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4-Way Ranch Commercial Master Traffic Impact Analysis (LSC #S224450) September 20, 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.



Developer's Statement

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

Date

CS-22-003 ¹

LSC Responses to 4-Way Ranch Commercial TIA Redline Comments

Page: 1

 Number: 1 Author: CDurham Subject: Text Box Date: 10/18/2022 3:51:40 PM -05'00'

[CS-22-003](#)

 Author: kdferrin Subject: Sticky Note Date: 11/21/2022 2:38:29 PM
LSC Response: This information has been added as requested

PREVIOUS TRAFFIC REPORTS

The overall 4-Way Ranch PUD Development Plan was previously studied in a traffic impact study by LSC dated January 10, 2013.

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 roadway network included in these studies.

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 67.1 acres per legal description ¹

The 60.2-acre site is located north and south of Stapleton Drive and east of US Hwy 24. Figure 2 shows the proposed site plan. The initial development is planned to include the area south of Stapleton Drive adjacent to US Hwy 24 and is planned to include about four to six acres of general commercial uses, three to five acres of mini-warehouse, three to four acres for Boat/RV storage, and three to four acres for contractor equipment storage. Access is proposed to the future Dumont Drive to be located about 845 feet east of US Hwy 24.

This does not meet intersection spacing off of a principal arterial. ² west? ³ areas north of Stapleton Drive will be developed with commercial uses consistent with ITE Land Use 821 Shopping Plaza and will have access to the future Dumont Drive and an additional right-in/right-out access to Stapleton Drive about 535 feet west of Dumont Drive.

This study assumes the future areas west of the initial phase will be developed with commercial uses consistent with ITE Land Use 770 Business Park and will have access to Stapleton Drive aligning with the intersection of Saybrook Drive/Stapleton Drive.

ROADWAY AND TRAFFIC CONDITIONS

Area Roadways

Indicate distance to this access from Dumont and/or RI/RO ⁴

The major roadways in the site's vicinity are shown in Figure 1 and are described below. Copies of the 2016 El Paso County *Major Transportation Corridors Plan (MTCP) 2040 Roadway Plan* and 2016 *MTCP 2060 Corridor Preservation Plan (CPP)* with the site location identified on them have been attached to this report.

Eastonville Road extends northeast from Meridian Road to past Hodgen Road. It is shown as a two-lane Minor Arterial on the El Paso County *Major Transportation Corridors Plan* and the

Number: 1 Author: CDurham Subject: Callout Date: 10/19/2022 9:24:35 AM -05'00'

[67.1 acres per legal description](#)

Author: kdferrin Subject: Sticky Note Date: 11/21/2022 2:38:33 PM

LSC Response: Revised to 67.1 acres

Number: 2 Author: CDurham Subject: Callout Date: 10/19/2022 3:14:03 PM -05'00'

[This does not meet intersection spacing off of a principal arterial.](#)

Author: jchodsdon Subject: Sticky Note Date: 11/21/2022 2:38:53 PM

LSC Response: It is our understanding that the location of the Stapleton/Dumont intersection was established with the Stapleton corridor study and access control plan. Therefore, a deviation should not be necessary. Please refer to the updated report narrative for additional details.

Number: 3 Author: CDurham Subject: Callout Date: 10/19/2022 3:13:49 PM -05'00'

[west?](#)

Author: kdferrin Subject: Sticky Note Date: 11/21/2022 2:39:45 PM

LSC Response: The text has been corrected to west.

Number: 4 Author: CDurham Subject: Callout Date: 10/19/2022 12:09:28 PM -05'00'

[Indicate distance to this access from Dumont and/or RI/RO](#)

Author: kdferrin Subject: Sticky Note Date: 11/21/2022 2:39:57 PM

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

Preserved Corridor Network Plan. Eastonville Road has a three-lane cross section (one through lane in each direction plus a center two-way, left-turn lane) from Woodmen Hills Drive to Snaffle Bit Road (approximately midway between Judge Orr Road and Stapleton Road). Eastonville Road is a two-lane roadway north and south of this section. Eastonville Road is currently unpaved north of Londonderry Drive. The posted speed limit north of Stapleton Drive is currently 35 miles per hour (mph). Pikes Peak Rural Transportation Authority (PPRTA) Eastonville Phase 1 project-funded improvements are anticipated in the short-term future at the intersection of Eastonville Road and Stapleton Drive. A roundabout is under design for this intersection.

Include s
Stapleton

US Highway 24 (US Hwy 24) is generally a two-lane State Highway extending east/west across Colorado connecting the Buena Vista, Colorado Springs, and Limon areas. US Hwy 24 is planned to be widened to four lanes through the Falcon area. The US Hwy 24 PEL identifies this widening as a high priority with a timeline of less than 10 years. US Hwy 24 in the vicinity is classified as an EX – Expressway/Major Bypass by the Colorado Department of Transportation (CDOT). US Hwy 24 is shown as a four-lane Principal Arterial on the *MTCP* and the *Preserved Corridor Network Plan*. The posted speed limit on US Hwy 24 adjacent to the site is 65 mph.

Stapleton Drive is shown as an Urban four-lane Principal Arterial on the El Paso County *Major Transportation Corridors Plan* and El Paso County *Corridor Preservation Plan (CPP)*. Stapleton Drive extends east from Towner Drive to US Hwy 24. Stapleton continues southeast, then south as Curtis Road. It is planned to be ultimately extended west to connect with the Briargate Parkway extension. Stapleton Drive currently is a half-section of a four-lane Urban Principal Arterial Street (one through lane in each direction) between Meridian Road and US Hwy 24. The posted speed limit between Eastonville Road and US Hwy 24 is 45 mph.

Judge Orr Road is a two-lane roadway that extends east from Eastonville Road across most of El Paso County. It is shown on the El Paso County 2040 *MTCP* and the *Preserved Corridor Network Plan* as a four-lane Minor Arterial west of Curtis Road. Posted speed limits range from 45 to 55 mph. West of Curtis Road, the speed limit is 45 mph, while it generally increases to 55 mph east of Curtis Road.

Pedestrian and Bicycle Accommodations

The following is a list of known and planned multi-modal and pedestrian accommodations in the vicinity of the site:

- A Park-and-Ride facility is planned for a site near Meridian Road and US Highway 24.
- The Rock Island Regional Trail passes adjacent to the site.
- There are currently no sidewalks on Stapleton Drive adjacent to the site. However, sidewalks will be constructed once it is upgraded to its final cross section
- Many of the area County roads have been or will be upgraded to provide paved shoulders for cyclists. Stapleton Drive is also shown as a future “bike route.”
- The Highway 24 PEL study also includes multi-modal elements.

