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Meadowlake Industrial Park

Traffic Impact Study

(LSC #195140)

March 5, 2019

Please revise to
Master Traffic Impact
Study

Should this be 2020
as indicated in the
header of the other
sheets in the report?

Add PCD File No.
CS201, I201, GA-O191

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.

Bill Murren FOR
ROI PROP. GROUP

03/06/2020
Date



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March 5, 2020

Mr. Bill Guman, RLA, ASLA
William Guman & Associates, Ltd.
731 North Weber Street, Suite 10
Colorado Springs, CO 80903

RE: Meadow Lake Industrial Park
El Paso County, CO
Traffic Impact Study
LSC #195140

Dear Mr. Guman,

LSC Transportation Consultants, Inc. has prepared this updated traffic impact study for the proposed Meadow Lake Industrial Park to be located in El Paso County, Colorado. Located at El Paso County IDs 4300000548, 4300000551, 4300000552, and 4300000553, the site is located northwest of the intersection of Falcon Highway/Curtis Road. Two total site access points are proposed (one each to Falcon Highway and Curtis Road). This report has been prepared for submittal to El Paso County.

REPORT CONTENTS

The preparation of this report included the following:

- An inventory of existing roadway and traffic conditions on major thoroughfares adjacent to the site, including surface conditions, functional classification, widths, pavement markings, 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 following intersections:
 - Falcon Highway/Curtis Road
 - Curtis Road/Judge Orr Road
 - US Highway 24/Stapleton Road
- Estimated average weekday traffic (AWT) volumes adjacent to the proposed industrial park development on Falcon Highway, Curtis Road, Meridian Road, Judge Orr Road, and US 24.
- Projections of 20-year background traffic volumes on Falcon Highway, Curtis Road, Meridian Road, Judge Orr Road, and US 24.
- The proposed site land use and access plan.
- Estimates of average weekday and weekday peak-hour trip generation for the proposed industrial park 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:
 - Falcon Highway/Sharpstown Drive (proposed three-quarter site access)
 - Curtis Road/Sugarland Drive (north full-movement site access)
 - Curtis Road/Suncadia Drive (south full-movement site access)
 - Falcon Highway/Curtis Road
 - Curtis Road/Judge Orr Road
 - US Highway 24/Stapleton Road
- Projected total daily and peak-hour traffic volumes at the “study area” intersections.
- Intersection level of service analysis at the “study area” intersections.
- Queuing analysis at the proposed site access points and the “study area” intersections.
- Evaluation of existing and long-term projected intersection volumes to determine potential requirements for any auxiliary right-/left-turn lanes at the proposed site access points adjacent based on the criteria in El Paso County’s *Engineering Criteria Manual (ECM)*. Also included are potential long-term lane requirements.
- Completed deviation request forms based on ECM criteria.
- Findings and recommendations for submittal to El Paso County.

It appears that Meridian/Hwy 24 and Judge Orr/Hwy 24 should be included in the study area. Please include or provide justification why they are not included.

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

Saddlehorn Ranch (dated July 11, 2019) was a previously-completed traffic reports in the vicinity of the proposed Meadow Lake Industrial Park. This report has been provided for reference and to provide context.

LAND USE AND ACCESS

Figure 1 shows the site location relative to the adjacent and nearby roadways. Located at El Paso County IDs 4300000548, 4300000551, 4300000552, and 4300000553, the site is located northwest of the intersection of Falcon Highway/Curtis Road. Meadow Lake Airport is located north and west of the site. Single-family homes currently exist south of Falcon Highway, while the parcel east of Curtis Road is currently vacant.

Assuming an estimated 16 percent floor area ratio, the proposed Meadow Lake Industrial Park could contain approximately:

- 1,158,069 square feet for industrial uses
- 177,934 square feet for commercial uses

Figure 1 shows the area circulation and access points to the adjacent public roads, while Figure 2 contains the proposed site plan showing the proposed land uses, on-site circulation, and proposed access points.

Two proposed, full-movement site access points to Curtis Road (Sugarland Drive and Suncadia Drive) would be located approximately 1/4-mile and 1/2-mile north of Falcon Highway.

Sharpstown Drive, a three-quarter movement (left-in/right-in/right-out only access, is also planned to Falcon Highway approximately one-quarter mile west of Curtis Road.

ROAD AND TRAFFIC CONDITIONS AND MTCP CLASSIFICATION

Figure 1 shows 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) 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 Highway 24 is also accessible from the southwest corner of the site via Falcon Highway. The travel distance to/from the intersection of US Highway 24/Falcon Highway via Falcon Highway is about four miles.

This two-lane State Highway extends east/west across Colorado connecting the Buena Vista, Colorado Springs, and Limon areas. US 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 *El Paso County Major Transportation Corridors Plan (MTCP)*.

2016

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 adjacent to the site (and west of Curtis Road). Posted speed limits adjacent to the site 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. The intersection of US 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 Highway 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 Highway 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*. Adjacent to the site, the posted speed limit is 45 mph. Both intersections of Curtis Road/Judge Orr Road and Curtis Road/Falcon Highway are two-way, stop-sign controlled. The section north of Judge Orr was recently constructed to current ECM standards with paved shoulders, etc. Generally, Curtis Road is an "unimproved," two-lane paved road between Judge Orr and Falcon Highway.

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

Note that meridian is shown as a 2 lane minor arterial south of Falcon Hwy. Also please include that Meridian will connect to Hwy 24 in the short term and ultimately Falcon hwy.

Meridian Road extends north from South Blaney Road to County Line Road. Meridian Road is shown as a four-lane Principal Arterial south of Rex Road, a four-lane Minor Arterial north of Rex Road, and a two-lane Minor Arterial north of Murphy Road on the County's MTCP.

Existing Traffic Volumes

Vehicular turning movement counts were conducted at the following intersections from 6:30-8:30 a.m. and from 4:00-6:00 p.m.:

- Falcon Highway/Curtis Road
 - AM peak – Tuesday, January 7, 2020
 - PM peak – Tuesday, January 7, 2020
- Curtis Road/Judge Orr Road
 - AM peak – Wednesday, January 8, 2020
 - PM peak – Wednesday, January 8, 2020
- US Highway 24/Stapleton Road
 - AM peak – Thursday, November 15, 2018
 - PM peak – Thursday, November 15, 2018

Per criteria, traffic counts shall be no more than a year old from date of application submittal. Due to current conditions (i.e. COVID-19) staff will discuss with the engineering manager and will inform you if new counts will be needed.

Figure 3 shows these turning movement volumes, as well as the average weekday traffic volumes (estimated based on factored peak-hour count data) on the study area roadways. Raw count data are attached.

Urban Non-Residential

PEDESTRIAN AND BICYCLE FACILITIES

The proposed subdivision roads are to be ~~4~~ Non-Residential Collector roadways, and, as such, would not require sidewalks. 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 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)

Urban Non-Residential Collector cross sections require sidewalks. Please revise.

TRIP GENERATION

Estimates of the vehicle-trips projected to be generated by the Belmont Park Apartments residential development have been made using the nationally published trip generation rates from *Trip Generation, 10th Edition, 2017* by the Institute of Transportation Engineers (ITE).

?
Revise accordingly.

Corresponding trip generation rates from the following ITE Land Use Categories have been used to develop the trip generation estimates for site buildout:

- “110 – General Light Industrial”
- “820 – Shopping Center”

Table 1 below presents a summary of the estimated external site trip generation. A detailed trip generation estimate for the industrial park, including ITE rates for the proposed land uses, is presented in Table 6 (attached). Figure 2 shows the layout within the proposed industrial park.

Table 1: Estimated External Site Vehicle-Trip Generation

| Analysis Period | Weekday | | |
|-------------------|---------|-------|--------|
| | In | Out | Total |
| Morning Peak Hour | 390 | 124 | 514 |
| Evening Peak Hour | 426 | 607 | 1,033 |
| Daily/24-hour | 6,672 | 6,672 | 13,343 |

The proposed Meadow Lake Industrial Park is projected to generate about 13,343 total 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 390 entering vehicles and 124 exiting vehicles would be generated. Approximately 426 entering and 607 exiting vehicles would be generated by the site during the evening peak hour.

Please specify and use the latest handbook (2017)

Pass-By and Diverted Trips

The total number of trips to be generated by the site has also been aggregated by trip type to account for pass-by and diverted trips. A pass-by trip is one made by a motorist who would already be on an adjacent road regardless of the proposed development, but who stops in at the site while passing by. That pass-by motorist would then continue on his or her way to a final destination in the original direction. Table 6 (attached) shows the percent of the trips generated that were assumed to be pass-by trips. Non-primary trip percentage has been based on data from the *Trip Generation Handbook - An ITE Proposed Recommended Practice, 3rd Edition, 2014* by ITE and adjustments by LSC for site-specific conditions.

The proposed Meadow Lake Industrial Park is projected to generate about 8,904 **primary** vehicle-trips on the average weekday during a 24-hour period, with approximately half entering and half exiting the site. Analysis accounts for pass-by and diverted trips from Stapleton Road, and Judge Orr Road, and US Highway 24. The ITE-average percent pass-by and percent diverted trips for shopping-related land uses were used for this study, as summarized in Table 6. The resulting primary and non-primary trips are shown in Table 6.

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 4 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 the following factors: the proposed new land use, the area roadway system serving the site, and the site's geographic location relative to the overall greater El Paso County/Colorado Springs area. Additionally, directional distribution splits from LSC's previously-conducted Saddlehorn Ranch traffic study (dated July 11, 2019) were used to estimate trip distributions and background volumes within the vicinity of the site.

Site-Generated Traffic

Site-generated traffic volumes have been estimated at the following intersections:

- Falcon Highway/Sharpstown Drive (proposed three-quarter site access)
- Curtis Road/Sugarland Drive (north full-movement site access)
- Curtis Road/Suncadia Drive (south full-movement site access)
- Falcon Highway/Curtis Road
- Curtis Road/Judge Orr Road
- US Highway 24/Stapleton Road

These volumes have been calculated by applying the directional distribution percentages estimated by LSC (from Figure 4) to the trip generation estimates (from Table 6). Figure 5 shows the projected site-generated traffic volumes for the weekday morning and evening peak hours. The figure also shows the estimated average daily traffic volumes (ADTs).

Existing-Plus-Site-Generated Traffic Volumes

Figure 6 shows the sum of the existing traffic volumes (from Figure 3) and site-generated peak-hour traffic volumes (shown in Figure 5). These volumes represent the projected short-term total traffic following site buildout. Laneage and traffic control at the study area intersections following site buildout are shown in Figure 6.

2040 Background Traffic Volumes

The 2040 background traffic volumes are generally based on the projections presented in the MTCP, but adjustments have been made to account for reduced trip generation from the former Santa Fe Springs development area. US Highway 24 volumes are estimates by LSC based on the Colorado Department of Transportation *US 24 Planning and Environmental Linkages Study Final Corridor Conditions Report* (dated December 2016). These volumes assume the 2040 roadway system including

Please provide more information regarding this development. What land use is it? Where is it located? why is there a reduced trip generation? etc.

the extension of Stapleton Road west to Briargate Parkway. Traffic from the proposed Meadow Lake Industrial Park is **not** included in the 2040 **background** traffic volumes.

2040 Total Traffic Volumes

Figure 8 shows the sum of 2040 background traffic volumes (from Figure 7) plus site-generated traffic volumes (from Figure 5).

LEVEL OF SERVICE ANALYSIS

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 2 shows the level of service delay ranges for signalized and unsignalized intersections.

Table 2: 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 | ≤ 10.0 |
| B | 10.1 – 20.0 | 10.1 – 15.0 |
| C | 20.1 – 35.0 | 15.1 – 25.0 |
| D | 35.1 – 55.0 | 25.1 – 35.0 |
| E | 55.1 – 80.0 | 35.1 – 50.0 |
| F | ≥ 80.1 | ≥ 50.1 |

¹ For unsignalized intersections, if V/C is > 1.00, then LOS is LOS F regardless of the projected average control delay per vehicle

2020?

LOS values have been included on each figure for each turning movement/approach during the weekday morning and evening peak hours for the proposed site access intersections and off-site intersections in the study area:

- Figure 3: 2019 Existing Traffic, Lane Geometry, Traffic Control, and LOS
- Figure 6: 2019 Existing + Site Traffic, Lane Geometry, Traffic Control, and LOS
- Figure 7: 2040 Background Traffic, Lane Geometry, Traffic Control, and LOS
- Figure 8: 2040 Background + Site Traffic, Lane Geometry, Traffic Control, and LOS

LOS calculations for long-term scenarios were based upon the recommended lane geometries and traffic controls outlined in the figures above (which were based on recommended improvements in the aforementioned Saddlehorn Ranch traffic study).

Falcon Highway/Sharpstown Drive (Proposed Three-Quarter Site Access)

All individual turning movements and approaches are projected to operate at LOS B or better through the 2040 horizon year. This analysis assumes that the southbound left turn movement would be prohibited (three-quarter-movement intersection configuration). Please refer to Figure 6 and Figure 8 for recommended lane configurations and LOS summaries at this intersection during the short- and long-term scenarios, respectively.

Curtis Road/Sugarland Drive (North Full-Movement Site Access)

Short-Term

All individual turning movements and approaches are projected to operate at LOS C or better during the short-term as a two-way stop sign-controlled intersection with the following auxiliary turn lanes: southbound right-turn deceleration lane, southbound right-turn acceleration lane, and northbound left-turn deceleration lane. Please refer to Figure 6 for recommended lane configurations and LOS summaries at this intersection during the short-term scenario.

Long-Term

Please refer to Figure 8 for recommended lane configurations and LOS summaries at this intersection during the long-term scenario:

- The eastbound left-turning movements is projected to operate at LOS F during both long-term peak hours if the intersection were to operate as two-way stop sign-controlled
- If the intersection were to be converted to a roundabout, all individual approaches would operate at LOS B or better during the long-term
- If the intersection were to be converted to a channelized-T intersection, all individual turning movements would operate at LOS B or better during both peak hours

Curtis Road/Suncadia Drive (South Full-Movement Site Access)

Short-Term

All individual turning movements and approaches are projected to operate at LOS C or better during the short-term as a two-way stop sign-controlled intersection with the following auxiliary turn lanes: southbound right-turn deceleration lane, southbound right-turn acceleration lane, and northbound left-turn deceleration lane. Please refer to Figure 6 and Figure 8 for recommended lane configurations and LOS summaries at this intersection during the short- and long-term scenarios, respectively.

Long-Term

Please refer to Figure 8 for recommended lane configurations and LOS summaries at this intersection during the long-term scenario:

- The eastbound left-turning movements is projected to operate at LOS F during both long-term peak hours if the intersection were to operate as two-way stop sign-controlled
- If the intersection were to be converted to a roundabout, all individual approaches would operate at LOS B or better during the long-term
- If the intersection were to be converted to a channelized-T intersection, all individual turning movements would operate at LOS B or better during both peak hours

What about the short term? are improvements required as a result of traffic by this site?

US Highway 24/Stapleton Road

Short-Term

Currently, the intersection of US 24/Stapleton is two-way stop sign-controlled. 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.

If 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.

Note that saddlehorn ranch TIS indicated LOS D for individual turn movements.

Long-Term

Based on the long-term scenario analyzed in this report, dual left-turn lanes are projected to be constructed to all approaches at the intersection of US 24/Stapleton Road. Additionally, all approaches on US Highway 24 and Stapleton Road would be improved to two through lanes in each direction. Assuming future traffic signal control, all individual turning movements and the intersection overall are projected to operate at LOS C or better during both long-term peak hours, with or without the addition of site-generated traffic. **No auxiliary turn lane improvements at this intersection would be required as a result of additional traffic generated by this site.** Please refer to Figure 7 and Figure 8 for projected lane geometry improvements and LOS at this intersection.

Judge Orr Road/Curtis Road

Short-Term

Currently, all individual approaches/turning movements at the intersection of Judge Orr/Curtis operate at LOS B or better during both peak hours. The northbound left-turn movement is projected to operate at LOS F during the short-term with the addition of site-generated traffic if

the intersection were to remain TWSC or have all-way stop sign control. If the intersection of Judge Orr/Curtis were to be converted a roundabout, all individual turning movements would operate at LOS C or better during the short-term buildout scenario.

Long-Term

If the intersection of Judge Orr/Curtis were to be converted from TWSC to a roundabout, all individual turning movements would operate at LOS C or better during both peak hours of the long-term buildout scenario. This intersection improvement was previously recommended in the Saddlehorn Ranch traffic study. Additionally, all approaches on Judge Orr Road and Curtis Road would be improved to two through lanes in each direction (per the 2040 MTCP).

Note that saddlehorn ranch TIS indicated LOS D for individual turn movements.

Falcon Highway/Curtis Road

Short-Term

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, 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 a roundabout, all individual turning movements would operate at LOS C or better during the short-term buildout scenario.

Long-Term

If the intersection of Falcon Highway/Curtis Road were to be converted from TWSC to a roundabout, all individual turning movements would operate at LOS C or better during both peak hours of the long-term buildout scenario. This intersection improvement was previously recommended in the Saddlehorn Ranch traffic study. Additionally, all approaches at the Falcon Highway/Curtis Road intersection would be improved to two through lanes in each direction (per the 2040 MTCP).

AUXILIARY TURN LANE ANALYSIS, INTERSECTION CONFIGURATION, AND TRAFFIC CONTROL

Auxiliary Turn Lane Requirements

All auxiliary left- and right-turn lanes at this intersection would be required to meet the County's *Engineering Criteria Manual's* auxiliary turn lane length criteria for each roadway's respective posted/design speed limit, as summarized in Table 3 and Table 4.

According to criteria in El Paso County's *Engineering Criteria Manual*, deceleration turn lanes shall meet the following design criteria, as summarized in Table 3:

Please indicate the ECM tables for these lanes (i.e. table 2-24 & 2-27)

Table 3: ECM-Required Deceleration Lengths and Taper Lengths

| Design Speed | Lane Length | Approach Taper | Total Length* |
|-------------------------------------------------------------|-------------|----------------|---------------|
| 25 mph | 115' | 120' | 235' |
| 30 mph | 115' | 120' | 235' |
| 35 mph | 135' | 140' | 275' |
| 40 mph | 155' | 160' | 315' |
| 45 mph | 195' | 180' | 375' |
| 50 mph | 235' | 200' | 435' |
| 55 mph | 260' | 220' | 480' |
| 60 mph | 290' | 240' | 530' |
| 65 mph | 320' | 260' | 580' |
| * Refer to the ECM for criteria on required storage lengths | | | |

Table 4 summarizes the minimum acceleration lane and transition lengths required by the ECM based on the roadway's posted speed limit:

Table 4: ECM Design Criteria for Acceleration Lanes

| Posted Speed | Lane Length | Transition Taper | Total Length |
|--------------|-------------|------------------|--------------|
| 25 mph | - | 90' | 90' |
| 30 mph | 190' | 96' | 286' |
| 35 mph | 270' | 120' | 390' |
| 40 mph | 380' | 144' | 524' |
| 45 mph | 550' | 162' | 712' |
| 50 mph | 760' | 180' | 940' |
| 55 mph | 960' | 222' | 1,182' |
| 60 mph | 1,170' | 300' | 1,470' |
| 65 mph | 1,380' | 300' | 1,680' |

Turn Lane Criteria

Table 5 summarizes peak-hour auxiliary left- and right-turn lane thresholds according to ECM criteria. Roadway classifications for key thoroughfares in the vicinity of the site include:

- Expressway – US Highway 24
- Principal Arterial – Curtis Road, Meridian Road
- Minor Arterial – Judge Orr Road, Falcon Highway
- Non-Residential Collector – all proposed site accesses

Table 5: ECM Auxiliary Turn Lane Thresholds by Functional Classification

| Functional Classification | Deceleration Lanes | | Acceleration Lanes | |
|--------------------------------------------------------------------------------------------------------------|--------------------|---------|--------------------|------------------------|
| | Left | Right | Left | Right |
| Expressway | 10+ vph | 10+ vph | * | 10+ vph |
| 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 | | | | |

Based on projected volumes and ECM criteria summarized in Table 5, auxiliary turn lanes would be required for the following turning movements at the following study area intersections:

Falcon Highway/Sharpstown Drive (Proposed Three-Quarter Site Access)

In order for this intersection to operate at an acceptable level of service, LSC recommends that the southbound left-turn movement would be prohibited (three-quarter-movement intersection configuration). The following auxiliary turn lanes would be required based on projected site-generated traffic volumes:

- Eastbound left-turn deceleration lane
 - 290-foot deceleration lane
 - 150-foot storage length
 - 240-foot approach taper
 - 55:1 redirect taper length
- Westbound right-turn deceleration lane
 - 290-foot deceleration lane
 - 240-foot approach taper
 - 55:1 redirect taper length
- Southbound right-turn acceleration lane
 - 960-foot acceleration lane
 - 222-foot transition taper
 - 18.5:1 transition taper ratio

Please indicate whether the auxiliary lanes provided for the intersections meet criteria and indicate the design speed used to determine the required lengths. Note that Falcon Hwy, a rural minor arterial, has design speed of 60 mph and Curtis Rd, a rural principal arterial, has a design speed of 70 mph per criteria. If using a different design speed to determine the lengths a deviation with the appropriate justification should be submitted.

Curtis Road/Sugarland Drive (North Full-Movement Site Access)

Short Term

The north site access on Curtis Road would operate at an acceptable LOS **in the short term** as a two-way stop sign-controlled intersection with the following auxiliary turn lanes:

- Southbound right-turn deceleration lane
 - 235-foot deceleration lane
 - 200-foot approach taper
 - 45:1 redirect taper length
- Eastbound right-turn acceleration lane
 - 550-foot acceleration lane
 - 13.5:1 transition taper ratio
- Northbound left-turn deceleration lane
 - 235-foot deceleration lane
 - 150-foot storage length
 - 200-foot approach taper
 - 45:1 redirect taper length

Long Term

The Curtis Road/Sugarland Drive site access would not operate at an acceptable LOS in the long term if it were to remain two-way stop sign-controlled. As such, LSC recommends that the site access be converted to a channelized-T intersection, which would require adding an eastbound left-turn acceleration lane:

- 550-foot acceleration lane
- 13.5:1 transition taper ratio

Note: if a roundabout is selected for traffic control, the above would not apply. Any auxiliary turn lanes would be identified as part of the roundabout design.

Curtis Road/Suncadia Drive (South Full-Movement Site Access)

Short Term

The south site access on Curtis Road would operate at an acceptable LOS **in the short term** as a two-way stop sign-controlled intersection with the following auxiliary turn lanes:

- Southbound right-turn deceleration lane
 - 235-foot deceleration lane
 - 200-foot approach taper
 - 45:1 redirect taper length
- Southbound right-turn acceleration lane
 - 550-foot acceleration lane
 - 13.5:1 transition taper ratio
- Northbound left-turn deceleration lane
 - 235-foot deceleration lane
 - 150-foot storage length
 - 200-foot approach taper
 - 45:1 redirect taper length

Long Term

The Curtis Road/Suncadia Drive site access would not operate at an acceptable LOS **in the long term** if it were to remain two-way stop sign-controlled. As such, LSC recommends that the site access be converted to a channelized-T intersection, which would require adding an eastbound left-turn acceleration lane:

- 550-foot acceleration lane
- 13.5:1 transition taper ratio

Note: if a roundabout is selected for traffic control, the above would not apply. Any auxiliary turn lanes would be identified as part of the roundabout design.

Judge Orr Road/Curtis Road

LSC recommends that this intersection be converted to a roundabout in the short term in order for all individual turning movements/approaches to operate at an acceptable level of service upon site buildout, as previously recommended in the Saddlehorn Ranch traffic study.

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 be needed if two-way stop control or all-way stop sign control is used as an intermediate traffic condition:

- Eastbound right-turn deceleration lane
 - 290-foot acceleration lane
 - 240-foot approach taper
 - 55:1 redirect taper length

Note that the Saddlehorn TIS (march 11, 2020) recommended this for the long term not the short term. Please update accordingly.

Falcon Highway/Curtis Road

LSC recommends that this intersection be converted to a roundabout in order for all individual turning movements/approaches to operate at an acceptable level of service upon site buildout, as previously recommended in the Saddlehorn Ranch traffic study.

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 be needed if all-way stop sign control is used as an intermediate traffic condition:

- Southbound right-turn deceleration lane
 - 235-foot deceleration lane
 - 200-foot approach taper
 - 45:1 redirect taper length
- Eastbound left-turn deceleration lane
 - 290-foot acceleration lane

- 240-foot approach taper
- 55:1 redirect taper length
- Westbound right-turn deceleration lane
 - 290-foot deceleration lane
 - 240-foot approach taper
 - 55:1 redirect taper length

- Has this deviation been approved?
-What is the relevance of this deviation to your project? Will you be requesting a deviation of the same nature? Please clarify. Note that Saddlehorn Ranch is on the east of Curtis and that appears to be a reason why they are proposing the deviation as the developed SFD lots (westside) make it difficult for them to obtain the necessary ROW. This site is on the west side and doesn't have the same restrictions.
-Provide roadway segment improvements for your development.

ROADWAY CLASSIFICATIONS

All internal streets within the site should be designed to meet Non-Residential Collector criteria prescribed in the ECM. **Urban Non-Residential**

ROADWAY SEGMENT IMPROVEMENTS

A previously-conducted traffic impact study (Saddlehorn Ranch, Filing 1 – submitted December 3, 2019) requested a deviation from ECM criteria for a Rural Minor Arterial cross-section, which requires a 12-foot travel lane and an 8-foot paved shoulder. This deviation requested that the paved shoulder width be reduced from 8 feet to 2 feet, as this is the maximum that can fit inside the existing western right-of-way on Curtis Road. Once the required right-of-way can be obtained, Curtis Road would be built-out to the full Rural Minor Arterial cross-section criteria.

LIST OF DEVIATIONS REQUESTED

A deviation would be required for the 805-foot spacing on Falcon Highway between the proposed south access and McCandish Road (existing). The ECM requires a minimum of 1/4-mile spacing (1,320 feet) between accesses on Rural Minor Arterials.

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 a future Preliminary Plan/Plat submittal.

