Road and the first Grandview Reserve access point is 576 feet (centerline to centerline). This access point is intended to remain a “T” intersection in perpetuity. If future access is needed for the parcels north of Rex Road, it was assumed this access would occur via a second “T” intersection east of the currently-proposed access.

The projected maximum westbound left-turn queue on Rex Road approaching the first Grandview Reserve access point (Road “V”) is about 36 feet during the morning peak hour and about 102 feet during the afternoon peak hour. The projected maximum eastbound left-turn queue on Rex Road approaching the potential future access point for Four Way Ranch is about 12 feet during the afternoon peak hour and about 18 feet during the afternoon peak hour.

FUNCTIONAL CLASSIFICATIONS AND LANEAGE

Figure 12 shows the recommended functional classifications for internal streets within Phase 1 and for the roadways in the vicinity of the site. The functional classifications for the major transportation corridors in the vicinity and number of through lanes are consistent with the current El Paso County *MTCP* and the Grandview Reserve Sketch Plan TIS report.

MULTI-MODAL AND PEDESTRIAN/BIKE TRANSPORTATION

- A park n’ ride facility is planned for a site near Meridian Road and US Hwy 24.
- The Rock Island Regional Trail passes adjacent to the site.
- Many of the area County roads have been or will be upgraded to provide paved shoulders for cyclists. Stapleton and Elbert Road are shown as future “bike routes.”
- The *MTCP* shows a future primary regional trail along Eastonville Road. Another future primary regional trail is shown extending west from Eastonville Road though Meridian Ranch.
- The US Hwy 24 PEL study also includes multi-modal elements.

Additional discussion on bike/ped
continuity/adequacy

Number: 1 Author: Paul Brown Subject: Callout Date: 12/29/2021 16:49:53

Additional discussion on bike/ped continuity/adequacy

Author: kdferrin Subject: Sticky Note Date: 3/4/2022 16:43:47

LSC Response: Additional discussion has been added as requested

TRANSPORTATION IMPROVEMENT FEE PROGRAM

This project will be required to participate in the El Paso County Road Improvement Fee Program. Grandview Reserve will join the ten-mil PID. The ten-mil PID building-permit fee portion associated with this option is \$1,221 per single-family dwelling unit. The total building-permit fee would be \$693,528 for the 568 lots within Phase 1. It is likely that this amount would be paid incrementally with building permits associated with several individual final-plat applications.

ROADWAY IMPROVEMENTS

correct the
highlighted text



The attached Table 3 presents the Phase 1 recommended roadway improvements.

- Based on the **2** short-term (Year 2041) total-traffic volumes shown in **3** figure 10a and the criteria contained in the El Paso County *Engineering Criteria Manual (ECM)*, a westbound left-turn lane will be required on Rex Road approaching Eastonville Road. This lane should be 350 feet long plus a 100-foot taper.
- Based on the 2041 total-traffic volumes shown in **4** figure 11a and the criteria contained in the *ECM*, a westbound right-turn deceleration lane will be required on Rex Road approaching Eastonville Road. Based on the *ECM* criteria, this lane should be 155 feet long plus a 160-foot taper.
- Based on the **5** short-term (Year 2041) total-traffic volumes shown in **6** figure 10a and the criteria contained in the *ECM*, a westbound right-turn deceleration lane will be required on Rex Road approaching the first Grandview Reserve intersection (Road "V"). Based on the *ECM* criteria, this lane should be 155 feet long plus a 160-foot taper.
- Based on the short-term (Year 2026) total traffic volumes shown in **7** figure 10a and the criteria contained in the *ECM*, southbound left-turn lanes will be required on Eastonville Road approaching both proposed site-access points (Road "F" and Road "A"). This section of Eastonville Road was included in the *Eastonville Road Project Conceptual Design Report* by Wilson & Company, dated April 2021. The proposed cross section includes a left-turn lane in the center median.
- Based on the short-term (Year 2026) total traffic volumes shown in **8** figure 10a and the criteria contained in the *ECM*, northbound right-turn deceleration lanes will be required on Eastonville Road approaching both site access points (Road "F" and Road "A"). Based on the *ECM* criteria, these lanes should be 155 feet long plus a 160-foot taper.
- Based on the 2041 total traffic volumes shown in Figure 11a and the criteria contained in the *ECM*, a northbound left-turn lane will be required on Road "V" approaching Rex Road. This lane should be 155 feet long plus a 160-foot taper.
- Based on the **9** 204 total traffic volumes shown in **10** figure 11a and the criteria contained in the *ECM*, a northbound left-turn lane will **not** be required on Road "V" approaching the full-movement church access. However, LSC recommends 155 feet long plus a 160-foot taper be constructed at this location.
- Based on the 2041 total traffic volumes shown in **11** figure 11a and the criteria contained in the *ECM*, a southbound left-turn lane will be required on Road "V" approaching the

 Number: 1 Author: dsdrice Subject: Callout Date: 1/20/2022 11:26:32

[correct the highlighted text](#)

 Author: kdferrin Subject: Sticky Note Date: 3/4/2022 18:55:53

LSC Response: The text has been revised

 Number: 2 Author: Paul Brown Subject: Highlight Date: 12/29/2021 16:50:15
short-term

 Number: 3 Author: Paul Brown Subject: Highlight Date: 12/29/2021 16:50:19
Figure 10a

 Number: 4 Author: Paul Brown Subject: Highlight Date: 12/29/2021 16:50:24
Figure 11a

 Number: 5 Author: Paul Brown Subject: Highlight Date: 12/29/2021 16:50:33
short-term

 Number: 6 Author: Paul Brown Subject: Highlight Date: 12/29/2021 16:50:39
Figure 10a

 Number: 7 Author: Paul Brown Subject: Highlight Date: 12/29/2021 16:50:49
Figure 10a

 Number: 8 Author: Paul Brown Subject: Highlight Date: 12/29/2021 16:50:54
Figure 10a

 Number: 9 Author: Paul Brown Subject: Highlight Date: 12/29/2021 16:51:00
204

 Number: 10 Author: Paul Brown Subject: Highlight Date: 12/29/2021 16:51:09
Figure 11a

 Number: 11 Author: Paul Brown Subject: Highlight Date: 12/29/2021 16:51:14
Figure 11a

full-movement church access. This lane should be 155 feet long plus a 160-foot taper. A southbound right-turn deceleration lane is not projected to be required approaching the right-in/right-out church access.

