



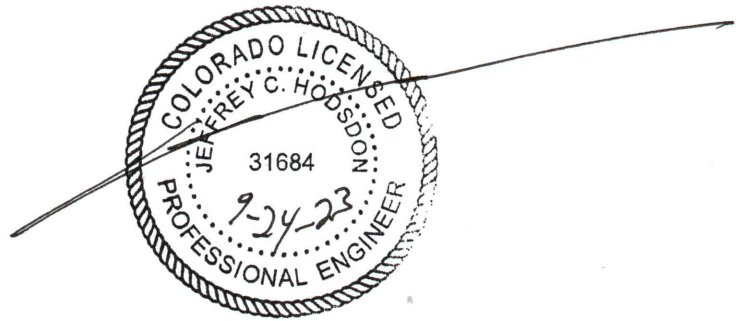
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Meadowlake Industrial Park
Filing No. 1 Preliminary Plan
Traffic Impact Study
(LSC #S234040)
September 24, 2023

Add PCD File No. SP236 ¹

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.

due to the nature of the comments provided and information that is missing, additional comments may be generated on the subsequent submittal. ²

Date

LSC responses to TIS Redline Comments

Page: 1

☰ Number: 1 Author: Daniel Torres Subject: Text Box Date: 10/23/2023 13:11:59 -06'00'

[Add PCD File No. SP236](#)

👉 Author: jchodsdon Subject: Sticky Note Date: 2/2/2024 15:47:30
LSC Response: Added.

☰ Number: 2 Author: Daniel Torres Subject: Text Box Date: 10/24/2023 10:00:20 -06'00'

[due to the nature of the comments provided and information that is missing, additional comments may be generated on the subsequent submittal.](#)

👉 Author: jchodsdon Subject: Sticky Note Date: 2/2/2024 15:47:41
LSC Response: [Comment noted.](#)

traffic control signs, posted speed limits, intersection and access spacing, roadway and intersection alignments, roadway grades, and auxiliary turn lanes;

- Weekday peak-hour turning-movement traffic counts at the study-area intersections;
- Estimated average weekday traffic (ADT) volumes on Falcon Highway, Curtis Road, Meridian Road, Judge Orr Road, and US Highway 24 (US Hwy 24);
- Projections of 2025 short-term background traffic volumes;
- The proposed preliminary plan site land use and access plan;
- Estimates of average weekday and weekday peak-hour trip generation for the proposed preliminary plan land uses and the estimated directional distribution of site-generated vehicle trips on roadways and intersections adjacent to and in the vicinity of the site;
- Projected site-generated and resulting total peak-hour intersection traffic volumes at the following "study-area" intersections:
 - Curtis Road/north site access (full-movement)
 - Falcon Highway/Curtis Road
 - Curtis Road/Judge Orr Road
 - US Highway 24/Stapleton Road
- Projected total short-term daily and peak-hour traffic volumes at the study-area intersections;
- Projected short-term Intersection level of service analysis at the study-area intersections;
- Evaluation of the short-term projected intersection volumes to determine potential short-term requirements for any auxiliary right-/left-turn lanes at the proposed site-access points, based on the criteria in El Paso County's *Engineering Criteria Manual (ECM)*; and
- Short-term roadway improvement recommendations and potential requirement for escrow contributions toward future improvements.

LIST OF OTHER TRAFFIC REPORTS USED IN THE PREPARATION OF THIS REPORT

- The July 29, 2022 Meadowlake Industrial Park Master TIS
- TIS Reports for Saddlehorn Ranch.

Please also account for the TIS reports done by LSC for Davis Ranch and Esteban Rodriguez Sketch Plan

1


LAND USE AND ACCESS

Figure 1 shows the site location relative to the adjacent and nearby roadways. The site is located northwest of the intersection of Falcon Highway/Curtis Road about one-quarter mile north of that intersection. Meadow Lake Airport is located north and west of Meadowlake Industrial Park. the parcel east of Curtis Road is currently vacant. The Saddlehorn Ranch development site is located to the northeast along the east side of Falcon Highway.

The preliminary plan site and access points location are shown in Figure 2. The preliminary plan sheets are attached for reference. The site is zoned I-2, and the land use shown on the preliminary plan is industrial park. The anticipated development, for the purpose of this report, is best represented by ITE Land Use 150-Warehousing. The total Filing No. 1 parcel acreage is

Number: 1 Author: Daniel Torres Subject: Callout Date: 10/23/2023 14:33:52 -06'00'

Please also account for the TIS reports done by LSC for Davis Ranch and Esteban Rodriguez Sketch Plan

 Author: jchodsdon Subject: Sticky Note Date: 2/2/2024 15:47:55

LSC Response: Added. Also, please refer to the background traffic section of the updated TIS for short-term trip assumptions for these other area development applications.

36.56. Based on the 0.29 floor area ratio (FAR) assumed in the rezone report, the estimated building square footage of Filing No. 1 is 461,841 square feet (462 KSF).

One access is proposed to initially serve the preliminary plan area. This access, Sagebrush Street, will be a public street, and will intersect Curtis Road one-half mile north of Falcon Highway, consistent with the July 29, 2022 master TIS for the Meadowlake Industrial Park.

In the future, additional access points will be available with the future completion of the overall internal street system within the greater industrial park. These are shown in the July 29, 2022 TIS report.

ROAD AND TRAFFIC CONDITIONS AND *MTCP* CLASSIFICATION

Existing Roadways


Figure 1 and 2 show the roads adjacent to and in the vicinity of the site. Adjacent roads serving the site are identified below followed by a brief description of each:


US Highway (US Hwy) 24 is located about one mile north of the site (via Curtis Road) and about 1.5 miles west of the site (via Judge Orr Road). US Hwy 24 is also accessible from the southwest corner of the site via Falcon Highway. The travel distance to/from the intersection of US Hwy 24/Falcon Highway via Falcon Highway is about four miles.


This State Highway extends 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 and is classified as an Expressway by the Colorado Department of Transportation (CDOT) and the 2016 *El Paso County Major Transportation Corridors Plan (MTCP)*.

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 Major Transportation Corridors Plan* and the *Preserved Corridor Network Plan* as a four-lane Minor Arterial west of Curtis Road. Posted speed limits range from 45 to 55 miles per hour (mph). West of Curtis Road, the speed limit is 45 mph, while it generally increases to 55 mph east of Curtis Road. The intersection of US Hwy 24/Judge Orr is currently signalized. Due to the oblique angle of this intersection, the eastbound and westbound approaches are split-phased. The *US 24 Access Control Plan/PEL Study* shows future plans for realignment of Judge Orr at US Hwy 24 to improve the intersection and provide an intersection angle closer to 90 degrees.

Curtis Road is a two-lane roadway that extends south from the intersection of US Hwy 24/Stapleton Road intersection to Drennan Road. It is shown as a two-lane, rural Principal Arterial on El Paso County's *2040 Major Transportation Corridors Plan* and a four-lane Principal Arterial on the *Preserved Corridor Network Plan*. In the vicinity of the site, the posted speed limit is 45 mph. Both intersections of Curtis Road/Judge Orr Road and Curtis Road/Falcon

 Number: 1 Author: Daniel Torres Subject: Highlight Date: 10/23/2023 13:28:47 -06'00'
Orr

 Author: jchodsdon Subject: Sticky Note Date: 2/2/2024 15:48:01
[LSC Response: Corrected.](#)

 Number: 2 Author: Daniel Torres Subject: Highlight Date: 10/23/2023 13:28:44 -06'00'
Or

Kevin O'Neil
Meadowlake Industrial Park Filing No. 1

1
please provide a break down of which intersections were included in the analysis and the times that the counts were done.

Highway are two-way, stop-sign controlled. Curtis Road connects to Stapleton Drive, was constructed in 2010, etc. Generally, Curtis Road is an "unimproved" road. Falcon Highway. Interim improvements are planned for Ranch development to the north along Curtis Road. The reports for Saddlehorn Ranch and the Saddlehorn Ranch roadway construction plans for Curtis Road are available, for reference, on the County EDARP system.

Also please provide an explanation why the other area intersections studied with the Master TIS were not included. If thresholds per ECM are not met then please state that. See comment below on the trip generation and add study intersections as necessary due to the increase in traffic generation.

Falcon Highway extends from US Hwy 24 to Ellicott Highway and is classified as a two-lane Minor Arterial on the 2040 El Paso County *MTCP*. In the vicinity, the posted speed limit is 55 mph. Currently, the intersection of Falcon Highway/Curtis Road has auxiliary right- and left-turn lanes on the eastbound approach and auxiliary left-turn lanes on the westbound, northbound, and southbound approaches. The intersection is two-way, stop-sign controlled (TWSC), with the stop signs on the northbound and southbound approaches.

Existing Traffic Volumes

Vehicular turning-movement counts were conducted at the study-area intersections. Figure 3 shows these turning-movement volumes (raw count data are attached) and the average weekday traffic volumes (estimated based on factored peak-hour count data) on the study-area roadways.

Existing Levels of Service

Level of service (LOS) is a quantitative measure of the level of congestion or delay at an intersection and is indicated on a scale from "A" to "F." LOS A is indicative of little congestion or delay. LOS F indicates a high level of congestion or delay. Table 1 shows the level of service delay ranges for signalized and unsignalized intersections.