Reimbursable Improvements

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:

Curtis Rd is classified as a principal arterial and the intersection spacing criteria is 1/2 mile. It appears that a deviation will be required for the proposed access points on Curtis Rd.

- 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 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

Although these are identified as "eligible improvements (eligible for Fee Program credit if completed)," **it is our understanding that the applicant will not be responsible for completing improvements to these roadways.**

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 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)

IMPROVEMENTS SUMMARY TABLE

Please refer to Table 7, which presents a summary of improvements.

FINDINGS AND CONCLUSIONS

- The site is projected to generate about 13,343 new driveway vehicle-trips on the average weekday.
- During the weekday morning peak hour of adjacent street traffic, 390 vehicles would enter the site while 124 vehicles would exit.

- During the weekday evening peak hour of adjacent street traffic, 426 vehicles would enter the site while 607 vehicles would exit.
- In order for both intersections to operate at acceptable levels of service, LSC recommended that the intersections of Curtis Road/Falcon Highway and Curtis Road/Judge Orr Road be converted to roundabouts in the short-term.
- As a TWSC intersection, the eastbound left-turning movement at both proposed site accesses on Curtis Road (Sugarland Drive and Suncadia Drive) would operate at LOS C or better during the short-term but LOS F during the long-term. All approaches at both site accesses on Curtis Road are projected to operate at LOS B during the long-term scenario if both were converted to roundabouts.
- Please refer to the "Auxiliary Turn Lane Analysis" section above for recommended intersection improvements with and without the addition of site-generated traffic.
- All internal streets within the site should be designed to meet Non-Residential Collector criteria prescribed in the ECM.

* * * * *

your recommendations indicated a channelized T at these intersections. Please mention that as well.

urban

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

Enclosures: Table 6
Table 7
Figure 1 - Figure 8
Traffic Count Reports
Synchro LOS Reports

Table 6: Detailed Trip Generation Estimate

| ITE | | Value | Units | Floor Area Ratio | Value | Units ¹ | Trip Generation Rates ² | | | | Total Trips Generated | | | | % Trips Primary | % Trips Pass-by | % Trips Diverted | Primary Trips Generated | | | | | | |
|------|--------------------------|---------|-------|------------------|----------|--------------------|------------------------------------|---------|----------|---------|-----------------------|-----------------|------------|------------|-----------------|-----------------|------------------|-------------------------|----------|-----------------|------------|-----------|------------|------------|
| Code | Description | | | | | | Average Weekday | A.M. In | A.M. Out | P.M. In | P.M. Out | Average Weekday | A.M. In | A.M. Out | | | | P.M. In | P.M. Out | Average Weekday | A.M. In | A.M. Out | P.M. In | P.M. Out |
| 110 | General Light Industrial | 166.160 | Acres | 16% | 1158.069 | KSF | 3.84 | 0.21 | 0.03 | 0.02 | 0.15 | 4447 | 240 | 33 | 26 | 174 | 100% | 0% | 0% | 4447 | 240 | 33 | 26 | 174 |
| 820 | Shopping Center | 25.530 | Acres | 16% | 177.934 | KSF | 50.00 | 0.84 | 0.51 | 2.25 | 2.43 | 8896 | 149 | 91 | 400 | 433 | 41% | 34% | 25% | 3647 | 61 | 38 | 164 | 177 |
| | | | | | | | Total | | | | | 13343 | 390 | 124 | 426 | 607 | | | | 8094 | 302 | 70 | 190 | 351 |

¹ KSF = 1,000 square feet of gross floor area

² Source: *Trip Generation*, 10th Edition, 2017, by the Institute of Transportation Engineers (ITE)

| Table 7: Roadway Improvements for Meadow Lake Industrial Park | | | |
|---------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------|
| Off-Site Intersections | | | |
| Item # | Improvement | Timing | Responsibility |
| US Highway 24/Stapleton Intersection | | | |
| 1.1 | Signalize the intersection | Once warrants are met | CDOT is collecting escrow from area developments impacting this intersection with each subdivision filing |
| Adjacent County Arterial Roadway ROW Requirements | | | |
| 2.1 | Curtis Road 2-Lane Rural Principal Arterial 130' to 150' estimated ROW dedication (Note: 4-lane Rural Principal is 180') | Shown in 2040 MTCP | Applicant (west side) |
| 2.2 | Curtis Road 4-Lane Rural Principal Arterial 180' right-of-way preservation | Shown in 2060 Corridor Preservation Plan | Applicant (west side) |
| Roadway Segment Improvements | | | |
| 3.1 | Curtis Road (Short-Term) Improve adjacent Curtis Road to 2-ft paved shoulders (not 8-ft paved shoulders, as required by the ECM for Rural Minor Arterial cross-sections) | Outlined in the Saddlehorn Ranch deviation (dated 12/03/2019 by JR Engineering) | Details TBD Applicant or property on the east side of Curtis Road will pay fee program traffic impact fees |
| 3.2 | Curtis Road (Long-Term) Upgrade to 4-Lane Rural Principal Arterial | Shown in 2040 MTCP (Project U1) | Details TBD Applicant will pay fee program traffic impact fees |
| 3.3 | Falcon Highway Upgrade to 2-Lane Rural Minor Arterial | Shown in 2040 MTCP (Project U5) | Details TBD Applicant will pay fee program traffic impact fees |
| 3.4 | Stapleton Road Widen to 4-Lane Rural Principal Arterial | Shown in 2040 MTCP (Project C12) | Details TBD Applicant will pay fee program traffic impact fees |
| 3.5 | Judge Orr Road Widen to 4-Lane Rural Minor Arterial | Shown in 2040 MTCP (Project C14) | Details TBD Applicant will pay fee program traffic impact fees |
| Internal Subdivision Roadways | | | |
| 4.1 | Construct internal streets to County Urban Non-Residential Collector Standards | As development occurs and as needed for access | Applicant |
| Judge Orr/Curtis Road Intersection | | | |
| 5.1 | Short Term Eastbound 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) |
| 5.2 | Short Term Potentially sign for all way stop-sign control | Once warrants for AWSC are met | El Paso County |
| 5.3 | Long Term Reconstruct intersection as a modern roundabout (or signalize the intersection) | Once LOS of AWSC drops below acceptable levels (roundabout); or once signal warrants are met (for conversion to a signal or roundabout) | El Paso County -- This intersection will be fee-program eligible for a signal/roundabout and applicant will pay fee program traffic impact fees |
| 5.4 | 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 Intersection and Access Intersections | | | |
| Item # | Improvement | Timing | Responsibility |
| Curtis Road/Falcon Highway | | | |
| 6.1 | Short Term Potentially sign for all way stop-sign control | Once warrants for AWSC are met | El Paso County |
| 6.2 | Short Term (if signalized in the future) Construct SB right-turn deceleration lane on Curtis Road approaching Falcon Highway | With site development, 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) |
| 6.3 | Short Term (if signalized in the future) Construct EB left-turn deceleration lane on Curtis Road approaching Falcon Highway | With site development, 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) |
| 6.4 | Short Term (if signalized in the future) Construct WB right-turn deceleration lane on Curtis Road approaching Falcon Highway | With site development, 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) |
| 6.5 | Long Term Reconstruct intersection as a modern roundabout (or signalize the intersection) | Once LOS of AWSC drops below acceptable levels (roundabout); or once signal warrants are met (for conversion to a signal or roundabout) | El Paso County -- This intersection will be fee-program eligible for a signal/roundabout and applicant will pay fee program traffic impact fees. |
| 6.6 | 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) |
| Falcon Highway/Sharpstown Drive (Site Access) | | | |
| 7.1 | Short Term Westbound right-turn deceleration lane | With site development, per ECM turning volume thresholds | Applicant |
| 7.2 | Short Term Eastbound left-turn deceleration lane and standard 3/4-movement intersection design | With site development | Applicant |
| 7.3 | Short Term Southbound right-turn acceleration lane | With site development, per ECM turning volume thresholds | Applicant |
| Curtis Road/Sugarland Drive (North Site Access) | | | |
| 8.1 | Short Term Southbound right-turn deceleration lane on Curtis Rd approaching the site access | With site development, per ECM turning volume thresholds | Applicant |
| 8.2 | Short Term Northbound left-turn deceleration lane on Curtis Rd approaching the site access | With site development, per ECM turning volume thresholds | Applicant |
| 8.3 | Short Term Eastbound right-turn acceleration lane on Curtis Rd upon exiting the site access | With site development, per ECM turning volume thresholds | Applicant |
| 8.4 | Long Term Reconstruct intersection as a channelized-T intersection (or as a modern roundabout) | With site development, as necessary to maintain acceptable intersection operations | Applicant |
| 8.5 | Long Term Northbound left-turn acceleration lane on Curtis Rd upon exiting the site access (to accompany channelized-T reconstruction) | With site development -- with future channelized-T (if implemented) | Applicant |
| Curtis Road/Suncadia Drive (South Site Access) | | | |
| 9.1 | Short Term Southbound right-turn deceleration lane on Curtis Rd approaching the site access | With site development, per ECM turning volume thresholds | Applicant |
| 9.2 | Short Term Northbound left-turn deceleration lane on Curtis Rd approaching the site access | With site development, per ECM turning volume thresholds | Applicant |
| 9.3 | Short Term Eastbound right-turn acceleration lane on Curtis Rd upon exiting the site access | With site development, per ECM turning volume thresholds | Applicant |
| 9.4 | Long Term Reconstruct intersection as a channelized-T intersection (or as a modern roundabout) | With site development, as necessary to maintain acceptable intersection operations | Applicant |
| 9.5 | Long Term Northbound right-turn acceleration lane on Curtis Rd upon exiting the site access to accompany channelized-T reconstruction | With site development -- with future channelized-T (if implemented) | Applicant |

See comments in the narrative and update accordingly.

2-lane

Please revise so that it is consistent with your narrative. A roundabout is recommended in the short term in your narrative.

This AWSC was not mentioned in the narrative for this intersection. Please address. Would the LOS be acceptable with an AWSC?

Please revise so that it is consistent with your narrative. A roundabout is recommended in the short term in your narrative.

This should be with subdivision/plat filings.

applicant.

Please revise to indicate that it "may be fee program eligible.... Note the applicant would present to the fee advisory committee and a determination would be made.

applicant

The highlighted text should indicate with subdivision/plat filings instead of site development for these short term improvements.

Please add footnote: timing and responsibility is subject to change as future applications are submitted.

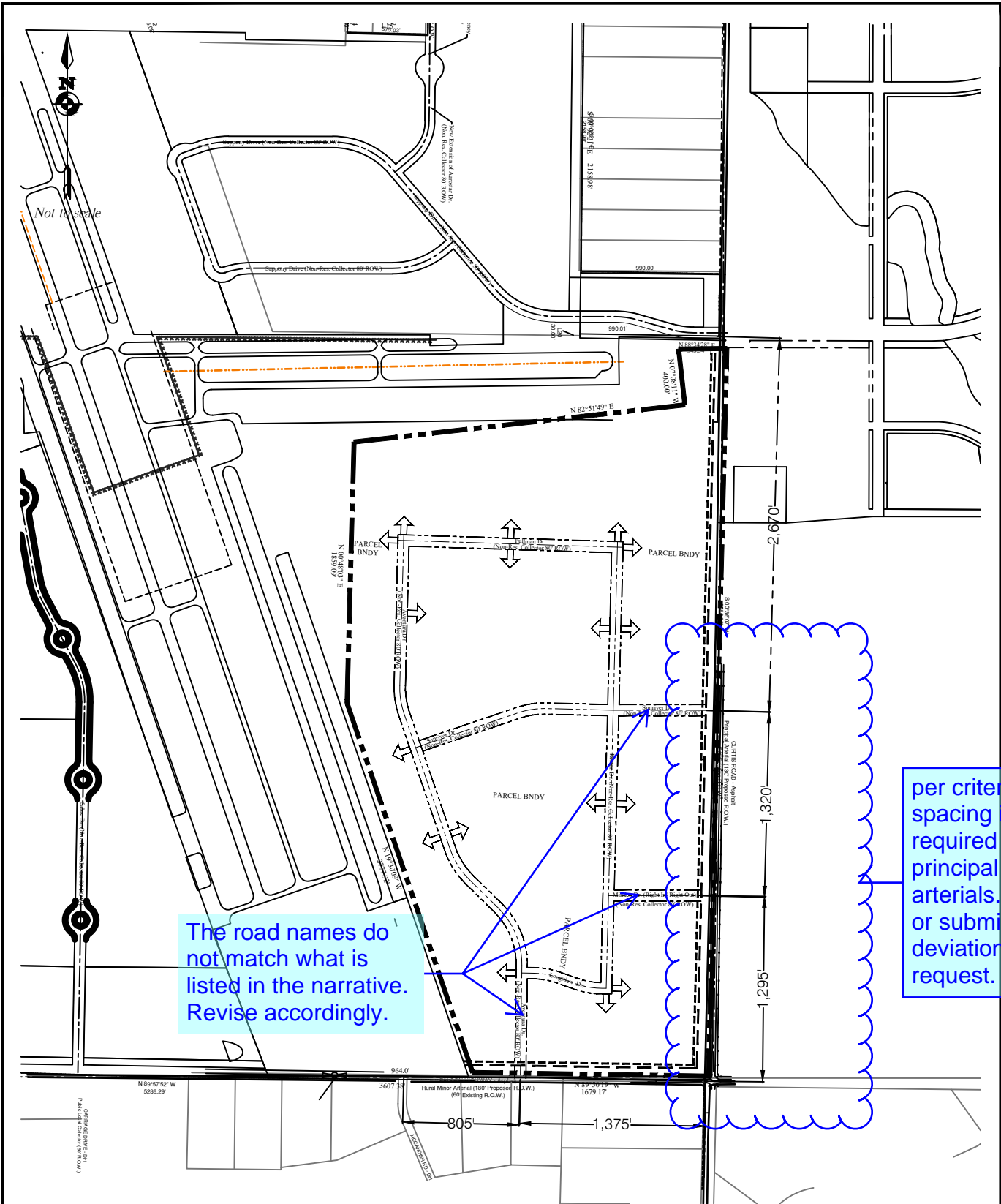
Source: LSC Transportation Consultants, Inc.



Approximate Scale
Scale: 1"= 3,000'

Figure 1
Vicinity
Map

Meadowlake Industrial Park (LSC #195140)



The road names do not match what is listed in the narrative. Revise accordingly.

per criteria, 1/2 spacing is required on principal arterials. Revise or submit a deviation request.

Figure 2
Site Plan



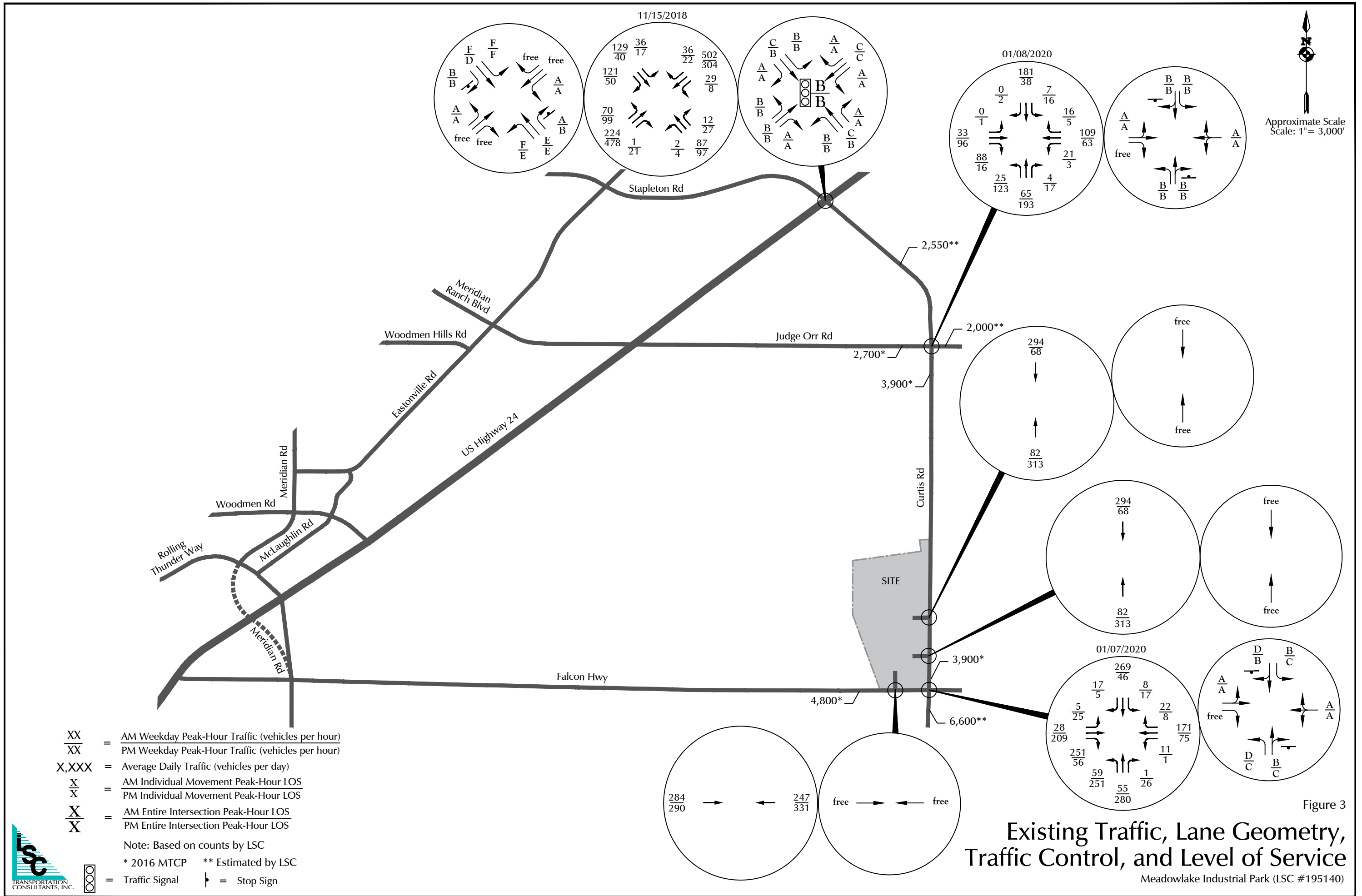
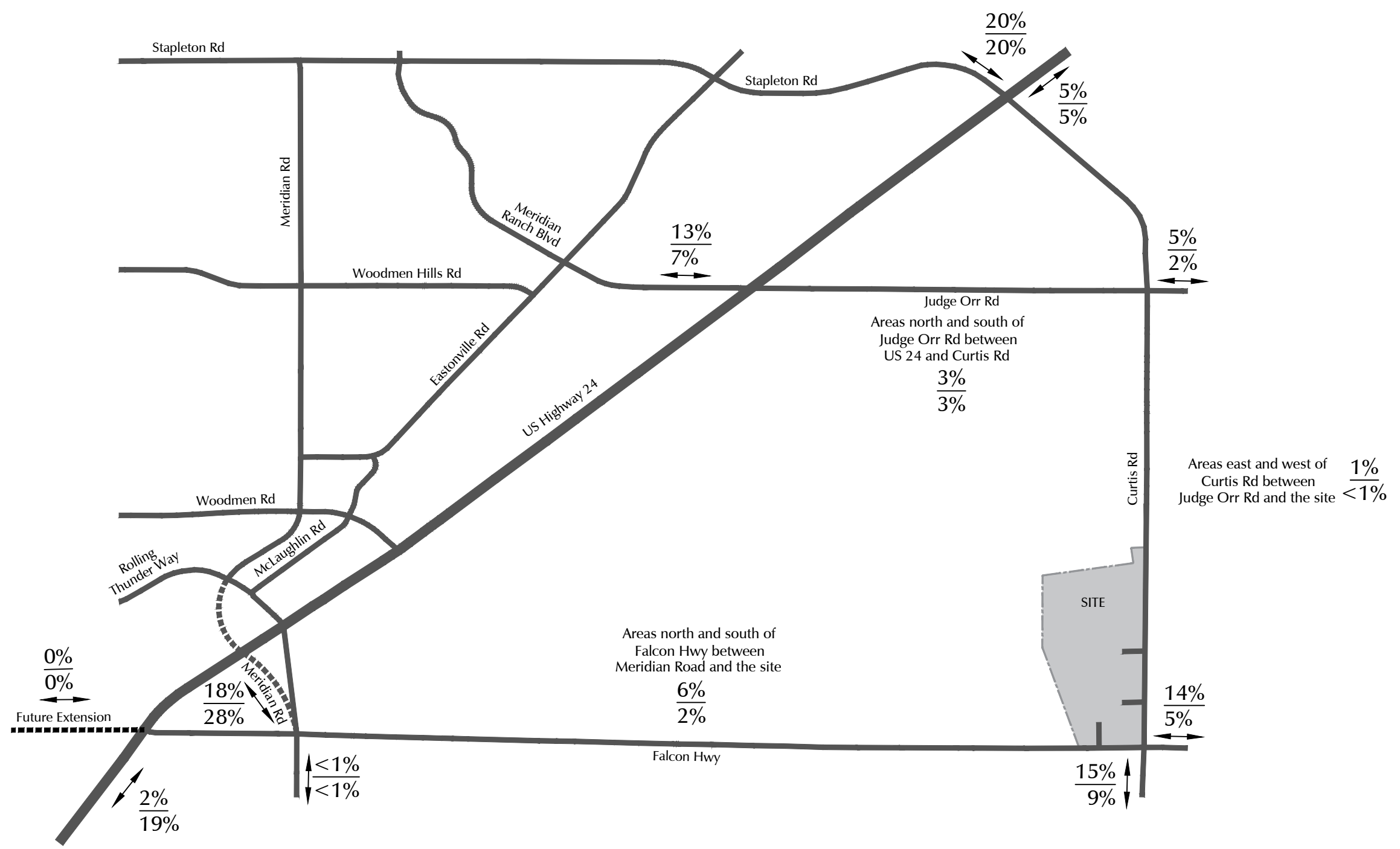
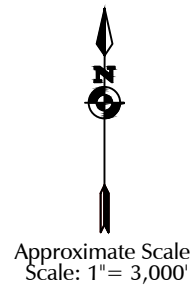


Figure 3

Existing Traffic, Lane Geometry, Traffic Control, and Level of Service
 Meadowlake Industrial Park (LSC #195140)





$\frac{XX\%}{XX\%} = \frac{\text{A.M. Peak-Hour Directional Distribution}}{\text{P.M. Peak-Hour Directional Distribution}}$

Figure 4a
Short-Term Directional Distribution
 Meadowlake Industrial Park (LSC #195140)

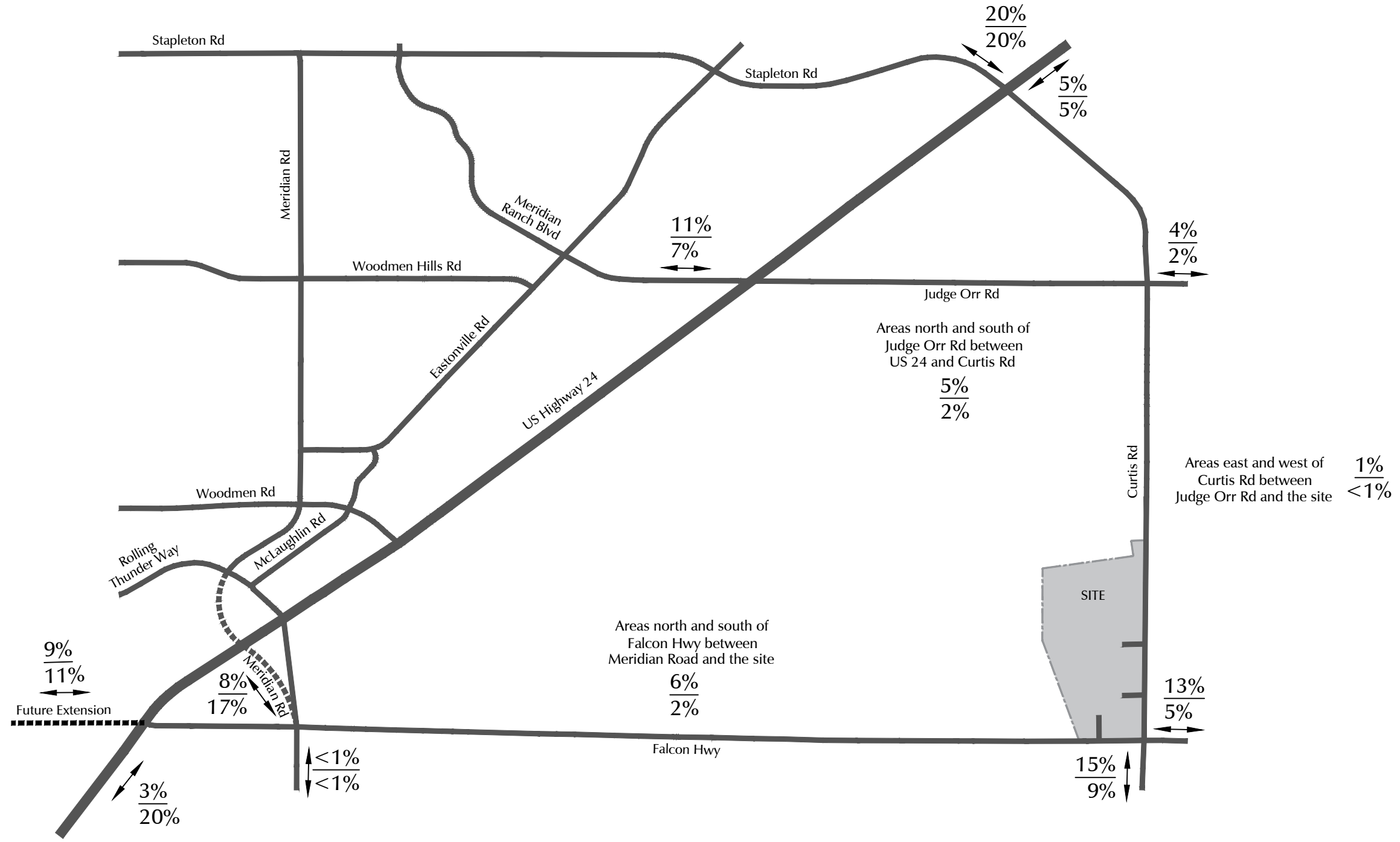
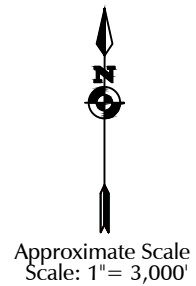