- Based on the 2041 total traffic volumes shown in **Figure 11a** and the criteria contained in the *ECM*, a southbound left-turn lane will be required on Road "V" approaching Road "F". This lane should be 155 feet long plus a 160-foot taper. As this is planned to be a T-intersection, a separate right-turn lane could be provided instead.

* * * * *

Please contact me if you have any questions or need further assistance.

Sincerely,

LSC TRANSPORTATION CONSULTANTS, INC.

By: Jeffrey C. Hodsdon, P.E.
Principal

JCH:KDF:jas

Enclosures: Tables 2 and 3
Figures 1-13
Appendix Table 1
MTCP Maps
Map 15 Bicycle and Pedestrian Network Improvements
Traffic Count Reports
Level of Service Reports
Queuing Reports

Table 3 Grandview Reserve Phase 1 Roadway Improvements				
Item #	Improvement	Trigger	Timing	Responsibility
Roadway Segment Improvements				
1	Eastonville - Stapleton to Rex initial final grading and paving	With Grandview Reserve development	With Grandview Reserve Phase 1	Grandview Reserve If development proceeds Eastonville Road construction by EPC
2	Eastonville - Stapleton to Rex initial final grading and paving	dependent on PPRTA funding priorities	TBD by EPC, PPRTA "A-List" Project	PPRTA
3	Eastonville - Stapleton to Rex initial final grading and paving	dependent on PPRTA funding priorities	TBD by EPC, PPRTA "A-List" Project	PPRTA or developers
4	Eastonville - Stapleton to Latigo upgrade from unimproved roadway to Rural Minor Arterial (per MUTCD)	average daily traffic > 300 vehicles per day	With Grandview Reserve Phase 1	PPRTA
5	Eastonville - Stapleton to Grandview Reserve south boundary upgrade to 4-Lane Rural Minor Arterial (per MUTCD)	average daily traffic > 20,000 vehicles per day	dependent on PPRTA funding priorities	PPRTA
6	Construct Rex from Eastonville to first access point east of Eastonville Road	With Grandview Reserve development	With Grandview Reserve Phase 1	Grandview Reserve
7	Construct Rex from first access point east of Eastonville Road to US Hwy 24 Adequate right-of-way should be reserved to allow for the construction of left-turn and right-turn deceleration lanes at all potential future access points	With Grandview Reserve development	With future Grandview Reserve filings	Grandview Reserve
8	Construct Rex from Sunrise Ridge to Eastonville	With adjacent Meridian Ranch development	With future Meridian Ranch filings	Meridian Ranch
9	Stapleton Drive - US Hwy 24 to Eastonville Road complete southern (eastbound) half	average daily traffic > 18,000 vehicles per day	Shown in 2040 MTCP	El Paso County west of Eastonville Road; Waterbury Metro District east of Eastonville Road.
Eastonville/Stapleton				
10	Construct northbound and southbound left-turn lanes on Eastonville Rd. approaching Stapleton Dr.	---	Short-Term	PPRTA/El Paso County ⁽¹⁾
11	Signalization of the intersection of Stapleton/Eastonville.	Once warrants are met. The decision on timing of traffic signal installation rests with El Paso County Public Works.	anticipated in the short-term	eligible intersection under the free impact program
Eastonville/Rex Intersection				
12	Construct a northbound right-turn deceleration lane on Eastonville approaching Rex Road (not needed if constructed as a modern roundabout)	northbound right-turn volume > 50 vph	With Grandview Reserve Phase 1	Grandview Reserve
13	Construct a southbound left-turn deceleration lane on Eastonville approaching Rex Road (not needed if constructed as a modern roundabout)	southbound left-turn volume > 25 vph	With future Grandview Reserve Filings	Potentially included as part of the PPRTA design of Eastonville Road OR Grandview Reserve
14	Construct a westbound left-turn deceleration lane on Rex Road approaching Eastonville Road (not needed if constructed as a modern roundabout)	westbound left-turn volume > 25 vph	With future Grandview Reserve Filings	Grandview Reserve
15	Construct a westbound right-turn deceleration lane on Rex Road approaching Eastonville Road (not needed if constructed as a modern roundabout)	westbound right-turn volume > 50 vph	With future Grandview Reserve Filings	Grandview Reserve
16	Convert to traffic signal control (not needed if constructed as a modern roundabout)	Once warrants are met. The decision on timing of traffic signal installation rests with El Paso County Public Works.	With future Grandview Reserve Filings	likely to be considered an "eligible intersection" under the roadway improvement fee program
Rex/Grandview Phase 1 Intersection (Road "V")				
17	Construct an eastbound right-turn deceleration lane on Rex Road approaching the Phase 1 Grandview Reserve intersection	eastbound right-turn volume > 50 vph	With the future extension of Rex Road east of this intersection	Grandview Reserve
18	Construct a westbound left-turn deceleration lane on Rex Road approaching the Phase 1 Grandview Reserve intersection	westbound left-turn volume > 25 vph	With the future extension of Rex Road east of this intersection	Grandview Reserve
Eastonville/North Site Access Intersection (Road "F")				
19	Construct a northbound right-turn deceleration lane on Eastonville approaching the north site access (not needed if constructed as a modern roundabout)	northbound right-turn volume > 50 vph	With Grandview Reserve Phase 1	Grandview Reserve
20	Construct a southbound left-turn deceleration lane on Eastonville approaching the north site access (not needed if constructed as a modern roundabout)	southbound left-turn volume > 25 vph	With Grandview Reserve Phase 1	Potentially included as part of the PPRTA design of Eastonville Road OR Grandview Reserve
Eastonville/South Site Access Intersection (Road "A")				
21	Construct a northbound right-turn deceleration lane on Eastonville approaching the south site access (not needed if constructed as a modern roundabout)	northbound right-turn volume > 50 vph	With Grandview Reserve Phase 1	Grandview Reserve
22	Construct a southbound left-turn deceleration lane on Eastonville approaching the south site access (not needed if constructed as a modern roundabout)	southbound left-turn volume > 25 vph	With Grandview Reserve Phase 1	Potentially included as part of the PPRTA design of Eastonville Road OR Grandview Reserve
Road "V"/Full-Movement Church Access				
23	Construct a southbound right-turn deceleration lane on Road "V" approaching the full-movement church access	southbound right-turn volume > 50 vph	With development of the church parcel	Grandview Reserve
24	Construct a northbound left-turn deceleration lane on Road "V" approaching the full-movement church access	northbound left-turn volume > 25 vph	With development of the church parcel	Grandview Reserve
Road "V"/Right-In/Right-Out Church Access				
25	Southbound right-turn deceleration lane on Road "V" approaching the right-in/right-out church access	southbound right-turn volume > 50 vph		NOT ANTICIPATED TO BE REQUIRED
Road "V"/Right-In/Right-Out Church Access				
26	Southbound right-turn deceleration lane on Road "V" approaching Road "F"	southbound right-turn volume > 50 vph	With Grandview Reserve Phase 1	Grandview Reserve