Table 1: Intersection Levels of Service Delay Ranges

Level of Service	Signalized Intersections	Unsignalized Intersections
	Average Control Delay (seconds per vehicle)	Average Control Delay (seconds per vehicle) ⁽¹⁾
A	10.0 sec or less	10.0 sec or less
B	10.1-20.0 sec	10.1-15.0 sec
C	20.1-35.0 sec	15.1-25.0 sec
D	35.1-55.0 sec	25.1-35.0 sec
E	55.1-80.0 sec	35.1-50.0 sec
F	80.1 sec or more	50.1 sec or more

(1) For unsignalized intersections, if V/C ratio is greater than 1.0 the level of service is LOS F, regardless of the projected average control delay per vehicle.

Number: 1 Author: Daniel Torres Subject: Callout Date: 10/23/2023 13:49:42 -06'00'

please provide a break down of which intersections were included in the analysis and the times that the counts were done. Also please provide an explanation why the other area intersections studied with the Master TIS were not included. If thresholds per ECM are not met then please state that. See comment below on the trip generation and add study intersections as necessary due to the increase in traffic generation.

 Author: jchodsdon Subject: Sticky Note Date: 2/2/2024 15:48:47

LSC Response: Added to the updated report.

The updated report also includes a new "Appendix A" which addresses the inclusion of study intersections. Figure 3 shows the study intersections for this Filing No. 1 Preliminary Plan report. Note: the improvements table does reference some CDOT requirements for US Highway 24/Judge Orr and US Highway 24/Falcon Highway. Also, the improvements table item 6.1 calls out escrow for a future turn lane at an off-site intersection that was included in the master study.

Figure 4 shows a summary of the existing levels of service, lane geometry and traffic control.

PEDESTRIAN AND BICYCLE FACILITIES

The following 2040 non-motorized transportation improvement projects have been identified on Map 15 and Table 5 of El Paso County's 2016 *MTCP*:

- M4 – Falcon Highway from Meridian Road to South Peyton Highway
- Bicycle and secondary regional trail improvements (6.95 miles)
- M7 – Elbert Road from US 24 to Judge Orr Road
- Bicycle improvements (2.32 miles)
- M8 – Judge Orr Road from Eastonville Road to South Peyton Highway
- Bicycle improvements (2.98 miles)
- M9 – Stapleton Road from Meridian Road to US 24
- Bicycle improvements (2.56 miles)

TRIP GENERATION

Estimates of the vehicle trips projected to be generated by the Meadowlake Industrial Park have been made using the nationally published trip-generation rates from *Trip Generation, 11th Edition, 2021* by the Institute of Transportation Engineers (ITE). Trip-generation rates from ITE Land Use Category 150 – “Warehousing” have been used to develop the trip-generation estimates for the preliminary plan site.

1
Revise to use industrial park land use code as done in master TIS. The letter of intent nor the preliminary plan mention warehousing will be the use on the site.

2
update your analysis accordingly based on the increase in traffic.

Table 2, attached, presents the estimated site trip generation.

The proposed Meadowlake Industrial Park Filing No. 1 is projected to generate about 790 new, external vehicle trips on the average weekday during a 24-hour period, with approximately half entering and half exiting the site. During the morning peak hour, approximately 60 entering vehicles and 18 exiting vehicles would be generated. Approximately 23 entering and 60 exiting vehicles (less internal capture trips) would be generated by the site during the evening peak hour.

TRIP DISTRIBUTION AND ASSIGNMENT

Trip Directional Distribution

Estimating the directional distribution of site-generated vehicle trips to the study-area roads and intersections is a necessary component in determining the site's traffic impacts. Figure 5 shows the percentages of the site-generated vehicle trips projected to be oriented to and from the site's major approaches. Estimates have been based on Figure 4 of the master TIS report.

figure 4a

4
Update report to include figures that are referenced from the master TIS report.

5
There is no figure 5 in the appendix. Revise to provide figure.

Number: 1 Author: lpackman Subject: Callout Date: 10/23/2023 14:42:36 -06'00'

Revise to use industrial park land use code as done in master TIS. The letter of intent nor the preliminary plan mention warehousing will be the use on the site.

Author: jchodsdon Subject: Sticky Note Date: 2/2/2024 15:48:56
LSC Response: An agreed-upon condition has been added to the TIS.

Number: 2 Author: Daniel Torres Subject: Text Box Date: 10/24/2023 08:55:57 -06'00'

update your analysis accordingly based on the increase in traffic.

Author: jchodsdon Subject: Sticky Note Date: 2/2/2024 15:49:05
LSC Response: Given the agreed-upon condition, the trip generation remains the same as the prior report.

Number: 3 Author: Daniel Torres Subject: Callout Date: 10/23/2023 13:50:55 -06'00'

figure 4a

Author: jchodsdon Subject: Sticky Note Date: 2/2/2024 15:49:20
LSC Response: The updated TIS contains new and revised figures with changes to the numbering. The reference to the master report Figure 4a has been corrected.

Number: 4 Author: lpackman Subject: Text Box Date: 10/18/2023 10:13:29 -06'00'

Update report to include figures that are referenced from the master TIS report.

Author: jchodsdon Subject: Sticky Note Date: 2/2/2024 17:35:17
LSC Response: The updated TIS contains new and revised figures with changes to the numbering.

Number: 5 Author: lpackman Subject: Callout Date: 10/18/2023 10:04:58 -06'00'

There is no figure 5 in the appendix. Revise to provide figure.

Author: jchodsdon Subject: Sticky Note Date: 2/2/2024 17:35:58
LSC Response: The updated TIS contains new and revised figures with changes to the numbering.

Site-Generated Traffic

Update report to include figures that are referenced from the master TIS report. ¹

Short-Term

Short-term site-generated traffic volumes have been estimated at the study-area intersections. The volumes have been calculated by applying the short-term directional-distribution percentages (from Figure 4) to the trip-generation estimates (from Table 2). Figure 6 shows the projected short-term site-generated traffic volumes for the weekday morning and evening peak hours.

4a ²

Long-Term (For reference only)

The July 29, 2022 TIS included estimates of the overall buildout long-term site-generated traffic volumes for the overall Meadowlake Industrial Park. Figures 7a, 7b, and 7c of that TIS showed those buildout volumes. **Appendix A** of this report includes a copy of the long-term distribution estimate from Figure 5 of that TIS report. Appendix A also includes the long-term site-generated traffic for the Filing No. 1 preliminary plan, based on that Figure 5 from the July 29, 2022 TIS report applied to the current trip-generation estimate (Table 2 of this report).

Short Term (2025) Baseline/Background Traffic Volumes

only the distribution is provided in appendix A. Please provide the appropriate figures from the Master TIS. ³

The 2025 baseline traffic-volume estimates are shown in Figure 7. The appropriate figures are the following:

- A three (3) percent per year growth rate applied to existing volumes (includes minor volume-balancing adjustments to the 2022 Judge Orr Road/Curtis Road counts).
- Additionally, traffic projected for buildout of Saddlehorn Ranch Filing Nos. 1 and 2 has been included in the 2025 baseline volumes.

Note: the baseline/background volumes are exclusive of any trips to be generated by this preliminary plan area or the overall Meadowlake Industrial Park.

Short Term (2025) Background Plus Site-Generated Traffic Volumes

Figure 8 shows the sum of the 2025 short-term background traffic volumes from Figure 7 plus site-generated traffic volumes (from Figure 5). These volumes represent the projected short-term **total** traffic (assuming buildout of the preliminary plan development).

2042 Background and Total Traffic Volumes

figure 5 has not been provided ⁴

The July 29, 2022 TIS report included long-term/20-year-horizon projections for the overall Meadowlake Industrial Park, which included this initial preliminary plan development area. Please refer to that TIS report for long-term projected volumes, which assume buildout of the project. Note: Appendix A of this report presents the long-term volumes estimated for this

☰ Number: 1 Author: lpackman Subject: Text Box Date: 10/18/2023 10:18:35 -06'00'

[Update report to include figures that are referenced from the master TIS report.](#)

↩ Author: jchodsdon Subject: Sticky Note Date: 2/2/2024 17:38:09

LSC Response: In the updated TIS, Appendix B contains: Appendix Figure B-1, which is a copy of the long-term distribution/Figure 5 from the master TIS, and Appendix Figures B-2 and B-3, which are the long-term trip assignment (AM and PM peaks, respectively) for the Filing No. 1 development (IE trips from Table 2 assigned to the area roads based on the percentage splits shown in Appendix Figure B-1).

☰ Number: 2 Author: Daniel Torres Subject: Callout Date: 10/23/2023 13:52:05 -06'00'

[4a](#)

↩ Author: jchodsdon Subject: Sticky Note Date: 2/2/2024 15:50:26

LSC Response: The updated TIS contains new and revised figures with changes to the numbering. Figure 4 is now correct as the new TIS has the short-term distribution shown on Figure 4.