Figure 4b

Long-Term Directional Distribution

Meadowlake Industrial Park (LSC #195140)



$\frac{XX\%}{XX\%} = \frac{\text{A.M. Peak-Hour Directional Distribution}}{\text{P.M. Peak-Hour Directional Distribution}}$



Approximate Scale
Scale: 1" = 3,000'

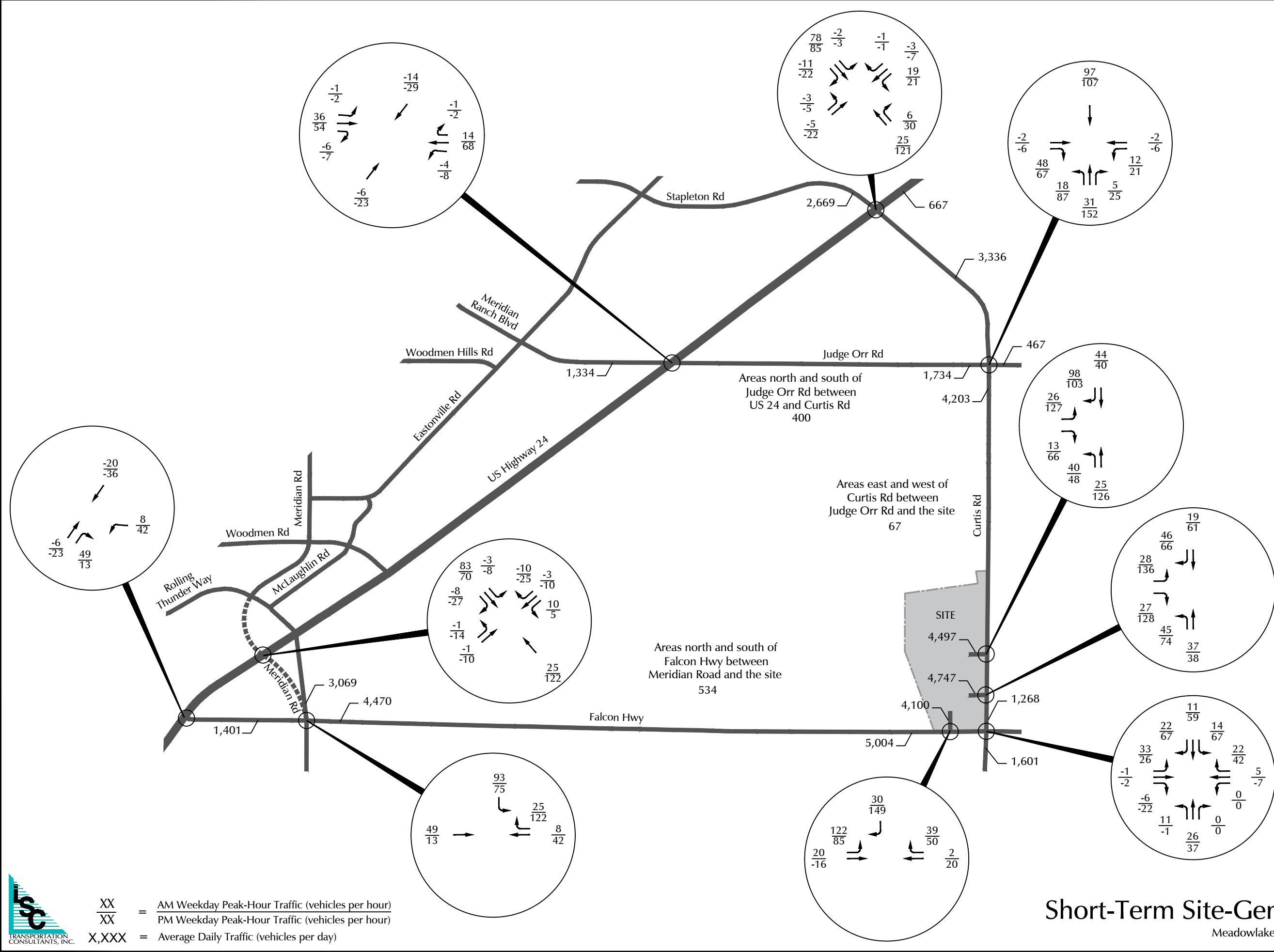


Figure 5a

Short-Term Site-Generated Traffic

Meadowlake Industrial Park (LSC #195140)





Approximate Scale
Scale: 1" = 3,000'

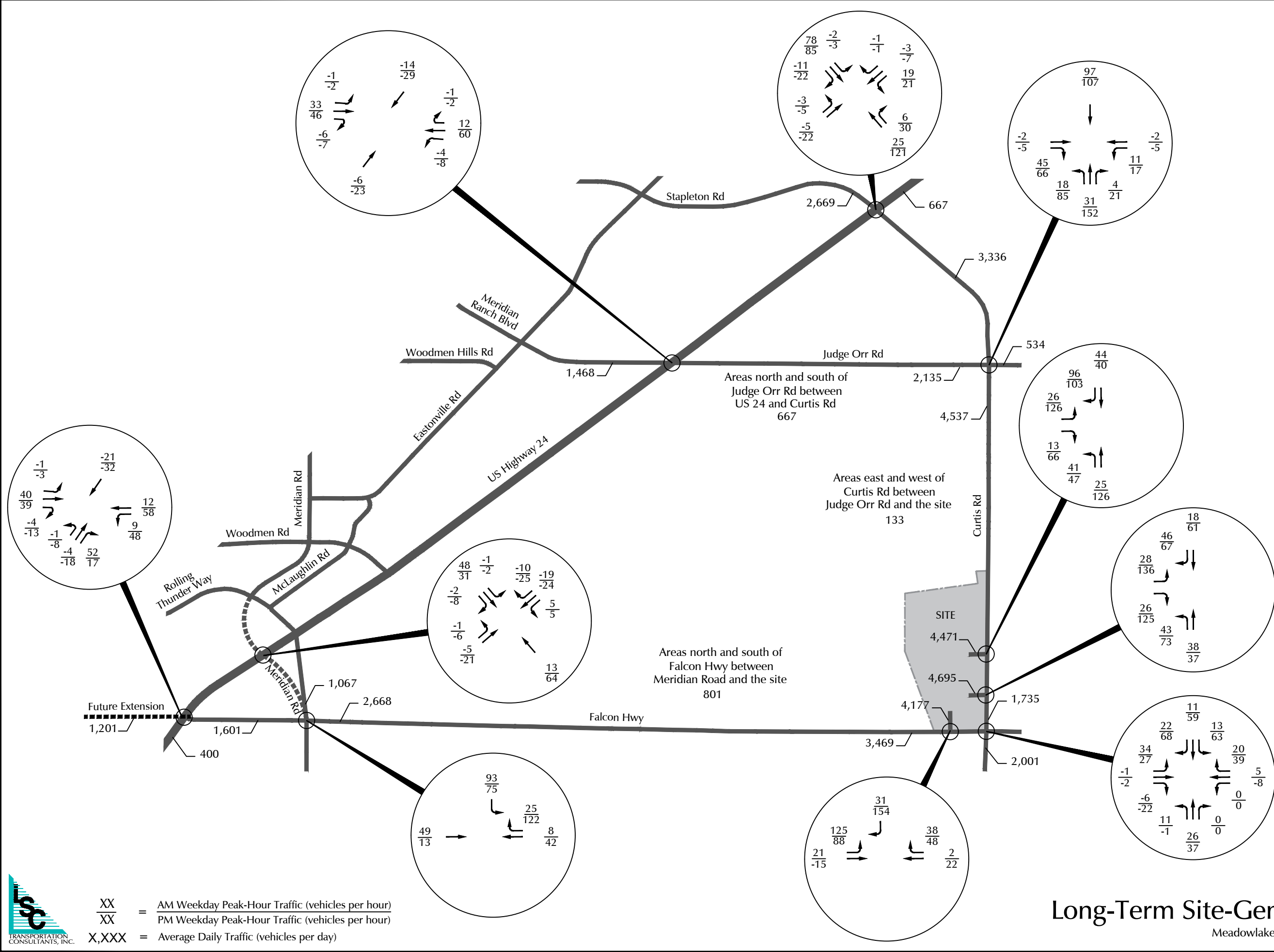


Figure 5b

Long-Term Site-Generated Traffic

Meadowlake Industrial Park (LSC #195140)



$\frac{XX}{XX}$ = AM Weekday Peak-Hour Traffic (vehicles per hour)
 $\frac{XX}{XX}$ = PM Weekday Peak-Hour Traffic (vehicles per hour)
 X,XXX = Average Daily Traffic (vehicles per day)

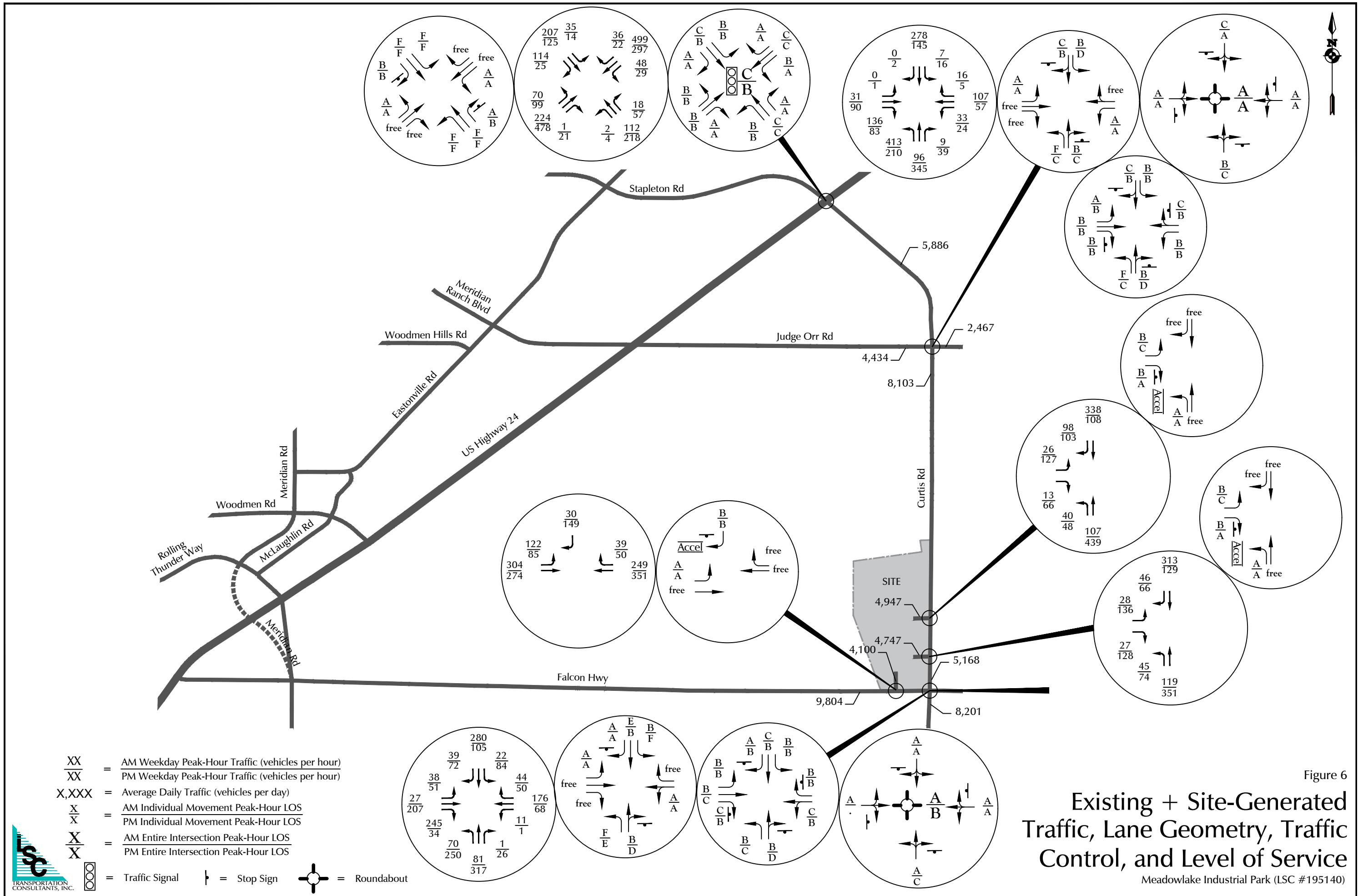
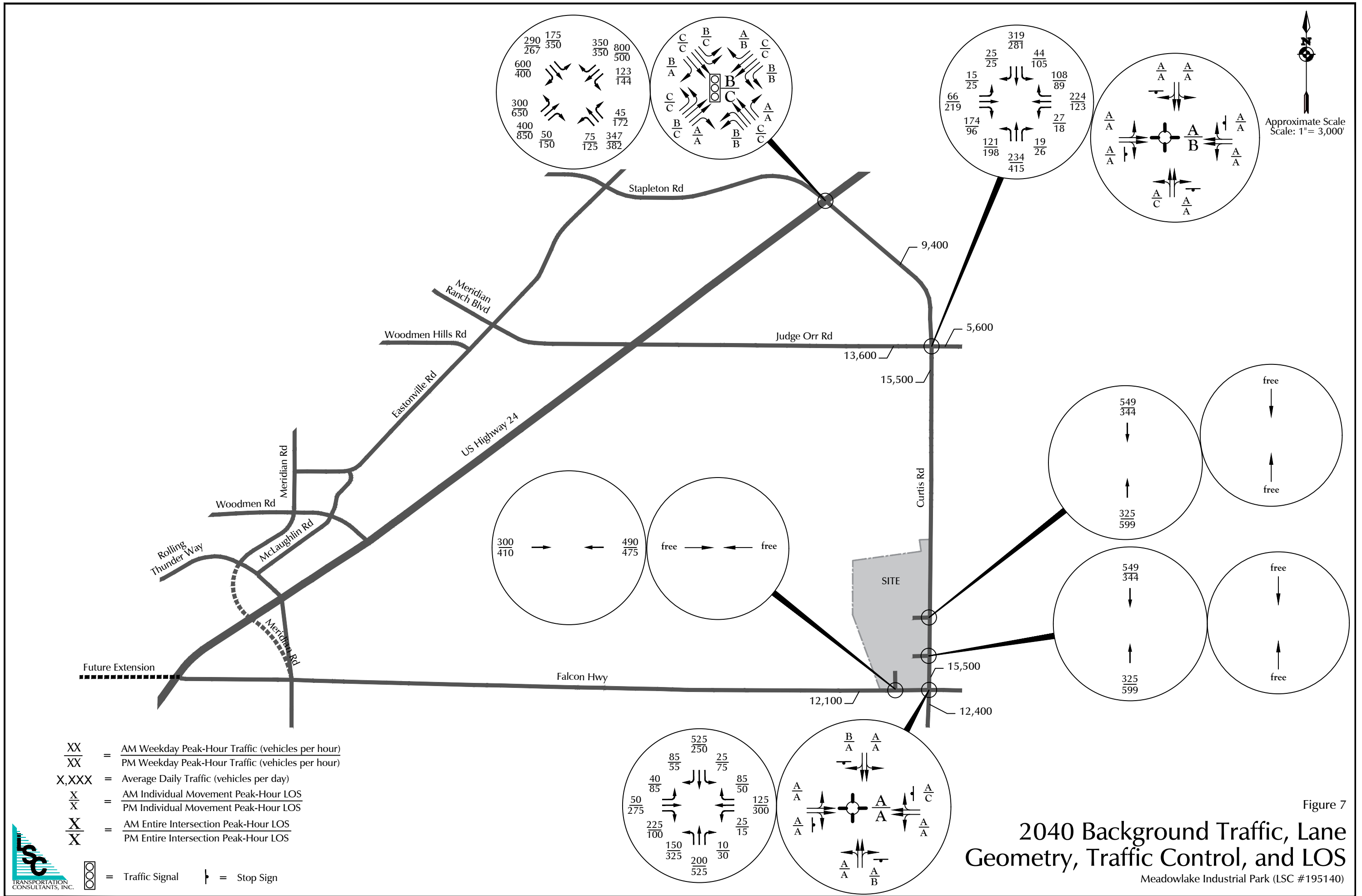


Figure 6
**Existing + Site-Generated
 Traffic, Lane Geometry, Traffic
 Control, and Level of Service**
 Meadowlake Industrial Park (LSC #195140)



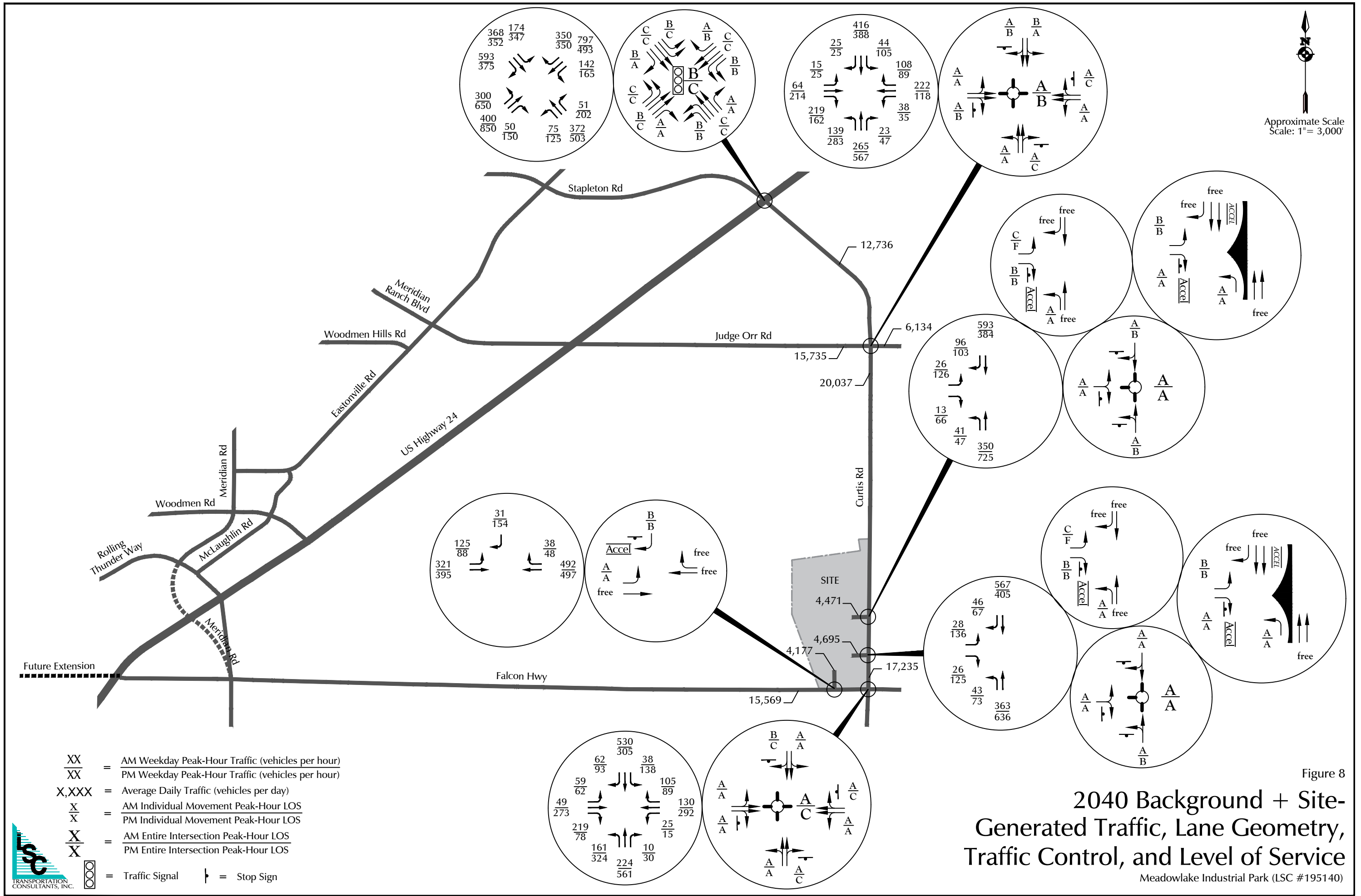


Figure 8

2040 Background + Site-Generated Traffic, Lane Geometry, Traffic Control, and Level of Service

Meadowlake Industrial Park (LSC #195140)



| Intersection | | | | | | | | | | | | |
|--------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Int Delay, s/veh | 12.4 | | | | | | | | | | | |
| Movement | SEL | SET | SER | NWL | NWT | NWR | NEL | NET | NER | SWL | SWT | SWR |
| Lane Configurations | ↘ | ↗ | ↗ | ↘ | ↗ | ↗ | ↘ | ↗ | ↗ | ↘ | ↗ | ↗ |
| Traffic Vol, veh/h | 36 | 129 | 121 | 2 | 87 | 12 | 70 | 224 | 1 | 29 | 502 | 36 |
| Future Vol, veh/h | 36 | 129 | 121 | 2 | 87 | 12 | 70 | 224 | 1 | 29 | 502 | 36 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Stop | Stop | Stop | Stop | Free | Free | Free | Free | Free | Free |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | 190 | - | 325 | 215 | - | 215 | 890 | - | 1000 | 790 | - | 790 |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 87 | 87 | 87 | 94 | 94 | 94 | 78 | 78 | 78 | 100 | 100 | 100 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 41 | 148 | 139 | 2 | 93 | 13 | 90 | 287 | 1 | 29 | 502 | 36 |

| Major/Minor | Minor2 | | Minor1 | | Major1 | | | Major2 | | | | |
|----------------------|--------|-------|--------|-------|--------|-------|-------|--------|---|-------|---|---|
| Conflicting Flow All | 1081 | 1028 | 502 | 1189 | 1063 | 287 | 538 | 0 | 0 | 288 | 0 | 0 |
| Stage 1 | 560 | 560 | - | 467 | 467 | - | - | - | - | - | - | - |
| Stage 2 | 521 | 468 | - | 722 | 596 | - | - | - | - | - | - | - |
| Critical Hdwy | 7.12 | 6.52 | 6.22 | 7.12 | 6.52 | 6.22 | 4.12 | - | - | 4.12 | - | - |
| Critical Hdwy Stg 1 | 6.12 | 5.52 | - | 6.12 | 5.52 | - | - | - | - | - | - | - |
| Critical Hdwy Stg 2 | 6.12 | 5.52 | - | 6.12 | 5.52 | - | - | - | - | - | - | - |
| Follow-up Hdwy | 3.518 | 4.018 | 3.318 | 3.518 | 4.018 | 3.318 | 2.218 | - | - | 2.218 | - | - |
| Pot Cap-1 Maneuver | 195 | 234 | 569 | 165 | 223 | 752 | 1030 | - | - | 1274 | - | - |
| Stage 1 | 513 | 511 | - | 576 | 562 | - | - | - | - | - | - | - |
| Stage 2 | 539 | 561 | - | 418 | 492 | - | - | - | - | - | - | - |
| Platoon blocked, % | - | - | - | - | - | - | - | - | - | - | - | - |
| Mov Cap-1 Maneuver | 113 | 209 | 569 | 49 | 199 | 752 | 1030 | - | - | 1274 | - | - |
| Mov Cap-2 Maneuver | 113 | 209 | - | 49 | 199 | - | - | - | - | - | - | - |
| Stage 1 | 468 | 499 | - | 526 | 513 | - | - | - | - | - | - | - |
| Stage 2 | 396 | 512 | - | 217 | 481 | - | - | - | - | - | - | - |

| Approach | SE | | NW | | NE | | SW | |
|----------------------|------|--|------|--|-----|--|-----|--|
| HCM Control Delay, s | 37.6 | | 35.4 | | 2.1 | | 0.4 | |
| HCM LOS | E | | E | | | | | |

| Minor Lane/Major Mvmt | NEL | NET | NERN | NWLn1 | NWLn2 | NWLn3 | SELn1 | SELn2 | SELn3 | SWL | SWT | SWR |
|-----------------------|-------|-----|------|-------|-------|-------|-------|-------|-------|-------|-----|-----|
| Capacity (veh/h) | 1030 | - | - | 49 | 199 | 752 | 113 | 209 | 569 | 1274 | - | - |
| HCM Lane V/C Ratio | 0.087 | - | - | 0.043 | 0.465 | 0.017 | 0.366 | 0.709 | 0.244 | 0.023 | - | - |
| HCM Control Delay (s) | 8.8 | - | - | 81.8 | 37.9 | 9.9 | 54.2 | 55.7 | 13.4 | 7.9 | - | - |
| HCM Lane LOS | A | - | - | F | E | A | F | F | B | A | - | - |
| HCM 95th %tile Q(veh) | 0.3 | - | - | 0.1 | 2.2 | 0.1 | 1.5 | 4.6 | 1 | 0.1 | - | - |

| Intersection | | | | | | | | | | | | |
|--------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Int Delay, s/veh | 6.7 | | | | | | | | | | | |
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | ↶ | ↷ | | ↶ | ↷ | | ↶ | ↷ | | ↶ | ↷ | |
| Traffic Vol, veh/h | 0 | 33 | 88 | 21 | 109 | 16 | 25 | 65 | 4 | 7 | 181 | 0 |
| Future Vol, veh/h | 0 | 33 | 88 | 21 | 109 | 16 | 25 | 65 | 4 | 7 | 181 | 0 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Free | Free | Stop | Stop | Stop | Stop | Stop | Stop |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | 250 | - | - | 240 | - | - | 250 | - | - | 260 | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 82 | 82 | 82 | 84 | 84 | 84 | 91 | 91 | 91 | 100 | 100 | 100 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 0 | 40 | 107 | 25 | 130 | 19 | 27 | 71 | 4 | 7 | 181 | 0 |