Notes:
 (1) The design of Eastonville Road will be performed by the Meridian Ranch developer. LSC anticipates that these turn lanes will be included in the project design. The project will be constructed by El Paso County as PPRTA project.

Number: 1 Author: dsdrice Subject: Callout Date: 1/20/2022 11:43:39

TBD

Author: kdferrin Subject: Sticky Note Date: 3/4/2022 14:41:18

LSC Response: Revised as requested

Number: 2 Author: dsdrice Subject: Cloud+ Date: 1/20/2022 11:42:52

switch lines

Author: kdferrin Subject: Sticky Note Date: 3/4/2022 14:41:28

LSC Response: Revised as requested

Number: 3 Author: dsdrice Subject: Callout Date: 1/20/2022 11:36:41

On #s 1-5, break out as redlined

Author: kdferrin Subject: Sticky Note Date: 3/4/2022 14:32:22

LSC Response: Revised as requested

Number: 4 Author: dsdrice Subject: Cloud+ Date: 1/20/2022 11:43:00

switch text in lines 1 and 2

Author: kdferrin Subject: Sticky Note Date: 3/4/2022 14:32:08

LSC Response: Revised as requested

Number: 5 Author: dsdrice Subject: Callout Date: 1/20/2022 11:34:06

Londonderry

Author: kdferrin Subject: Sticky Note Date: 3/4/2022 14:41:08

LSC Response: Revised as requested

Number: 6 Author: dsdrice Subject: Delete Date: 1/20/2022 11:32:21

Delete

Author: kdferrin Subject: Sticky Note Date: 3/4/2022 14:41:01

LSC Response: Revised as requested

Number: 7 Author: dsdrice Date: 1/20/2022 11:32:45

Delete: Interim grading and paving

Author: kdferrin Subject: Sticky Note Date: 3/4/2022 14:40:55

LSC Response: Revised as requested

Number: 8 Author: dsdrice Subject: Text Box Date: 1/20/2022 11:35:26

Rex

Author: kdferrin Subject: Sticky Note Date: 3/4/2022 14:40:49

LSC Response: Revised as requested

Number: 9 Author: dsdrice Subject: Text Box Date: 1/20/2022 11:35:11

Rex

Author: kdferrin Subject: Sticky Note Date: 3/4/2022 14:40:30

LSC Response: Revised as requested

switch lines

On #s 1-5, break out as redlined

switch text in lines 1 and 2

Table 3 Grandview Reserve Phase 1 Roadway Improvements				
Item #	Improvement	Trigger	Timing	Responsibility
Londonderry				
1	Eastonville - Stapleton to Rex inter [redlined] grading and paving	With Grandview Reserve development	With Grandview Reserve Phase 1	Grandview Reserve If development proceeds Eastonville Road construction by EPC
2	Eastonville - Stapleton to Rex [redlined] grading and paving	dependent on PPRTA funding priorities	TBD by EPC, PPRTA "A-List" Project	PPRTA
3	Eastonville - Rex to Latigo final grading and paving	dependent on PPRTA funding priorities	TBD by EPC, PPRTA "A-List" Project	PPRTA or developers
4	Eastonville - Londonderry to Latigo upgrade [redlined] into Rural Minor Arterial (per MUTCD)	average daily traffic > 300 vehicles per day	Grandview Reserve Phase 1	PPRTA
5	Eastonville - Stapleton to Grandview Reserve south boundary upgrade to 4-Lane Rural Minor Arterial (per MUTCD)	average daily traffic > 20,000 vehicles per day	dependent on PPRTA funding priorities	PPRTA
6	Construct Rex from Eastonville to first access point east of Eastonville Road	With Grandview Reserve development	With Grandview Reserve Phase 1	Grandview Reserve
7	Construct Rex from first access point east of Eastonville Road to US Hwy 24 Adequate right-of-way should be reserved to allow for the construction of left-turn and right-turn deceleration lanes at all potential future access points	With Grandview Reserve development	With future Grandview Reserve filings	Grandview Reserve
8	Construct Rex from Sunrise Ridge to Eastonville	With adjacent Meridian Ranch development	With future Meridian Ranch filings	Meridian Ranch
9	Stapleton Drive - US Hwy 24 to Eastonville Road complete southern (eastbound) half	average daily traffic > 18,000 vehicles per day	Shown in 2040 MTCIP	El Paso County west of Eastonville Road; Waterbury Metro District east of Eastonville Road.
Eastonville/Stapleton				
10	Construct northbound and southbound left-turn lanes on Eastonville Rd. approaching Stapleton Dr.	---	Short-Term	PPRTA/El Paso County ⁽¹⁾
11	Signalization of the intersection of Stapleton/Eastonville.	Once warrants are met. The decision on timing of traffic signal installation rests with El Paso County Public Works.	anticipated in the short-term	eligible intersection under the free impact program
Eastonville/Rex Intersection				
12	Construct a northbound right-turn deceleration lane on Eastonville approaching Rex Road (not needed if constructed as a modern roundabout)	northbound right-turn volume > 50 vph	With Grandview Reserve Phase 1	Grandview Reserve
13	Construct a southbound left-turn deceleration lane on Eastonville approaching Rex Road (not needed if constructed as a modern roundabout)	southbound left-turn volume > 25 vph	With Grandview Reserve Filings once Eastonville Road is connected to the street by Meridian Ranch to match a northbound left-turn lane that will be required with that improvement	Potentially included as part of the PPRTA design of Eastonville Road OR Grandview Reserve