 Number: 1 Author: CDurham Subject: Callout Date: 10/19/2022 12:40:15 PM -05'00'

[Include speed limit south of Stapleton if different](#)

 Author: kdferrin Subject: Sticky Note Date: 11/21/2022 2:40:40 PM

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

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.

All movements at the stop-sign-controlled intersection of Judge Orr/Curtis are currently operating at LOS B or better during the peak hours.

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 4 shows the projected short-term (Year 2026) background traffic volumes.

Has output from this model been included in appendix? ¹

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 5) plus increases in traffic due to regional growth, including buildout of the following subdivisions in the vicinity of the site:

- 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;
- Latigo Trails Filing Nos. 1 and 2;
- Waterbury Filing Nos. 1 and 2; and
- Grandview Reserve Phase 1

Figure 5 is 2042 Background Traffic ²

Does this scenario include the proposed improvements for Eastonville Road? ³

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.

Figure 4 shows the lane geometry, traffic control, and level of service at the key area intersections, based on the short-term background volumes.

Number: 1 Author: CDurham Subject: Callout Date: 10/19/2022 2:24:37 PM -05'00'

[Has output from this model been included in appendix?](#)

Author: jchodsdon Subject: Sticky Note Date: 11/21/2022 2:40:45 PM

LSC Response: LSC's internal local area model results have been presented in the figures. LSC could provide additional details as needed. Also, the report narrative presents details regarding specific project traffic-volume estimates included. The report indicates these volumes may be conservative. The volumes shown at the intersection of Stapleton/Eastonville, for example, are generally more conservative (by assuming 20-year buildout of most area projects) than projections contained in the "Traffic Impact Study [for the] Eastonville Road Project" (April 2021 by Wilson & Company).

Number: 2 Author: CDurham Subject: Callout Date: 10/19/2022 12:02:32 PM -05'00'

[Figure 5 is 2042 Background Traffic](#)

Author: kdferrin Subject: Sticky Note Date: 11/21/2022 2:41:10 PM

LSC Response: The figure number reference has been revised.

Number: 3 Author: CDurham Subject: Text Box Date: 10/19/2022 12:04:30 PM -05'00'

[Does this scenario include the proposed improvements for Eastonville Road?](#)

Author: kdferrin Subject: Sticky Note Date: 11/21/2022 2:41:14 PM

LSC Response: Additional text has been added that clarifies that the short-term scenario assumes the currently proposed improvements for Eastonville Road.

about 630 vehicles would enter and 521 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 890 vehicles would enter and 960 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. Figure 6 shows the directional-distribution estimates for the site-generated traffic volumes. The estimates have been based on the following factors: the recent traffic-count data; the Pikes Peak Area Council of Governments' (PPACG) 2040 traffic projections; the site's location with respect to the nearby employment, commercial, and activity centers, and the balance of the Falcon and Colorado metropolitan areas; the site's proposed land use; the site's proposed access points; and the phasing of the existing and future roadway system serving the site.

Table 3 is Traffic Signal Warrant Analysis

There is no Figure 9a.

When the distribution percentages (from Figure 6) were applied to the trip-generation estimates (from Table 3), the short-term site-generated traffic volumes on the area roadways were determined. Figure 9a shows the short-term site-generated traffic volumes at the site-access points and key area external intersections. Figure 7 shows the site-generated traffic volumes following buildout of the initial phase. Figure 8 shows the long-term site-generated traffic volumes following buildout of the entire site.

Update Figure references

TOTAL TRAFFIC

Figure 9 shows the projected short-term (Year 2026) total-traffic volumes. The short-term total-traffic volumes are the sum of the short-term background-traffic volumes (from Figure 4) plus the initial phase site-generated traffic volumes (from Figure 7).

Figure 10 shows the projected 2042 total-traffic volumes. The 2042 total-traffic volumes are the sum of the 2042 background traffic volumes (from Figure 5) plus the long-term buildout site-generated traffic volumes (from Figure 8).

PROJECTED LEVELS OF SERVICE

The key area intersections and site-access points have been analyzed to determine the projected future levels of service based on the unsignalized method of analysis procedures from the *Highway Capacity Manual, 6th Edition* by the Transportation Research Board and Synchro signalized intersection procedures. Based on the criteria contained in the *Engineering Criteria Manual*, a peak-hour factor of 0.85 was used for the short-term (Year 2026) analysis, except for those intersections whose existing peak-hour factor calculated from traffic counts conducted by LSC was higher than 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 2042). Two-percent heavy vehicles were assumed

Number: 1 Author: CDurham Subject: Callout Date: 10/19/2022 1:13:54 PM -05'00'

[Table 3 is Traffic Signal Warrant Analysis](#)

Author: kdferrin Subject: Sticky Note Date: 11/21/2022 2:41:34 PM

LSC Response: The table reference number has been revised.

Number: 2 Author: CDurham Subject: Callout Date: 10/19/2022 1:15:21 PM -05'00'

[There is no Figure 9a.](#)

Author: kdferrin Subject: Sticky Note Date: 11/21/2022 2:41:45 PM

LSC Response: This extraneous sentence has been removed from the updated report.

Number: 3 Author: CDurham Subject: Callout Date: 10/19/2022 1:16:47 PM -05'00'

[Update Figure references](#)

Author: kdferrin Subject: Sticky Note Date: 11/21/2022 2:41:51 PM

LSC Response: The figure numbers have been revised.

for both the Year 2026 and Year 2042 analysis. The results of the analysis are contained in Figures 4, 5, 9, and 10. The level of service reports are attached.

Stapleton/Eastonville

The eastbound approach at the intersection of Stapleton/Eastonville is currently operating at LOS F during the morning peak hour. Improvements to Eastonville from Snaffle Bit north to Rex Road in the vicinity of the site are under design as part of the PPRTA Eastonville Phase 1 project.

¹The intersection is planned to be converted to a modern roundabout. The roundabout laneage shown for the short term by LSC is estimated and should be verified and updated in subsequent site-specific traffic reports for developments within 4-Way Ranch Commercial this ²report as the design progresses.

delete ³

By 2042, it was assumed that Stapleton Drive would be constructed to its full Principal Arterial cross section. . Based on the estimated roundabout lane geometry and projected volumes, the projected intersection levels of service are shown in Figure 10.

Saybrook/Stapleton

The intersection of Saybrook/Stapleton is projected to operate at LOS D or better for all movements as a signal-controlled intersection, based on the projected 2041 total traffic volumes.