| Major/Minor | Major1 | | | Major2 | | | Minor1 | | | Minor2 | | |
|----------------------|--------|---|---|--------|---|---|--------|-------|-------|--------|-------|-------|
| Conflicting Flow All | 149 | 0 | 0 | 147 | 0 | 0 | 374 | 293 | 94 | 321 | 337 | 140 |
| Stage 1 | - | - | - | - | - | - | 94 | 94 | - | 190 | 190 | - |
| Stage 2 | - | - | - | - | - | - | 280 | 199 | - | 131 | 147 | - |
| Critical Hdwy | 4.12 | - | - | 4.12 | - | - | 7.12 | 6.52 | 6.22 | 7.12 | 6.52 | 6.22 |
| Critical Hdwy Stg 1 | - | - | - | - | - | - | 6.12 | 5.52 | - | 6.12 | 5.52 | - |
| Critical Hdwy Stg 2 | - | - | - | - | - | - | 6.12 | 5.52 | - | 6.12 | 5.52 | - |
| Follow-up Hdwy | 2.218 | - | - | 2.218 | - | - | 3.518 | 4.018 | 3.318 | 3.518 | 4.018 | 3.318 |
| Pot Cap-1 Maneuver | 1432 | - | - | 1435 | - | - | 583 | 618 | 963 | 632 | 584 | 908 |
| Stage 1 | - | - | - | - | - | - | 913 | 817 | - | 812 | 743 | - |
| Stage 2 | - | - | - | - | - | - | 727 | 736 | - | 873 | 775 | - |
| Platoon blocked, % | - | - | - | - | - | - | - | - | - | - | - | - |
| Mov Cap-1 Maneuver | 1432 | - | - | 1435 | - | - | 435 | 607 | 963 | 565 | 574 | 908 |
| Mov Cap-2 Maneuver | - | - | - | - | - | - | 435 | 607 | - | 565 | 574 | - |
| Stage 1 | - | - | - | - | - | - | 913 | 817 | - | 812 | 730 | - |
| Stage 2 | - | - | - | - | - | - | 537 | 723 | - | 793 | 775 | - |

| Approach | EB | | | WB | | | NB | | | SB | | |
|----------------------|----|--|--|-----|--|--|------|--|--|----|--|--|
| HCM Control Delay, s | 0 | | | 1.1 | | | 12.2 | | | 14 | | |
| HCM LOS | | | | | | | B | | | B | | |

| Minor Lane/Major Mvmt | NBLn1 | NBLn2 | EBL | EBT | EBR | WBL | WBT | WBR | SBLn1 | SBLn2 |
|-----------------------|-------|-------|------|-----|-----|-------|-----|-----|-------|-------|
| Capacity (veh/h) | 435 | 620 | 1432 | - | - | 1435 | - | - | 565 | 574 |
| HCM Lane V/C Ratio | 0.063 | 0.122 | - | - | - | 0.017 | - | - | 0.012 | 0.315 |
| HCM Control Delay (s) | 13.8 | 11.6 | 0 | - | - | 7.6 | - | - | 11.5 | 14.1 |
| HCM Lane LOS | B | B | A | - | - | A | - | - | B | B |
| HCM 95th %tile Q(veh) | 0.2 | 0.4 | 0 | - | - | 0.1 | - | - | 0 | 1.3 |

| Intersection | | | | | | | | | | | | |
|--------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Int Delay, s/veh | 12.2 | | | | | | | | | | | |
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | | ↔ | ↔ | | ↔ | | ↔ | ↔ | | ↔ | ↔ | |
| Traffic Vol, veh/h | 5 | 28 | 251 | 11 | 171 | 22 | 59 | 55 | 1 | 8 | 269 | 17 |
| Future Vol, veh/h | 5 | 28 | 251 | 11 | 171 | 22 | 59 | 55 | 1 | 8 | 269 | 17 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Free | Free | Stop | Stop | Stop | Stop | Stop | Stop |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | - | - | 295 | - | - | - | 340 | - | - | 290 | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 93 | 93 | 93 | 85 | 85 | 85 | 100 | 100 | 100 | 90 | 90 | 90 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 5 | 30 | 270 | 13 | 201 | 26 | 59 | 55 | 1 | 9 | 299 | 19 |



























| Major/Minor | Major1 | | | Major2 | | | Minor1 | | | Minor2 | | |
|----------------------|--------|---|---|--------|---|---|--------|-------|-------|--------|-------|-------|
| Conflicting Flow All | 227 | 0 | 0 | 300 | 0 | 0 | 439 | 293 | 30 | 443 | 550 | 214 |
| Stage 1 | - | - | - | - | - | - | 40 | 40 | - | 240 | 240 | - |
| Stage 2 | - | - | - | - | - | - | 399 | 253 | - | 203 | 310 | - |
| Critical Hdwy | 4.12 | - | - | 4.12 | - | - | 7.12 | 6.52 | 6.22 | 7.12 | 6.52 | 6.22 |
| Critical Hdwy Stg 1 | - | - | - | - | - | - | 6.12 | 5.52 | - | 6.12 | 5.52 | - |
| Critical Hdwy Stg 2 | - | - | - | - | - | - | 6.12 | 5.52 | - | 6.12 | 5.52 | - |
| Follow-up Hdwy | 2.218 | - | - | 2.218 | - | - | 3.518 | 4.018 | 3.318 | 3.518 | 4.018 | 3.318 |
| Pot Cap-1 Maneuver | 1341 | - | - | 1261 | - | - | 528 | 618 | 1044 | 525 | 443 | 826 |
| Stage 1 | - | - | - | - | - | - | 975 | 862 | - | 763 | 707 | - |
| Stage 2 | - | - | - | - | - | - | 627 | 698 | - | 799 | 659 | - |
| Platoon blocked, % | | - | - | | - | - | | | | | | |
| Mov Cap-1 Maneuver | 1341 | - | - | 1261 | - | - | 227 | 607 | 1044 | 482 | 435 | 826 |
| Mov Cap-2 Maneuver | - | - | - | - | - | - | 227 | 607 | - | 482 | 435 | - |
| Stage 1 | - | - | - | - | - | - | 970 | 858 | - | 759 | 699 | - |
| Stage 2 | - | - | - | - | - | - | 346 | 690 | - | 743 | 656 | - |

| Approach | EB | | | WB | | | NB | | | SB | | |
|----------------------|-----|--|--|-----|--|--|------|--|--|------|--|--|
| HCM Control Delay, s | 0.1 | | | 0.4 | | | 19.1 | | | 29.9 | | |
| HCM LOS | | | | | | | C | | | D | | |

| Minor Lane/Major Mvmt | NBLn1 | NBLn2 | EBL | EBT | EBR | WBL | WBT | WBR | SBLn1 | SBLn2 |
|-----------------------|-------|-------|-------|-----|-----|------|-----|-----|-------|-------|
| Capacity (veh/h) | 227 | 612 | 1341 | - | - | 1261 | - | - | 482 | 448 |
| HCM Lane V/C Ratio | 0.26 | 0.092 | 0.004 | - | - | 0.01 | - | - | 0.018 | 0.709 |
| HCM Control Delay (s) | 26.3 | 11.5 | 7.7 | 0 | - | 7.9 | 0 | - | 12.6 | 30.4 |
| HCM Lane LOS | D | B | A | A | - | A | A | - | B | D |
| HCM 95th %tile Q(veh) | 1 | 0.3 | 0 | - | - | 0 | - | - | 0.1 | 5.5 |

Lanes, Volumes, Timings
8: US 24 & Curtis/Stapleton

2020 Existing
AM

| |  |  |  |  |  |  |  |  |  |  |  |  |  |
|----------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Lane Group | SEL | SET | SER | NWL | NWT | NWR | NEL | NET | NER | SWL | SWT | SWR | |
| Lane Configurations |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Traffic Volume (vph) | 36 | 129 | 121 | 2 | 87 | 12 | 70 | 224 | 1 | 29 | 502 | 36 | |
| Future Volume (vph) | 36 | 129 | 121 | 2 | 87 | 12 | 70 | 224 | 1 | 29 | 502 | 36 | |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | |
| Storage Length (ft) | 190 | | 325 | 215 | | 215 | 890 | | 1000 | 790 | | 790 | |
| Storage Lanes | 1 | | 1 | 1 | | 1 | 1 | | 1 | 1 | | 1 | |
| Taper Length (ft) | 240 | | | 200 | | | 190 | | | 190 | | | |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | |
| Frt | | | 0.850 | | | 0.850 | | | 0.850 | | | 0.850 | |
| Flt Protected | 0.950 | | | 0.950 | | | 0.950 | | | 0.950 | | | |
| Satd. Flow (prot) | 1770 | 1863 | 1583 | 1770 | 1863 | 1583 | 1770 | 1863 | 1583 | 1770 | 1863 | 1583 | |
| Flt Permitted | 0.644 | | | 0.663 | | | 0.191 | | | 0.551 | | | |
| Satd. Flow (perm) | 1200 | 1863 | 1583 | 1235 | 1863 | 1583 | 356 | 1863 | 1583 | 1026 | 1863 | 1583 | |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes | |
| Satd. Flow (RTOR) | | | 143 | | | 143 | | | 143 | | | 143 | |
| Link Speed (mph) | | 45 | | | 45 | | | 55 | | | 55 | | |
| Link Distance (ft) | | 4560 | | | 5565 | | | 6479 | | | 6170 | | |
| Travel Time (s) | | 69.1 | | | 84.3 | | | 80.3 | | | 76.5 | | |
| Peak Hour Factor | 0.87 | 0.87 | 0.87 | 0.94 | 0.94 | 0.94 | 0.78 | 0.78 | 0.78 | 1.00 | 1.00 | 1.00 | |
| Adj. Flow (vph) | 41 | 148 | 139 | 2 | 93 | 13 | 90 | 287 | 1 | 29 | 502 | 36 | |
| Shared Lane Traffic (%) | | | | | | | | | | | | | |
| Lane Group Flow (vph) | 41 | 148 | 139 | 2 | 93 | 13 | 90 | 287 | 1 | 29 | 502 | 36 | |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No | No | |
| Lane Alignment | Left | Left | Right | Left | Left | Right | Left | Left | Right | Left | Left | Right | |
| Median Width(ft) | | 12 | | | 12 | | | 12 | | | 12 | | |
| Link Offset(ft) | | 0 | | | 0 | | | 0 | | | 0 | | |
| Crosswalk Width(ft) | | 16 | | | 16 | | | 16 | | | 16 | | |
| Two way Left Turn Lane | | | | | | | | | | | | | |
| Headway Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | |
| Turning Speed (mph) | 15 | | 9 | 15 | | 9 | 15 | | 9 | 15 | | 9 | |
| Number of Detectors | 1 | 2 | 1 | 1 | 2 | 1 | 1 | 2 | 1 | 1 | 2 | 1 | |
| Detector Template | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right | |
| Leading Detector (ft) | 20 | 100 | 20 | 20 | 100 | 20 | 20 | 100 | 20 | 20 | 100 | 20 | |
| Trailing Detector (ft) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Detector 1 Position(ft) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Detector 1 Size(ft) | 20 | 6 | 20 | 20 | 6 | 20 | 20 | 6 | 20 | 20 | 6 | 20 | |
| Detector 1 Type | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex | |
| Detector 1 Channel | | | | | | | | | | | | | |
| Detector 1 Extend (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | |
| Detector 1 Queue (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | |
| Detector 1 Delay (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | |
| Detector 2 Position(ft) | | 94 | | | 94 | | | 94 | | | 94 | | |
| Detector 2 Size(ft) | | 6 | | | 6 | | | 6 | | | 6 | | |
| Detector 2 Type | | Cl+Ex | | | Cl+Ex | | | Cl+Ex | | | Cl+Ex | | |
| Detector 2 Channel | | | | | | | | | | | | | |
| Detector 2 Extend (s) | | 0.0 | | | 0.0 | | | 0.0 | | | 0.0 | | |
| Turn Type | pm+pt | NA | Perm | pm+pt | NA | Perm | pm+pt | NA | Perm | pm+pt | NA | Perm | |
| Protected Phases | 1 | 6 | | 5 | 2 | | 7 | 4 | | 3 | 8 | | |
| Permitted Phases | 6 | | 6 | 2 | | 2 | 4 | | 4 | 8 | | 8 | |

Lanes, Volumes, Timings
8: US 24 & Curtis/Stapleton

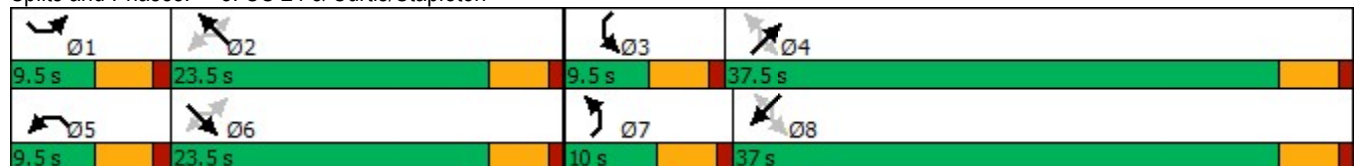
2020 Existing
AM

| Lane Group | SEL | SET | SER | NWL | NWT | NWR | NEL | NET | NER | SWL | SWT | SWR |
|-------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Detector Phase | 1 | 6 | 6 | 5 | 2 | 2 | 7 | 4 | 4 | 3 | 8 | 8 |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 |
| Minimum Split (s) | 9.5 | 22.5 | 22.5 | 9.5 | 22.5 | 22.5 | 9.5 | 22.5 | 22.5 | 9.5 | 22.5 | 22.5 |
| Total Split (s) | 9.5 | 23.5 | 23.5 | 9.5 | 23.5 | 23.5 | 10.0 | 37.5 | 37.5 | 9.5 | 37.0 | 37.0 |
| Total Split (%) | 11.9% | 29.4% | 29.4% | 11.9% | 29.4% | 29.4% | 12.5% | 46.9% | 46.9% | 11.9% | 46.3% | 46.3% |
| Maximum Green (s) | 5.0 | 19.0 | 19.0 | 5.0 | 19.0 | 19.0 | 5.5 | 33.0 | 33.0 | 5.0 | 32.5 | 32.5 |
| Yellow Time (s) | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 |
| All-Red Time (s) | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 |
| Lead/Lag | Lead | Lag | Lag | Lead | Lag | Lag | Lead | Lag | Lag | Lead | Lag | Lag |
| Lead-Lag Optimize? | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Vehicle Extension (s) | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 |
| Recall Mode | None | Max | Max | None | Max | Max | None | None | None | None | None | None |
| Walk Time (s) | | 7.0 | 7.0 | | 7.0 | 7.0 | | 7.0 | 7.0 | | 7.0 | 7.0 |
| Flash Dont Walk (s) | | 11.0 | 11.0 | | 11.0 | 11.0 | | 11.0 | 11.0 | | 11.0 | 11.0 |
| Pedestrian Calls (#/hr) | | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 |
| Act Effct Green (s) | 24.5 | 23.7 | 23.7 | 22.9 | 20.4 | 20.4 | 28.4 | 26.6 | 26.6 | 26.0 | 22.3 | 22.3 |
| Actuated g/C Ratio | 0.38 | 0.37 | 0.37 | 0.35 | 0.32 | 0.32 | 0.44 | 0.41 | 0.41 | 0.40 | 0.35 | 0.35 |
| v/c Ratio | 0.08 | 0.22 | 0.21 | 0.00 | 0.16 | 0.02 | 0.32 | 0.37 | 0.00 | 0.06 | 0.78 | 0.06 |
| Control Delay | 16.2 | 20.0 | 5.3 | 16.0 | 22.9 | 0.1 | 12.6 | 15.9 | 0.0 | 9.7 | 29.2 | 0.2 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 16.2 | 20.0 | 5.3 | 16.0 | 22.9 | 0.1 | 12.6 | 15.9 | 0.0 | 9.7 | 29.2 | 0.2 |
| LOS | B | C | A | B | C | A | B | B | A | A | C | A |
| Approach Delay | | 13.3 | | | 20.0 | | | 15.1 | | | 26.4 | |
| Approach LOS | | B | | | B | | | B | | | C | |

Intersection Summary

| | |
|------------------------------------|------------------------|
| Area Type: | Other |
| Cycle Length: | 80 |
| Actuated Cycle Length: | 64.6 |
| Natural Cycle: | 65 |
| Control Type: | Actuated-Uncoordinated |
| Maximum v/c Ratio: | 0.78 |
| Intersection Signal Delay: | 19.7 |
| Intersection LOS: | B |
| Intersection Capacity Utilization: | 50.5% |
| ICU Level of Service: | A |
| Analysis Period (min): | 15 |

Splits and Phases: 8: US 24 & Curtis/Stapleton



| Intersection | | | | | | | | | | | | |
|--------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Int Delay, s/veh | 6.6 | | | | | | | | | | | |
| Movement | SEL | SET | SER | NWL | NWT | NWR | NEL | NET | NER | SWL | SWT | SWR |
| Lane Configurations | ↖ | ↗ | ↖ | ↖ | ↗ | ↖ | ↖ | ↗ | ↖ | ↖ | ↗ | ↖ |
| Traffic Vol, veh/h | 17 | 40 | 50 | 4 | 97 | 27 | 99 | 478 | 21 | 8 | 304 | 22 |
| Future Vol, veh/h | 17 | 40 | 50 | 4 | 97 | 27 | 99 | 478 | 21 | 8 | 304 | 22 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Stop | Stop | Stop | Stop | Free | Free | Free | Free | Free | Free |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | 190 | - | 325 | 215 | - | 215 | 890 | - | 1000 | 790 | - | 790 |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 100 | 100 | 100 | 100 | 100 | 100 | 93 | 93 | 93 | 85 | 85 | 85 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 17 | 40 | 50 | 4 | 97 | 27 | 106 | 514 | 23 | 9 | 358 | 26 |

| Major/Minor | Minor2 | | Minor1 | | Major1 | | Major2 | | | | | |
|----------------------|--------|-------|--------|-------|--------|-------|--------|---|---|-------|---|---|
| Conflicting Flow All | 1176 | 1125 | 358 | 1160 | 1128 | 514 | 384 | 0 | 0 | 537 | 0 | 0 |
| Stage 1 | 376 | 376 | - | 726 | 726 | - | - | - | - | - | - | - |
| Stage 2 | 800 | 749 | - | 434 | 402 | - | - | - | - | - | - | - |
| Critical Hdwy | 7.12 | 6.52 | 6.22 | 7.12 | 6.52 | 6.22 | 4.12 | - | - | 4.12 | - | - |
| Critical Hdwy Stg 1 | 6.12 | 5.52 | - | 6.12 | 5.52 | - | - | - | - | - | - | - |
| Critical Hdwy Stg 2 | 6.12 | 5.52 | - | 6.12 | 5.52 | - | - | - | - | - | - | - |
| Follow-up Hdwy | 3.518 | 4.018 | 3.318 | 3.518 | 4.018 | 3.318 | 2.218 | - | - | 2.218 | - | - |
| Pot Cap-1 Maneuver | 168 | 205 | 686 | 172 | 204 | 560 | 1174 | - | - | 1031 | - | - |
| Stage 1 | 645 | 616 | - | 416 | 430 | - | - | - | - | - | - | - |
| Stage 2 | 379 | 419 | - | 600 | 600 | - | - | - | - | - | - | - |
| Platoon blocked, % | - | - | - | - | - | - | - | - | - | - | - | - |
| Mov Cap-1 Maneuver | 87 | 185 | 686 | 123 | 184 | 560 | 1174 | - | - | 1031 | - | - |
| Mov Cap-2 Maneuver | 87 | 185 | - | 123 | 184 | - | - | - | - | - | - | - |
| Stage 1 | 587 | 610 | - | 379 | 391 | - | - | - | - | - | - | - |
| Stage 2 | 247 | 381 | - | 515 | 595 | - | - | - | - | - | - | - |

| Approach | SE | NW | NE | SW |
|----------------------|----|------|-----|-----|
| HCM Control Delay, s | 25 | 37.3 | 1.4 | 0.2 |
| HCM LOS | D | E | | |

| Minor Lane/Major Mvmt | NEL | NET | NERN | NWLn1 | NWLn2 | NWLn3 | SELn1 | SELn2 | SELn3 | SWL | SWT | SWR |
|-----------------------|-------|-----|------|-------|-------|-------|-------|-------|-------|-------|-----|-----|
| Capacity (veh/h) | 1174 | - | - | 123 | 184 | 560 | 87 | 185 | 686 | 1031 | - | - |
| HCM Lane V/C Ratio | 0.091 | - | - | 0.033 | 0.527 | 0.048 | 0.195 | 0.216 | 0.073 | 0.009 | - | - |
| HCM Control Delay (s) | 8.4 | - | - | 35.3 | 44.5 | 11.8 | 56.2 | 29.7 | 10.7 | 8.5 | - | - |
| HCM Lane LOS | A | - | - | E | E | B | F | D | B | A | - | - |
| HCM 95th %tile Q(veh) | 0.3 | - | - | 0.1 | 2.7 | 0.2 | 0.7 | 0.8 | 0.2 | 0 | - | - |

| Intersection | | | | | | | | | | | | |
|--------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Int Delay, s/veh | 8.7 | | | | | | | | | | | |
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | ↶ | ↷ | | ↶ | ↷ | | ↶ | ↷ | | ↶ | ↷ | |
| Traffic Vol, veh/h | 1 | 96 | 16 | 3 | 63 | 5 | 123 | 193 | 17 | 16 | 38 | 2 |
| Future Vol, veh/h | 1 | 96 | 16 | 3 | 63 | 5 | 123 | 193 | 17 | 16 | 38 | 2 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Free | Free | Stop | Stop | Stop | Stop | Stop | Stop |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | 250 | - | - | 240 | - | - | 250 | - | - | 260 | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 88 | 88 | 88 | 81 | 81 | 81 | 79 | 79 | 79 | 100 | 100 | 100 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 1 | 109 | 18 | 4 | 78 | 6 | 156 | 244 | 22 | 16 | 38 | 2 |

| Major/Minor | Major1 | | | Major2 | | | Minor1 | | | Minor2 | | |
|----------------------|--------|---|---|--------|---|---|--------|-------|-------|--------|-------|-------|
| Conflicting Flow All | 84 | 0 | 0 | 127 | 0 | 0 | 229 | 212 | 118 | 342 | 218 | 81 |
| Stage 1 | - | - | - | - | - | - | 120 | 120 | - | 89 | 89 | - |
| Stage 2 | - | - | - | - | - | - | 109 | 92 | - | 253 | 129 | - |
| Critical Hdwy | 4.12 | - | - | 4.12 | - | - | 7.12 | 6.52 | 6.22 | 7.12 | 6.52 | 6.22 |
| Critical Hdwy Stg 1 | - | - | - | - | - | - | 6.12 | 5.52 | - | 6.12 | 5.52 | - |
| Critical Hdwy Stg 2 | - | - | - | - | - | - | 6.12 | 5.52 | - | 6.12 | 5.52 | - |
| Follow-up Hdwy | 2.218 | - | - | 2.218 | - | - | 3.518 | 4.018 | 3.318 | 3.518 | 4.018 | 3.318 |
| Pot Cap-1 Maneuver | 1513 | - | - | 1459 | - | - | 726 | 685 | 934 | 612 | 680 | 979 |
| Stage 1 | - | - | - | - | - | - | 884 | 796 | - | 918 | 821 | - |
| Stage 2 | - | - | - | - | - | - | 896 | 819 | - | 751 | 789 | - |
| Platoon blocked, % | - | - | - | - | - | - | - | - | - | - | - | - |
| Mov Cap-1 Maneuver | 1513 | - | - | 1459 | - | - | 692 | 682 | 934 | 430 | 677 | 979 |
| Mov Cap-2 Maneuver | - | - | - | - | - | - | 692 | 682 | - | 430 | 677 | - |
| Stage 1 | - | - | - | - | - | - | 883 | 795 | - | 917 | 819 | - |
| Stage 2 | - | - | - | - | - | - | 850 | 817 | - | 508 | 788 | - |

| Approach | EB | | | WB | | | NB | | | SB | | |
|----------------------|-----|--|--|-----|--|--|------|--|--|------|--|--|
| HCM Control Delay, s | 0.1 | | | 0.3 | | | 12.7 | | | 11.5 | | |
| HCM LOS | | | | | | | B | | | B | | |

| Minor Lane/Major Mvmt | NBLn1 | NBLn2 | EBL | EBT | EBR | WBL | WBT | WBR | SBLn1 | SBLn2 |
|-----------------------|-------|-------|-------|-----|-----|-------|-----|-----|-------|-------|
| Capacity (veh/h) | 692 | 697 | 1513 | - | - | 1459 | - | - | 430 | 688 |
| HCM Lane V/C Ratio | 0.225 | 0.381 | 0.001 | - | - | 0.003 | - | - | 0.037 | 0.058 |
| HCM Control Delay (s) | 11.7 | 13.3 | 7.4 | - | - | 7.5 | - | - | 13.7 | 10.6 |
| HCM Lane LOS | B | B | A | - | - | A | - | - | B | B |
| HCM 95th %tile Q(veh) | 0.9 | 1.8 | 0 | - | - | 0 | - | - | 0.1 | 0.2 |

| Intersection | | | | | | | | | | | | |
|--------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Int Delay, s/veh | 12.2 | | | | | | | | | | | |
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | | ↔ | ↔ | | ↔ | | ↔ | ↔ | | ↔ | ↔ | |
| Traffic Vol, veh/h | 25 | 209 | 56 | 1 | 75 | 8 | 251 | 280 | 26 | 17 | 46 | 5 |
| Future Vol, veh/h | 25 | 209 | 56 | 1 | 75 | 8 | 251 | 280 | 26 | 17 | 46 | 5 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Free | Free | Stop | Stop | Stop | Stop | Stop | Stop |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | - | - | 295 | - | - | - | 340 | - | - | 290 | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 100 | 100 | 100 | 100 | 100 | 100 | 92 | 92 | 92 | 81 | 81 | 81 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 25 | 209 | 56 | 1 | 75 | 8 | 273 | 304 | 28 | 21 | 57 | 6 |

























| Major/Minor | Major1 | | | Major2 | | | Minor1 | | | Minor2 | | |
|----------------------|--------|---|---|--------|---|---|--------|-------|-------|--------|-------|-------|
| Conflicting Flow All | 83 | 0 | 0 | 265 | 0 | 0 | 372 | 344 | 209 | 534 | 396 | 79 |
| Stage 1 | - | - | - | - | - | - | 259 | 259 | - | 81 | 81 | - |
| Stage 2 | - | - | - | - | - | - | 113 | 85 | - | 453 | 315 | - |
| Critical Hdwy | 4.12 | - | - | 4.12 | - | - | 7.12 | 6.52 | 6.22 | 7.12 | 6.52 | 6.22 |
| Critical Hdwy Stg 1 | - | - | - | - | - | - | 6.12 | 5.52 | - | 6.12 | 5.52 | - |
| Critical Hdwy Stg 2 | - | - | - | - | - | - | 6.12 | 5.52 | - | 6.12 | 5.52 | - |
| Follow-up Hdwy | 2.218 | - | - | 2.218 | - | - | 3.518 | 4.018 | 3.318 | 3.518 | 4.018 | 3.318 |
| Pot Cap-1 Maneuver | 1514 | - | - | 1299 | - | - | 585 | 579 | 831 | 457 | 541 | 981 |
| Stage 1 | - | - | - | - | - | - | 746 | 694 | - | 927 | 828 | - |
| Stage 2 | - | - | - | - | - | - | 892 | 824 | - | 586 | 656 | - |
| Platoon blocked, % | - | - | - | - | - | - | - | - | - | - | - | - |
| Mov Cap-1 Maneuver | 1514 | - | - | 1299 | - | - | 525 | 567 | 831 | 250 | 530 | 981 |
| Mov Cap-2 Maneuver | - | - | - | - | - | - | 525 | 567 | - | 250 | 530 | - |
| Stage 1 | - | - | - | - | - | - | 731 | 680 | - | 908 | 827 | - |
| Stage 2 | - | - | - | - | - | - | 825 | 823 | - | 306 | 643 | - |

| Approach | EB | | | WB | | | NB | | | SB | | |
|----------------------|-----|--|--|-----|--|--|------|--|--|------|--|--|
| HCM Control Delay, s | 0.6 | | | 0.1 | | | 19.1 | | | 14.4 | | |
| HCM LOS | | | | | | | C | | | B | | |

| Minor Lane/Major Mvmt | NBLn1 | NBLn2 | EBL | EBT | EBR | WBL | WBT | WBR | SBLn1 | SBLn2 |
|-----------------------|-------|-------|-------|-----|-----|-------|-----|-----|-------|-------|
| Capacity (veh/h) | 525 | 583 | 1514 | - | - | 1299 | - | - | 250 | 555 |
| HCM Lane V/C Ratio | 0.52 | 0.571 | 0.017 | - | - | 0.001 | - | - | 0.084 | 0.113 |
| HCM Control Delay (s) | 19 | 19.1 | 7.4 | 0 | - | 7.8 | 0 | - | 20.7 | 12.3 |
| HCM Lane LOS | C | C | A | A | - | A | A | - | C | B |
| HCM 95th %tile Q(veh) | 3 | 3.6 | 0.1 | - | - | 0 | - | - | 0.3 | 0.4 |