☰ Number: 3 Author: Daniel Torres Subject: Callout Date: 10/24/2023 08:34:19 -06'00'

[only the distribution is provided in appendix A. Please provide the appropriate figures from the Master TIS.](#)

↩ Author: jchodsdon Subject: Sticky Note Date: 2/2/2024 17:39:47

LSC Response: In the updated TIS, Appendix B contains: Appendix Figure B-1, which is a copy of the long-term distribution/Figure 5 from the master TIS, and Appendix Figures B-2 and B-3, which are the long-term trip assignment (AM and PM peaks, respectively) for the Filing No. 1 development (IE trips from Table 2 assigned to the area roads based on the percentage splits shown in Appendix Figure B-1).

☰ Number: 4 Author: Daniel Torres Subject: Callout Date: 10/24/2023 08:38:20 -06'00'

[figure 5 has not been provided](#)

↩ Author: jchodsdon Subject: Sticky Note Date: 2/2/2024 15:50:59

LSC Response: The updated TIS contains new and revised figures with changes to the numbering.

Kevin O'Neil
Meadowlake Industrial Park Filing No. 1 Prel

figures 3a & 3b do not provide the LOS. Please verify and update all figures so that they correspond to the correct information indicated in the narrative. Add complete titles to each of the figures so that it is clear what condition is being represented.

preliminary plan area. Please refer to the site details.

LEVEL OF SERVICE ANALYSIS

Please refer to the attached Synchro reports for the calculated LOS for the proposed site-access intersections and off-site intersections in the study area. The worst-case LOS values have been included on the following figures:

Figure 3: Existing Traffic, Lane Geometry, Traffic Control, and LOS

Figure 9: 2040 Background Traffic, Lane Geometry, Traffic Control, and LOS

Figure 10: 2040 Background + Site Traffic, Lane Geometry, Traffic Control, and LOS

Curtis Road/Sagebrush Street (Full-Movement Site Access)

also provide the short term total lane geometry, traffic control and LOS

The eastbound-left turning movement is projected to operate at LOS B during the AM and PM peak hours of the short-term total scenario.

state whether the other turn movements are satisfactory and indicate their LOS

US Highway 24/Stapleton Road

Currently, the intersection of US Hwy 24/Stapleton is two-way stop-sign controlled (TWSC). The following turning movements currently operate at LOS E or worse, with or without the addition of site-generated traffic: northwest-bound left, northwest-bound through, southeast-bound left, and southeast-bound through.

when will this be signalized? Please address.

Once signalized, all individual turning movements and the intersection overall currently operate at and are projected to operate at LOS C or better during both short-term peak hours, with or without the addition of site-generated traffic.

Judge Orr Road/Curtis Road

Currently, all individual approaches/turning movements at the intersection of Judge Orr/Curtis operate at LOS C or better during both peak hours

please also provide LOS with the developments traffic.

Falcon Highway/Curtis Road

Currently, all individual approaches/turning movements at the intersection of Falcon Highway/Curtis Road operate at LOS D or better during both peak hours. The northbound left-turn, northbound-through/right, southbound through, and southbound left-turn movements are projected to operate at LOS E or worse during the short-term with the addition of site-generated traffic. If the intersection of Falcon Highway/Curtis Road were to be converted from TWSC to AWSC, all individual turning movements would operate at LOS C or better during the short-term total traffic scenario.

☰ Number: 1 Author: Daniel Torres Subject: Callout Date: 10/24/2023 08:49:44 -06'00'

figures 3a & 3b do not provide the LOS. Please verify and update all figures so that they correspond to the correct information indicated in the narrative. Add complete titles to each of the figures so that it is clear what condition is being represented.

👉 Author: jchodsdon Subject: Sticky Note Date: 2/2/2024 15:51:06

LSC Response: The updated TIS contains new and revised figures with changes to the numbering.

☰ Number: 2 Author: Daniel Torres Subject: Callout Date: 10/24/2023 08:43:26 -06'00'

also provide the short term total lane geometry, traffic control and LOS

👉 Author: jchodsdon Subject: Sticky Note Date: 2/2/2024 15:51:20

LSC Response: Added in the updated TIS. The updated TIS contains new and revised figures with changes to the numbering.

☰ Number: 3 Author: Daniel Torres Subject: Callout Date: 10/24/2023 08:46:28 -06'00'

state whether the other turn movements are satisfactory and indicate their LOS

👉 Author: jchodsdon Subject: Sticky Note Date: 2/2/2024 15:51:31

LSC Response: The updated TIS addresses this comment.

☰ Number: 4 Author: Daniel Torres Subject: Callout Date: 10/24/2023 08:48:04 -06'00'

when will this be signalized? Please address.

👉 Author: jchodsdon Subject: Sticky Note Date: 2/2/2024 15:51:43

LSC Response: We have added text to the report to address this comment, although we do not know the timing of signal installation by CDOT. Signal escrows have been required by CDOT of several area projects, including this one.

☰ Number: 5 Author: Daniel Torres Subject: Callout Date: 10/24/2023 08:49:19 -06'00'

please also provide LOS with the developments traffic.

👉 Author: jchodsdon Subject: Sticky Note Date: 2/2/2024 15:51:52

LSC Response: Included in the updated TIS.

AUXILIARY TURN-LANE ANALYSIS, INTERSECTION CONFIGURATION, AND TRAFFIC CONTROL

Discuss any improvements to Stapleton and Hwy 24. Any Aux. turn lane improvements required in the short term due to this development or is the signal imminent? please address.

Auxiliary Turn-Lane Requirements

The need for auxiliary left- and right-turn lanes at the study area intersections has been evaluated to determine if lane improvements would be required, based on short-term total, traffic to meet the County’s *Engineering Criteria Manual’s (ECM)* auxiliary turn criteria.

Deceleration lanes shall meet design criteria specified in El Paso County’s *Engineering Criteria Manual (ECM)* Tables 2-24 and 2-27) or the Colorado State Highway Access Code (CDOT) for US Hwy 24.

Turn-Lane Criteria

Table summarizes peak-hour auxiliary left- and right-turn lane thresholds according to *ECM* criteria. Roadway classifications for key County thoroughfares in the vicinity of the site include:

- Principal Arterial – Curtis Road, Meridian Road
- Minor Arterial – Judge Orr Road, Falcon Highway

Table 3: ECM Auxiliary Turn-Lane Thresholds by Functional Classification

Functional Classification	Deceleration Lanes		Acceleration Lanes	
	Left Turn	Right Turn	Left Turn	Right Turn
Principal Arterial	10+ vph	25+ vph	*	50+ vph
Minor Arterial and Lower	25+ vph	50+ vph	*	Generally not required
* May be required if the design would benefit safety and roadway operations Note: vph = vehicles per hour				

Curtis Road/Sagebrush Street (Site Access)


Short Term

The intersection of Sagebrush Street/Curtis Road, will likely require the following auxiliary turn lanes in the short term:

- Northbound left-turn deceleration lane:
 - 235-foot deceleration lane
 - 50-foot storage length
 - 200-foot approach taper
 - 45:1 redirect taper lengths

Number: 1 Author: Daniel Torres Subject: Text Box Date: 10/24/2023 09:14:05 -06'00'

Discuss any improvements to Stapleton and Hwy 24. Any Aux. turn lane improvements required in the short term due to this development or is the signal imminent? please address.

 Author: jchodsdon Subject: Sticky Note Date: 2/2/2024 15:52:21

LSC Response: We have added to the report an explanation that it is our understanding that this is on CDOT's list of intersections to be signalized. We do not know the timing of signal installation by CDOT. Signal escrows have been required by CDOT of several area projects, including this one. The CDOT comment memo did not call out the need for this project to add any auxiliary turn lanes. There is already a full set of acceleration /deceleration lanes in-place at this intersection.

please indicate whether the existing turn lanes at this intersection meet criteria and whether any changes to the existing turn lanes are required due to this developments traffic.

Judge Orr Road/Curtis Road

Based on April 2022 counts, the eastbound AM peak-hour right-turn volume exceeds the ECM-threshold right turning volume of 50 vph for which a right-turn lane is prescribed. The current eastbound PM peak-hour volume does not currently exceed this threshold. The short-term background-plus-Filing No. 1 site-generated eastbound PM peak-hour volume is projected to exceed this threshold.

If not completed prior to development, this project will likely be required to install the turn lane (with fee-program credit per fee-program provisions). Also, escrow for this improvement from other developments should be utilized to fund construction.

The ECM requires the following lane dimensions.

- Eastbound right-turn deceleration lane
- 290-foot acceleration lane
- 240-foot approach taper

Any request for credits will have to be brought by the applicant to the road impact fee advisory committee.

Falcon Highway/Curtis Road

The intersection will likely require improvements/upgrades, including traffic control, in order for all individual turning movements/approaches to operate at an acceptable level of service upon site buildout. The development may be required to participate in future improvements or construct improvements. The intersection of Falcon Highway/Curtis Road could potentially be signed AWSC during the short term once AWSC warrants are met, as all approaches would operate at LOS C or better in the short term with AWSC.