⁴2042

Dumont/Stapleton

Dumont Drive is planned to only be constructed south of Stapleton Drive in the initial phase. As a stop-sign-controlled "T" intersection, all movements at this intersection are projected to operate at LOS D or better during the morning and afternoon peak hours, based on the projected 2026 total traffic volumes. By 2042, it was assumed the north leg of Dumont would be constructed and that the intersection would be converted to traffic-signal control. All movements at this intersection are projected to operate at LOS D or better based on the projected 2042 total traffic volumes.

US Hwy 24 /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.

By 2042, the northeast- and southwest-bound left-turn movements at this intersection are projected to operate at LOS E during the morning and afternoon peak hours, with or without the proposed development. Alternate traffic-control options were presented in the US Hwy 24 PEL

 Number: 1 Author: CDurham Subject: Highlight Date: 10/19/2022 2:26:37 PM -05'00'

 Author: kdferrin Subject: Sticky Note Date: 11/21/2022 2:42:02 PM
LSC Response: The extraneous text has been deleted in the updated report.

 Number: 2 Author: CDurham Subject: Line Date: 10/19/2022 2:27:32 PM -05'00'

 Number: 3 Author: CDurham Subject: Callout Date: 10/19/2022 2:27:50 PM -05'00'

[delete](#)

 Author: kdferrin Subject: Sticky Note Date: 11/21/2022 2:42:11 PM
LSC Response: The text has been deleted as requested.

 Number: 4 Author: CDurham Subject: Callout Date: 10/19/2022 2:29:30 PM -05'00'

[2042](#)

 Author: kdferrin Subject: Sticky Note Date: 11/21/2022 2:42:19 PM
LSC Response: The year has been revised to 2042.

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 in the long term to maintain an acceptable level of service.

Judge Orr/Curtis

All movements at the intersection of Judge Orr/Curtis are projected to operate at LOS C or better during the peak hours if it remains a stop-sign-controlled intersection. By 2042, it was assumed that this intersection would be reconstructed as a two-lane modern roundabout. Based on the projected 2042 total traffic volumes, all approaches are projected to operate at LOS B or better during the peak hours.

TRAFFIC-SIGNAL WARRANT ANALYSIS

The intersections of Stapleton/Saybrook, Stapleton/Dumont, and Stapleton/US Hwy 24 were analyzed to determine when Four-Hour and/or Eight-Hour Vehicular-Volume Traffic-Signal Warrant thresholds would be reached or exceeded, based on the projected traffic volumes. The satisfaction of warrants does not indicate that a signal must be installed. The decision to require a signal to be installed rests with the County (or CDOT in the case of US Highway 24/Stapleton).

Stapleton/Saybrook

Table 3 shows the results of the analysis for the intersection of Stapleton/Saybrook. The off-peak traffic volumes were based on traffic counts conducted by LSC in October 2021 and vehicle time-of-day distribution data for single-family residential land uses published by the Institute of Transportation Engineers.

Was shopping center land use also considered at this intersection? ¹

Based on the 2042 total traffic volumes, all of the eight hours analyzed are projected to meet the minimum thresholds for an Eight-Hour Vehicular-Volume Traffic-Signal Warrant and five of the eight hours analyzed are projected to meet the minimum thresholds for a Four-Hour Vehicular-Volume Traffic-Signal Warrant.

Stapleton/Dumont

Table 4 shows the results of the analysis for the intersection of Stapleton/Dumont. The off-peak traffic volumes were based on traffic counts conducted by LSC in October 2021 and vehicle time-of-day distribution data for single-family residential and shopping center land uses published by the Institute of Transportation Engineers.

Number: 1 Author: CDurham Subject: Callout Date: 10/19/2022 2:48:35 PM -05'00'

[Was shopping center land use also considered at this intersection?](#)

 Author: kdferrin Subject: Sticky Note Date: 11/21/2022 2:42:30 PM

LSC Response: The text has been revised to clarify that the single family residential distribution was used for the north leg and the shopping center was used for the south leg.

Please contact me if you have any questions regarding this report.

Respectfully submitted,

LSC TRANSPORTATION CONSULTANTS, INC.

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

JCH/KDF:jas

Enclosures: Tables 2-6
Figures 1-10
Traffic Count Reports
Level of Service Reports
Appendix Table 1
MTCP Maps

- Include discussion on safety and accident analysis
- Sight distance evaluation & recommendations
- Locations & requirements for turn & accel/decel lanes

1

☰ Number: 1 Author: CDurham Subject: Text Box Date: 10/19/2022 3:06:50 PM -05'00'

- Include discussion on safety and accident analysis- Sight distance evaluation & recommendations- Locations & requirements for turn & accel/decel lanes

↩ Author: kdferrin Subject: Sticky Note Date: 11/21/2022 2:42:43 PM

LSC Response: The safety and accident and sight distance, in general, has added to the updated TIS. Additional detail will be provided with the Preliminary Plan.

Location & requirements for turn and accel/decel lanes is found on Table 6.

**Table 2
Trip Generation Estimate
Four Way Ranch Commercial**

Land Use Code	Land Use Description	Area (Acres)	Floor Area Ratio	Trip Generation Units	Trip Generation Rates ⁽¹⁾					Total Trips Generated					Passby Trips ⁽²⁾ (%)	New Trips Generated Average Weekday Traffic
					Average Weekday Traffic	Morning Peak Hour In	Morning Peak Hour Out	Afternoon Peak Hour In	Afternoon Peak Hour Out	Average Weekday Traffic	Morning Peak Hour In	Morning Peak Hour Out	Afternoon Peak Hour In	Afternoon Peak Hour Out		
South of Stapleton Road and East of the Drainage Area (Initial Phase)																
---	RV/Boat Storage ⁽³⁾	4	---	4 Acres	10.90	0.62	0.67	0.37	0.52	44	2	3	1	2	0%	44
151	Mini-Warehouse	5	0.25	54 KSF ⁽⁴⁾	1.45	0.05	0.04	0.07	0.08	78	3	2	4	4	0%	78
180	Specialty Trade Contractor	4	0.10	17 KSF	9.82	1.23	0.43	0.62	1.31	167	21	7	10	22	0%	167
821	Shopping Plaza (40-150 KSF No Supermarket)	6	0.20	52 KSF	67.52	1.07	0.66	2.54	2.65	3,511	56	34	132	138	34%	2,317
Initial Phase Total										3,800	82	46	147	166		2,606
South of Stapleton Road and West of the Drainage Area																
770	Business Park	29.18	0.20	254 KSF	13.44	1.10	0.19	0.34	0.97	3,413	279	49	86	245	0%	3,413
North of Stapleton Road and East of Dumont Dr																
821	Shopping Plaza (40-150 KSF No Supermarket)	5.59	0.20	49 KSF	67.52	1.07	0.66	2.54	2.65	3,308	53	32	125	130	34%	2,183
North of Stapleton Road and West of Dumont Dr																
821	Shopping Plaza (40-150 KSF No Supermarket)	7.6	0.20	66 KSF	67.52	1.07	0.66	2.54	2.65	4,456	71	43	168	175	34%	2,941
Grand Total										14,977	485	170	526	716		11,143
Trip Generation Estimate from the Updated 4 Way Ranch Traffic Impact Analysis, January 29, 2009										21,446	630	521	890	960		15,600
Change (Decrease)										-6,469	-145	-351	-364	-244		-4,457