Lanes, Volumes, Timings
8: US 24 & Curtis/Stapleton

2020 Existing
PM

| |  |  |  |  |  |  |  |  |  |  |  |  |
|----------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Lane Group | SEL | SET | SER | NWL | NWT | NWR | NEL | NET | NER | SWL | SWT | SWR |
| Lane Configurations |  |  |  |  |  |  |  |  |  |  |  |  |
| Traffic Volume (vph) | 17 | 40 | 50 | 4 | 97 | 27 | 99 | 478 | 21 | 8 | 304 | 22 |
| Future Volume (vph) | 17 | 40 | 50 | 4 | 97 | 27 | 99 | 478 | 21 | 8 | 304 | 22 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | 190 | | 325 | 215 | | 215 | 890 | | 1000 | 790 | | 790 |
| Storage Lanes | 1 | | 1 | 1 | | 1 | 1 | | 1 | 1 | | 1 |
| Taper Length (ft) | 240 | | | 200 | | | 190 | | | 190 | | |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Frt | | | 0.850 | | | 0.850 | | | 0.850 | | | 0.850 |
| Flt Protected | 0.950 | | | 0.950 | | | 0.950 | | | 0.950 | | |
| Satd. Flow (prot) | 1770 | 1863 | 1583 | 1770 | 1863 | 1583 | 1770 | 1863 | 1583 | 1770 | 1863 | 1583 |
| Flt Permitted | 0.694 | | | 0.731 | | | 0.324 | | | 0.292 | | |
| Satd. Flow (perm) | 1293 | 1863 | 1583 | 1362 | 1863 | 1583 | 604 | 1863 | 1583 | 544 | 1863 | 1583 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | | 143 | | | 143 | | | 143 | | | 143 |
| Link Speed (mph) | | 45 | | | 45 | | | 55 | | | 55 | |
| Link Distance (ft) | | 4560 | | | 5565 | | | 6479 | | | 6170 | |
| Travel Time (s) | | 69.1 | | | 84.3 | | | 80.3 | | | 76.5 | |
| Peak Hour Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.93 | 0.93 | 0.93 | 0.85 | 0.85 | 0.85 |
| Adj. Flow (vph) | 17 | 40 | 50 | 4 | 97 | 27 | 106 | 514 | 23 | 9 | 358 | 26 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 17 | 40 | 50 | 4 | 97 | 27 | 106 | 514 | 23 | 9 | 358 | 26 |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Right | Left | Left | Right | Left | Left | Right | Left | Left | Right |
| Median Width(ft) | | 12 | | | 12 | | | 12 | | | 12 | |
| Link Offset(ft) | | 0 | | | 0 | | | 0 | | | 0 | |
| Crosswalk Width(ft) | | 16 | | | 16 | | | 16 | | | 16 | |
| Two way Left Turn Lane | | | | | | | | | | | | |
| Headway Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Turning Speed (mph) | 15 | | 9 | 15 | | 9 | 15 | | 9 | 15 | | 9 |
| Number of Detectors | 1 | 2 | 1 | 1 | 2 | 1 | 1 | 2 | 1 | 1 | 2 | 1 |
| Detector Template | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right |
| Leading Detector (ft) | 20 | 100 | 20 | 20 | 100 | 20 | 20 | 100 | 20 | 20 | 100 | 20 |
| Trailing Detector (ft) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Detector 1 Position(ft) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Detector 1 Size(ft) | 20 | 6 | 20 | 20 | 6 | 20 | 20 | 6 | 20 | 20 | 6 | 20 |
| Detector 1 Type | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex |
| Detector 1 Channel | | | | | | | | | | | | |
| Detector 1 Extend (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Detector 1 Queue (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Detector 1 Delay (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Detector 2 Position(ft) | | 94 | | | 94 | | | 94 | | | 94 | |
| Detector 2 Size(ft) | | 6 | | | 6 | | | 6 | | | 6 | |
| Detector 2 Type | | Cl+Ex | | | Cl+Ex | | | Cl+Ex | | | Cl+Ex | |
| Detector 2 Channel | | | | | | | | | | | | |
| Detector 2 Extend (s) | | 0.0 | | | 0.0 | | | 0.0 | | | 0.0 | |
| Turn Type | pm+pt | NA | Perm | pm+pt | NA | Perm | pm+pt | NA | Perm | pm+pt | NA | Perm |
| Protected Phases | 1 | 6 | | 5 | 2 | | 7 | 4 | | 3 | 8 | |
| Permitted Phases | 6 | | 6 | 2 | | 2 | 4 | | 4 | 8 | | 8 |

Lanes, Volumes, Timings
8: US 24 & Curtis/Stapleton

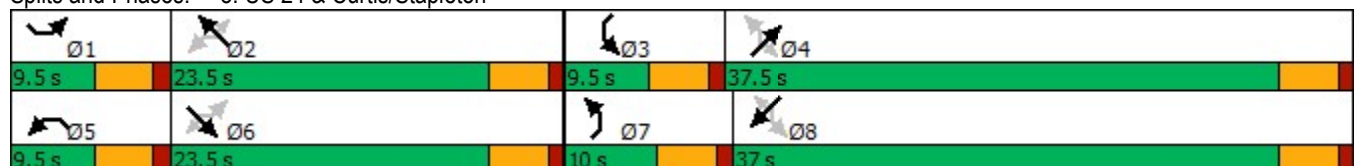
2020 Existing
PM

| Lane Group | SEL | SET | SER | NWL | NWT | NWR | NEL | NET | NER | SWL | SWT | SWR |
|-------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Detector Phase | 1 | 6 | 6 | 5 | 2 | 2 | 7 | 4 | 4 | 3 | 8 | 8 |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 |
| Minimum Split (s) | 9.5 | 22.5 | 22.5 | 9.5 | 22.5 | 22.5 | 9.5 | 22.5 | 22.5 | 9.5 | 22.5 | 22.5 |
| Total Split (s) | 9.5 | 23.5 | 23.5 | 9.5 | 23.5 | 23.5 | 10.0 | 37.5 | 37.5 | 9.5 | 37.0 | 37.0 |
| Total Split (%) | 11.9% | 29.4% | 29.4% | 11.9% | 29.4% | 29.4% | 12.5% | 46.9% | 46.9% | 11.9% | 46.3% | 46.3% |
| Maximum Green (s) | 5.0 | 19.0 | 19.0 | 5.0 | 19.0 | 19.0 | 5.5 | 33.0 | 33.0 | 5.0 | 32.5 | 32.5 |
| Yellow Time (s) | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 |
| All-Red Time (s) | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 |
| Lead/Lag | Lead | Lag | Lag | Lead | Lag | Lag | Lead | Lag | Lag | Lead | Lag | Lag |
| Lead-Lag Optimize? | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Vehicle Extension (s) | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 |
| Recall Mode | None | Max | Max | None | Max | Max | None | None | None | None | None | None |
| Walk Time (s) | | 7.0 | 7.0 | | 7.0 | 7.0 | | 7.0 | 7.0 | | 7.0 | 7.0 |
| Flash Dont Walk (s) | | 11.0 | 11.0 | | 11.0 | 11.0 | | 11.0 | 11.0 | | 11.0 | 11.0 |
| Pedestrian Calls (#/hr) | | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 |
| Act Effct Green (s) | 20.7 | 20.0 | 20.0 | 20.7 | 20.0 | 20.0 | 24.5 | 23.7 | 23.7 | 21.2 | 17.3 | 17.3 |
| Actuated g/C Ratio | 0.37 | 0.36 | 0.36 | 0.37 | 0.36 | 0.36 | 0.44 | 0.42 | 0.42 | 0.38 | 0.31 | 0.31 |
| v/c Ratio | 0.03 | 0.06 | 0.08 | 0.01 | 0.15 | 0.04 | 0.28 | 0.65 | 0.03 | 0.03 | 0.62 | 0.04 |
| Control Delay | 14.6 | 17.6 | 0.2 | 14.8 | 17.7 | 0.1 | 10.4 | 17.9 | 0.1 | 8.5 | 22.1 | 0.1 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 14.6 | 17.6 | 0.2 | 14.8 | 17.7 | 0.1 | 10.4 | 17.9 | 0.1 | 8.5 | 22.1 | 0.1 |
| LOS | B | B | A | B | B | A | B | B | A | A | C | A |
| Approach Delay | | 9.0 | | | 13.9 | | | 16.0 | | | 20.3 | |
| Approach LOS | | A | | | B | | | B | | | C | |

Intersection Summary

| | |
|------------------------------------|------------------------|
| Area Type: | Other |
| Cycle Length: | 80 |
| Actuated Cycle Length: | 55.8 |
| Natural Cycle: | 65 |
| Control Type: | Actuated-Uncoordinated |
| Maximum v/c Ratio: | 0.65 |
| Intersection Signal Delay: | 16.5 |
| Intersection LOS: | B |
| Intersection Capacity Utilization: | 48.2% |
| ICU Level of Service: | A |
| Analysis Period (min): | 15 |

Splits and Phases: 8: US 24 & Curtis/Stapleton



| Intersection | | | | | | | | | | | | |
|--------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Int Delay, s/veh | 33.1 | | | | | | | | | | | |
| Movement | SEL | SET | SER | NWL | NWT | NWR | NEL | NET | NER | SWL | SWT | SWR |
| Lane Configurations | ↘ | ↗ | ↗ | ↘ | ↗ | ↗ | ↘ | ↗ | ↗ | ↘ | ↗ | ↗ |
| Traffic Vol, veh/h | 35 | 207 | 114 | 2 | 112 | 18 | 70 | 224 | 1 | 48 | 499 | 36 |
| Future Vol, veh/h | 35 | 207 | 114 | 2 | 112 | 18 | 70 | 224 | 1 | 48 | 499 | 36 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Stop | Stop | Stop | Stop | Free | Free | Free | Free | Free | Free |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | 190 | - | 325 | 215 | - | 215 | 890 | - | 1000 | 790 | - | 790 |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 87 | 87 | 87 | 94 | 94 | 94 | 78 | 78 | 78 | 100 | 100 | 100 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 40 | 238 | 131 | 2 | 119 | 19 | 90 | 287 | 1 | 48 | 499 | 36 |

| Major/Minor | Minor2 | | Minor1 | | Major1 | | | Major2 | | | | |
|----------------------|--------|-------|--------|-------|--------|-------|-------|--------|---|-------|---|---|
| Conflicting Flow All | 1132 | 1063 | 499 | 1265 | 1098 | 287 | 535 | 0 | 0 | 288 | 0 | 0 |
| Stage 1 | 595 | 595 | - | 467 | 467 | - | - | - | - | - | - | - |
| Stage 2 | 537 | 468 | - | 798 | 631 | - | - | - | - | - | - | - |
| Critical Hdwy | 7.12 | 6.52 | 6.22 | 7.12 | 6.52 | 6.22 | 4.12 | - | - | 4.12 | - | - |
| Critical Hdwy Stg 1 | 6.12 | 5.52 | - | 6.12 | 5.52 | - | - | - | - | - | - | - |
| Critical Hdwy Stg 2 | 6.12 | 5.52 | - | 6.12 | 5.52 | - | - | - | - | - | - | - |
| Follow-up Hdwy | 3.518 | 4.018 | 3.318 | 3.518 | 4.018 | 3.318 | 2.218 | - | - | 2.218 | - | - |
| Pot Cap-1 Maneuver | 180 | ~ 223 | 572 | 146 | 213 | 752 | 1033 | - | - | 1274 | - | - |
| Stage 1 | 491 | 492 | - | 576 | 562 | - | - | - | - | - | - | - |
| Stage 2 | 528 | 561 | - | 380 | 474 | - | - | - | - | - | - | - |
| Platoon blocked, % | - | - | - | - | - | - | - | - | - | - | - | - |
| Mov Cap-1 Maneuver | 79 | ~ 196 | 572 | - | 187 | 752 | 1033 | - | - | 1274 | - | - |
| Mov Cap-2 Maneuver | 79 | ~ 196 | - | - | 187 | - | - | - | - | - | - | - |
| Stage 1 | 448 | 473 | - | 526 | 513 | - | - | - | - | - | - | - |
| Stage 2 | 361 | 512 | - | 140 | 456 | - | - | - | - | - | - | - |

| Approach | SE | NW | NE | SW |
|----------------------|-------|----|-----|-----|
| HCM Control Delay, s | 119.3 | | 2.1 | 0.7 |
| HCM LOS | F | - | | |

| Minor Lane/Major Mvmt | NEL | NET | NERNWLn1 | NWLn2 | NWLn3 | SELn1 | SELn2 | SELn3 | SWL | SWT | SWR | |
|-----------------------|-------|-----|----------|-------|-------|-------|-------|-------|-------|-------|-----|---|
| Capacity (veh/h) | 1033 | - | - | - | 187 | 752 | 79 | 196 | 572 | 1274 | - | - |
| HCM Lane V/C Ratio | 0.087 | - | - | - | 0.637 | 0.025 | 0.509 | 1.214 | 0.229 | 0.038 | - | - |
| HCM Control Delay (s) | 8.8 | - | - | - | 53 | 9.9 | 90.6 | 182.6 | 13.2 | 7.9 | - | - |
| HCM Lane LOS | A | - | - | - | F | A | F | F | B | A | - | - |
| HCM 95th %tile Q(veh) | 0.3 | - | - | - | 3.7 | 0.1 | 2.2 | 12.4 | 0.9 | 0.1 | - | - |

Notes
 ~: Volume exceeds capacity \$: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

| Intersection | | | | | | | | | | | | |
|--------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Int Delay, s/veh | 95.3 | | | | | | | | | | | |
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | ↖ | ↑ | ↗ | ↖ | ↑ | ↗ | ↖ | ↑ | ↗ | ↖ | ↑ | ↗ |
| Traffic Vol, veh/h | 0 | 31 | 136 | 33 | 107 | 16 | 413 | 96 | 9 | 7 | 278 | 0 |
| Future Vol, veh/h | 0 | 31 | 136 | 33 | 107 | 16 | 413 | 96 | 9 | 7 | 278 | 0 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Free | Free | Stop | Stop | Stop | Stop | Stop | Stop |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | 250 | - | 235 | 240 | - | - | 250 | - | - | 260 | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 82 | 82 | 82 | 84 | 84 | 84 | 91 | 91 | 91 | 100 | 100 | 100 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 0 | 38 | 166 | 39 | 127 | 19 | 454 | 105 | 10 | 7 | 278 | 0 |

| Major/Minor | Major1 | | | Major2 | | | Minor1 | | | Minor2 | | |
|----------------------|--------|---|---|--------|---|---|--------|-------|-------|--------|-------|-------|
| Conflicting Flow All | 146 | 0 | 0 | 204 | 0 | 0 | 392 | 262 | 38 | 394 | 419 | 137 |
| Stage 1 | - | - | - | - | - | - | 38 | 38 | - | 215 | 215 | - |
| Stage 2 | - | - | - | - | - | - | 354 | 224 | - | 179 | 204 | - |
| Critical Hdwy | 4.12 | - | - | 4.12 | - | - | 7.12 | 6.52 | 6.22 | 7.12 | 6.52 | 6.22 |
| Critical Hdwy Stg 1 | - | - | - | - | - | - | 6.12 | 5.52 | - | 6.12 | 5.52 | - |
| Critical Hdwy Stg 2 | - | - | - | - | - | - | 6.12 | 5.52 | - | 6.12 | 5.52 | - |
| Follow-up Hdwy | 2.218 | - | - | 2.218 | - | - | 3.518 | 4.018 | 3.318 | 3.518 | 4.018 | 3.318 |
| Pot Cap-1 Maneuver | 1436 | - | - | 1368 | - | - | 567 | 643 | 1034 | 566 | 525 | 911 |
| Stage 1 | - | - | - | - | - | - | 977 | 863 | - | 787 | 725 | - |
| Stage 2 | - | - | - | - | - | - | 663 | 718 | - | 823 | 733 | - |
| Platoon blocked, % | - | - | - | - | - | - | - | - | - | - | - | - |
| Mov Cap-1 Maneuver | 1436 | - | - | 1368 | - | - | ~ 316 | 624 | 1034 | 478 | 510 | 911 |
| Mov Cap-2 Maneuver | - | - | - | - | - | - | ~ 316 | 624 | - | 478 | 510 | - |
| Stage 1 | - | - | - | - | - | - | 977 | 863 | - | 787 | 704 | - |
| Stage 2 | - | - | - | - | - | - | ~ 390 | 697 | - | 715 | 733 | - |

| Approach | EB | WB | NB | SB |
|----------------------|----|-----|-------|----|
| HCM Control Delay, s | 0 | 1.6 | 197.7 | 20 |
| HCM LOS | | | F | C |

| Minor Lane/Major Mvmt | NBLn1 | NBLn2 | EBL | EBT | EBR | WBL | WBT | WBR | SBLn1 | SBLn2 |
|-----------------------|-------|-------|------|-----|-----|-------|-----|-----|-------|-------|
| Capacity (veh/h) | 316 | 646 | 1436 | - | - | 1368 | - | - | 478 | 510 |
| HCM Lane V/C Ratio | 1.436 | 0.179 | - | - | - | 0.029 | - | - | 0.015 | 0.545 |
| HCM Control Delay (s) | 244.9 | 11.8 | 0 | - | - | 7.7 | - | - | 12.6 | 20.2 |
| HCM Lane LOS | F | B | A | - | - | A | - | - | B | C |
| HCM 95th %tile Q(veh) | 24.2 | 0.6 | 0 | - | - | 0.1 | - | - | 0 | 3.2 |

Notes
 ~: Volume exceeds capacity \$: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

| Intersection | | | | | | | | | | | | |
|--------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Int Delay, s/veh | 16.6 | | | | | | | | | | | |
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | ↖ | ↑ | ↗ | | ↖ | ↗ | ↖ | ↗ | | ↖ | ↑ | ↗ |
| Traffic Vol, veh/h | 38 | 27 | 245 | 11 | 176 | 44 | 70 | 81 | 1 | 22 | 280 | 39 |
| Future Vol, veh/h | 38 | 27 | 245 | 11 | 176 | 44 | 70 | 81 | 1 | 22 | 280 | 39 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Free | Free | Stop | Stop | Stop | Stop | Stop | Stop |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | 290 | - | 295 | - | - | 290 | 340 | - | - | 290 | - | 235 |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 93 | 93 | 93 | 85 | 85 | 85 | 100 | 100 | 100 | 90 | 90 | 90 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 41 | 29 | 263 | 13 | 207 | 52 | 70 | 81 | 1 | 24 | 311 | 43 |

| Major/Minor | Major1 | | | Major2 | | | Minor1 | | | Minor2 | | |
|----------------------|--------|---|---|--------|---|---|--------|-------|-------|--------|-------|-------|
| Conflicting Flow All | 259 | 0 | 0 | 292 | 0 | 0 | 547 | 396 | 29 | 517 | 607 | 207 |
| Stage 1 | - | - | - | - | - | - | 111 | 111 | - | 233 | 233 | - |
| Stage 2 | - | - | - | - | - | - | 436 | 285 | - | 284 | 374 | - |
| Critical Hdwy | 4.12 | - | - | 4.12 | - | - | 7.12 | 6.52 | 6.22 | 7.12 | 6.52 | 6.22 |
| Critical Hdwy Stg 1 | - | - | - | - | - | - | 6.12 | 5.52 | - | 6.12 | 5.52 | - |
| Critical Hdwy Stg 2 | - | - | - | - | - | - | 6.12 | 5.52 | - | 6.12 | 5.52 | - |
| Follow-up Hdwy | 2.218 | - | - | 2.218 | - | - | 3.518 | 4.018 | 3.318 | 3.518 | 4.018 | 3.318 |
| Pot Cap-1 Maneuver | 1306 | - | - | 1270 | - | - | 448 | 541 | 1046 | 469 | 411 | 833 |
| Stage 1 | - | - | - | - | - | - | 894 | 804 | - | 770 | 712 | - |
| Stage 2 | - | - | - | - | - | - | 599 | 676 | - | 723 | 618 | - |
| Platoon blocked, % | - | - | - | - | - | - | - | - | - | - | - | - |
| Mov Cap-1 Maneuver | 1306 | - | - | 1270 | - | - | 142 | 518 | 1046 | 399 | 393 | 833 |
| Mov Cap-2 Maneuver | - | - | - | - | - | - | 142 | 518 | - | 399 | 393 | - |
| Stage 1 | - | - | - | - | - | - | 866 | 779 | - | 746 | 703 | - |
| Stage 2 | - | - | - | - | - | - | 313 | 668 | - | 627 | 599 | - |

| Approach | EB | | | WB | | | NB | | | SB | | |
|----------------------|----|--|--|-----|--|--|------|--|--|------|--|--|
| HCM Control Delay, s | 1 | | | 0.4 | | | 31.4 | | | 35.9 | | |
| HCM LOS | | | | | | | D | | | E | | |

| Minor Lane/Major Mvmt | NBLn1 | NBLn2 | EBL | EBT | EBR | WBL | WBT | WBR | SBLn1 | SBLn2 | SBLn3 |
|-----------------------|-------|-------|-------|-----|-----|------|-----|-----|-------|-------|-------|
| Capacity (veh/h) | 142 | 521 | 1306 | - | - | 1270 | - | - | 399 | 393 | 833 |
| HCM Lane V/C Ratio | 0.493 | 0.157 | 0.031 | - | - | 0.01 | - | - | 0.061 | 0.792 | 0.052 |
| HCM Control Delay (s) | 52.8 | 13.2 | 7.8 | - | - | 7.9 | 0 | - | 14.6 | 41.2 | 9.6 |
| HCM Lane LOS | F | B | A | - | - | A | A | - | B | E | A |
| HCM 95th %tile Q(veh) | 2.3 | 0.6 | 0.1 | - | - | 0 | - | - | 0.2 | 6.8 | 0.2 |

| Intersection | | | | | | |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh | 1.3 | | | | | |
| Movement | EBL | EBR | NBL | NBT | SBT | SBR |
| Lane Configurations | ↖ | ↗ | ↖ | ↗ | ↗ | ↖ |
| Traffic Vol, veh/h | 26 | 13 | 40 | 107 | 338 | 98 |
| Future Vol, veh/h | 26 | 13 | 40 | 107 | 338 | 98 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 0 | 0 | 245 | - | - | 195 |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 92 | 92 | 100 | 100 | 90 | 90 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 28 | 14 | 40 | 107 | 376 | 109 |

| Major/Minor | Minor2 | Major1 | Major2 | | | |
|----------------------|--------|--------|--------|---|---|---|
| Conflicting Flow All | 563 | 376 | 485 | 0 | - | 0 |
| Stage 1 | 376 | - | - | - | - | - |
| Stage 2 | 187 | - | - | - | - | - |
| Critical Hdwy | 6.42 | 6.22 | 4.12 | - | - | - |
| Critical Hdwy Stg 1 | 5.42 | - | - | - | - | - |
| Critical Hdwy Stg 2 | 5.42 | - | - | - | - | - |
| Follow-up Hdwy | 3.518 | 3.318 | 2.218 | - | - | - |
| Pot Cap-1 Maneuver | 487 | 670 | 1078 | - | - | - |
| Stage 1 | 694 | - | - | - | - | - |
| Stage 2 | 845 | - | - | - | - | - |
| Platoon blocked, % | | | | - | - | - |
| Mov Cap-1 Maneuver | 469 | 670 | 1078 | - | - | - |
| Mov Cap-2 Maneuver | 469 | - | - | - | - | - |
| Stage 1 | 668 | - | - | - | - | - |
| Stage 2 | 845 | - | - | - | - | - |