Note: The following auxiliary turn-lane upgrades would not be required if a roundabout were to be constructed at the intersection of Falcon Highway/Curtis Road. However, these auxiliary turn lanes may ultimately be needed if all-way stop sign control is used as an intermediate traffic control condition prior to a traffic signal:

- Southbound right-turn deceleration lane (see improvements table)
- 235-foot deceleration lane
- 200-foot approach taper
- Eastbound left-turn deceleration lane (lengthening)
- 290-foot deceleration lane
- 240-foot approach taper
- 55:1 redirect taper ratio
- Westbound right-turn deceleration lane
- 290-foot deceleration lane
- 240-foot approach taper

please include storage length

Please refer to the Improvements Table for a complete list and additional detail.

☰ Number: 1 Author: Daniel Torres Subject: Callout Date: 10/24/2023 09:03:13 -06'00'

please indicate whether the existing turn lanes at this intersection meet criteria and whether any changes to the existing turn lanes are required due to this developments traffic.

🔍 Author: jchodsdon Subject: Sticky Note Date: 2/2/2024 15:52:41

LSC Response: The update TIS includes a new Table 3, which is comprehensive auxiliary turn-lane evaluation table. Timing and triggers are also addressed in Table 4 Roadway improvements. Table 4 has been revised since the first submittal.

☰ Number: 2 Author: Daniel Torres Subject: Callout Date: 10/24/2023 09:00:32 -06'00'

Any request for credits will have to be brought by the applicant to the road impact fee advisory committee.

🔍 Author: jchodsdon Subject: Sticky Note Date: 2/2/2024 15:52:48

LSC Response: This note has been added to the report.

☰ Number: 3 Author: Daniel Torres Subject: Callout Date: 10/24/2023 09:07:46 -06'00'

please include storage length

🔍 Author: jchodsdon Subject: Sticky Note Date: 2/2/2024 15:52:57

LSC Response: Included in the new report Table 3.

ROADWAY CLASSIFICATIONS

Primary internal streets within the Preliminary Plan will be classified as Urban, Non-Residential Collector streets. These include the main entry street, Sagebrush Street, and Greenfield Avenue, the main north-south street. The other streets shown on the Preliminary Plan will be Private Local streets. These include: Wildflower Court, Mariposa Lily Court, and Wild Iris Way. Individual lot access will be to these private, local streets. Appendix B contains the proposed cross section for the Urban, Local (Private) streets.

please indicate whether this development will trigger this improvement or will it be future development within the Meadowlake parcel.

ROADWAY SEGMENT IMPROVEMENTS

Curtis Road



Additionally, state whether or not any improvements are needed to Falcon Hwy segment with due to this developments traffic.

Curtis Road should ultimately be improved to a two-lane, Principal Arterial. Dedication of right-of-way for one half of a two-lane Principal Arterial with ROW reservation for additional width up to 90' from centerline for the four-lane Principal Arterial corridor preservation. The improvement would be from Falcon Highway north to connect to the segment of Curtis planned for upgrade as part of the Saddlehorn development to the north.

DEVIATIONS AND WAIVERS

A waiver will be required for the private, local street cross section.

COUNTY ROAD IMPROVEMENT FEE PROGRAM

Transportation Impact Fees

Per *ECM Appendix B: State what the current applicable Transportation Impact Fees are and what option the developer will be selecting for payment.*

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


MTCP Improvements

Per the County TIS Checklist: *State whether the MTCP or other approved corridor study calls for the construction of improvements in the immediate area.*

The following roadway improvement projects have been identified as being needed by the year 2040 per Map 13 and Table 4 of El Paso County's 2016 *MTCP*. Note: this list below is not indicating that this project must complete all these improvements, rather simply echoing a general list from the *MTCP* of nearby improvements called out on the *MTCP*, based on the collective impacts of

Number: 1 Author: Daniel Torres Subject: Callout Date: 10/24/2023 09:23:26 -06'00'

please indicate whether this development will trigger this improvement or will it be future development within the Meadowlake parcel. Additionally, state whether or not any improvements are needed to Falcon Hwy segment with due to this developments traffic.

 Author: jchodsdon Subject: Sticky Note Date: 2/2/2024 15:53:11

LSC Response: This comment has been addressed in the updated report. This paragraph has been revised and Table 4 includes additional detail regarding Curtis Road. Falcon Highway has been added.

new development in general. Specific obligations for this project will be addressed with the Preliminary Plan.

- U1 – Curtis Road from Judge Orr Road to State Highway 94 (\$35,549,000)
 - Existing conditions – 2-lane Rural Unimproved County Road
 - Future conditions – 2-lane Principal Arterial
- U5 – Falcon Highway from US Hwy 24 to 1 mile east of Curtis Road (\$16,509,000)
 - Existing conditions – 2-lane Rural Unimproved County Road
 - Future conditions – 2-lane Minor Arterial
- C12 – Stapleton Road from Towner Road to Judge Orr Road (\$41,076,000)
 - Existing conditions – 2-lane Principal Arterial
 - Future conditions – 4-lane Principal Arterial
- C14 – Judge Orr Road from Eastonville Road to Peyton Highway (38,248,000)
 - Existing conditions – 2-lane Minor Arterial
 - Future conditions – 4-lane Minor Arterial

As this is the Preliminary plan and as stated in the Master TIS please indicate which MTCP improvements will need to be constructed with this proposed development. Update the narrative accordingly.

Per the County TIS Checklist: *State whether or not any improvements affected by the project are reimbursable under the current Major Transportation Corridors Plan (MTCP) and Road Fee program.*

The determination of specific “eligible improvements” affected by the project – i.e., which improvements the project will need to construct and determine if those improvements will qualify as eligible for credit (and reimbursement) will be determined as part of this Preliminary Plan process. This would also include determination of eligible intersection improvements.


MULTI-MODAL TRANSPORTATION AND TDM OPPORTUNITIES

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

- M4 – Falcon Highway from Meridian Road to South Peyton Highway
- Bicycle and secondary regional trail improvements (6.95 miles)
- M7 – Elbert Road from US Hwy 24 to Judge Orr Road
- Bicycle improvements (2.32 miles)
- M8 – Judge Orr Road from Eastonville Road to South Peyton Highway
- Bicycle improvements (2.98 miles)
- M9 – Stapleton Road from Meridian Road to US 24
- Bicycle improvements (2.56 miles)

Also, the Falcon Park-and-Ride facility recently opened at the intersection of Meridian Road/Swingline Road.

CDOT PROCESS AND REQUIREMENTS

 Number: 1 Author: Daniel Torres Subject: Highlight Date: 10/24/2023 09:24:49 -06'00'
Preliminary Plan. • U1 – Curtis


 Number: 2 Author: Daniel Torres Subject: Callout Date: 1/10/2024 22:28:55


As this is the Preliminary plan and as stated in the Master TIS please indicate which MTCP improvements will need to be constructed with this proposed development. Update the narrative accordingly.

 Author: jchodsdon Subject: Sticky Note Date: 2/2/2024 15:55:51


LSC Response: Clarification has been added to this paragraph. As required by the checklist, this is just the list of MTCP improvements in the area as indicated by this note. Note: "this list below is not indicating that this project must complete all these improvements, rather simply echoing a general list from the MTCP of nearby improvements called out on the MTCP, based on the collective impacts of new development in general." We did add this text to clarify ---" Any associated w/ this project have been included in the Improvements Table."

References to the Improvements Table 4 have been added within this paragraph, and the Improvements Table 4 has been updated to address recommended improvements specific to this development.

 Number: 3 Author: Daniel Torres Subject: Highlight Date: 10/24/2023 09:24:56 -06'00'
– will be determined as part of this Preliminary Plan process. This would also include determination

 Author: jchodsdon Subject: Sticky Note Date: 2/2/2024 15:55:58

LSC Response: This paragraph has been revised in the updated TIS.

 Number: 4 Author: Daniel Torres Subject: Highlight Date: 10/24/2023 09:24:59 -06'00'
of eligible intersection improvements.

 Author: jchodsdon Subject: Sticky Note Date: 2/2/2024 15:56:04

LSC Response: This paragraph has been revised in the updated TIS.

please coordinate with CDOT to ensure that they will still be requiring escrow instead of installation of the signal

- US Hwy 24/Stapleton is planned to be signalized. The CDOT comment letter for another area project, Saddlehorn Ranch Filing No. 2, indicated that the applicant will be required to escrow a fair share amount toward this future traffic signal for that subdivision filing. An access permit will be required to process the escrow.
- Based on the average AM & PM site-generated passenger cars directly impacting the 4-hour warrant, the Meadowlake Industrial Park Filing No. 1 development would be responsible for ~\$75,000, (8.5 new vehicles / 60 vehicles-to-warrant x ~\$700K/signal cost).

LSC Note: There are a number of developments – in progress and future/planned - in the area which will also add traffic to this intersection and impact the 4-hour warrant. As CDOT collects escrow for other developments, LSC recommends that as the collective impact trips (directly impacting the 4-hour warrant volumes) by area developments begins to exceed the 60-vehicle-per-hour denominator, fair-share recalculation of pro-rata share escrow amounts and credit be provided to developments according to the updated fair-share calculations. Also, once the signal is installed, credit should be provided from the Countywide Fee Program based on a ratio of fee program unit signal cost divided by the \$700K signal cost.