14	Construct a westbound left-turn deceleration lane on Rex Road approaching Eastonville Road (not needed if constructed as a modern roundabout)	westbound left-turn volume > 25 vph	With future Grandview Reserve Filings	Grandview Reserve
15	Construct a westbound right-turn deceleration lane on Rex Road approaching Eastonville Road (not needed if constructed as a modern roundabout)	westbound right-turn volume > 50 vph	With future Grandview Reserve Filings	Grandview Reserve
16	Convert to traffic signal control (not needed if constructed as a modern roundabout)	Once warrants are met. The decision on timing of traffic signal installation rests with El Paso County Public Works.	With future Grandview Reserve Filings	likely to be considered an "eligible intersection" under the roadway improvement fee program
Rex/Grandview Phase 1 Intersection (Road "V")				
17	Construct an eastbound right-turn deceleration lane on Rex Road approaching the Phase 1 Grandview Reserve intersection	eastbound right-turn volume > 50 vph	With the future extension of Rex Road east of this intersection	Grandview Reserve
18	Construct a westbound left-turn deceleration lane on Rex Road approaching the Phase 1 Grandview Reserve intersection	westbound left-turn volume > 25 vph	With the future extension of Rex Road east of this intersection	Grandview Reserve
Eastonville/North Site Access Intersection (Road "F")				
19	Construct a northbound right-turn deceleration lane on Eastonville approaching the north site access (not needed if constructed as a modern roundabout)	northbound right-turn volume > 50 vph	With Grandview Reserve Phase 1	Grandview Reserve
20	Construct a southbound left-turn deceleration lane on Eastonville approaching the north site access (not needed if constructed as a modern roundabout)	southbound left-turn volume > 25 vph	With Grandview Reserve Phase 1	Potentially included as part of the PPRTA design of Eastonville Road OR Grandview Reserve
Eastonville/South Site Access Intersection (Road "A")				
21	Construct a northbound right-turn deceleration lane on Eastonville approaching the south site access (not needed if constructed as a modern roundabout)	northbound right-turn volume > 50 vph	With Grandview Reserve Phase 1	Grandview Reserve
22	Construct a southbound left-turn deceleration lane on Eastonville approaching the south site access (not needed if constructed as a modern roundabout)	southbound left-turn volume > 25 vph	With Grandview Reserve Phase 1	Potentially included as part of the PPRTA design of Eastonville Road OR Grandview Reserve
Road "V"/Full-Movement Church Access				
23	Construct a southbound right-turn deceleration lane on Road "V" approaching the full-movement church access	southbound right-turn volume > 50 vph	With development of the church parcel	Grandview Reserve
24	Construct a northbound left-turn deceleration lane on Road "V" approaching the full-movement church access	northbound left-turn volume > 25 vph	With development of the church parcel	Grandview Reserve
Road "V"/Right-In/Right-Out Church Access				
25	Southbound right-turn deceleration lane on Road "V" approaching the right-in/right-out church access	southbound right-turn volume > 50 vph		NOT ANTICIPATED TO BE REQUIRED
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26	Southbound right-turn deceleration lane on Road "V" approaching Road "F"	southbound right-turn volume > 50 vph	With Grandview Reserve Phase 1	Grandview Reserve

Notes:
 (1) The design of Eastonville Road will be performed by the Meridian Ranch developer. LSC anticipates that these turn lanes will be included in the project design. The project will be constructed by El Paso County as PPRTA project.

Number: 10 Author: dsdrice Subject: Text Box Date: 1/20/2022 11:39:50
or developers

Author: kdferrin Subject: Sticky Note Date: 3/4/2022 14:40:22

LSC Response: Revised as requested

Number: 11 Author: dsdrice Subject: Callout Date: 1/20/2022 11:39:03

initial

Author: kdferrin Subject: Sticky Note Date: 3/4/2022 14:40:15

LSC Response: Revised as requested

Number: 12 Author: dsdrice Subject: Text Box Date: 1/20/2022 11:40:16

Rex

Author: kdferrin Subject: Sticky Note Date: 3/4/2022 14:40:05

LSC Response: Revised as requested

Number: 13 Author: dsdrice Subject: Delete Date: 1/20/2022 11:41:00

Delete

Author: kdferrin Subject: Sticky Note Date: 3/4/2022 14:42:46

LSC Response: Revised as requested

Number: 14 Author: dsdrice Date: 1/20/2022 11:41:14

Delete: from unimproved roadway

Author: kdferrin Subject: Sticky Note Date: 3/4/2022 14:42:54

LSC Response: Revised as requested

Number: 15 Author: dsdrice Date: 1/20/2022 11:41:47

With Grandview Reserve Phase 1

Author: kdferrin Subject: Sticky Note Date: 3/4/2022 14:43:06

LSC Response: Revised as requested

Number: 16 Author: dsdrice Subject: Callout Date: 1/20/2022 11:44:26

MTCP?