| Approach | EB | NB | SB |
|----------------------|------|-----|----|
| HCM Control Delay, s | 12.3 | 2.3 | 0 |
| HCM LOS | B | | |

| Minor Lane/Major Mvmt | NBL | NBT | EBLn1 | EBLn2 | SBT | SBR |
|-----------------------|-------|-----|-------|-------|-----|-----|
| Capacity (veh/h) | 1078 | - | 469 | 670 | - | - |
| HCM Lane V/C Ratio | 0.037 | - | 0.06 | 0.021 | - | - |
| HCM Control Delay (s) | 8.5 | - | 13.2 | 10.5 | - | - |
| HCM Lane LOS | A | - | B | B | - | - |
| HCM 95th %tile Q(veh) | 0.1 | - | 0.2 | 0.1 | - | - |

| Intersection | | | | | | |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh | 1.7 | | | | | |
| Movement | EBL | EBR | NBL | NBT | SBT | SBR |
| Lane Configurations | ↖ | ↗ | | ↖ | ↗ | ↗ |
| Traffic Vol, veh/h | 28 | 27 | 45 | 119 | 313 | 46 |
| Future Vol, veh/h | 28 | 27 | 45 | 119 | 313 | 46 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 0 | 0 | - | - | - | 0 |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 92 | 92 | 100 | 100 | 90 | 90 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 30 | 29 | 45 | 119 | 348 | 51 |

| Major/Minor | Minor2 | Major1 | Major2 | | | |
|----------------------|--------|--------|--------|---|---|---|
| Conflicting Flow All | 557 | 348 | 399 | 0 | - | 0 |
| Stage 1 | 348 | - | - | - | - | - |
| Stage 2 | 209 | - | - | - | - | - |
| Critical Hdwy | 6.42 | 6.22 | 4.12 | - | - | - |
| Critical Hdwy Stg 1 | 5.42 | - | - | - | - | - |
| Critical Hdwy Stg 2 | 5.42 | - | - | - | - | - |
| Follow-up Hdwy | 3.518 | 3.318 | 2.218 | - | - | - |
| Pot Cap-1 Maneuver | 491 | 695 | 1160 | - | - | - |
| Stage 1 | 715 | - | - | - | - | - |
| Stage 2 | 826 | - | - | - | - | - |
| Platoon blocked, % | | | | - | - | - |
| Mov Cap-1 Maneuver | 470 | 695 | 1160 | - | - | - |
| Mov Cap-2 Maneuver | 470 | - | - | - | - | - |
| Stage 1 | 685 | - | - | - | - | - |
| Stage 2 | 826 | - | - | - | - | - |

| Approach | EB | NB | SB |
|----------------------|------|-----|----|
| HCM Control Delay, s | 11.8 | 2.3 | 0 |
| HCM LOS | B | | |

| Minor Lane/Major Mvmt | NBL | NBT | EBLn1 | EBLn2 | SBT | SBR |
|-----------------------|-------|-----|-------|-------|-----|-----|
| Capacity (veh/h) | 1160 | - | 470 | 695 | - | - |
| HCM Lane V/C Ratio | 0.039 | - | 0.065 | 0.042 | - | - |
| HCM Control Delay (s) | 8.2 | - | 13.2 | 10.4 | - | - |
| HCM Lane LOS | A | - | B | B | - | - |
| HCM 95th %tile Q(veh) | 0.1 | - | 0.2 | 0.1 | - | - |

| Intersection | | | | | | |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh | 1.7 | | | | | |
| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
| Lane Configurations | | ↑ | ↑ | ↑ | | ↑ |
| Traffic Vol, veh/h | 122 | 304 | 249 | 39 | 0 | 30 |
| Future Vol, veh/h | 122 | 304 | 249 | 39 | 0 | 30 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | 260 | - | 0 |
| Veh in Median Storage, # | - | 0 | 0 | - | 0 | - |
| Grade, % | - | 0 | 0 | - | 0 | - |
| Peak Hour Factor | 93 | 93 | 85 | 85 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 131 | 327 | 293 | 46 | 0 | 33 |

| Major/Minor | Major1 | Major2 | Minor2 |
|----------------------|--------|--------|--------|
| Conflicting Flow All | 339 | 0 | 0 |
| Stage 1 | - | - | - |
| Stage 2 | - | - | - |
| Critical Hdwy | 4.12 | - | - |
| Critical Hdwy Stg 1 | - | - | - |
| Critical Hdwy Stg 2 | - | - | - |
| Follow-up Hdwy | 2.218 | - | - |
| Pot Cap-1 Maneuver | 1220 | - | 0 |
| Stage 1 | - | - | 0 |
| Stage 2 | - | - | 0 |
| Platoon blocked, % | - | - | - |
| Mov Cap-1 Maneuver | 1220 | - | - |
| Mov Cap-2 Maneuver | - | - | - |
| Stage 1 | - | - | - |
| Stage 2 | - | - | - |

| Approach | EB | WB | SB |
|----------------------|-----|----|----|
| HCM Control Delay, s | 2.4 | 0 | 10 |
| HCM LOS | | | B |

| Minor Lane/Major Mvmt | EBL | EBT | WBT | WBR | SBLn1 |
|-----------------------|-------|-----|-----|-----|-------|
| Capacity (veh/h) | 1220 | - | - | - | 746 |
| HCM Lane V/C Ratio | 0.108 | - | - | - | 0.044 |
| HCM Control Delay (s) | 8.3 | - | - | - | 10 |
| HCM Lane LOS | A | - | - | - | B |
| HCM 95th %tile Q(veh) | 0.4 | - | - | - | 0.1 |

| Intersection | |
|---------------------------|------|
| Intersection Delay, s/veh | 33.6 |
| Intersection LOS | D |

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Lane Configurations | ↙ | ↑ | ↘ | ↙ | ↘ | | ↙ | ↘ | | ↙ | ↘ | |
| Traffic Vol, veh/h | 0 | 31 | 136 | 33 | 107 | 16 | 413 | 96 | 9 | 7 | 278 | 0 |
| Future Vol, veh/h | 0 | 31 | 136 | 33 | 107 | 16 | 413 | 96 | 9 | 7 | 278 | 0 |
| Peak Hour Factor | 0.82 | 0.82 | 0.82 | 0.84 | 0.84 | 0.84 | 0.91 | 0.91 | 0.91 | 1.00 | 1.00 | 1.00 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 0 | 38 | 166 | 39 | 127 | 19 | 454 | 105 | 10 | 7 | 278 | 0 |
| Number of Lanes | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 0 |

| Approach | EB | WB | NB | SB |
|----------------------------|------|------|------|------|
| Opposing Approach | WB | EB | SB | NB |
| Opposing Lanes | 2 | 3 | 2 | 2 |
| Conflicting Approach Left | SB | NB | EB | WB |
| Conflicting Lanes Left | 2 | 2 | 3 | 2 |
| Conflicting Approach Right | NB | SB | WB | EB |
| Conflicting Lanes Right | 2 | 2 | 2 | 3 |
| HCM Control Delay | 14.3 | 14.9 | 52.3 | 22.2 |
| HCM LOS | B | B | F | C |

| Lane | NBLn1 | NBLn2 | EBLn1 | EBLn2 | EBLn3 | WBLn1 | WBLn2 | SBLn1 | SBLn2 |
|------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Vol Left, % | 100% | 0% | 0% | 0% | 0% | 100% | 0% | 100% | 0% |
| Vol Thru, % | 0% | 91% | 100% | 100% | 0% | 0% | 87% | 0% | 100% |
| Vol Right, % | 0% | 9% | 0% | 0% | 100% | 0% | 13% | 0% | 0% |
| Sign Control | Stop | Stop | Stop | Stop | Stop | Stop | Stop | Stop | Stop |
| Traffic Vol by Lane | 413 | 105 | 0 | 31 | 136 | 33 | 123 | 7 | 278 |
| LT Vol | 413 | 0 | 0 | 0 | 0 | 33 | 0 | 7 | 0 |
| Through Vol | 0 | 96 | 0 | 31 | 0 | 0 | 107 | 0 | 278 |
| RT Vol | 0 | 9 | 0 | 0 | 136 | 0 | 16 | 0 | 0 |
| Lane Flow Rate | 454 | 115 | 0 | 38 | 166 | 39 | 146 | 7 | 278 |
| Geometry Grp | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 |
| Degree of Util (X) | 0.971 | 0.229 | 0 | 0.089 | 0.357 | 0.098 | 0.341 | 0.016 | 0.612 |
| Departure Headway (Hd) | 7.703 | 7.131 | 8.476 | 8.476 | 7.753 | 9.005 | 8.395 | 8.443 | 7.93 |
| Convergence, Y/N | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Cap | 472 | 502 | 0 | 421 | 461 | 396 | 426 | 422 | 453 |
| Service Time | 5.471 | 4.899 | 6.263 | 6.263 | 5.54 | 6.795 | 6.184 | 6.225 | 5.712 |
| HCM Lane V/C Ratio | 0.962 | 0.229 | 0 | 0.09 | 0.36 | 0.098 | 0.343 | 0.017 | 0.614 |
| HCM Control Delay | 62.6 | 12 | 11.3 | 12.1 | 14.8 | 12.8 | 15.5 | 11.4 | 22.5 |
| HCM Lane LOS | F | B | N | B | B | B | C | B | C |
| HCM 95th-tile Q | 12.2 | 0.9 | 0 | 0.3 | 1.6 | 0.3 | 1.5 | 0 | 4 |

| Intersection | |
|---------------------------|----|
| Intersection Delay, s/veh | 16 |
| Intersection LOS | C |

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Lane Configurations | ↖ | ↑ | ↗ | | ↖ | ↗ | ↖ | ↗ | | ↖ | ↑ | ↗ |
| Traffic Vol, veh/h | 38 | 27 | 245 | 11 | 176 | 44 | 70 | 81 | 1 | 22 | 280 | 39 |
| Future Vol, veh/h | 38 | 27 | 245 | 11 | 176 | 44 | 70 | 81 | 1 | 22 | 280 | 39 |
| Peak Hour Factor | 0.93 | 0.93 | 0.93 | 0.85 | 0.85 | 0.85 | 1.00 | 1.00 | 1.00 | 0.90 | 0.90 | 0.90 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 41 | 29 | 263 | 13 | 207 | 52 | 70 | 81 | 1 | 24 | 311 | 43 |
| Number of Lanes | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 |

| Approach | EB | WB | NB | SB |
|----------------------------|------|------|------|------|
| Opposing Approach | WB | EB | SB | NB |
| Opposing Lanes | 2 | 3 | 3 | 2 |
| Conflicting Approach Left | SB | NB | EB | WB |
| Conflicting Lanes Left | 3 | 2 | 3 | 2 |
| Conflicting Approach Right | NB | SB | WB | EB |
| Conflicting Lanes Right | 2 | 3 | 2 | 3 |
| HCM Control Delay | 14.6 | 15.2 | 12.4 | 19.1 |
| HCM LOS | B | C | B | C |

| Lane | NBLn1 | NBLn2 | EBLn1 | EBLn2 | EBLn3 | WBLn1 | WBLn2 | SBLn1 | SBLn2 | SBLn3 |
|------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Vol Left, % | 100% | 0% | 100% | 0% | 0% | 6% | 0% | 100% | 0% | 0% |
| Vol Thru, % | 0% | 99% | 0% | 100% | 0% | 94% | 0% | 0% | 100% | 0% |
| Vol Right, % | 0% | 1% | 0% | 0% | 100% | 0% | 100% | 0% | 0% | 100% |
| Sign Control | Stop | Stop | Stop | Stop | Stop | Stop | Stop | Stop | Stop | Stop |
| Traffic Vol by Lane | 70 | 82 | 38 | 27 | 245 | 187 | 44 | 22 | 280 | 39 |
| LT Vol | 70 | 0 | 38 | 0 | 0 | 11 | 0 | 22 | 0 | 0 |
| Through Vol | 0 | 81 | 0 | 27 | 0 | 176 | 0 | 0 | 280 | 0 |
| RT Vol | 0 | 1 | 0 | 0 | 245 | 0 | 44 | 0 | 0 | 39 |
| Lane Flow Rate | 70 | 82 | 41 | 29 | 263 | 220 | 52 | 24 | 311 | 43 |
| Geometry Grp | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 |
| Degree of Util (X) | 0.161 | 0.177 | 0.089 | 0.059 | 0.487 | 0.456 | 0.097 | 0.052 | 0.621 | 0.078 |
| Departure Headway (Hd) | 8.284 | 7.766 | 7.871 | 7.363 | 6.651 | 7.457 | 6.716 | 7.694 | 7.187 | 6.477 |
| Convergence, Y/N | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Cap | 433 | 461 | 455 | 486 | 540 | 482 | 533 | 465 | 501 | 552 |
| Service Time | 6.047 | 5.529 | 5.625 | 5.117 | 4.405 | 5.211 | 4.47 | 5.447 | 4.94 | 4.23 |
| HCM Lane V/C Ratio | 0.162 | 0.178 | 0.09 | 0.06 | 0.487 | 0.456 | 0.098 | 0.052 | 0.621 | 0.078 |
| HCM Control Delay | 12.6 | 12.2 | 11.4 | 10.6 | 15.6 | 16.4 | 10.2 | 10.9 | 21.1 | 9.8 |
| HCM Lane LOS | B | B | B | B | C | C | B | B | C | A |
| HCM 95th-tile Q | 0.6 | 0.6 | 0.3 | 0.2 | 2.6 | 2.3 | 0.3 | 0.2 | 4.2 | 0.3 |

9: Curtis & Judge Orr Performance by lane Interval #1 7:30

| Lane | EB | WB | NB | SB | All |
|--------------------|-----|-----|-----|------|-----|
| Movements Served | LTR | LTR | LTR | LTR | |
| Denied Del/Veh (s) | | | | | 0.2 |
| Total Del/Veh (s) | 6.6 | 5.5 | 8.3 | 12.9 | 8.9 |

9: Curtis & Judge Orr Performance by lane Interval #2 7:45

| Lane | EB | WB | NB | SB | All |
|--------------------|-----|-----|-----|------|-----|
| Movements Served | LTR | LTR | LTR | LTR | |
| Denied Del/Veh (s) | | | | | 0.2 |
| Total Del/Veh (s) | 6.0 | 5.7 | 7.9 | 12.9 | 8.6 |

9: Curtis & Judge Orr Performance by lane Interval #3 8:00

| Lane | EB | WB | NB | SB | All |
|--------------------|-----|-----|------|------|-----|
| Movements Served | LTR | LTR | LTR | LTR | |
| Denied Del/Veh (s) | | | | | 0.2 |
| Total Del/Veh (s) | 6.4 | 6.4 | 10.0 | 12.6 | 9.5 |

9: Curtis & Judge Orr Performance by lane Interval #4 8:15

| Lane | EB | WB | NB | SB | All |
|--------------------|-----|-----|-----|------|-----|
| Movements Served | LTR | LTR | LTR | LTR | |
| Denied Del/Veh (s) | | | | | 0.1 |
| Total Del/Veh (s) | 5.9 | 5.7 | 8.1 | 15.5 | 9.7 |

9: Curtis & Judge Orr Performance by lane Entire Run

| Lane | EB | WB | NB | SB | All |
|--------------------|-----|-----|-----|------|-----|
| Movements Served | LTR | LTR | LTR | LTR | |
| Denied Del/Veh (s) | | | | | 0.2 |
| Total Del/Veh (s) | 6.7 | 6.0 | 9.3 | 14.7 | 9.8 |

10: Curtis & Falcon Hwy Performance by lane Interval #1 7:30

| Lane | EB | WB | NB | SB | All |
|--------------------|-----|-----|-----|-----|-----|
| Movements Served | LTR | LTR | LTR | LTR | |
| Denied Del/Veh (s) | | | | | 0.1 |
| Total Del/Veh (s) | 4.9 | 6.2 | 4.1 | 7.2 | 5.8 |

10: Curtis & Falcon Hwy Performance by lane Interval #2 7:45

| Lane | EB | WB | NB | SB | All |
|--------------------|-----|-----|-----|-----|-----|
| Movements Served | LTR | LTR | LTR | LTR | |
| Denied Del/Veh (s) | | | | | 0.1 |
| Total Del/Veh (s) | 5.0 | 6.2 | 4.1 | 7.1 | 5.8 |

10: Curtis & Falcon Hwy Performance by lane Interval #3 8:00

| Lane | EB | WB | NB | SB | All |
|--------------------|-----|-----|-----|-----|-----|
| Movements Served | LTR | LTR | LTR | LTR | |
| Denied Del/Veh (s) | | | | | 0.1 |
| Total Del/Veh (s) | 5.6 | 7.6 | 3.9 | 8.0 | 6.7 |

10: Curtis & Falcon Hwy Performance by lane Interval #4 8:15

| Lane | EB | WB | NB | SB | All |
|--------------------|-----|-----|-----|-----|-----|
| Movements Served | LTR | LTR | LTR | LTR | |
| Denied Del/Veh (s) | | | | | 0.1 |
| Total Del/Veh (s) | 5.6 | 5.7 | 3.8 | 7.6 | 6.1 |

10: Curtis & Falcon Hwy Performance by lane Entire Run

























| Lane | EB | WB | NB | SB | All |
|--------------------|-----|-----|-----|-----|-----|
| Movements Served | LTR | LTR | LTR | LTR | |
| Denied Del/Veh (s) | | | | | 0.1 |
| Total Del/Veh (s) | 5.4 | 6.7 | 4.2 | 7.6 | 6.2 |

Total Zone Performance By Interval

| Interval Start | 7:30 | 7:45 | 8:00 | 8:15 | All |
|--------------------|------|-------|-------|-------|-------|
| Denied Del/Veh (s) | | 0.3 | 0.3 | 0.4 | 0.3 |
| Total Del/Veh (s) | | 115.9 | 142.3 | 130.2 | 124.1 |













Lanes, Volumes, Timings
8: US 24 & Curtis/Stapleton

2020 Existing + Site
AM

| |  |  |  |  |  |  |  |  |  |  |  |  |
|----------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Lane Group | SEL | SET | SER | NWL | NWT | NWR | NEL | NET | NER | SWL | SWT | SWR |
| Lane Configurations |  |  |  |  |  |  |  |  |  |  |  |  |
| Traffic Volume (vph) | 35 | 207 | 114 | 2 | 112 | 18 | 70 | 224 | 1 | 48 | 499 | 36 |
| Future Volume (vph) | 35 | 207 | 114 | 2 | 112 | 18 | 70 | 224 | 1 | 48 | 499 | 36 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | 190 | | 325 | 215 | | 215 | 890 | | 1000 | 790 | | 790 |
| Storage Lanes | 1 | | 1 | 1 | | 1 | 1 | | 1 | 1 | | 1 |
| Taper Length (ft) | 240 | | | 200 | | | 190 | | | 190 | | |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Frt | | | 0.850 | | | 0.850 | | | 0.850 | | | 0.850 |
| Flt Protected | 0.950 | | | 0.950 | | | 0.950 | | | 0.950 | | |
| Satd. Flow (prot) | 1770 | 1863 | 1583 | 1770 | 1863 | 1583 | 1770 | 1863 | 1583 | 1770 | 1863 | 1583 |
| Flt Permitted | 0.629 | | | 0.590 | | | 0.192 | | | 0.520 | | |
| Satd. Flow (perm) | 1172 | 1863 | 1583 | 1099 | 1863 | 1583 | 358 | 1863 | 1583 | 969 | 1863 | 1583 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | | 143 | | | 143 | | | 143 | | | 143 |
| Link Speed (mph) | | 45 | | | 45 | | | 55 | | | 55 | |
| Link Distance (ft) | | 4560 | | | 5565 | | | 6479 | | | 6170 | |
| Travel Time (s) | | 69.1 | | | 84.3 | | | 80.3 | | | 76.5 | |
| Peak Hour Factor | 0.87 | 0.87 | 0.87 | 0.94 | 0.94 | 0.94 | 0.78 | 0.78 | 0.78 | 1.00 | 1.00 | 1.00 |
| Adj. Flow (vph) | 40 | 238 | 131 | 2 | 119 | 19 | 90 | 287 | 1 | 48 | 499 | 36 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 40 | 238 | 131 | 2 | 119 | 19 | 90 | 287 | 1 | 48 | 499 | 36 |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Right | Left | Left | Right | Left | Left | Right | Left | Left | Right |
| Median Width(ft) | | 12 | | | 12 | | | 12 | | | 12 | |
| Link Offset(ft) | | 0 | | | 0 | | | 0 | | | 0 | |
| Crosswalk Width(ft) | | 16 | | | 16 | | | 16 | | | 16 | |
| Two way Left Turn Lane | | | | | | | | | | | | |
| Headway Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Turning Speed (mph) | 15 | | 9 | 15 | | 9 | 15 | | 9 | 15 | | 9 |
| Number of Detectors | 1 | 2 | 1 | 1 | 2 | 1 | 1 | 2 | 1 | 1 | 2 | 1 |
| Detector Template | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right |
| Leading Detector (ft) | 20 | 100 | 20 | 20 | 100 | 20 | 20 | 100 | 20 | 20 | 100 | 20 |
| Trailing Detector (ft) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Detector 1 Position(ft) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Detector 1 Size(ft) | 20 | 6 | 20 | 20 | 6 | 20 | 20 | 6 | 20 | 20 | 6 | 20 |
| Detector 1 Type | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex |
| Detector 1 Channel | | | | | | | | | | | | |
| Detector 1 Extend (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Detector 1 Queue (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Detector 1 Delay (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Detector 2 Position(ft) | | 94 | | | 94 | | | 94 | | | 94 | |
| Detector 2 Size(ft) | | 6 | | | 6 | | | 6 | | | 6 | |
| Detector 2 Type | | Cl+Ex | | | Cl+Ex | | | Cl+Ex | | | Cl+Ex | |
| Detector 2 Channel | | | | | | | | | | | | |
| Detector 2 Extend (s) | | 0.0 | | | 0.0 | | | 0.0 | | | 0.0 | |
| Turn Type | pm+pt | NA | Perm | pm+pt | NA | Perm | pm+pt | NA | Perm | pm+pt | NA | Perm |
| Protected Phases | 1 | 6 | | 5 | 2 | | 7 | 4 | | 3 | 8 | |
| Permitted Phases | 6 | | 6 | 2 | | 2 | 4 | | 4 | 8 | | 8 |

Lanes, Volumes, Timings
8: US 24 & Curtis/Stapleton

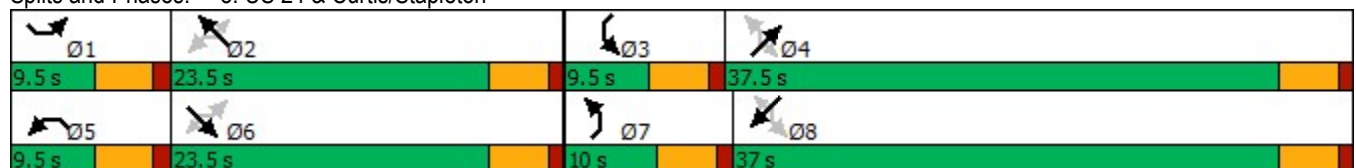
2020 Existing + Site
AM

| |  |  |  |  |  |  |  |  |  |  |  |  |
|-------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Lane Group | SEL | SET | SER | NWL | NWT | NWR | NEL | NET | NER | SWL | SWT | SWR |
| Detector Phase | 1 | 6 | 6 | 5 | 2 | 2 | 7 | 4 | 4 | 3 | 8 | 8 |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 |
| Minimum Split (s) | 9.5 | 22.5 | 22.5 | 9.5 | 22.5 | 22.5 | 9.5 | 22.5 | 22.5 | 9.5 | 22.5 | 22.5 |
| Total Split (s) | 9.5 | 23.5 | 23.5 | 9.5 | 23.5 | 23.5 | 10.0 | 37.5 | 37.5 | 9.5 | 37.0 | 37.0 |
| Total Split (%) | 11.9% | 29.4% | 29.4% | 11.9% | 29.4% | 29.4% | 12.5% | 46.9% | 46.9% | 11.9% | 46.3% | 46.3% |
| Maximum Green (s) | 5.0 | 19.0 | 19.0 | 5.0 | 19.0 | 19.0 | 5.5 | 33.0 | 33.0 | 5.0 | 32.5 | 32.5 |
| Yellow Time (s) | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 |
| All-Red Time (s) | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 |
| Lead/Lag | Lead | Lag | Lag | Lead | Lag | Lag | Lead | Lag | Lag | Lead | Lag | Lag |
| Lead-Lag Optimize? | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Vehicle Extension (s) | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 |
| Recall Mode | None | Max | Max | None | Max | Max | None | None | None | None | None | None |
| Walk Time (s) | | 7.0 | 7.0 | | 7.0 | 7.0 | | 7.0 | 7.0 | | 7.0 | 7.0 |
| Flash Dont Walk (s) | | 11.0 | 11.0 | | 11.0 | 11.0 | | 11.0 | 11.0 | | 11.0 | 11.0 |
| Pedestrian Calls (#/hr) | | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 |
| Act Effct Green (s) | 24.5 | 23.7 | 23.7 | 22.9 | 20.4 | 20.4 | 27.6 | 24.8 | 24.8 | 25.9 | 22.2 | 22.2 |
| Actuated g/C Ratio | 0.38 | 0.37 | 0.37 | 0.36 | 0.32 | 0.32 | 0.43 | 0.38 | 0.38 | 0.40 | 0.34 | 0.34 |
| v/c Ratio | 0.08 | 0.35 | 0.20 | 0.00 | 0.20 | 0.03 | 0.32 | 0.40 | 0.00 | 0.11 | 0.78 | 0.06 |
| Control Delay | 16.1 | 21.0 | 4.8 | 16.0 | 23.2 | 0.1 | 12.8 | 17.6 | 0.0 | 10.1 | 29.1 | 0.2 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 16.1 | 21.0 | 4.8 | 16.0 | 23.2 | 0.1 | 12.8 | 17.6 | 0.0 | 10.1 | 29.1 | 0.2 |
| LOS | B | C | A | B | C | A | B | B | A | B | C | A |
| Approach Delay | | 15.3 | | | 20.0 | | | 16.4 | | | 25.7 | |
| Approach LOS | | B | | | B | | | B | | | C | |