- Please refer to the improvements table for detailed calculations and additional information.
- The CDOT comment letter for Filing No. 2 states the following: Section 2.6 of the State Highway Access Code, states that if changes in land use, vehicle operation and access use from a state highway states an updated access permit will be required for the intersection **US Hwy 24/Stapleton Road**. A similar condition will likely apply to this project.
- The CDOT comment letter for Saddlehorn Filing No. 2 states the following: Section 2.6 of the State Highway Access Code, states that if changes in land use, vehicle operation and access use from a state highway states an updated access permit will be required for the intersection of **SH24 and Judge Orr Rd**. A similar condition will likely apply to this project.

Please verify amount

IMPROVEMENTS SUMMARY TABLE

Please refer to Table 1, which presents a summary of improvements.

ESCROW ANALYSIS

The escrow analysis will be provided with the plat submittal.

Note: There are a number of developments – in progress and future/planned – in the area which will also add traffic to these intersections needing turn lane improvements. As El Paso County collects escrow for other developments also impacting these turning movements, LSC recommends that as the collective impact trips directly impacting these turn movements, fair-share recalculation of pro-rata share escrow amounts and credit be provided to developments according to the updated fair-share calculations. Also, once the improvements are completed, applicable/allowable Countywide Fee Program credits for construction of intersection approach improvements (turn lanes) be applied based on a ratio of fee program unit cost divided by the improvement cost.

filing 2? CDOT has yet to post comments onto EDARP for this project. Coordinate with them and update the statement(s) as needed.

Please indicate that it is the responsibility of the applicant that any credit request shall be brought forth by the applicants to the road impact fee advisory committee.

☰ Number: 1 Author: Daniel Torres Subject: Callout Date: 10/24/2023 09:26:19 -06'00'

[please coordinate with CDOT to ensure that they will still be requiring escrow instead of installation of the signal](#)

👉 Author: jchodsdon Subject: Sticky Note Date: 2/2/2024 15:56:24

LSC Response: CDOT issued a comment memo. The requirement is for escrow, not installation. The updated TIS reflects the escrow amount required by CDOT in their comment memo.

☰ Number: 2 Author: Daniel Torres Subject: Callout Date: 10/24/2023 09:27:56 -06'00'

[Please verify amount](#)

👉 Author: jchodsdon Subject: Sticky Note Date: 2/2/2024 15:56:34

LSC Response: CDOT issued a comment memo. The updated TIS reflects the escrow amount required by CDOT in their comment memo.

☰ Number: 3 Author: Daniel Torres Subject: Callout Date: 10/24/2023 09:32:58 -06'00'

[filing 2? CDOT has yet to post comments onto EDARP for this project. Coordinate with them and update the statement\(s\) as needed.](#)

👉 Author: jchodsdon Subject: Sticky Note Date: 2/2/2024 15:56:58

LSC Response: CDOT issued a comment memo. The updated TIS reflects the escrow amount required by CDOT in their comment memo. The prior reference to the Saddlehorn Filing No. 2 comment memo has been removed. It was only referenced at the time because it contained the "formula" for escrow for that nearby project. That formula has since been echoed in the comment memo provided for this project, along with the specific amount.

☰ Number: 4 Author: Daniel Torres Subject: Callout Date: 10/24/2023 09:30:18 -06'00'

[Please indicate that it is the responsibility of the applicant that any credit request shall be brought forth by the applicants to the road impact fee advisory committee.](#)

👉 Author: jchodsdon Subject: Sticky Note Date: 2/2/2024 15:57:04

LSC Response: Added as requested.

FINDINGS AND CONCLUSIONS

- The proposed Meadowlake Industrial Park Filing No. 1 is projected to generate about 790 new, external vehicle trips on the average weekday during a 24-hour period, with approximately half entering and half exiting the site.
- During the morning peak hour, approximately 60 entering vehicles and 18 exiting vehicles would be generated.
- Approximately 23 entering and 60 exiting vehicles (less internal capture trips) would be generated by the site during the evening peak hour.
- Some stop-sign- controlled turning movements are projected to operate at LOS E or F in the 2025 short term horizon year. The short term level of service would be C or better if AWSC traffic control is utilized. The intersection of US Highway 24/Stapleton is projected to continue to have side street levels of service E or F until signalized.
- Please refer to the Improvements Table for a detailed list of roadway system improvements.
- Please refer to the "Auxiliary Turn-Lane Analysis" section above for recommendations.
- The major internal streets within the site will be designed to meet Urban Non-Residential Collector criteria prescribed in the *ECM*. Classifications for the minor internal roads will be private, local streets.
- CDOT State Highway Access Permit applications will be submitted at this Preliminary Plan stage of development, or in conjunction with the plat.

* * * * *

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/JAB:jas

Enclosures: **Table 2 and Table 4**
Figures 1-10
Traffic Count Reports
Synchro Los Reports
Appendix A
Appendix B
Preliminary Plan Sheets (for reference)

provide sight distance analysis for the proposed intersection of Sagebrush to Curtis road. Please also state that it meets 1/2mile spacing criteria.

1

☰ Number: 1 Author: Daniel Torres Subject: Text Box Date: 10/24/2023 12:23:51 -06'00'

provide sight distance analysis for the proposed intersection of Sagebrush to Curtis road. Please also state that it meets 1/2mile spacing criteria.

👤 Author: jchodsdon Subject: Sticky Note Date: 2/2/2024 15:57:10
LSC Response: Added to the updated TIS.


Table 2: Trip-Generation Estimate

TAZ	ITE Land Use		Land Use Details				Trip Generation Rates ²				Trips Generated						
	Code	Description	Value	Units	% Floor Area	Value	Units ¹	Average Weekday	A.M. Peak In	A.M. Peak Out	P.M. Peak In	P.M. Peak Out	Average Weekday	A.M. Peak In	A.M. Peak Out	P.M. Peak In	P.M. Peak Out
1	150	Warehousing	36.560	Acres	29%	462	KSF	1.71	0.13	0.04	0.05	0.13	790	60	18	23	60
¹ KSF = 1,000 square feet of building floor area ² Source: <i>Trip Generation, 11th Edition (2021)</i> by the Institute of Transportation Engineers (ITE) 9/22/2023																	

Refer to previous comment and revise accordingly. 1

 Number: 1 Author: lpackman Subject: Callout Date: 10/23/2023 14:48:30 -06'00'

[Refer to previous comment and revise accordingly.](#)

 Author: jchodsdon Subject: Sticky Note Date: 2/2/2024 15:57:20

LSC Response: Given the agreed-upon condition, the trip generation remains the same as the prior report.

Please update this table and clearly state what improvements are triggered with this filing 1 development.