Author: kdferrin Subject: Sticky Note Date: 3/4/2022 14:43:40

LSC Response: Revised to MTCP. Reference to "MUTCD" on line 5 was also revised.

Number: 17 Author: dsdrice Subject: Callout Date: 1/20/2022 11:45:47

delete

Author: kdferrin Subject: Sticky Note Date: 3/4/2022 14:47:55

LSC Response: Revised as requested

Number: 18 Author: dsdrice Date: 1/20/2022 11:45:16

futur

Author: kdferrin Subject: Sticky Note Date: 3/4/2022 14:48:03

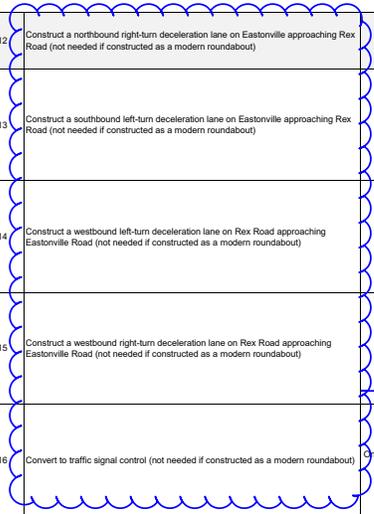
switch lines

On #s 1-5, break out as redlined

switch text in lines 1 and 2

Table 3 Grandview Reserve Phase 1 Roadway Improvements				
Item #	Improvement	Trigger	Timing	Responsibility
Londonderry				
1	Eastonville - Stapleton to Rex inter final grading and paving	With Grandview Reserve development	With Grandview Reserve Phase 1	Grandview Reserve If development proceeds Eastonville Road construction by EPC
2	Eastonville - Stapleton to Rex inter final grading and paving	dependent on PPRTA funding priorities	TBD by EPC, PPRTA "A-List" Project	PPRTA
3	Eastonville - Rex inter to Latigo final grading and paving	dependent on PPRTA funding priorities	TBD by EPC, PPRTA "A-List" Project	PPRTA or developers
4	Eastonville - Londonderry to Latigo upgrade from unimproved roadway to Rural Minor Arterial (per MUTCD)	average daily traffic > 300 vehicles per day	With Grandview Reserve Phase 1	PPRTA
5	Eastonville - Stapleton to Grandview Reserve south boundary upgrade to 4-Lane Rural Minor Arterial (per MUTCD)	average daily traffic > 20,000 vehicles per day	dependent on PPRTA funding priorities	PPRTA
6	Construct Rex from Eastonville to first access point east of Eastonville Road	With Grandview Reserve development	With Grandview Reserve Phase 1	Grandview Reserve
7	Construct Rex from first access point east of Eastonville Road to US Hwy 24 Adequate right-of-way should be reserved to allow for the construction of left-turn and right-turn deceleration lanes at all potential future access points	With Grandview Reserve development	With future Grandview Reserve filings	Grandview Reserve
8	Construct Rex from Sunrise Ridge to Eastonville	With adjacent Meridian Ranch development	With future Meridian Ranch filings	Meridian Ranch
9	Stapleton Drive - US Hwy 24 to Eastonville Road complete southern (eastbound) half	average daily traffic > 18,000 vehicles per day	Shown in 2040 MTCP	El Paso County west of Eastonville Road; Waterbury Metro District east of Eastonville Road.
Eastonville/Stapleton				
10	Construct northbound and southbound left-turn lanes on Eastonville Rd. approaching Stapleton Dr.	---	Short-Term	PPRTA/El Paso County ⁽¹⁾
11	Signalization of the intersection of Stapleton/Eastonville.	Once warrants are met. The decision on timing of traffic signal installation rests with El Paso County Public Works.	anticipated in the short-term	eligible intersection under the free impact program
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14	Construct a westbound left-turn deceleration lane on Rex Road approaching Eastonville Road (not needed if constructed as a modern roundabout)	westbound left-turn volume > 25 vph	With future Grandview Reserve Filings	Grandview Reserve
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Rex/Grandview Phase 1 Intersection				
17	Construct an eastbound right-turn deceleration lane on Rex Road approaching the Phase 1 Grandview Reserve intersection	eastbound right-turn volume > 50 vph	With the future extension of Rex Road east of this intersection	Grandview Reserve
18	Construct a westbound left-turn deceleration lane on Rex Road approaching the Phase 1 Grandview Reserve intersection	westbound left-turn volume > 25 vph	With the future extension of Rex Road east of this intersection	Grandview Reserve
Eastonville/North Site Access Intersection				
19	Construct a northbound right-turn deceleration lane on Eastonville approaching the north site access (not needed if constructed as a modern roundabout)	northbound right-turn volume > 50 vph	With Grandview Reserve Phase 1	Grandview Reserve
20	Construct a southbound left-turn deceleration lane on Eastonville approaching the north site access (not needed if constructed as a modern roundabout)	southbound left-turn volume > 25 vph	With Grandview Reserve Phase 1	Potentially included as part of the PPRTA design of Eastonville Road OR Grandview Reserve
Eastonville/South Site Access Intersection				
21	Construct a northbound right-turn deceleration lane on Eastonville approaching the south site access (not needed if constructed as a modern roundabout)	northbound right-turn volume > 50 vph	With Grandview Reserve Phase 1	Grandview Reserve
22	Construct a southbound left-turn deceleration lane on Eastonville approaching the south site access (not needed if constructed as a modern roundabout)	southbound left-turn volume > 25 vph	With Grandview Reserve Phase 1	Potentially included as part of the PPRTA design of Eastonville Road OR Grandview Reserve
Road "V"/Full-Movement Church Access				
23	Construct a southbound right-turn deceleration lane on Road "V" approaching the full-movement church access	southbound right-turn volume > 50 vph	With development of the church parcel	Grandview Reserve
24	Construct a northbound left-turn deceleration lane on Road "V" approaching the full-movement church access	northbound left-turn volume > 25 vph	With development of the church parcel	Grandview Reserve
Road "V"/Right-In/Right-Out Church Access				
25	Southbound right-turn deceleration lane on Road "V" approaching the right-in/right-out church access	southbound right-turn volume > 50 vph		NOT ANTICIPATED TO BE REQUIRED
Road "V"/Right-In/Right-Out Church Access				
26	Southbound right-turn deceleration lane on Road "V" approaching Road "F"	southbound right-turn volume > 50 vph	With Grandview Reserve Phase 1	Grandview Reserve