Per legal description, total project area is 67.1 acres. Areas assumed only account for 61.4 acres. Please include additional 5.7 acres for calculations

1

Notes:

- (1) Source: "Trip Generation, 11th Edition, 2021" by the Institute of Transportation Engineers (ITE).
- (2) Source: "Trip Generation Handbook - An ITE Proposed Recommended Practice 3rd Edition, September 2017" by ITE
- (3) "RV/Boat Storage" rates based on RV storage facility trip generation counts conducted by LSC in El Paso County (2018)
- (4) KSF = one thousand square feet of floor space

Source: LSC Transportation Consultants, Inc.

Number: 1 Author: CDurham Subject: Callout Date: 10/19/2022 2:52:47 PM -05'00'

Per legal description, total project area is 67.1 acres. Areas assumed only account for 61.4 acres. Please include additional 5.7 acres for calculations

Author: kdferrin Subject: Sticky Note Date: 11/21/2022 2:43:00 PM

LSC Response: The table has been revised to show 5.7 acres of Open Space/Drainage/ROW.



Figure 1
Vicinity
Map

4-Way Ranch Commercial (LSC# S224450)

○ Number: 1 Author: jchodsdon Subject: Oval Date: 11/21/2022 11:00:37 AM

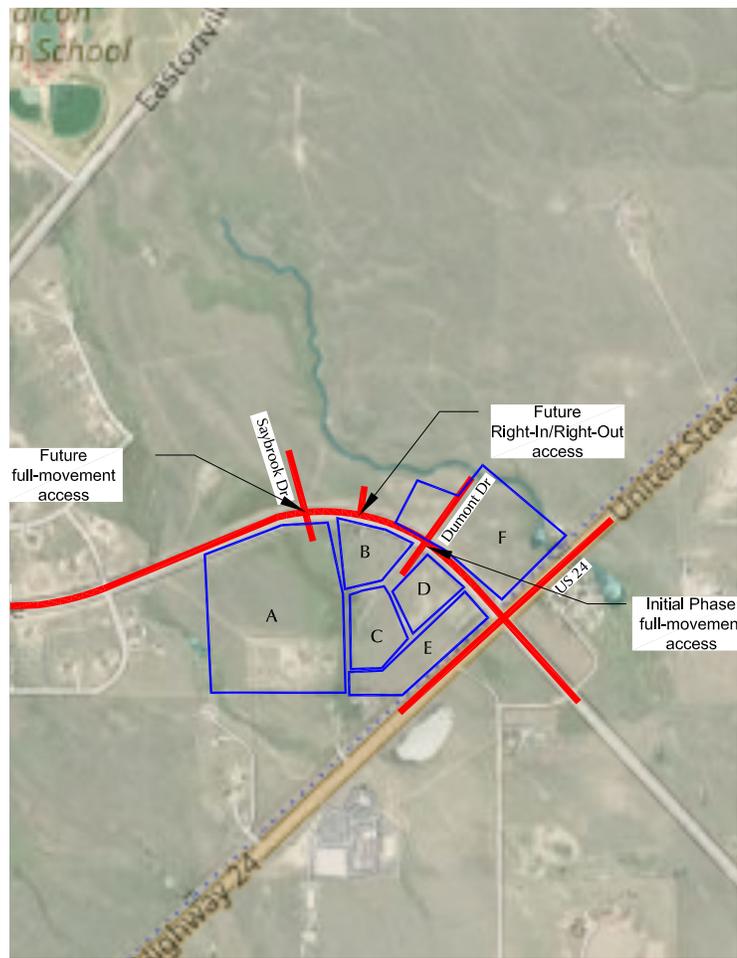
✓ Number: 2 Author: jchodsdon Subject: Line Date: 11/21/2022 11:00:32 AM

☰ Number: 3 Author: CDurham Subject: Text Box Date: 10/19/2022 2:53:15 PM -05'00'

[Label Hodgen Road](#)

↩ Author: kdferrin Subject: Sticky Note Date: 11/21/2022 2:43:07 PM
LSC Response: Hodgen Road is more than 7 miles from the site.

- A. Future Business Park
- B. Boat/RV Storage
- C. Contractor Equipment
- D. Mini-Warehouse
- E. Commercial
- F. Future Retail



Approximate
Scale
1" = 1,000'

Figure 2
Site Plan

Waterbury Phase 2 Preliminary Plan (LSC# S214740)