1

Table 4: Roadway Improvements for Meadowlake Industrial Park			
Roadway Segment Improvements			
Item #	Improvement	Timing	Responsibility
1.1	Curtis Road (Short Term) - Falcon Hwy to south end of Planned Subdivision improvements Upgrade to 2 Lane Principal Arterial	Phased with this development, potential for phasing with subdivision/plat filings	Details TBD Applicant or potentially with the property on the east side of Curtis Road if that land owner happens to begin developing that property
1.2	Curtis Road (Long Term) - Falcon Hwy to SH 14 Upgrade to 2 Lane Rural Principal Arterial	Shown in 2040 MTCF (Project U1)	Details TBD Applicant will pay fee program traffic impact fees
1.3	2300+ Terrace Upgrade to 2 Lane Rural Minor Arterial	Shown in 2040 MTCF (Project U5)	Details TBD Applicant will pay fee program traffic impact fees
1.4	Widened to 4 Lane Rural Principal Arterial	Shown in 2040 MTCF (Project C12)	Details TBD Applicant will pay fee program traffic impact fees
1.5	Judge Dr Road Widened to 4 Lane Rural Minor Arterial	Shown in 2040 MTCF (Project C14)	Details TBD Applicant will pay fee program traffic impact fees
Adjacent County Arterial Roadway ROW Requirements			
Item #	Improvement	Timing	Responsibility
2.1	Curtis Road 2 Lane Rural Principal Arterial 130' to 150' estimated ROW dedication (Note: 4 Lane Rural Principal 130')	Shown in 2040 MTCF	Applicant (west side - half ROW)
2.2	Curtis Road 4 Lane Rural Principal Arterial 180' right-of-way generation	Shown in 2060 Corridor Preservation Plan	Applicant (west side - half ROW)
Internal Subdivision Roadways			
Item #	Improvement	Timing	Responsibility
3.1	Construct major internal streets to County Urban Non-Residential Collector Standards (to be determined)	With subdivision/plat filings	Applicant
Off-Site Intersections			
US Highway 24/Stapleton Intersection			
Item #	Improvement	Timing	Responsibility
4.1	Submit Access Permit Application to CDOT	Submit access permit application with the Preliminary Plan stage of the development process when the Land Use(s) and associated trip generation are defined.	Applicant
4.2	Escrow towards cost of signalization CDOT Escrow for Participation in the cost of future signalization - \$79,500** (Note: Opportunity for County Fee Program credits/reimbursements for a portion, also opportunity for cost recovery as other area projects are required to escrow funds and if when this development's overall fair share percentage is reduced accordingly in the future.	TBD w/ Preliminary Plan/Plat Escrow required w/ this Preliminary Plan/Plat.	2 Applicant plans to signalize this intersection based on their priority system. This project is only at the start of the development process when the Land Use(s) and associated trip generation are defined. The responsibility will be determined with the access permit process. 3 Applicant will be submitted with the preliminary plan. Escrow - Applicant Responsibility
US Highway 24/Falcon Highway and US Highway 24/Judge Dr Intersections			
Item #	Improvement	Timing	Responsibility
5.1	Submit Access Permit Application(s) to CDOT as required.	Submit access permit application(s) with the Preliminary Plan or platting/site development plan stage of the development process when the Land Use(s) and associated trip generation are defined.	Applicant
5.2	Potential escrows toward the construction of signals and/or improvements at these intersections.	To be determined as part of the access permit process.	Applicant
Falcon Highway/Meridian Road Intersection			
6.1	Short Term Westbound right turn deceleration lane	Currently warranted by ECM	Escrow for improvement or construction at the time of development (fee program credit per fee program provisions)
Judge Dr/Curtis Road Intersection			
Item #	Improvement	Timing	Responsibility
7.1	Short Term Eastbound right turn deceleration lane - Construction with this Preliminary Plan.	Currently warranted by ECM	Applicant
7.2	Short Term Potentially sign for all way stop-sign control The 2025 (Short Term Background + Filing No. 1 Site Traffic Scenario indicates acceptable LOS.	Once warrants for AWSC are met Not Necessary in the Short-Term	Applicant
7.3	Long Term (for prior to 2040) Participate on a pro-rata basis with a fair share contribution or escrow the intersection, potentially including new traffic control, to mitigate substantial level of service, as necessary.	Once LOS of AWSC drops below acceptable levels, and/or once signal warrants are met. Depends on the pace and intensity of development of this site and the rate of other area development and associated background traffic growth.	The applicant will pay fee program traffic impact fees and any required intersection improvements (or participation) may be fee-program eligible for credit based on the program guidelines.
7.4	Long Term (if signalized in the future) Lengthen northbound left turn deceleration lane	As needed based on future speed limit and turning volume/stacking length criteria	Escrow for improvement or construction if warranted at the time of development (fee program credit per fee program provisions)
Adjacent & Access Intersections			
Curtis Road/Falcon Highway			
Item #	Improvement	Timing	Responsibility
8.1	Short Term (Long Term) Change to AWSC traffic control as necessary. Participate on a pro-rata basis with a fair share contribution toward upgrade the intersection, potentially including new traffic control, to mitigate substantial level of service, as necessary. Significant improvements may be needed in the short term if rapid site buildout and area growth occurs. Otherwise, intermediate term.	Once LOS of AWSC drops below acceptable levels, and/or once signal warrants are met. Depends on the pace and intensity of development of this site and the rate of other area development and associated background traffic growth.	The applicant will pay fee program traffic impact fees and any required intersection improvements (or participation) may be fee-program eligible for credit based on the program guidelines.
8.2	Short Term (if planned to be signalized in the future) Construct SB right turn deceleration lane on Curtis Road approaching Falcon Highway ONLY In the case of a future signalized intersection or presence of the TWS Stop-sign traffic control orientation. Construct southbound right turn deceleration lane on Curtis Road approaching Falcon Highway	With subdivision/plat filings, per ECM turning volume thresholds. Upon Signalization or removal of the Stop sign traffic control orientation. See footnotes below.	Escrow for pro-rata share of improvement or construction if warranted at the time of development (fee program credit per fee program provisions) Check for other trigger with future subdivision filings and a determination could be made at that time if this project should install the turn lane (with fee program credits per fee program provisions). Otherwise, with each filing, escrow for pro-rata share of improvement or construction if warranted at the time of development (fee program credit per fee program provisions)
8.3	Lengthening of the existing EB left turn deceleration lane on Curtis Road approaching Falcon Highway or escrow toward the cost of future lengthening.	With subdivision/plat filings, per ECM turning volume thresholds. Currently warranted by ECM, a deviation request may be required to allow interim use of the existing lane and taper (based on short term total turning volumes / associated queue length). Previously recommended "trigger" from Saddlehorn Ranch: once project queue (95th percentile) exceeds 50' Note: EPC comments on Saddlehorn Filing No. 4 indicate improvement required with Saddlehorn No. 4 if not required with Saddlehorn Filing No. 3. Responsibility will likely be shared between this project and Saddlehorn Ranch, with the cost shared.	Escrow for pro-rata share of improvement or construction if warranted at the time of development (fee program credit per fee program provisions)
8.4	Short Term Construct WB right turn deceleration lane on Falcon Highway approaching Curtis Road. This turn lane is not projected to be warranted based on Filing No. 1 Preliminary Plan projected volume.	With subdivision/plat filings, per ECM turning volume thresholds	Escrow for pro-rata share of improvement or construction if warranted at the time of development (fee program credit per fee program provisions) This turn lane is not projected to be warranted based on Filing No. 1 Preliminary Plan projected volume.
8.5	Long Term (if planned to be signalized in the future) Lengthen northbound left turn deceleration lane This Preliminary Plan is not projected to add to this northbound left turn lane in the short term as access is planned for Falcon Highway with the Filing No. 1 Preliminary Plan.	As needed based on future speed limit and turning volume/stacking length criteria	Escrow for improvement or construction if warranted at the time of development (fee program credit per fee program provisions)
Falcon Highway/Three-Quarter Movement Site Access			
Item #	Improvement	Timing	Responsibility
9.1	Short Term		
9.2	Access not proposed with this Preliminary Plan		
9.3	Access not proposed with this Preliminary Plan		
9.4	Access not proposed with this Preliminary Plan Potential need for westbound left turn lane at Falcon Highway/McCandish Rd Access not proposed with this Preliminary Plan		
Falcon Highway/McCandish Road			
Possible need for westbound left turn lane at Falcon Highway/McCandish Road - Evaluate with preliminary plan TIS. The Access to Falcon Highway is not proposed with this Preliminary Plan.			
Curtis Road/Sagebrush St. (Full Movement Access)			
Item #	Improvement	Timing	Responsibility
10.1	Short Term & Long Term w/ Roundabout Option - Construct one-lane modern roundabout, expandable to a two-lane roundabout. Roundabout not proposed with the Preliminary Plan.	With subdivision/plat filings, per ECM turning volume thresholds	Applicant
10.1.1	Short Term Southbound right turn deceleration lane on Curtis Rd approaching the site access This turn lane is not projected to be warranted based on Filing No. 1 Preliminary Plan projected volume.	Verify with subdivision/plat filings, per ECM turning volume thresholds. The applicant may elect to install this turn lane as part of the access construction.	Applicant
10.1.2	Short Term Northbound left turn deceleration lane on Curtis Rd approaching the site access This turn lane is projected to be warranted based on Filing No. 1 Preliminary Plan projected volumes.	With subdivision/plat filings, per ECM turning volume thresholds.	Applicant
10.1.3	Short Term Southbound right turn deceleration lane on Curtis Rd for right turning traffic exiting the site access This auxiliary lane is not projected to be warranted based on Filing No. 1 Preliminary Plan projected volume.	With subdivision/plat filings, per ECM turning volume thresholds	Applicant
10.1.4	Long Term Install traffic signal A signal warrant would not be met based on Filing No. 1 Preliminary Plan projected volumes.	Once warranted - with site development, as necessary to maintain acceptable intersection operations	Applicant
Curtis Road & Right-in/Right-out South Site Access			
Item #	Improvement	Timing	Responsibility
11.1	Short Term Access not proposed with this Preliminary Plan		
11.2	Short Term Access not proposed with this Preliminary Plan		

Item 4.2 Note: CDOT Formals taken from Saddlehorn Filing No. 2 review letter: [for Saddlehorn Filing 2] The development is required to participate in the cost of the future traffic signal at Stapleton and Hwy 24. Based on the average AM/PM site-generated passenger cars directly impacting the 4-hour warrant, the development would be responsible for ~\$750k [Saddlehorn Filing 2 amount], (6.5 new vehicles / 60 vehicles-to-warrant x ~\$100k/signal cost).


This Meadowlake Industrial Park Filing 1 amount calculated based on _____ new vehicle trips / 60 vehicles-to-warrant x ~\$700k/signal cost.

Item 8.2 Note: The default ECM "trigger" for this potential right turn lane is 2+ up, and the threshold would be met with 2025 background or site-generated (and total) traffic. However, since the southbound approach is currently stop-sign controlled, the turn lane is not currently needed due to mitigate speed differential between through traffic and right turning traffic. LSC recommends the following triggers:

- a. Once the intersection is signalized (if as signal) is the selected future traffic control instead of a modern roundabout or
- b. If 80+ County switches the orientation of the stop signs such that Curtis is changed to the "major street" and Falcon Highway is changed to the "minor street" (the intersection remains two-way, stop-sign control).

The check for either trigger could occur with future preliminary plans and a determination could be made at that time if this project should install the turn lane (with fee program credits per fee program provisions). As neither trigger is met, escrow for pro-rata share of this potential improvement with the plat submittal. LSC suggests escrow in lieu of lane construction as the above two triggers are not met and the lane could potentially be "thru away" if a roundabout is selected as the future traffic control. The escrow for the southbound right turn lane could potentially be returned to the applicant, as it would not be necessary with a roundabout.