Intersection Summary

| | |
|------------------------------------|------------------------|
| Area Type: | Other |
| Cycle Length: | 80 |
| Actuated Cycle Length: | 64.5 |
| Natural Cycle: | 65 |
| Control Type: | Actuated-Uncoordinated |
| Maximum v/c Ratio: | 0.78 |
| Intersection Signal Delay: | 20.0 |
| Intersection LOS: | C |
| Intersection Capacity Utilization: | 52.6% |
| ICU Level of Service: | A |
| Analysis Period (min): | 15 |

Splits and Phases: 8: US 24 & Curtis/Stapleton



| Intersection | | | | | | | | | | | | |
|--------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Int Delay, s/veh | 33.1 | | | | | | | | | | | |
| Movement | SEL | SET | SER | NWL | NWT | NWR | NEL | NET | NER | SWL | SWT | SWR |
| Lane Configurations | ↖ | ↗ | ↖ | ↖ | ↗ | ↖ | ↖ | ↗ | ↖ | ↖ | ↗ | ↖ |
| Traffic Vol, veh/h | 14 | 125 | 25 | 4 | 218 | 57 | 99 | 478 | 21 | 29 | 297 | 22 |
| Future Vol, veh/h | 14 | 125 | 25 | 4 | 218 | 57 | 99 | 478 | 21 | 29 | 297 | 22 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Stop | Stop | Stop | Stop | Free | Free | Free | Free | Free | Free |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | 190 | - | 325 | 215 | - | 215 | 890 | - | 1000 | 790 | - | 790 |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 100 | 100 | 100 | 100 | 100 | 100 | 93 | 93 | 93 | 85 | 85 | 85 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 14 | 125 | 25 | 4 | 218 | 57 | 106 | 514 | 23 | 34 | 349 | 26 |

| Major/Minor | Minor2 | | Minor1 | | Major1 | | Major2 | | | | | |
|----------------------|--------|-------|--------|-------|--------|-------|--------|---|---|-------|---|---|
| Conflicting Flow All | 1292 | 1166 | 349 | 1231 | 1169 | 514 | 375 | 0 | 0 | 537 | 0 | 0 |
| Stage 1 | 417 | 417 | - | 726 | 726 | - | - | - | - | - | - | - |
| Stage 2 | 875 | 749 | - | 505 | 443 | - | - | - | - | - | - | - |
| Critical Hdwy | 7.12 | 6.52 | 6.22 | 7.12 | 6.52 | 6.22 | 4.12 | - | - | 4.12 | - | - |
| Critical Hdwy Stg 1 | 6.12 | 5.52 | - | 6.12 | 5.52 | - | - | - | - | - | - | - |
| Critical Hdwy Stg 2 | 6.12 | 5.52 | - | 6.12 | 5.52 | - | - | - | - | - | - | - |
| Follow-up Hdwy | 3.518 | 4.018 | 3.318 | 3.518 | 4.018 | 3.318 | 2.218 | - | - | 2.218 | - | - |
| Pot Cap-1 Maneuver | 140 | 194 | 694 | 154 | ~ 193 | 560 | 1183 | - | - | 1031 | - | - |
| Stage 1 | 613 | 591 | - | 416 | 430 | - | - | - | - | - | - | - |
| Stage 2 | 344 | 419 | - | 549 | 576 | - | - | - | - | - | - | - |
| Platoon blocked, % | - | - | - | - | - | - | - | - | - | - | - | - |
| Mov Cap-1 Maneuver | - | 171 | 694 | 55 | ~ 170 | 560 | 1183 | - | - | 1031 | - | - |
| Mov Cap-2 Maneuver | - | 171 | - | 55 | ~ 170 | - | - | - | - | - | - | - |
| Stage 1 | 558 | 571 | - | 379 | 391 | - | - | - | - | - | - | - |
| Stage 2 | 124 | 381 | - | 400 | 557 | - | - | - | - | - | - | - |

| Approach | SE | NW | NE | SW |
|----------------------|----|-------|-----|-----|
| HCM Control Delay, s | | 173.3 | 1.4 | 0.7 |
| HCM LOS | - | F | | |

| Minor Lane/Major Mvmt | NEL | NET | NERNWLn1 | NWLn2 | NWLn3 | SELn1 | SELn2 | SELn3 | SWL | SWT | SWR | |
|-----------------------|------|-----|----------|-------|-------|-------|-------|-------|-------|-------|-----|---|
| Capacity (veh/h) | 1183 | - | - | 55 | 170 | 560 | - | 171 | 694 | 1031 | - | - |
| HCM Lane V/C Ratio | 0.09 | - | - | 0.073 | 1.282 | 0.102 | - | 0.731 | 0.036 | 0.033 | - | - |
| HCM Control Delay (s) | 8.3 | - | - | 75.5 | 217.2 | 12.2 | - | 68.4 | 10.4 | 8.6 | - | - |
| HCM Lane LOS | A | - | - | F | F | B | - | F | B | A | - | - |
| HCM 95th %tile Q(veh) | 0.3 | - | - | 0.2 | 12.5 | 0.3 | - | 4.6 | 0.1 | 0.1 | - | - |

Notes
 ~: Volume exceeds capacity \$: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

| Intersection | | | | | | | | | | | | |
|--------------------------|--------|-------|-------|--------|------|-------|--------|-------|-------|--------|-------|-------|
| Int Delay, s/veh | 15.8 | | | | | | | | | | | |
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | ↙ | ↑ | ↗ | ↙ | ↑ | ↗ | ↙ | ↑ | ↗ | ↙ | ↑ | ↗ |
| Traffic Vol, veh/h | 1 | 90 | 83 | 24 | 57 | 5 | 210 | 345 | 39 | 16 | 145 | 2 |
| Future Vol, veh/h | 1 | 90 | 83 | 24 | 57 | 5 | 210 | 345 | 39 | 16 | 145 | 2 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Free | Free | Stop | Stop | Stop | Stop | Stop | Stop |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | 250 | - | 235 | 240 | - | - | 250 | - | - | 260 | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 88 | 88 | 88 | 81 | 81 | 81 | 79 | 79 | 79 | 100 | 100 | 100 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 1 | 102 | 94 | 30 | 70 | 6 | 266 | 437 | 49 | 16 | 145 | 2 |
| Major/Minor | Major1 | | | Major2 | | | Minor1 | | | Minor2 | | |
| Conflicting Flow All | 76 | 0 | 0 | 196 | 0 | 0 | 311 | 240 | 102 | 527 | 331 | 73 |
| Stage 1 | - | - | - | - | - | - | 104 | 104 | - | 133 | 133 | - |
| Stage 2 | - | - | - | - | - | - | 207 | 136 | - | 394 | 198 | - |
| Critical Hdwy | 4.12 | - | - | 4.12 | - | - | 7.12 | 6.52 | 6.22 | 7.12 | 6.52 | 6.22 |
| Critical Hdwy Stg 1 | - | - | - | - | - | - | 6.12 | 5.52 | - | 6.12 | 5.52 | - |
| Critical Hdwy Stg 2 | - | - | - | - | - | - | 6.12 | 5.52 | - | 6.12 | 5.52 | - |
| Follow-up Hdwy | 2.218 | - | - | 2.218 | - | - | 3.518 | 4.018 | 3.318 | 3.518 | 4.018 | 3.318 |
| Pot Cap-1 Maneuver | 1523 | - | - | 1377 | - | - | 642 | 661 | 953 | 462 | 588 | 989 |
| Stage 1 | - | - | - | - | - | - | 902 | 809 | - | 870 | 786 | - |
| Stage 2 | - | - | - | - | - | - | 795 | 784 | - | 631 | 737 | - |
| Platoon blocked, % | - | - | - | - | - | - | - | - | - | - | - | - |
| Mov Cap-1 Maneuver | 1523 | - | - | 1377 | - | - | 507 | 646 | 953 | 196 | 574 | 989 |
| Mov Cap-2 Maneuver | - | - | - | - | - | - | 507 | 646 | - | 196 | 574 | - |
| Stage 1 | - | - | - | - | - | - | 901 | 808 | - | 869 | 769 | - |
| Stage 2 | - | - | - | - | - | - | 630 | 767 | - | 275 | 736 | - |
| Approach | EB | | | WB | | | NB | | | SB | | |
| HCM Control Delay, s | 0 | | | 2.1 | | | 22.1 | | | 14.5 | | |
| HCM LOS | | | | | | | C | | | B | | |
| Minor Lane/Major Mvmt | NBLn1 | NBLn2 | EBL | EBT | EBR | WBL | WBT | WBR | SBLn1 | SBLn2 | | |
| Capacity (veh/h) | 507 | 668 | 1523 | - | - | 1377 | - | - | 196 | 577 | | |
| HCM Lane V/C Ratio | 0.524 | 0.728 | 0.001 | - | - | 0.022 | - | - | 0.082 | 0.255 | | |
| HCM Control Delay (s) | 19.7 | 23.4 | 7.4 | - | - | 7.7 | - | - | 25 | 13.4 | | |
| HCM Lane LOS | C | C | A | - | - | A | - | - | D | B | | |
| HCM 95th %tile Q(veh) | 3 | 6.3 | 0 | - | - | 0.1 | - | - | 0.3 | 1 | | |

| Intersection | | | | | | | | | | | | |
|--------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Int Delay, s/veh | 23.3 | | | | | | | | | | | |
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | ↖ | ↑ | ↗ | | ↖ | ↗ | ↖ | ↗ | | ↖ | ↑ | ↗ |
| Traffic Vol, veh/h | 51 | 207 | 34 | 1 | 68 | 50 | 250 | 317 | 26 | 84 | 105 | 72 |
| Future Vol, veh/h | 51 | 207 | 34 | 1 | 68 | 50 | 250 | 317 | 26 | 84 | 105 | 72 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Free | Free | Stop | Stop | Stop | Stop | Stop | Stop |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | 290 | - | 295 | - | - | 290 | 340 | - | - | 290 | - | 235 |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 100 | 100 | 100 | 100 | 100 | 100 | 92 | 92 | 92 | 81 | 81 | 81 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 51 | 207 | 34 | 1 | 68 | 50 | 272 | 345 | 28 | 104 | 130 | 89 |

| Major/Minor | Major1 | | | Major2 | | | Minor1 | | | Minor2 | | |
|----------------------|--------|---|---|--------|---|---|--------|-------|-------|--------|-------|-------|
| Conflicting Flow All | 118 | 0 | 0 | 241 | 0 | 0 | 514 | 429 | 207 | 583 | 413 | 68 |
| Stage 1 | - | - | - | - | - | - | 309 | 309 | - | 70 | 70 | - |
| Stage 2 | - | - | - | - | - | - | 205 | 120 | - | 513 | 343 | - |
| Critical Hdwy | 4.12 | - | - | 4.12 | - | - | 7.12 | 6.52 | 6.22 | 7.12 | 6.52 | 6.22 |
| Critical Hdwy Stg 1 | - | - | - | - | - | - | 6.12 | 5.52 | - | 6.12 | 5.52 | - |
| Critical Hdwy Stg 2 | - | - | - | - | - | - | 6.12 | 5.52 | - | 6.12 | 5.52 | - |
| Follow-up Hdwy | 2.218 | - | - | 2.218 | - | - | 3.518 | 4.018 | 3.318 | 3.518 | 4.018 | 3.318 |
| Pot Cap-1 Maneuver | 1470 | - | - | 1326 | - | - | 471 | 518 | 833 | 424 | 529 | 995 |
| Stage 1 | - | - | - | - | - | - | 701 | 660 | - | 940 | 837 | - |
| Stage 2 | - | - | - | - | - | - | 797 | 796 | - | 544 | 637 | - |
| Platoon blocked, % | - | - | - | - | - | - | - | - | - | - | - | - |
| Mov Cap-1 Maneuver | 1470 | - | - | 1326 | - | - | 336 | 499 | 833 | 177 | 510 | 995 |
| Mov Cap-2 Maneuver | - | - | - | - | - | - | 336 | 499 | - | 177 | 510 | - |
| Stage 1 | - | - | - | - | - | - | 676 | 637 | - | 907 | 836 | - |
| Stage 2 | - | - | - | - | - | - | 613 | 795 | - | 233 | 615 | - |

| Approach | EB | | | WB | | | NB | | | SB | | |
|----------------------|-----|--|--|-----|--|--|------|--|--|------|--|--|
| HCM Control Delay, s | 1.3 | | | 0.1 | | | 36.8 | | | 24.6 | | |
| HCM LOS | | | | | | | E | | | C | | |

| Minor Lane/Major Mvmt | NBLn1 | NBLn2 | EBL | EBT | EBR | WBL | WBT | WBR | SBLn1 | SBLn2 | SBLn3 |
|-----------------------|-------|-------|-------|-----|-----|-------|-----|-----|-------|-------|-------|
| Capacity (veh/h) | 336 | 515 | 1470 | - | - | 1326 | - | - | 177 | 510 | 995 |
| HCM Lane V/C Ratio | 0.809 | 0.724 | 0.035 | - | - | 0.001 | - | - | 0.586 | 0.254 | 0.089 |
| HCM Control Delay (s) | 48.5 | 28.2 | 7.5 | - | - | 7.7 | 0 | - | 50.7 | 14.4 | 9 |
| HCM Lane LOS | E | D | A | - | - | A | A | - | F | B | A |
| HCM 95th %tile Q(veh) | 6.8 | 5.9 | 0.1 | - | - | 0 | - | - | 3.2 | 1 | 0.3 |

| Intersection | | | | | | |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh | 3.8 | | | | | |
| Movement | EBL | EBR | NBL | NBT | SBT | SBR |
| Lane Configurations | ↘ | ↗ | ↘ | ↗ | ↗ | ↘ |
| Traffic Vol, veh/h | 127 | 66 | 48 | 439 | 108 | 103 |
| Future Vol, veh/h | 127 | 66 | 48 | 439 | 108 | 103 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 0 | 0 | 245 | - | - | 195 |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 81 | 81 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 138 | 72 | 52 | 477 | 133 | 127 |

| Major/Minor | Minor2 | Major1 | Major2 | | | |
|----------------------|--------|--------|--------|---|---|---|
| Conflicting Flow All | 714 | 133 | 260 | 0 | - | 0 |
| Stage 1 | 133 | - | - | - | - | - |
| Stage 2 | 581 | - | - | - | - | - |
| Critical Hdwy | 6.42 | 6.22 | 4.12 | - | - | - |
| Critical Hdwy Stg 1 | 5.42 | - | - | - | - | - |
| Critical Hdwy Stg 2 | 5.42 | - | - | - | - | - |
| Follow-up Hdwy | 3.518 | 3.318 | 2.218 | - | - | - |
| Pot Cap-1 Maneuver | 398 | 916 | 1304 | - | - | - |
| Stage 1 | 893 | - | - | - | - | - |
| Stage 2 | 559 | - | - | - | - | - |
| Platoon blocked, % | | | | - | - | - |
| Mov Cap-1 Maneuver | 382 | 916 | 1304 | - | - | - |
| Mov Cap-2 Maneuver | 382 | - | - | - | - | - |
| Stage 1 | 857 | - | - | - | - | - |
| Stage 2 | 559 | - | - | - | - | - |

| Approach | EB | NB | SB |
|----------------------|------|-----|----|
| HCM Control Delay, s | 16.1 | 0.8 | 0 |
| HCM LOS | C | | |

| Minor Lane/Major Mvmt | NBL | NBT | EBLn1 | EBLn2 | SBT | SBR |
|-----------------------|------|-----|-------|-------|-----|-----|
| Capacity (veh/h) | 1304 | - | 382 | 916 | - | - |
| HCM Lane V/C Ratio | 0.04 | - | 0.361 | 0.078 | - | - |
| HCM Control Delay (s) | 7.9 | - | 19.7 | 9.3 | - | - |
| HCM Lane LOS | A | - | C | A | - | - |
| HCM 95th %tile Q(veh) | 0.1 | - | 1.6 | 0.3 | - | - |

| Intersection | | | | | | |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh | 5.1 | | | | | |
| Movement | EBL | EBR | NBL | NBT | SBT | SBR |
| Lane Configurations | ↙ | ↗ | | ↑ | ↑ | ↗ |
| Traffic Vol, veh/h | 136 | 128 | 74 | 351 | 129 | 66 |
| Future Vol, veh/h | 136 | 128 | 74 | 351 | 129 | 66 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 0 | 0 | - | - | - | 0 |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 81 | 81 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 148 | 139 | 80 | 382 | 159 | 81 |

| Major/Minor | Minor2 | Major1 | Major2 | | | |
|----------------------|--------|--------|--------|---|---|---|
| Conflicting Flow All | 701 | 159 | 240 | 0 | - | 0 |
| Stage 1 | 159 | - | - | - | - | - |
| Stage 2 | 542 | - | - | - | - | - |
| Critical Hdwy | 6.42 | 6.22 | 4.12 | - | - | - |
| Critical Hdwy Stg 1 | 5.42 | - | - | - | - | - |
| Critical Hdwy Stg 2 | 5.42 | - | - | - | - | - |
| Follow-up Hdwy | 3.518 | 3.318 | 2.218 | - | - | - |
| Pot Cap-1 Maneuver | 405 | 886 | 1327 | - | - | - |
| Stage 1 | 870 | - | - | - | - | - |
| Stage 2 | 583 | - | - | - | - | - |
| Platoon blocked, % | | | | - | - | - |
| Mov Cap-1 Maneuver | 374 | 886 | 1327 | - | - | - |
| Mov Cap-2 Maneuver | 374 | - | - | - | - | - |
| Stage 1 | 803 | - | - | - | - | - |
| Stage 2 | 583 | - | - | - | - | - |

| Approach | EB | NB | SB |
|----------------------|------|-----|----|
| HCM Control Delay, s | 15.5 | 1.4 | 0 |
| HCM LOS | C | | |

| Minor Lane/Major Mvmt | NBL | NBT | EBLn1 | EBLn2 | SBT | SBR |
|-----------------------|-------|-----|-------|-------|-----|-----|
| Capacity (veh/h) | 1327 | - | 374 | 886 | - | - |
| HCM Lane V/C Ratio | 0.061 | - | 0.395 | 0.157 | - | - |
| HCM Control Delay (s) | 7.9 | - | 20.8 | 9.8 | - | - |
| HCM Lane LOS | A | - | C | A | - | - |
| HCM 95th %tile Q(veh) | 0.2 | - | 1.8 | 0.6 | - | - |

| Intersection | | | | | | |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh | 2.9 | | | | | |
| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
| Lane Configurations | | ↑ | ↑ | ↑ | | ↑ |
| Traffic Vol, veh/h | 85 | 274 | 351 | 50 | 0 | 149 |
| Future Vol, veh/h | 85 | 274 | 351 | 50 | 0 | 149 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | 260 | - | 0 |
| Veh in Median Storage, # | - | 0 | 0 | - | 0 | - |
| Grade, % | - | 0 | 0 | - | 0 | - |
| Peak Hour Factor | 100 | 100 | 100 | 100 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 85 | 274 | 351 | 50 | 0 | 162 |

| Major/Minor | Major1 | Major2 | Minor2 |
|----------------------|--------|--------|--------|
| Conflicting Flow All | 401 | 0 | 0 |
| Stage 1 | - | - | - |
| Stage 2 | - | - | - |
| Critical Hdwy | 4.12 | - | 6.22 |
| Critical Hdwy Stg 1 | - | - | - |
| Critical Hdwy Stg 2 | - | - | - |
| Follow-up Hdwy | 2.218 | - | 3.318 |
| Pot Cap-1 Maneuver | 1158 | - | 0 |
| Stage 1 | - | - | 0 |
| Stage 2 | - | - | 0 |
| Platoon blocked, % | - | - | - |
| Mov Cap-1 Maneuver | 1158 | - | 692 |
| Mov Cap-2 Maneuver | - | - | - |
| Stage 1 | - | - | - |
| Stage 2 | - | - | - |

| Approach | EB | WB | SB |
|----------------------|----|----|------|
| HCM Control Delay, s | 2 | 0 | 11.8 |
| HCM LOS | | | B |

| Minor Lane/Major Mvmt | EBL | EBT | WBT | WBR | SBLn1 |
|-----------------------|-------|-----|-----|-----|-------|
| Capacity (veh/h) | 1158 | - | - | - | 692 |
| HCM Lane V/C Ratio | 0.073 | - | - | - | 0.234 |
| HCM Control Delay (s) | 8.4 | - | - | - | 11.8 |
| HCM Lane LOS | A | - | - | - | B |
| HCM 95th %tile Q(veh) | 0.2 | - | - | - | 0.9 |

| Intersection | |
|---------------------------|------|
| Intersection Delay, s/veh | 20.9 |
| Intersection LOS | C |

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Lane Configurations | ↙ | ↑ | ↘ | ↙ | ↘ | | ↙ | ↘ | | ↙ | ↘ | |
| Traffic Vol, veh/h | 1 | 90 | 83 | 24 | 57 | 5 | 210 | 345 | 39 | 16 | 145 | 2 |
| Future Vol, veh/h | 1 | 90 | 83 | 24 | 57 | 5 | 210 | 345 | 39 | 16 | 145 | 2 |
| Peak Hour Factor | 0.88 | 0.88 | 0.88 | 0.81 | 0.81 | 0.81 | 0.79 | 0.79 | 0.79 | 1.00 | 1.00 | 1.00 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 1 | 102 | 94 | 30 | 70 | 6 | 266 | 437 | 49 | 16 | 145 | 2 |
| Number of Lanes | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 0 |

| Approach | EB | WB | NB | SB |
|----------------------------|------|------|------|------|
| Opposing Approach | WB | EB | SB | NB |
| Opposing Lanes | 2 | 3 | 2 | 2 |
| Conflicting Approach Left | SB | NB | EB | WB |
| Conflicting Lanes Left | 2 | 2 | 3 | 2 |
| Conflicting Approach Right | NB | SB | WB | EB |
| Conflicting Lanes Right | 2 | 2 | 2 | 3 |
| HCM Control Delay | 11.9 | 12.1 | 26.1 | 13.3 |
| HCM LOS | B | B | D | B |

| Lane | NBLn1 | NBLn2 | EBLn1 | EBLn2 | EBLn3 | WBLn1 | WBLn2 | SBLn1 | SBLn2 |
|------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Vol Left, % | 100% | 0% | 100% | 0% | 0% | 100% | 0% | 100% | 0% |
| Vol Thru, % | 0% | 90% | 0% | 100% | 0% | 0% | 92% | 0% | 99% |
| Vol Right, % | 0% | 10% | 0% | 0% | 100% | 0% | 8% | 0% | 1% |
| Sign Control | Stop | Stop | Stop | Stop | Stop | Stop | Stop | Stop | Stop |
| Traffic Vol by Lane | 210 | 384 | 1 | 90 | 83 | 24 | 62 | 16 | 147 |
| LT Vol | 210 | 0 | 1 | 0 | 0 | 24 | 0 | 16 | 0 |
| Through Vol | 0 | 345 | 0 | 90 | 0 | 0 | 57 | 0 | 145 |
| RT Vol | 0 | 39 | 0 | 0 | 83 | 0 | 5 | 0 | 2 |
| Lane Flow Rate | 266 | 486 | 1 | 102 | 94 | 30 | 77 | 16 | 147 |
| Geometry Grp | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 |
| Degree of Util (X) | 0.494 | 0.826 | 0.003 | 0.219 | 0.183 | 0.07 | 0.168 | 0.036 | 0.305 |
| Departure Headway (Hd) | 6.691 | 6.115 | 8.203 | 7.692 | 6.977 | 8.476 | 7.904 | 7.997 | 7.479 |
| Convergence, Y/N | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Cap | 534 | 588 | 438 | 468 | 517 | 424 | 455 | 449 | 482 |
| Service Time | 4.488 | 3.912 | 5.916 | 5.405 | 4.69 | 6.194 | 5.622 | 5.714 | 5.196 |
| HCM Lane V/C Ratio | 0.498 | 0.827 | 0.002 | 0.218 | 0.182 | 0.071 | 0.169 | 0.036 | 0.305 |
| HCM Control Delay | 15.9 | 31.7 | 10.9 | 12.6 | 11.2 | 11.8 | 12.2 | 11 | 13.5 |
| HCM Lane LOS | C | D | B | B | B | B | B | B | B |
| HCM 95th-tile Q | 2.7 | 8.5 | 0 | 0.8 | 0.7 | 0.2 | 0.6 | 0.1 | 1.3 |

| Intersection | |
|---------------------------|------|
| Intersection Delay, s/veh | 19.1 |
| Intersection LOS | C |