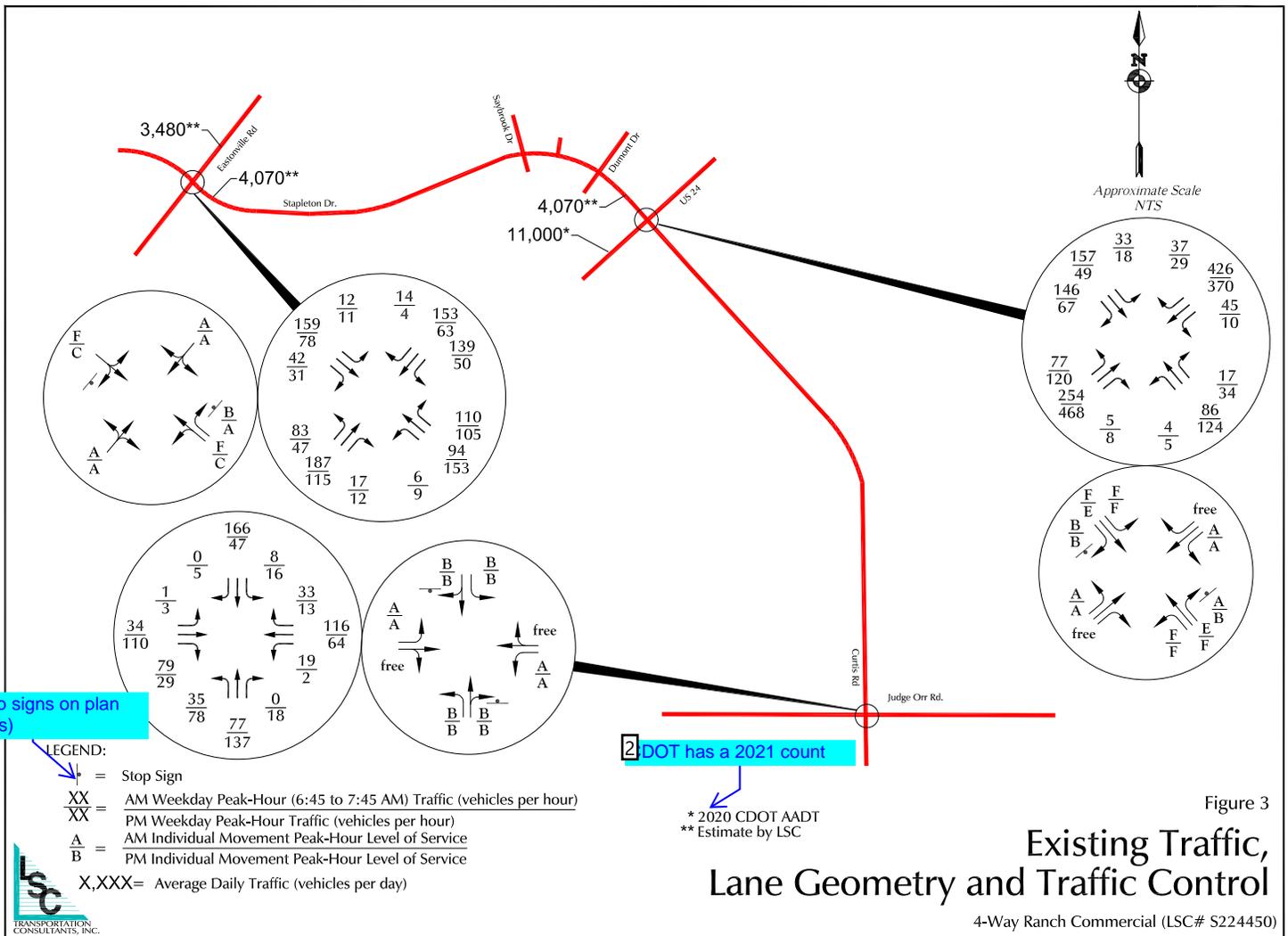


1 update project name

Number: 1 Author: CDurham Subject: Callout Date: 10/19/2022 2:53:50 PM -05'00'

[Update project name](#)

 Author: kdferrin Subject: Sticky Note Date: 11/21/2022 2:43:17 PM
LSC Response: The project title has been updated.



 Number: 1 Author: CDurham Subject: Callout Date: 10/19/2022 2:54:31 PM -05'00'

[Show stop signs on plan \(All figures\)](#)

 Author: kdferrin Subject: Sticky Note Date: 11/21/2022 2:43:26 PM

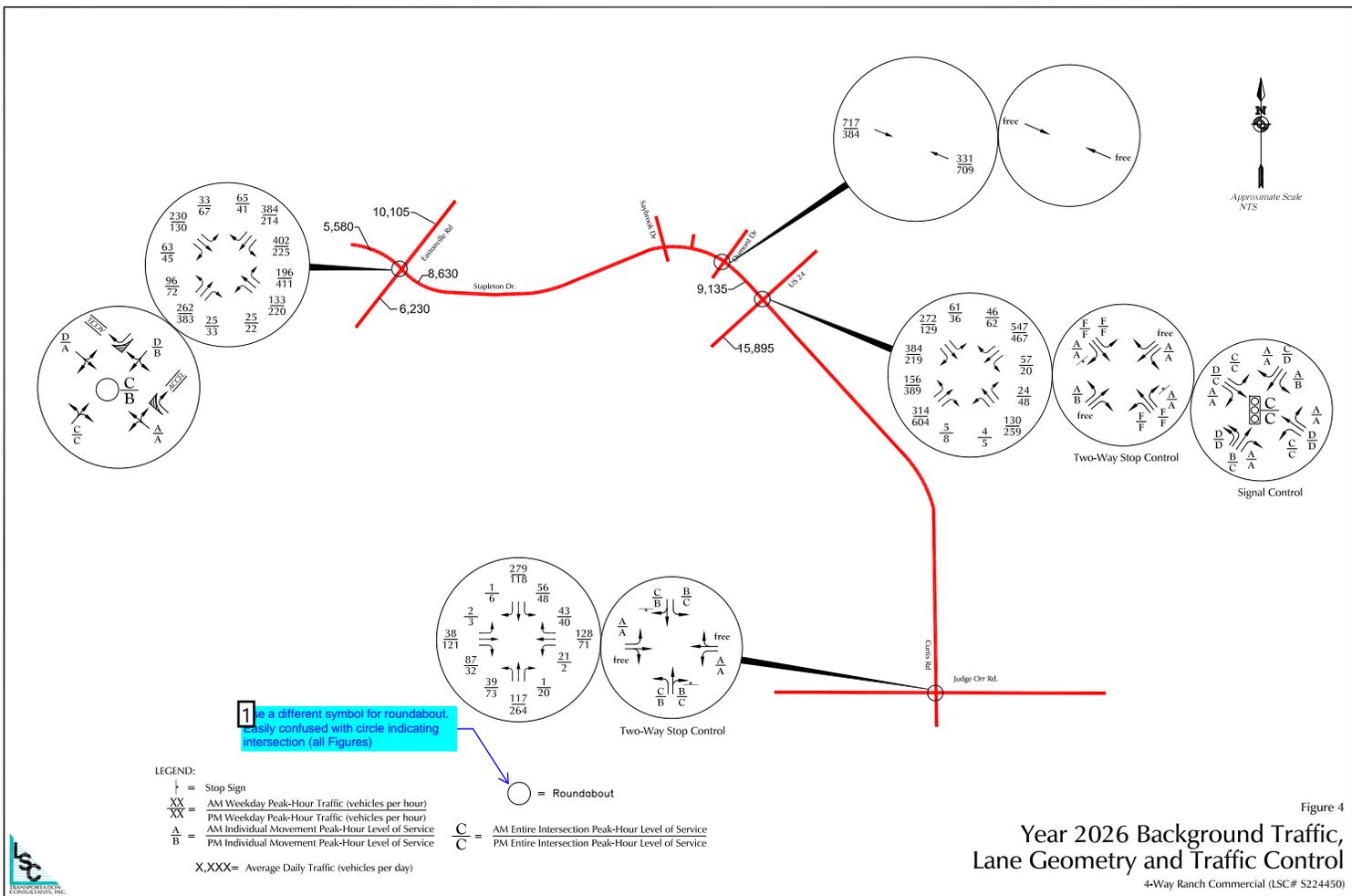
LSC Response: The stop signs are shown in the bubbles with the lane geometry and LOS.