LSC Transportation Consultants, Inc. With notes for the Filing No. 1 Preliminary Plan (9/22/2023)


 Number: 1 Author: Daniel Torres Subject: Text Box Date: 10/24/2023 09:57:33 -06'00'

Please update this table and clearly state what improvements are triggered with this filing 1 development.


 Author: jchodsdon Subject: Sticky Note Date: 2/2/2024 15:57:44


LSC Response: This table has been updated to be specific to the Filing No. 1 preliminary plan. The table calls out both actual improvements or, in several instances, Filing No. 1 escrow amounts toward future improvements. Any notation related to future improvements called out in the Master study, have been labeled "per the Master Study"

 Number: 2 Author: Daniel Torres Subject: Highlight Date: 10/24/2023 09:54:20 -06'00'
rezone stage

 Author: jchodsdon Subject: Sticky Note Date: 2/2/2024 15:57:49

LSC Response: This table cell has been revised.

 Number: 3 Author: Daniel Torres Subject: Highlight Date: 10/24/2023 09:54:34 -06'00'

 Author: jchodsdon Subject: Sticky Note Date: 2/2/2024 15:57:58

LSC Response: This table cell has been revised.

1. Revise to put figures in numerical order based on number. Also provide figure 5, which appears to be missing.

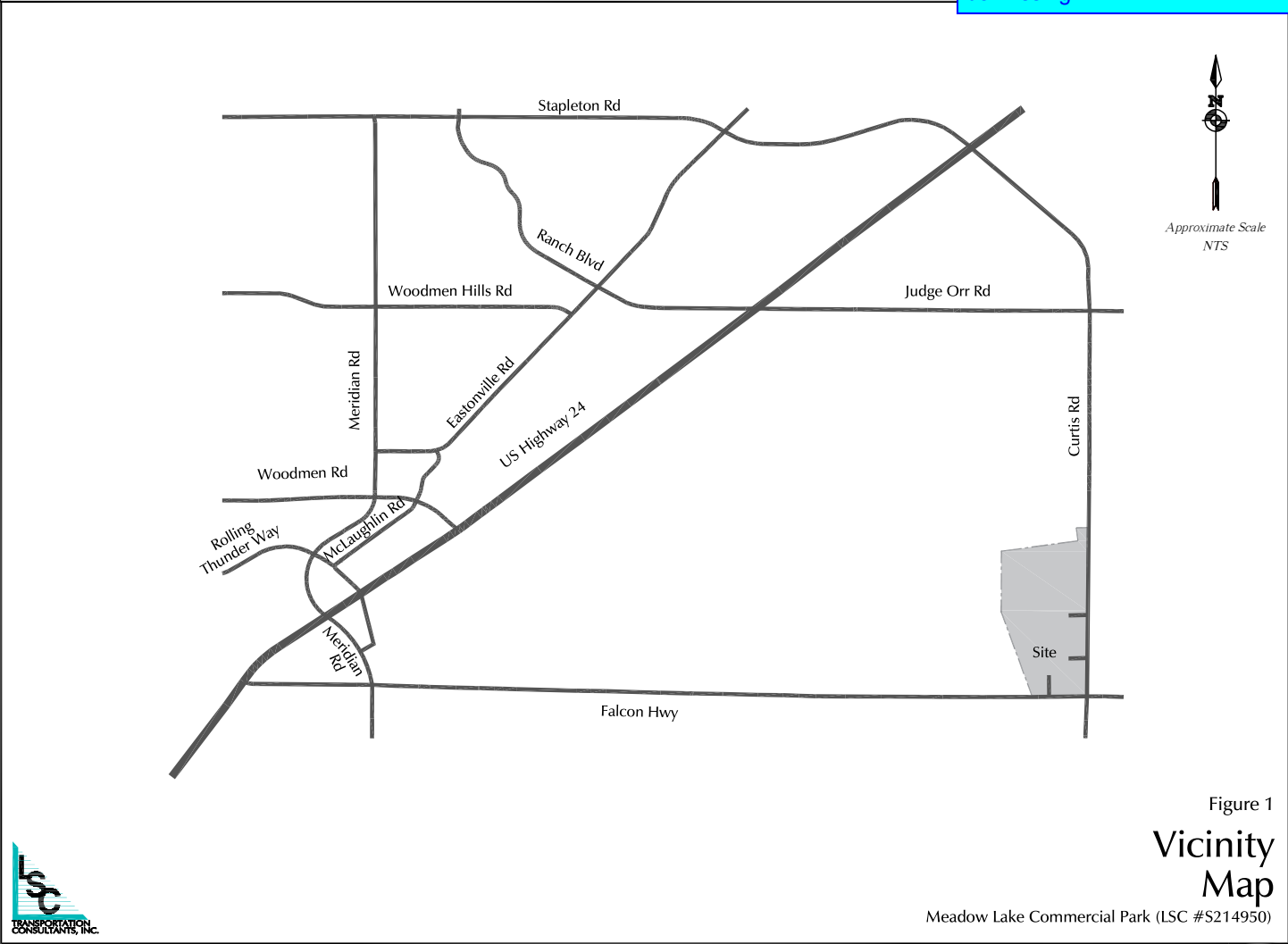



Figure 1
Vicinity
Map

Meadow Lake Commercial Park (LSC #S214950)



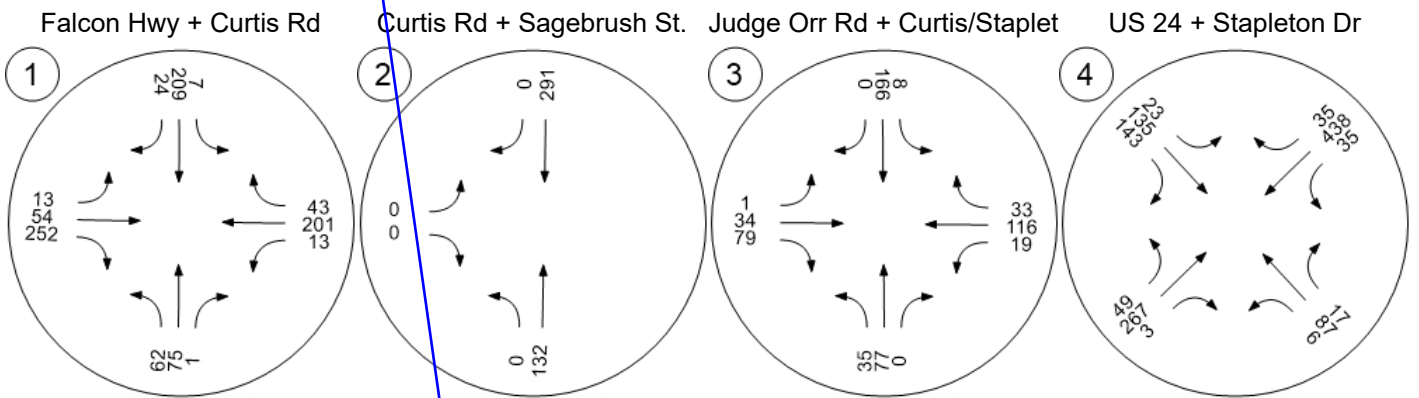
 Number: 1 Author: lpackman Subject: Text Box Date: 10/23/2023 14:47:33 -06'00'

Revise to put figures in numerical order based on number. Also provide figure 5, which appears to be missing.


 Author: jchodsdon Subject: Sticky Note Date: 2/2/2024 15:58:08

LSC Response: The updated TIS contains new and revised figures with changes to the numbering.


Traffic Volume - Base Volume



1
 The narrative also indicates that 7a, 7b , and 7c are the buildout volumes yet these indicate base volume. Please add complete titles to the figures to know whether these are existing, short-term, short-term total etc. or from the Master TIS.

 Number: 1 Author: Daniel Torres Subject: Callout Date: 10/24/2023 08:33:14 -06'00'

The narrative also indicates that 7a, 7b , and 7c are the buildout volumes yet these indicate base volume. Please add complete titles to the figures to know whether these are existing, short-term, short-term total etc. or from the Master TIS.

 Author: jchodsdon Subject: Sticky Note Date: 2/2/2024 15:58:21

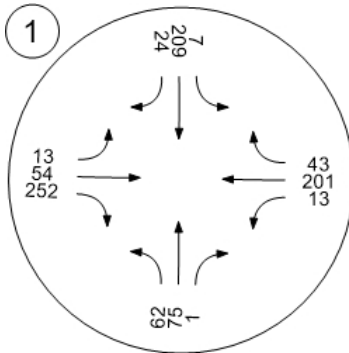
LSC Response: The updated TIS contains new and revised figures with changes to the numbering.