Notes:
 (1) The design of Eastonville Road will be performed by the Meridian Ranch developer. LSC anticipates that these turn lanes will be included in the project design. The project will be constructed by El Paso County as PPRTA project.
 Source: LSC Transportation Consultants, Inc. (December 2021)



delete
 19
 Once Eastonville Rd is completed to the west by Meridian Ranch to match a northbound left-turn lane that will be required with that improvement

21

23 "V"

24 "E"

26 "A"

27 "V"/Full-Movement Church Access

Provide road names

22

25

LSC Response: Revised as requested

Number: 19 Author: dsdrice Date: 1/20/2022 11:45:25

once Eastonville Road is constructed to the west by Meridian Ranch to match a northbound left-turn lane that will be required with that improvement

Author: kdferrin Subject: Sticky Note Date: 3/4/2022 14:48:11

LSC Response: Revised as requested

Number: 20 Author: dsdrice Subject: Callout Date: 1/20/2022 11:49:03

With Grandview Reserve Filing 1

Author: kdferrin Subject: Sticky Note Date: 3/4/2022 14:48:14

LSC Response: Revised as requested

Number: 21 Author: dsdrice Subject: Cloud+ Date: 1/20/2022 11:50:22

If a roundabout will function properly, would it be recommended instead of installing all of the turn lanes?

Author: jchodsdon Subject: Sticky Note Date: 3/11/2022 08:57:34

LSC Response: The following note has been added to the Improvements Table in the TIS: "NOTE: regarding a potential roundabout intersection instead of conventional intersection: Planning and preliminary design considerations for Eastonville Road Between Stapleton and Rex are currently in-process. The concept of roundabout traffic control is being considered as an option for some of the intersections in the corridor."

Number: 22 Author: dsdrice Subject: Callout Date: 1/20/2022 11:51:34

Provide road names

Author: kdferrin Subject: Sticky Note Date: 3/4/2022 14:48:50

LSC Response: Revised as requested

Number: 23 Author: dsdrice Date: 1/20/2022 11:52:01

Road "V"

Author: kdferrin Subject: Sticky Note Date: 3/4/2022 14:55:45

LSC Response: Revised as requested

Number: 24 Author: dsdrice Date: 1/20/2022 11:52:12

Road "F"

Author: kdferrin Subject: Sticky Note Date: 3/4/2022 14:55:48

LSC Response: Revised as requested

Number: 25 Author: dsdrice Date: 1/20/2022 11:53:06

Potentially included as part of the PPRTA design of Eastonville Road OR

Author: kdferrin Subject: Sticky Note Date: 3/4/2022 14:57:33

LSC Response: Noted

Number: 26 Author: dsdrice Date: 1/20/2022 11:52:16

Road "A"

Author: kdferrin Subject: Sticky Note Date: 3/4/2022 14:56:48

LSC Response: Revised as requested

Number: 27 Author: dsdrice Date: 1/20/2022 11:52:22

Road "V"