 Number: 2 Author: CDurham Subject: Callout Date: 10/19/2022 2:54:13 PM -05'00'

[CDOT has a 2021 count](#)

 Author: kdferrin Subject: Sticky Note Date: 11/21/2022 2:43:36 PM

LSC Response: The AADT volume on US 24 has been updated to the 2021 count data.

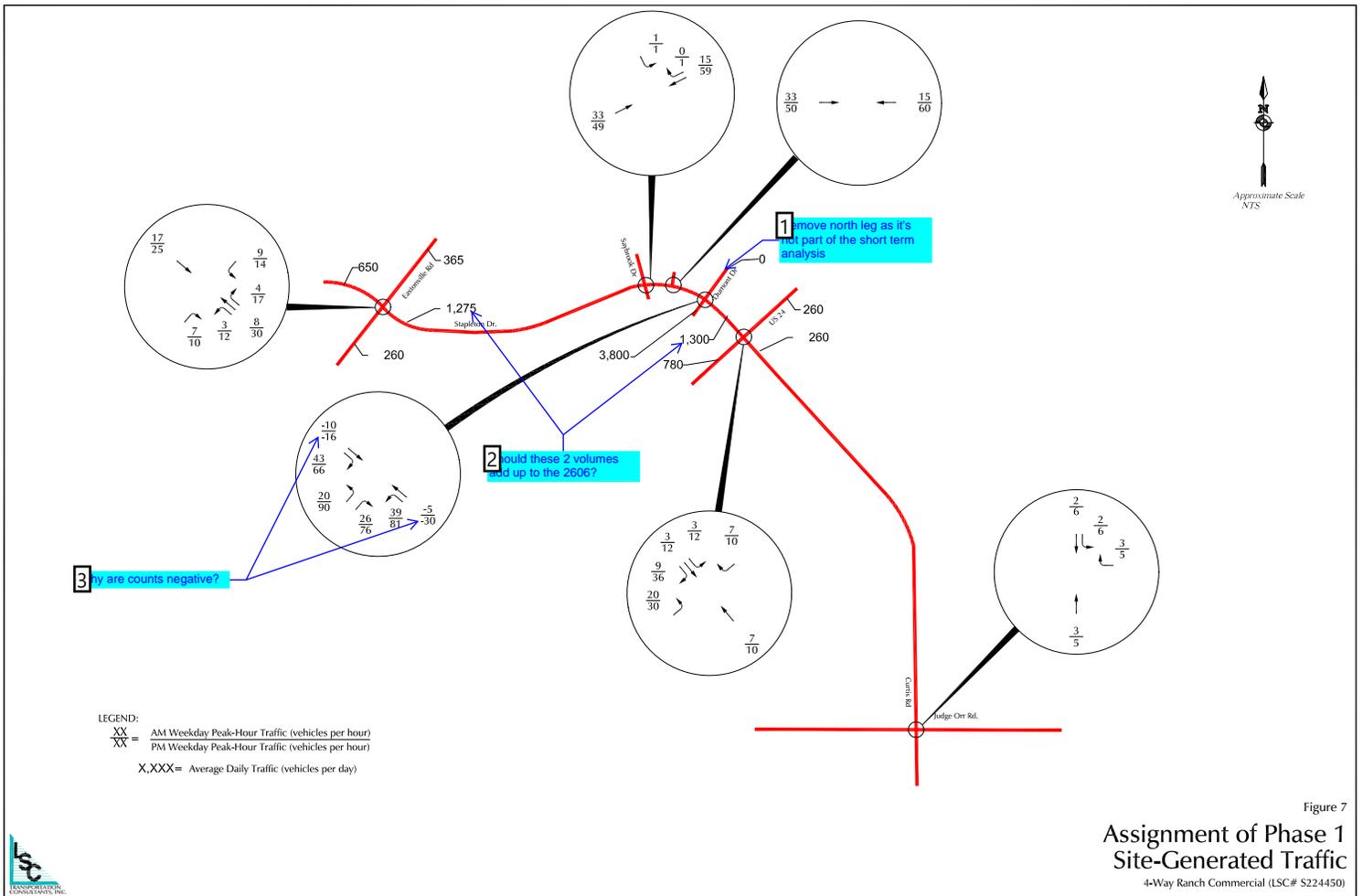


Number: 1 Author: CDurham Subject: Callout Date: 10/19/2022 2:55:39 PM -05'00'

[Use a different symbol for roundabout. Easily confused with circle indicating intersection \(all Figures\)](#)

 Author: kdferrin Subject: Sticky Note Date: 11/21/2022 2:44:02 PM

LSC Response: The symbol has been revised as requested.



Number: 1 Author: CDurham Subject: Callout Date: 10/19/2022 2:57:27 PM -05'00'

[Remove north leg as it's not part of the short term analysis](#)

Author: kdferrin Subject: Sticky Note Date: 11/21/2022 2:44:27 PM

LSC Response: The figures have been updated as requested

Number: 2 Author: CDurham Subject: Callout Date: 10/19/2022 2:56:47 PM -05'00'

[Should these 2 volumes add up to the 2606?](#)