Are these existing base volumes as figures 7a & 7b also indicate base volume. Please clarify. 1

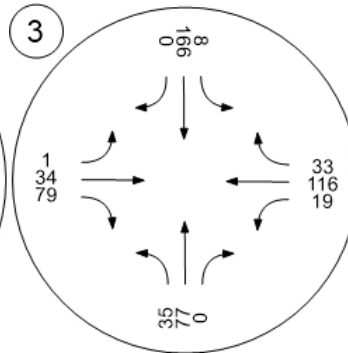
Traffic Volume - Base Volume



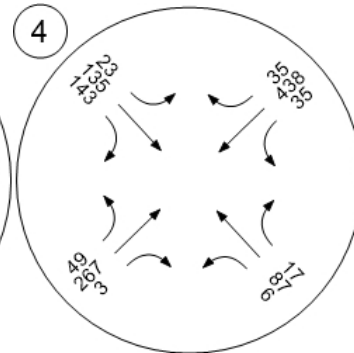
Falcon Hwy + Curtis Rd



Judge Orr Rd + Curtis/Staplet




US 24 + Stapleton Dr



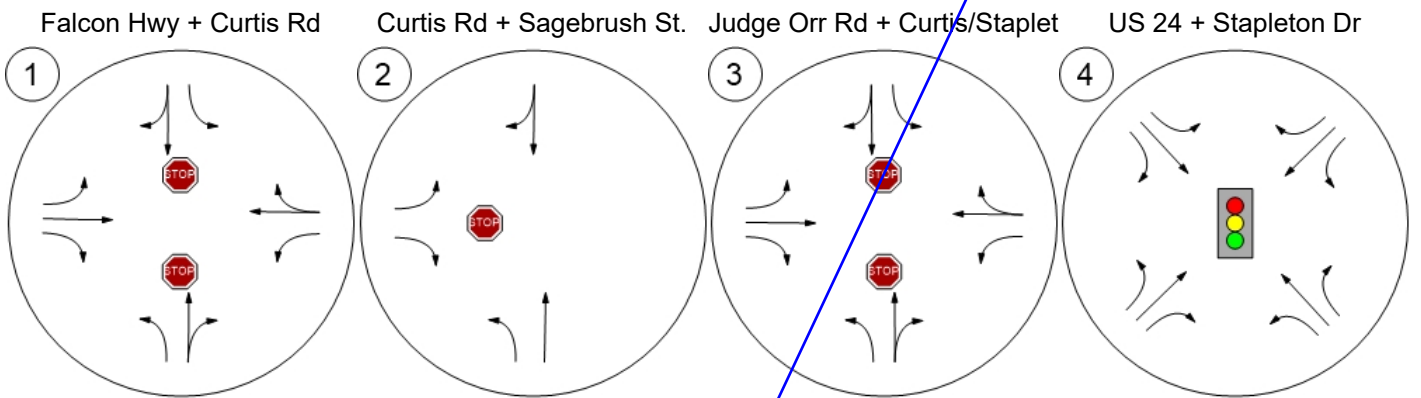
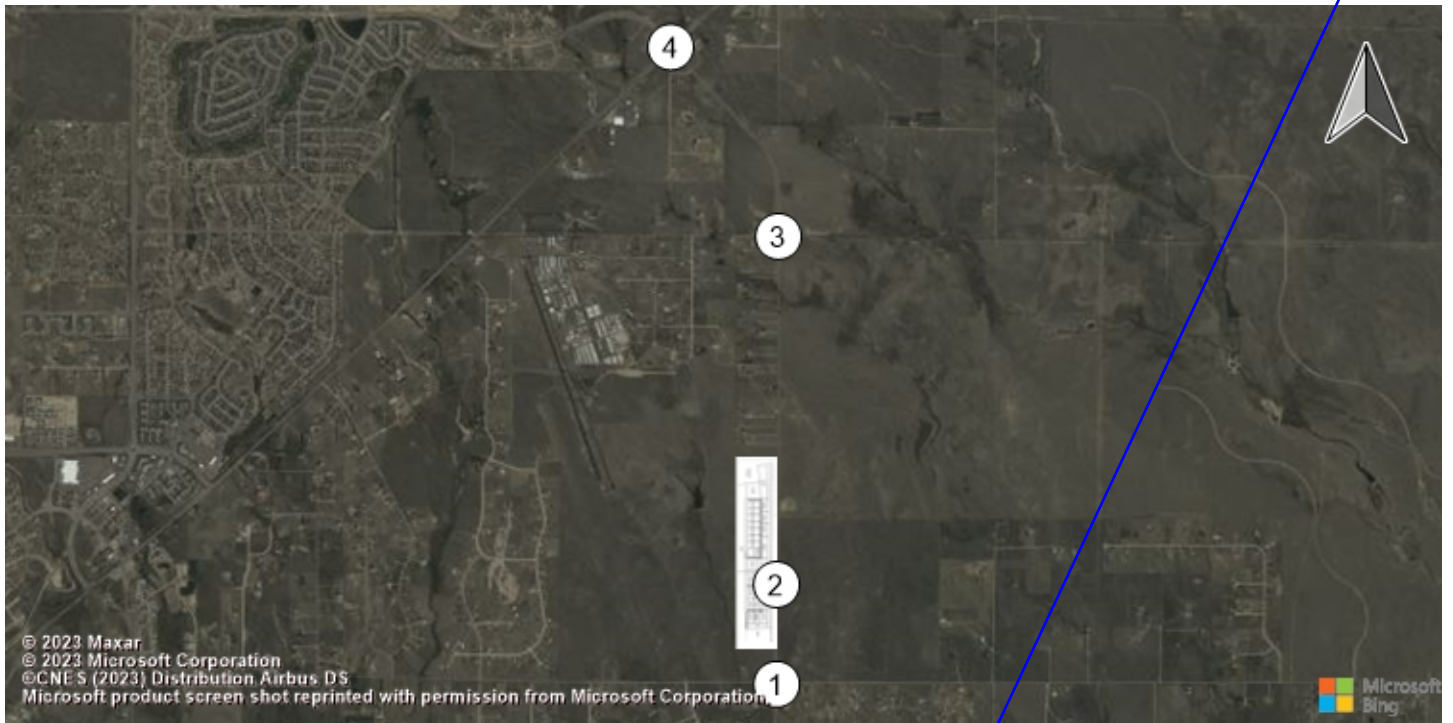
Number: 1 Author: Daniel Torres Subject: Text Box Date: 10/24/2023 08:36:18 -06'00'

Are these existing base volumes as figures 7a & 7b also indicate base volume. Please clarify.

 Author: jchodsdon Subject: Sticky Note Date: 2/2/2024 15:58:42

LSC Response: The updated TIS contains new and revised figures with changes to the numbering.


Lane Configuration and Traffic Control



the narrative indicates figure 9 as yr 2040. revise accordingly.

Number: 1 Author: Daniel Torres Subject: Callout Date: 10/24/2023 08:44:42 -06'00'

[the narrative indicates figure 9 as yr 2040. revise accordingly.](#)

 Author: jchodsdon Subject: Sticky Note Date: 2/2/2024 15:58:54

LSC Response: The updated TIS contains new and revised figures with changes to the numbering.

LSC Transportation Consultants, Inc.

2504 E. Pikes Peak Ave, Suite 304
 Colorado Springs, CO 80909
 719-633-2868

File Name : Curtis Rd - Judge Orr Rd AM

Site Code : S214950

Start Date : 4/21/2022

Page No : 1

Groups Printed- Unshifted

Start Time	Curtis Rd Southbound					Judge Orr Rd Westbound					Curtis Rd Northbound					Judge Orr Rd Eastbound					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	
06:30	0	42	1	0	43	2	29	2	0	33	0	9	4	0	13	14	5	0	0	19	108
06:45	0	40	3	0	43	6	27	5	0	38	0	12	6	0	18	13	9	0	0	22	121
Total	0	82	4	0	86	8	56	7	0	71	0	21	10	0	31	27	14	0	0	41	229
07:00	0	44	0	0	44	8	34	5	0	47	0	26	9	0	35	19	10	0	0	29	155
07:15	0	40	1	0	41	12	31	6	0	49	0	25	10	0	35	22	8	0	0	30	155
07:30	0	42	4	0	46	7	24	3	0	34	0	14	10	0	24	25	7	1	0	33	137
07:45	1	42	2	0	45	3	32	2	0	37	1	11	8	0	20	12	5	1	0	18	120
Total	1	168	7	0	176	30	121	16	0	167	1	76	37	0	114	78	30	2	0	110	567
08:00	1	17	7	0	25	4	18	2	0	24	0	8	3	0	11	5	7	1	0	13	73
08:15	1	17	3	0	21	3	21	1	0	25	2	14	2	0	18	7	13	0	0	20	84
Grand Total	3	284	21	0	308	45	216	26	0	287	3	119	52	0	174	117	64	3	0	184	953
Apprch %	1	92.2	6.8	0		15.7	75.3	9.1	0		1.7	68.4	29.9	0		63.6	34.8	1.6	0		
Total %	0.3	29.8	2.2	0	32.3	4.7	22.7	2.7	0	30.1	0.3	12.5	5.5	0	18.3	12.3	6.7	0.3	0	19.3	

Per ECM appendix B traffic counts shall be no more than a year old from date of application submittal. Provide updated counts.

1

Number: 1 Author: Daniel Torres Subject: Callout Date: 10/24/2023 09:59:10 -06'00'

Per ECM appendix B traffic counts shall be no more than a year old from date of application submittal. Provide updated counts.

Author: jchodsdon Subject: Sticky Note Date: 2/2/2024 13:26:04

LSC Response: New counts were conducted at Judge Orr/Curtis in November 2023. These have been incorporated into the updated TIS.