Author: kdferrin Subject: Sticky Note Date: 3/4/2022 14:56:50

LSC Response: Revised as requested

switch lines

On #s 1-5, break out as redlined

switch text in lines 1 and 2

Table 3 Grandview Reserve Phase 1 Roadway Improvements				
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4	Eastonville - Latigo to Latigo upgrade from unimproved roadway to Rural Minor Arterial (per MUTCD)	average daily traffic > 300 vehicles per day	With Grandview Reserve Phase 1	PPRTA
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16	Convert to traffic signal control (not needed if constructed as a modern roundabout)	Once warrants are met. The decision on timing of traffic signal installation rests with El Paso County Public Works.	With future Grandview Reserve Filings	likely to be considered an "eligible intersection" under the roadway improvement fee program
Rex/Grandview Phase 1 Intersection (Road "V")				
17	Construct an eastbound right-turn deceleration lane on Rex Road approaching the Phase 1 Grandview Reserve intersection	eastbound right-turn volume > 50 vph	With the future extension of Rex Road east of this intersection	Grandview Reserve
18	Construct a westbound left-turn deceleration lane on Rex Road approaching the Phase 1 Grandview Reserve intersection	westbound left-turn volume > 25 vph	With the future extension of Rex Road east of this intersection	Grandview Reserve
Eastonville/North Site Access Intersection (Road "F")				
19	Construct a northbound right-turn deceleration lane on Eastonville approaching the north site access (not needed if constructed as a modern roundabout)	northbound right-turn volume > 50 vph	With Grandview Reserve Phase 1	Grandview Reserve
20	Construct a southbound left-turn deceleration lane on Eastonville approaching the north site access (not needed if constructed as a modern roundabout)	southbound left-turn volume > 25 vph	With Grandview Reserve Phase 1	Potentially included as part of the PPRTA design of Eastonville Road OR Grandview Reserve
Eastonville/South Site Access Intersection (Road "A")				
21	Construct a northbound right-turn deceleration lane on Eastonville approaching the south site access (not needed if constructed as a modern roundabout)	northbound right-turn volume > 50 vph	With Grandview Reserve Phase 1	Grandview Reserve
22	Construct a southbound left-turn deceleration lane on Eastonville approaching the south site access (not needed if constructed as a modern roundabout)	southbound left-turn volume > 25 vph	With Grandview Reserve Phase 1	Potentially included as part of the PPRTA design of Eastonville Road OR Grandview Reserve
Road "V"/Full-Movement Church Access				
23	Construct a southbound right-turn deceleration lane on Road "V" approaching the full-movement church access	southbound right-turn volume > 50 vph	With development of the church parcel	Grandview Reserve
24	Construct a northbound left-turn deceleration lane on Road "V" approaching the full-movement church access	northbound left-turn volume > 25 vph	With development of the church parcel	Grandview Reserve
Road "V"/Right-In/Right-Out Church Access				
25	Southbound right-turn deceleration lane on Road "V" approaching the right-in/right-out church access	southbound right-turn volume > 50 vph	NOT ANTICIPATED TO BE REQUIRED	
Road "V"/Right-In/Right-Out Church Access				
26	Southbound right-turn deceleration lane on Road "V" approaching Road "F"	southbound right-turn volume > 50 vph	With Grandview Reserve Phase 1	Grandview Reserve

Notes: **30** design of Eastonville Road will be performed by the Meridian Ranch developer. LSC anticipates that these turn lanes will be included in the project design. The project will be constructed by El Paso County as PPRTA project.

 Number: 28 Author: dsdrice Date: 1/20/2022 11:52:26
Road "V"

 Author: kdferrin Subject: Sticky Note Date: 3/4/2022 14:56:53

LSC Response: Revised as requested

 Number: 29 Author: dsdrice Date: 1/20/2022 11:52:30
Road "V"

 Author: kdferrin Subject: Sticky Note Date: 3/4/2022 14:56:58

LSC Response: Revised as requested

 Number: 30 Author: dsdrice Date: 1/20/2022 11:56:32
) The design of Eastonville Road will be performed by the Meridian Ranch developer

 Author: kdferrin Subject: Sticky Note Date: 3/4/2022 14:57:27

LSC Response: Noted

1 s Figure 2 (showing trails missing?)



Figure 2a
Site Plan

Grandview Reserve Phase 1 (LSC #S214240)

☰ Number: 1 Author: dsdrice Subject: Text Box Date: 1/20/2022 08:17:53

Is Figure 2 (showing trails missing?)

↩ Author: kdferrin Subject: Sticky Note Date: 3/4/2022 15:00:54
LSC Response: Figure 2 has been revised to show the trail locations