Author: kdferrin Subject: Sticky Note Date: 11/21/2022 2:44:17 PM

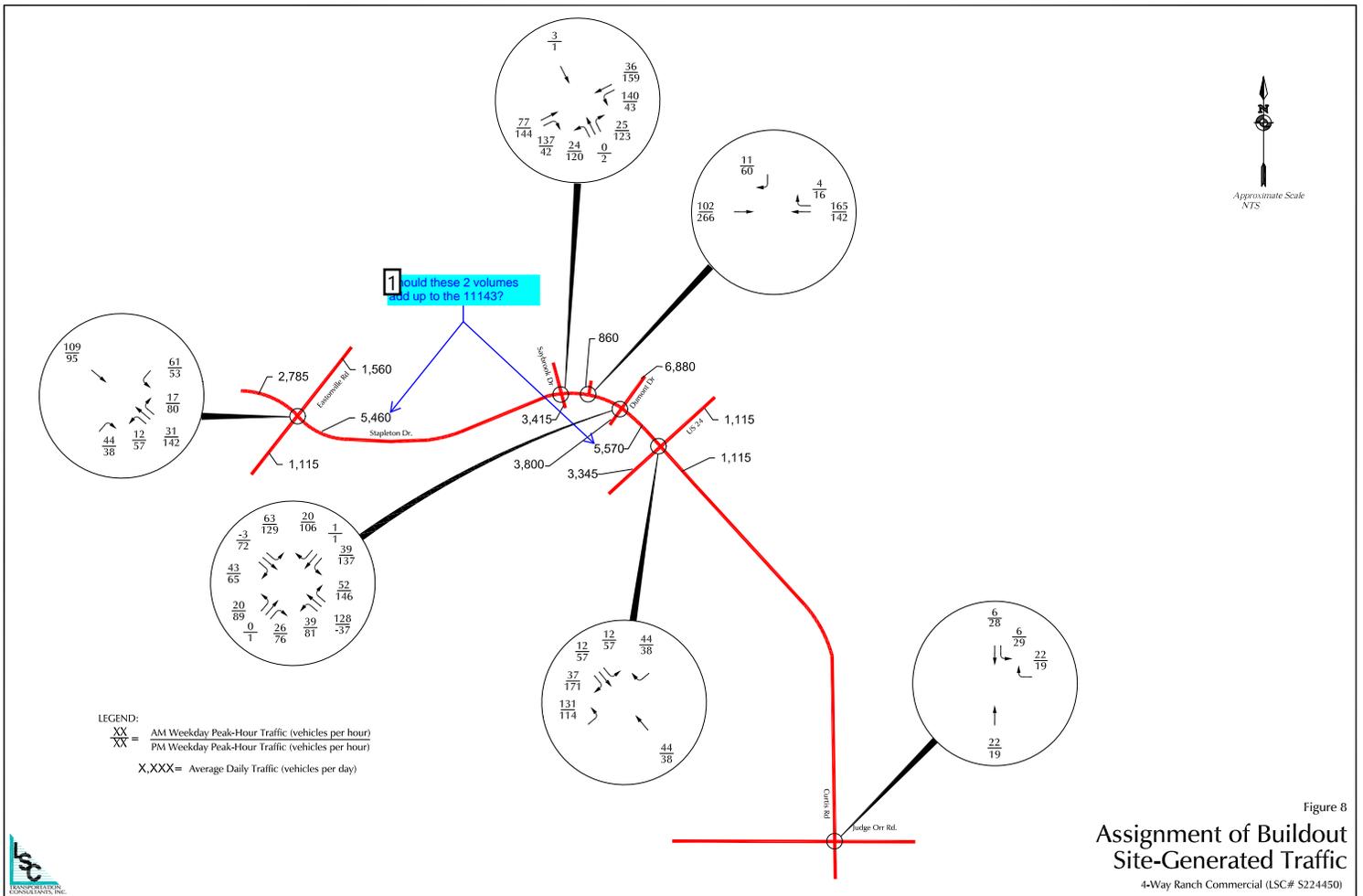
LSC Response: 1% of the trips are projected to travel to/from the Waterbury development to the north. Additional ADT locations are shown on the updated figures.

Number: 3 Author: CDurham Subject: Callout Date: 10/19/2022 3:29:43 PM -05'00'

[Why are counts negative?](#)

Author: kdferrin Subject: Sticky Note Date: 11/21/2022 2:44:06 PM

LSC Response: The negative numbers are reflective of the passby trip assignment. The passby trip assignment has been completed in accordance with ITE "Trip Generation Handbook, Third Edition" Section 10.5.1. Figure 10.2 of this publication shows an example of the passby volume adjustment and negative trips.



Number: 1 Author: CDurham Subject: Callout Date: 10/19/2022 2:58:36 PM -05'00'

[Should these 2 volumes add up to the 11143?](#)

 Author: kdferrin Subject: Sticky Note Date: 11/21/2022 2:44:46 PM

LSC Response: 1% of the trips are projected to travel to/from the Waterbury development to the north. Additional ADT locations are shown on the updated figures.

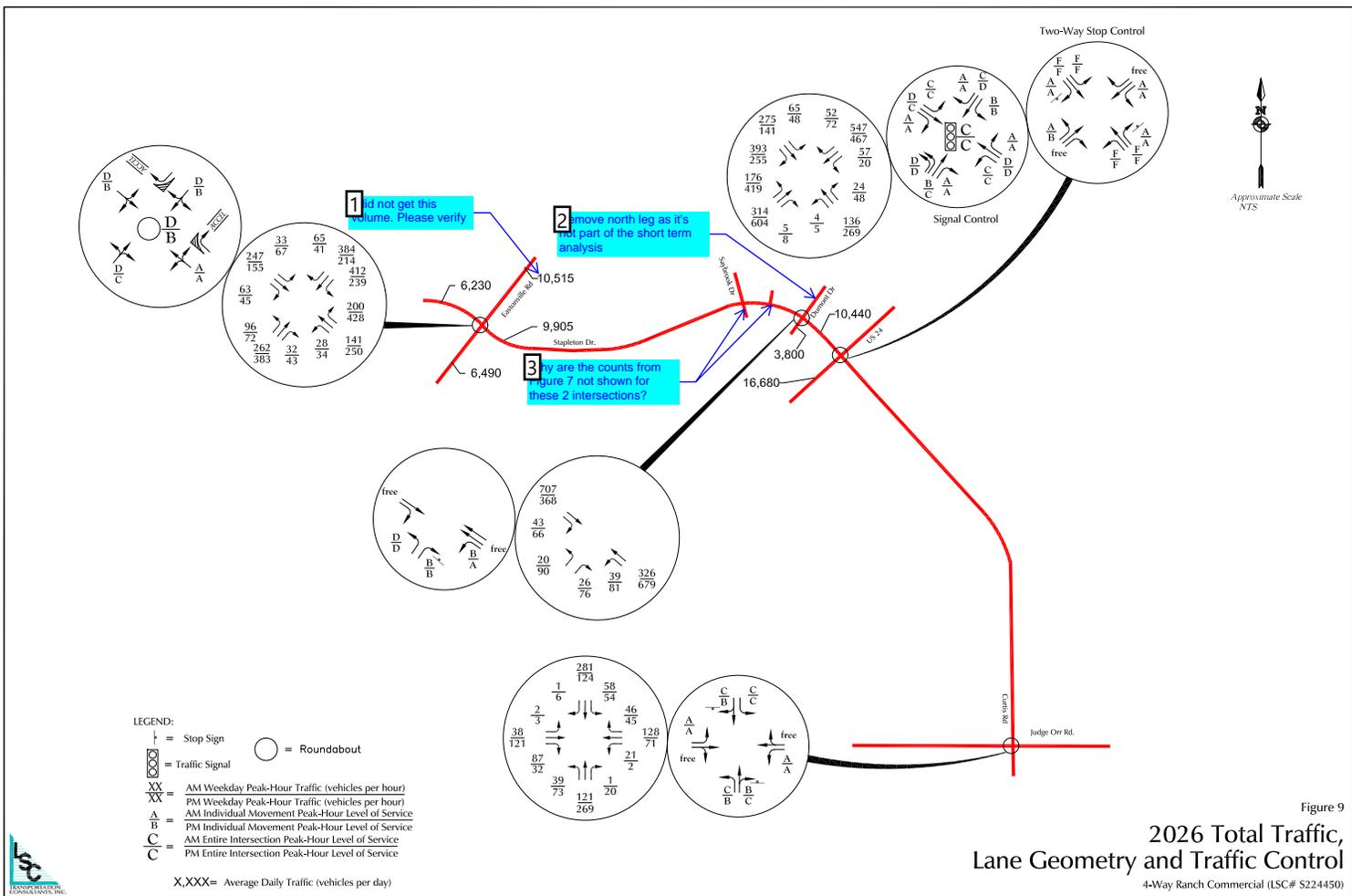


Figure 9
2026 Total Traffic, Lane Geometry and Traffic Control
 4-Way Ranch Commercial (LSC# S224450)



Number: 1 Author: CDurham Subject: Callout Date: 10/19/2022 3:53:04 PM -05'00'

[I did not get this volume. Please verify](#)

 Author: kdferrin Subject: Sticky Note Date: 11/21/2022 2:44:53 PM

LSC Response: The volume has been revised

Number: 2 Author: CDurham Subject: Callout Date: 10/19/2022 2:59:41 PM -05'00'

[Remove north leg as it's not part of the short term analysis](#)

 Author: kdferrin Subject: Sticky Note Date: 11/9/2022 12:57:49 PM

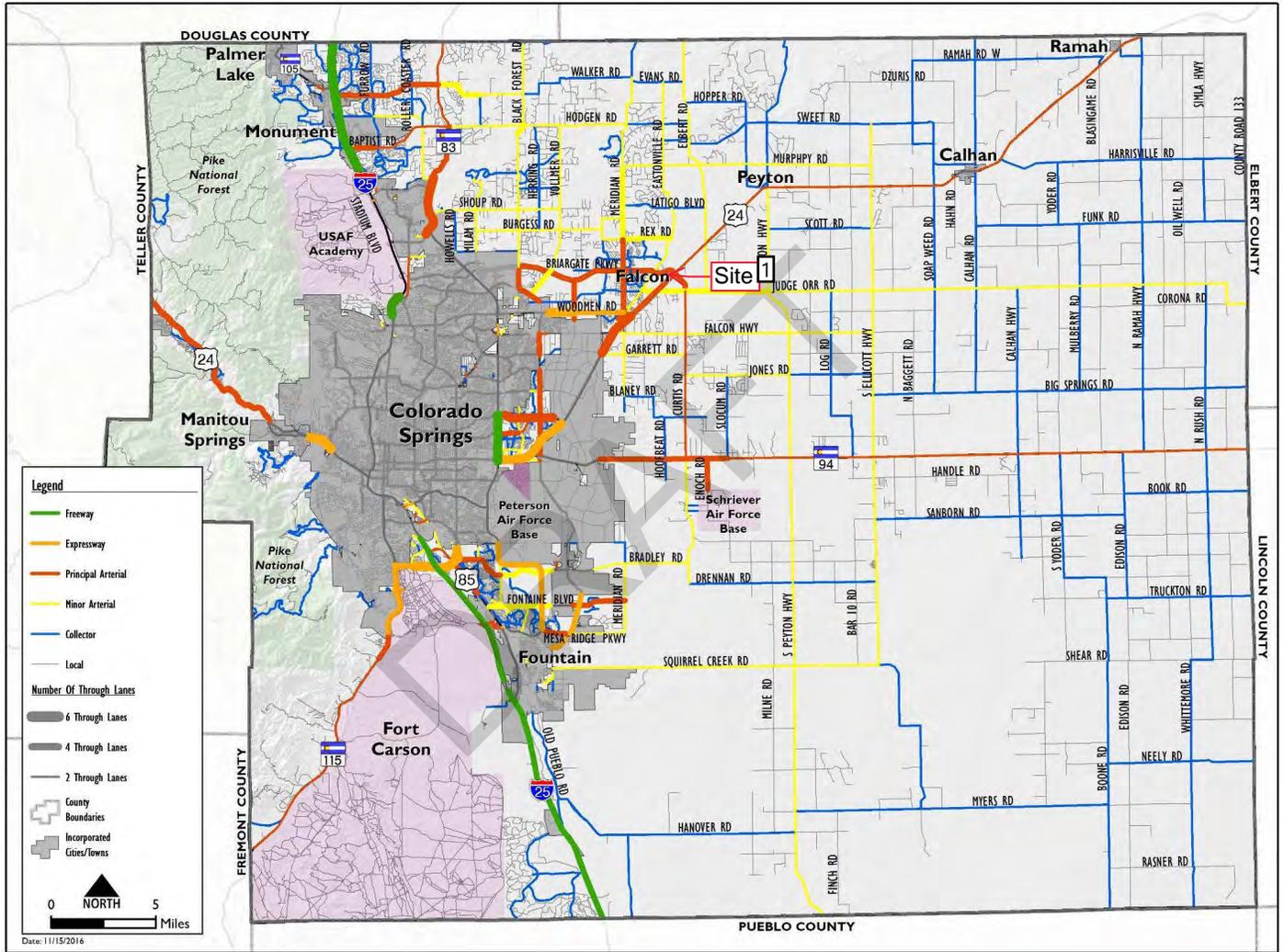
LSC Response: The figures have been revised as requested

Number: 3 Author: CDurham Subject: Callout Date: 10/19/2022 3:53:54 PM -05'00'

[Why are the counts from Figure 7 not shown for these 2 intersections?](#)

 Author: kdferrin Subject: Sticky Note Date: 11/21/2022 2:45:08 PM

LSC Response: These intersections were not included as the south leg of Stapleton/Saybrook and the right-in/right-out access are not planned to be constructed in the short-term. The intersection of Stapleton/Saybrook has been added to the updated TIS for completeness.



Map 14: 2040 Roadway Plan (Classification and Lanes)

Map 17: 2060 Corridor Preservation