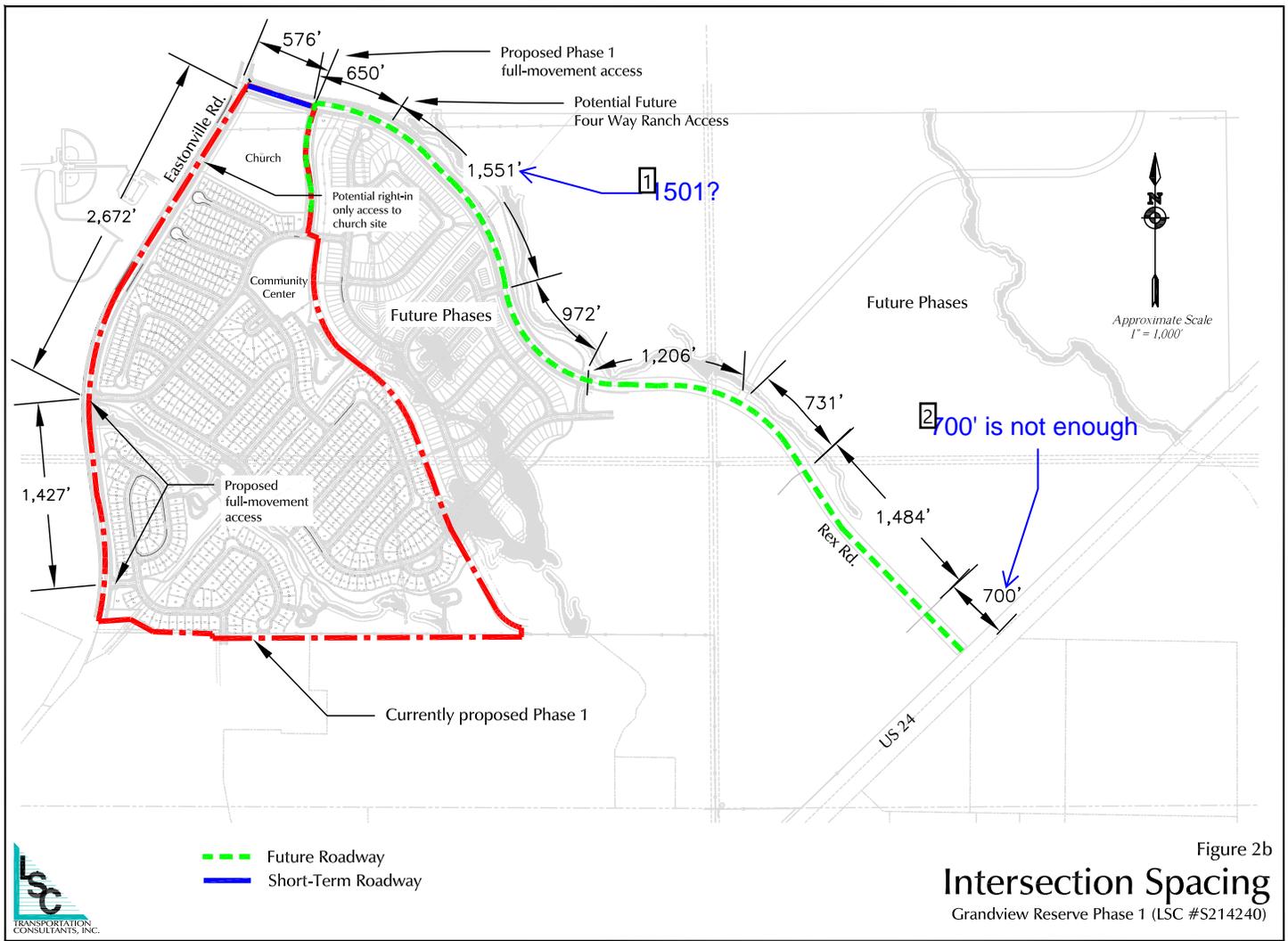


Figure 2b
Intersection Spacing
 Grandview Reserve Phase 1 (LSC #S214240)

Number: 1 Author: dsdrice Subject: Callout Date: 1/20/2022 12:45:06

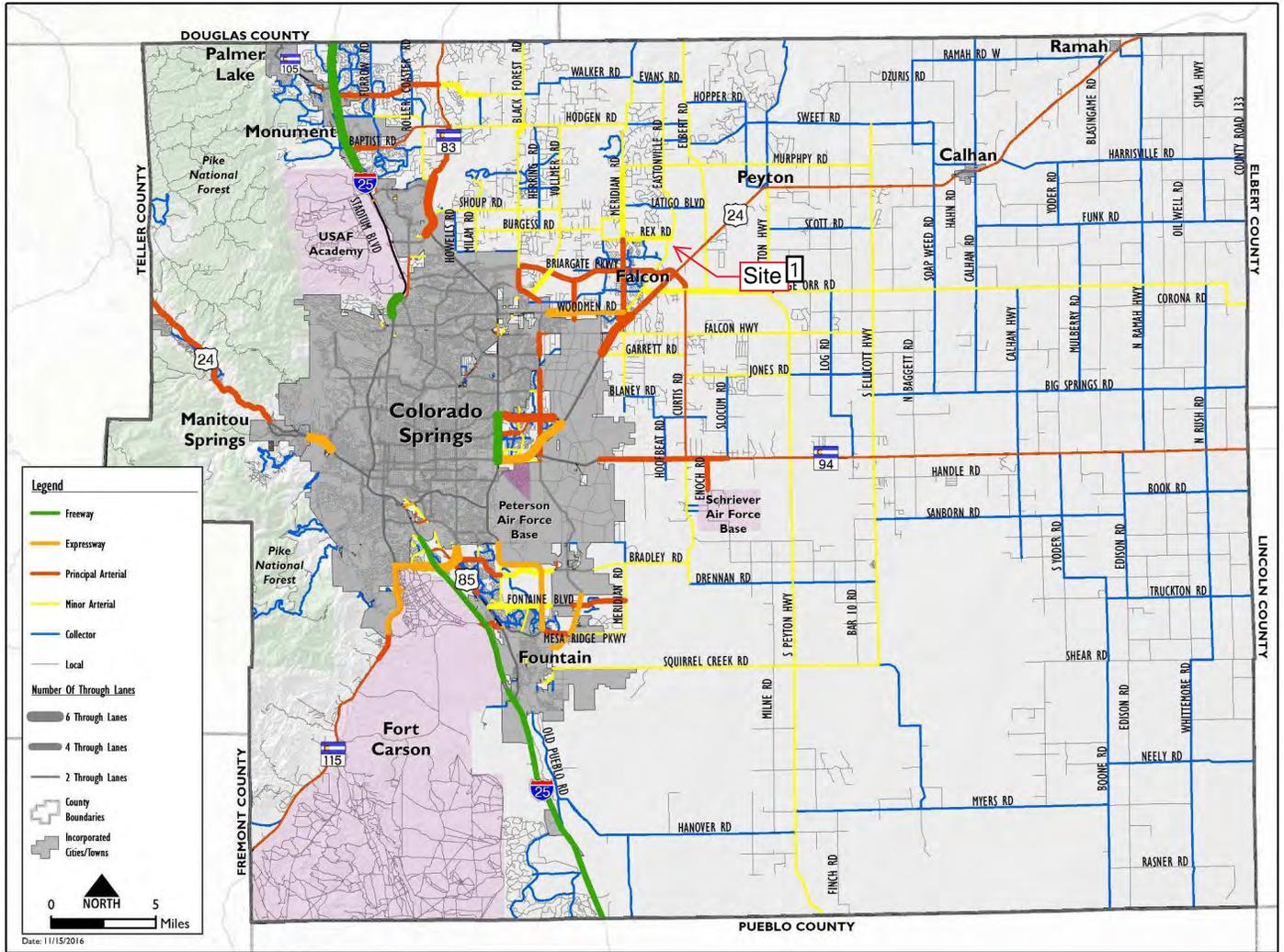
1501?

Author: kdferrin Subject: Sticky Note Date: 3/4/2022 15:01:09
LSC Response: Revised as requested

Number: 2 Author: dsdrice Subject: Callout Date: 1/23/2022 17:18:10

700' is not enough

Author: kdferrin Subject: Sticky Note Date: 3/4/2022 15:01:59
LSC Response: Revised to "> 700' Exact spacing to be determined with development of the commercial parcels"



Map 14: 2040 Roadway Plan (Classification and Lanes)

Map 17: 2060 Corridor Preservation