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Lane Configurations | ↖ | ↑ | ↗ | | ↖ | ↗ | ↖ | ↗ | | ↖ | ↑ | ↗ |
| Traffic Vol, veh/h | 51 | 207 | 34 | 1 | 68 | 50 | 250 | 317 | 26 | 84 | 105 | 72 |
| Future Vol, veh/h | 51 | 207 | 34 | 1 | 68 | 50 | 250 | 317 | 26 | 84 | 105 | 72 |
| Peak Hour Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.92 | 0.92 | 0.92 | 0.81 | 0.81 | 0.81 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 51 | 207 | 34 | 1 | 68 | 50 | 272 | 345 | 28 | 104 | 130 | 89 |
| Number of Lanes | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 |

| Approach | EB | WB | NB | SB |
|----------------------------|------|------|------|------|
| Opposing Approach | WB | EB | SB | NB |
| Opposing Lanes | 2 | 3 | 3 | 2 |
| Conflicting Approach Left | SB | NB | EB | WB |
| Conflicting Lanes Left | 3 | 2 | 3 | 2 |
| Conflicting Approach Right | NB | SB | WB | EB |
| Conflicting Lanes Right | 2 | 3 | 2 | 3 |
| HCM Control Delay | 16.1 | 12.6 | 24.6 | 13.3 |
| HCM LOS | C | B | C | B |

| Lane | NBLn1 | NBLn2 | EBLn1 | EBLn2 | EBLn3 | WBLn1 | WBLn2 | SBLn1 | SBLn2 | SBLn3 |
|------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Vol Left, % | 100% | 0% | 100% | 0% | 0% | 1% | 0% | 100% | 0% | 0% |
| Vol Thru, % | 0% | 92% | 0% | 100% | 0% | 99% | 0% | 0% | 100% | 0% |
| Vol Right, % | 0% | 8% | 0% | 0% | 100% | 0% | 100% | 0% | 0% | 100% |
| Sign Control | Stop | Stop | Stop | Stop | Stop | Stop | Stop | Stop | Stop | Stop |
| Traffic Vol by Lane | 250 | 343 | 51 | 207 | 34 | 69 | 50 | 84 | 105 | 72 |
| LT Vol | 250 | 0 | 51 | 0 | 0 | 1 | 0 | 84 | 0 | 0 |
| Through Vol | 0 | 317 | 0 | 207 | 0 | 68 | 0 | 0 | 105 | 0 |
| RT Vol | 0 | 26 | 0 | 0 | 34 | 0 | 50 | 0 | 0 | 72 |
| Lane Flow Rate | 272 | 373 | 51 | 207 | 34 | 69 | 50 | 104 | 130 | 89 |
| Geometry Grp | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 |
| Degree of Util (X) | 0.58 | 0.738 | 0.122 | 0.467 | 0.07 | 0.167 | 0.111 | 0.244 | 0.287 | 0.179 |
| Departure Headway (Hd) | 7.686 | 7.126 | 8.639 | 8.129 | 7.416 | 8.693 | 7.969 | 8.467 | 7.957 | 7.242 |
| Convergence, Y/N | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Cap | 470 | 507 | 415 | 443 | 482 | 412 | 449 | 423 | 451 | 494 |
| Service Time | 5.44 | 4.88 | 6.403 | 5.893 | 5.18 | 6.467 | 5.742 | 6.231 | 5.72 | 5.006 |
| HCM Lane V/C Ratio | 0.579 | 0.736 | 0.123 | 0.467 | 0.071 | 0.167 | 0.111 | 0.246 | 0.288 | 0.18 |
| HCM Control Delay | 20.6 | 27.5 | 12.6 | 17.9 | 10.7 | 13.2 | 11.7 | 14 | 13.9 | 11.6 |
| HCM Lane LOS | C | D | B | C | B | B | B | B | B | B |
| HCM 95th-tile Q | 3.6 | 6.1 | 0.4 | 2.4 | 0.2 | 0.6 | 0.4 | 0.9 | 1.2 | 0.6 |

9: Curtis & Judge Orr Performance by lane Interval #1 7:30

| Lane | EB | WB | NB | SB | All |
|--------------------|-----|-----|------|-----|------|
| Movements Served | LTR | LTR | LTR | LTR | |
| Denied Del/Veh (s) | | | | | 0.0 |
| Total Del/Veh (s) | 6.1 | 4.7 | 13.6 | 8.8 | 10.9 |

9: Curtis & Judge Orr Performance by lane Interval #2 7:45

| Lane | EB | WB | NB | SB | All |
|--------------------|-----|-----|------|-----|------|
| Movements Served | LTR | LTR | LTR | LTR | |
| Denied Del/Veh (s) | | | | | 0.0 |
| Total Del/Veh (s) | 6.5 | 4.6 | 13.6 | 8.3 | 10.8 |

9: Curtis & Judge Orr Performance by lane Interval #3 8:00

| Lane | EB | WB | NB | SB | All |
|--------------------|-----|-----|------|-----|------|
| Movements Served | LTR | LTR | LTR | LTR | |
| Denied Del/Veh (s) | | | | | 0.1 |
| Total Del/Veh (s) | 6.9 | 5.6 | 20.4 | 9.3 | 15.6 |

9: Curtis & Judge Orr Performance by lane Interval #4 8:15

| Lane | EB | WB | NB | SB | All |
|--------------------|-----|-----|------|-----|------|
| Movements Served | LTR | LTR | LTR | LTR | |
| Denied Del/Veh (s) | | | | | 0.0 |
| Total Del/Veh (s) | 6.3 | 5.3 | 16.1 | 9.1 | 12.6 |

9: Curtis & Judge Orr Performance by lane Entire Run

| Lane | EB | WB | NB | SB | All |
|--------------------|-----|-----|------|-----|------|
| Movements Served | LTR | LTR | LTR | LTR | |
| Denied Del/Veh (s) | | | | | 0.1 |
| Total Del/Veh (s) | 7.1 | 5.2 | 18.3 | 9.5 | 13.8 |

10: Curtis & Falcon Hwy Performance by lane Interval #1 7:30

| Lane | EB | WB | NB | SB | All |
|--------------------|-----|-----|------|-----|-----|
| Movements Served | LTR | LTR | LTR | LTR | |
| Denied Del/Veh (s) | | | | | 0.2 |
| Total Del/Veh (s) | 7.5 | 5.2 | 10.4 | 4.6 | 8.0 |

10: Curtis & Falcon Hwy Performance by lane Interval #2 7:45

| Lane | EB | WB | NB | SB | All |
|--------------------|-----|-----|------|-----|-----|
| Movements Served | LTR | LTR | LTR | LTR | |
| Denied Del/Veh (s) | | | | | 0.2 |
| Total Del/Veh (s) | 6.7 | 5.6 | 13.4 | 4.3 | 9.4 |

10: Curtis & Falcon Hwy Performance by lane Interval #3 8:00

| Lane | EB | WB | NB | SB | All |
|--------------------|-----|-----|------|-----|------|
| Movements Served | LTR | LTR | LTR | LTR | |
| Denied Del/Veh (s) | | | | | 0.3 |
| Total Del/Veh (s) | 7.7 | 5.3 | 24.7 | 5.4 | 15.4 |

10: Curtis & Falcon Hwy Performance by lane Interval #4 8:15

| Lane | EB | WB | NB | SB | All |
|--------------------|-----|-----|------|-----|------|
| Movements Served | LTR | LTR | LTR | LTR | |
| Denied Del/Veh (s) | | | | | 0.2 |
| Total Del/Veh (s) | 7.4 | 4.8 | 14.4 | 5.2 | 10.0 |

10: Curtis & Falcon Hwy Performance by lane Entire Run

| Lane | EB | WB | NB | SB | All |
|--------------------|-----|-----|------|-----|------|
| Movements Served | LTR | LTR | LTR | LTR | |
| Denied Del/Veh (s) | | | | | 0.2 |
| Total Del/Veh (s) | 7.5 | 5.4 | 17.0 | 5.0 | 11.2 |

Total Zone Performance By Interval

| Interval Start | 7:30 | 7:45 | 8:00 | 8:15 | All |
|--------------------|------|-------|-------|-------|-------|
| Denied Del/Veh (s) | | 0.3 | 0.4 | 0.5 | 0.4 |
| Total Del/Veh (s) | | 112.7 | 114.7 | 183.7 | 149.1 |

Lanes, Volumes, Timings
8: US 24 & Curtis/Stapleton

2020 Existing + Site
PM

| Lane Group | SEL | SET | SER | NWL | NWT | NWR | NEL | NET | NER | SWL | SWT | SWR |
|----------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 14 | 125 | 25 | 4 | 218 | 57 | 99 | 478 | 21 | 29 | 297 | 22 |
| Future Volume (vph) | 14 | 125 | 25 | 4 | 218 | 57 | 99 | 478 | 21 | 29 | 297 | 22 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | 190 | | 325 | 215 | | 215 | 890 | | 1000 | 790 | | 790 |
| Storage Lanes | 1 | | 1 | 1 | | 1 | 1 | | 1 | 1 | | 1 |
| Taper Length (ft) | 240 | | | 200 | | | 190 | | | 190 | | |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Frt | | | 0.850 | | | 0.850 | | | 0.850 | | | 0.850 |
| Flt Protected | 0.950 | | | 0.950 | | | 0.950 | | | 0.950 | | |
| Satd. Flow (prot) | 1770 | 1863 | 1583 | 1770 | 1863 | 1583 | 1770 | 1863 | 1583 | 1770 | 1863 | 1583 |
| Flt Permitted | 0.575 | | | 0.677 | | | 0.352 | | | 0.267 | | |
| Satd. Flow (perm) | 1071 | 1863 | 1583 | 1261 | 1863 | 1583 | 656 | 1863 | 1583 | 497 | 1863 | 1583 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | | 143 | | | 143 | | | 143 | | | 143 |
| Link Speed (mph) | | 45 | | 45 | | | 55 | | | 55 | | |
| Link Distance (ft) | | 4560 | | 5565 | | | 6479 | | | 6170 | | |
| Travel Time (s) | | 69.1 | | 84.3 | | | 80.3 | | | 76.5 | | |
| Peak Hour Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.93 | 0.93 | 0.93 | 0.85 | 0.85 | 0.85 |
| Adj. Flow (vph) | 14 | 125 | 25 | 4 | 218 | 57 | 106 | 514 | 23 | 34 | 349 | 26 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 14 | 125 | 25 | 4 | 218 | 57 | 106 | 514 | 23 | 34 | 349 | 26 |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Right | Left | Left | Right | Left | Left | Right | Left | Left | Right |
| Median Width(ft) | | 12 | | 12 | | | 12 | | | 12 | | |
| Link Offset(ft) | | 0 | | 0 | | | 0 | | | 0 | | |
| Crosswalk Width(ft) | | 16 | | 16 | | | 16 | | | 16 | | |
| Two way Left Turn Lane | | | | | | | | | | | | |
| Headway Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Turning Speed (mph) | 15 | | 9 | 15 | | 9 | 15 | | 9 | 15 | | 9 |
| Number of Detectors | 1 | 2 | 1 | 1 | 2 | 1 | 1 | 2 | 1 | 1 | 2 | 1 |
| Detector Template | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right |
| Leading Detector (ft) | 20 | 100 | 20 | 20 | 100 | 20 | 20 | 100 | 20 | 20 | 100 | 20 |
| Trailing Detector (ft) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Detector 1 Position(ft) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Detector 1 Size(ft) | 20 | 6 | 20 | 20 | 6 | 20 | 20 | 6 | 20 | 20 | 6 | 20 |
| Detector 1 Type | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex |
| Detector 1 Channel | | | | | | | | | | | | |
| Detector 1 Extend (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Detector 1 Queue (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Detector 1 Delay (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Detector 2 Position(ft) | | 94 | | 94 | | | 94 | | | 94 | | |
| Detector 2 Size(ft) | | 6 | | 6 | | | 6 | | | 6 | | |
| Detector 2 Type | | Cl+Ex | | Cl+Ex | | | Cl+Ex | | | Cl+Ex | | |
| Detector 2 Channel | | | | | | | | | | | | |
| Detector 2 Extend (s) | | 0.0 | | 0.0 | | | 0.0 | | | 0.0 | | |
| Turn Type | pm+pt | NA | Perm | pm+pt | NA | Perm | pm+pt | NA | Perm | pm+pt | NA | Perm |
| Protected Phases | 1 | 6 | | 5 | 2 | | 7 | 4 | | 3 | 8 | |
| Permitted Phases | 6 | | 6 | 2 | | 2 | 4 | | 4 | 8 | | 8 |

Lanes, Volumes, Timings
8: US 24 & Curtis/Stapleton

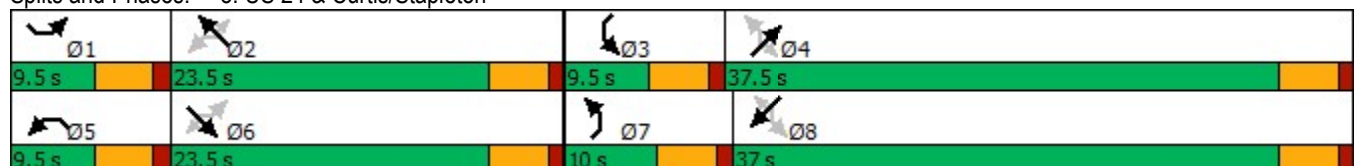
2020 Existing + Site
PM

| Lane Group | SEL | SET | SER | NWL | NWT | NWR | NEL | NET | NER | SWL | SWT | SWR |
|-------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Detector Phase | 1 | 6 | 6 | 5 | 2 | 2 | 7 | 4 | 4 | 3 | 8 | 8 |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 |
| Minimum Split (s) | 9.5 | 22.5 | 22.5 | 9.5 | 22.5 | 22.5 | 9.5 | 22.5 | 22.5 | 9.5 | 22.5 | 22.5 |
| Total Split (s) | 9.5 | 23.5 | 23.5 | 9.5 | 23.5 | 23.5 | 10.0 | 37.5 | 37.5 | 9.5 | 37.0 | 37.0 |
| Total Split (%) | 11.9% | 29.4% | 29.4% | 11.9% | 29.4% | 29.4% | 12.5% | 46.9% | 46.9% | 11.9% | 46.3% | 46.3% |
| Maximum Green (s) | 5.0 | 19.0 | 19.0 | 5.0 | 19.0 | 19.0 | 5.5 | 33.0 | 33.0 | 5.0 | 32.5 | 32.5 |
| Yellow Time (s) | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 |
| All-Red Time (s) | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 |
| Lead/Lag | Lead | Lag | Lag | Lead | Lag | Lag | Lead | Lag | Lag | Lead | Lag | Lag |
| Lead-Lag Optimize? | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Vehicle Extension (s) | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 |
| Recall Mode | None | Max | Max | None | Max | Max | None | None | None | None | None | None |
| Walk Time (s) | | 7.0 | 7.0 | | 7.0 | 7.0 | | 7.0 | 7.0 | | 7.0 | 7.0 |
| Flash Dont Walk (s) | | 11.0 | 11.0 | | 11.0 | 11.0 | | 11.0 | 11.0 | | 11.0 | 11.0 |
| Pedestrian Calls (#/hr) | | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 |
| Act Effct Green (s) | 20.8 | 20.0 | 20.0 | 20.8 | 20.0 | 20.0 | 25.0 | 23.2 | 23.2 | 22.5 | 18.6 | 18.6 |
| Actuated g/C Ratio | 0.36 | 0.35 | 0.35 | 0.36 | 0.35 | 0.35 | 0.44 | 0.41 | 0.41 | 0.39 | 0.33 | 0.33 |
| v/c Ratio | 0.03 | 0.19 | 0.04 | 0.01 | 0.33 | 0.09 | 0.27 | 0.68 | 0.03 | 0.11 | 0.58 | 0.04 |
| Control Delay | 15.7 | 19.1 | 0.1 | 15.8 | 20.1 | 0.3 | 10.1 | 20.2 | 0.1 | 8.9 | 20.6 | 0.1 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 15.7 | 19.1 | 0.1 | 15.8 | 20.1 | 0.3 | 10.1 | 20.2 | 0.1 | 8.9 | 20.6 | 0.1 |
| LOS | B | B | A | B | C | A | B | C | A | A | C | A |
| Approach Delay | | 15.9 | | | 16.0 | | | 17.8 | | | 18.3 | |
| Approach LOS | | B | | | B | | | B | | | B | |

Intersection Summary

| | |
|------------------------------------|------------------------|
| Area Type: | Other |
| Cycle Length: | 80 |
| Actuated Cycle Length: | 57.2 |
| Natural Cycle: | 65 |
| Control Type: | Actuated-Uncoordinated |
| Maximum v/c Ratio: | 0.68 |
| Intersection Signal Delay: | 17.4 |
| Intersection LOS: | B |
| Intersection Capacity Utilization: | 52.2% |
| ICU Level of Service: | A |
| Analysis Period (min): | 15 |

Splits and Phases: 8: US 24 & Curtis/Stapleton




























| Intersection | | | | | | | | | |
|-----------------------------|-------|-------|-------|-------|-------|-------|-------|-------|--|
| Intersection Delay, s/veh | 6.8 | | | | | | | | |
| Intersection LOS | A | | | | | | | | |
| Approach | EB | | WB | | NB | | SB | | |
| Entry Lanes | 2 | | 2 | | 2 | | 2 | | |
| Conflicting Circle Lanes | 1 | | 1 | | 1 | | 1 | | |
| Adj Approach Flow, veh/h | 310 | | 428 | | 411 | | 388 | | |
| Demand Flow Rate, veh/h | 316 | | 437 | | 419 | | 396 | | |
| Vehicles Circulating, veh/h | 403 | | 416 | | 145 | | 441 | | |
| Vehicles Exiting, veh/h | 433 | | 148 | | 574 | | 412 | | |
| Ped Vol Crossing Leg, #/h | 0 | | 0 | | 0 | | 0 | | |
| Ped Cap Adj | 1.000 | | 1.000 | | 1.000 | | 1.000 | | |
| Approach Delay, s/veh | 6.7 | | 8.2 | | 4.6 | | 7.5 | | |
| Approach LOS | A | | A | | A | | A | | |
| Lane | Left | Right | Left | Right | Left | Right | Left | Right | |
| Designated Moves | L | TR | L | TR | L | TR | L | TR | |
| Assumed Moves | L | TR | L | TR | L | TR | L | TR | |
| RT Channelized | | | | | | | | | |
| Lane Util | 0.057 | 0.943 | 0.076 | 0.924 | 0.325 | 0.675 | 0.114 | 0.886 | |
| Follow-Up Headway, s | 2.535 | 2.535 | 2.535 | 2.535 | 2.535 | 2.535 | 2.535 | 2.535 | |
| Critical Headway, s | 4.544 | 4.544 | 4.544 | 4.544 | 4.544 | 4.544 | 4.544 | 4.544 | |
| Entry Flow, veh/h | 18 | 298 | 33 | 404 | 136 | 283 | 45 | 351 | |
| Cap Entry Lane, veh/h | 984 | 984 | 973 | 973 | 1245 | 1245 | 951 | 951 | |
| Entry HV Adj Factor | 1.000 | 0.981 | 0.970 | 0.979 | 0.978 | 0.982 | 0.978 | 0.979 | |
| Flow Entry, veh/h | 18 | 292 | 32 | 396 | 133 | 278 | 44 | 344 | |
| Cap Entry, veh/h | 984 | 966 | 943 | 952 | 1217 | 1222 | 930 | 931 | |
| V/C Ratio | 0.018 | 0.303 | 0.034 | 0.415 | 0.109 | 0.227 | 0.047 | 0.369 | |
| Control Delay, s/veh | 3.8 | 6.9 | 4.1 | 8.5 | 3.9 | 4.9 | 4.3 | 8.0 | |
| LOS | A | A | A | A | A | A | A | A | |
| 95th %tile Queue, veh | 0 | 1 | 0 | 2 | 0 | 1 | 0 | 2 | |

| Intersection | | | | | | | | | |
|-----------------------------|-------|-------|-------|-------|-------|-------|-------|-------|--|
| Intersection Delay, s/veh | 9.0 | | | | | | | | |
| Intersection LOS | A | | | | | | | | |
| Approach | EB | | WB | | NB | | SB | | |
| Entry Lanes | 2 | | 2 | | 2 | | 2 | | |
| Conflicting Circle Lanes | 1 | | 1 | | 1 | | 1 | | |
| Adj Approach Flow, veh/h | 339 | | 276 | | 358 | | 699 | | |
| Demand Flow Rate, veh/h | 346 | | 282 | | 365 | | 714 | | |
| Vehicles Circulating, veh/h | 648 | | 399 | | 128 | | 333 | | |
| Vehicles Exiting, veh/h | 399 | | 94 | | 866 | | 348 | | |
| Ped Vol Crossing Leg, #/h | 0 | | 0 | | 0 | | 0 | | |
| Ped Cap Adj | 1.000 | | 1.000 | | 1.000 | | 1.000 | | |
| Approach Delay, s/veh | 8.9 | | 6.0 | | 4.2 | | 12.7 | | |
| Approach LOS | A | | A | | A | | B | | |
| Lane | Left | Right | Left | Right | Left | Right | Left | Right | |
| Designated Moves | L | TR | L | TR | L | TR | L | TR | |
| Assumed Moves | L | TR | L | TR | L | TR | L | TR | |
| RT Channelized | | | | | | | | | |
| Lane Util | 0.127 | 0.873 | 0.106 | 0.894 | 0.419 | 0.581 | 0.041 | 0.959 | |
| Follow-Up Headway, s | 2.535 | 2.535 | 2.535 | 2.535 | 2.535 | 2.535 | 2.535 | 2.535 | |
| Critical Headway, s | 4.544 | 4.544 | 4.544 | 4.544 | 4.544 | 4.544 | 4.544 | 4.544 | |
| Entry Flow, veh/h | 44 | 302 | 30 | 252 | 153 | 212 | 29 | 685 | |
| Cap Entry Lane, veh/h | 787 | 787 | 988 | 988 | 1264 | 1264 | 1049 | 1049 | |
| Entry HV Adj Factor | 0.977 | 0.980 | 0.967 | 0.980 | 0.980 | 0.981 | 0.966 | 0.980 | |
| Flow Entry, veh/h | 43 | 296 | 29 | 247 | 150 | 208 | 28 | 671 | |
| Cap Entry, veh/h | 769 | 772 | 955 | 968 | 1239 | 1240 | 1013 | 1028 | |
| V/C Ratio | 0.056 | 0.384 | 0.030 | 0.255 | 0.121 | 0.168 | 0.028 | 0.653 | |
| Control Delay, s/veh | 5.2 | 9.5 | 4.0 | 6.3 | 3.9 | 4.3 | 3.8 | 13.1 | |
| LOS | A | A | A | A | A | A | A | B | |
| 95th %tile Queue, veh | 0 | 2 | 0 | 1 | 0 | 1 | 0 | 5 | |

Lanes, Volumes, Timings
8: US 24 & Curtis/Stapleton

2040 Background
AM

| |  |  |  |  |  |  |  |  |  |  |  |  |  |
|----------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Lane Group | SEL | SET | SER | NWL | NWT | NWR | NEL | NET | NER | SWL | SWT | SWR | |
| Lane Configurations |  |  |  |  |  |  |  |  |  |  |  |  | |
| Traffic Volume (vph) | 175 | 290 | 600 | 75 | 347 | 45 | 300 | 400 | 50 | 123 | 800 | 350 | |
| Future Volume (vph) | 175 | 290 | 600 | 75 | 347 | 45 | 300 | 400 | 50 | 123 | 800 | 350 | |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | |
| Storage Length (ft) | 190 | | 325 | 215 | | 215 | 890 | | 1000 | 790 | | 790 | |
| Storage Lanes | 2 | | 2 | 2 | | 1 | 2 | | 1 | 2 | | 1 | |
| Taper Length (ft) | 240 | | | 200 | | | 190 | | | 190 | | | |
| Lane Util. Factor | 0.97 | 0.95 | 0.88 | 0.97 | 0.95 | 1.00 | 0.97 | 0.95 | 1.00 | 0.97 | 0.95 | 1.00 | |
| Frt | | | 0.850 | | | 0.850 | | | 0.850 | | | 0.850 | |
| Flt Protected | 0.950 | | | 0.950 | | | 0.950 | | | 0.950 | | | |
| Satd. Flow (prot) | 3433 | 3539 | 2787 | 3433 | 3539 | 1583 | 3433 | 3539 | 1583 | 3433 | 3539 | 1583 | |
| Flt Permitted | 0.457 | | | 0.551 | | | 0.189 | | | 0.421 | | | |
| Satd. Flow (perm) | 1651 | 3539 | 2787 | 1991 | 3539 | 1583 | 683 | 3539 | 1583 | 1521 | 3539 | 1583 | |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes | |
| Satd. Flow (RTOR) | | | 468 | | | 143 | | | 143 | | | 286 | |
| Link Speed (mph) | | 45 | | | 45 | | | 55 | | | 55 | | |
| Link Distance (ft) | | 4560 | | | 3434 | | | 6479 | | | 6170 | | |
| Travel Time (s) | | 69.1 | | | 52.0 | | | 80.3 | | | 76.5 | | |
| Peak Hour Factor | 0.87 | 0.87 | 0.87 | 0.94 | 0.94 | 0.94 | 0.78 | 0.78 | 0.78 | 1.00 | 1.00 | 1.00 | |
| Adj. Flow (vph) | 201 | 333 | 690 | 80 | 369 | 48 | 385 | 513 | 64 | 123 | 800 | 350 | |
| Shared Lane Traffic (%) | | | | | | | | | | | | | |
| Lane Group Flow (vph) | 201 | 333 | 690 | 80 | 369 | 48 | 385 | 513 | 64 | 123 | 800 | 350 | |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No | No | |
| Lane Alignment | Left | Left | Right | Left | Left | Right | Left | Left | Right | Left | Left | Right | |
| Median Width(ft) | | 24 | | | 24 | | | 24 | | | 24 | | |
| Link Offset(ft) | | 0 | | | 0 | | | 0 | | | 0 | | |
| Crosswalk Width(ft) | | 16 | | | 16 | | | 16 | | | 16 | | |
| Two way Left Turn Lane | | | | | | | | | | | | | |
| Headway Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | |
| Turning Speed (mph) | 15 | | 9 | 15 | | 9 | 15 | | 9 | 15 | | 9 | |
| Number of Detectors | 1 | 2 | 1 | 1 | 2 | 1 | 1 | 2 | 1 | 1 | 2 | 1 | |
| Detector Template | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right | |
| Leading Detector (ft) | 20 | 100 | 20 | 20 | 100 | 20 | 20 | 100 | 20 | 20 | 100 | 20 | |
| Trailing Detector (ft) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Detector 1 Position(ft) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Detector 1 Size(ft) | 20 | 6 | 20 | 20 | 6 | 20 | 20 | 6 | 20 | 20 | 6 | 20 | |
| Detector 1 Type | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex | |
| Detector 1 Channel | | | | | | | | | | | | | |
| Detector 1 Extend (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | |
| Detector 1 Queue (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | |
| Detector 1 Delay (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | |
| Detector 2 Position(ft) | | 94 | | | 94 | | | 94 | | | 94 | | |
| Detector 2 Size(ft) | | 6 | | | 6 | | | 6 | | | 6 | | |
| Detector 2 Type | | Cl+Ex | | | Cl+Ex | | | Cl+Ex | | | Cl+Ex | | |
| Detector 2 Channel | | | | | | | | | | | | | |
| Detector 2 Extend (s) | | 0.0 | | | 0.0 | | | 0.0 | | | 0.0 | | |
| Turn Type | pm+pt | NA | Perm | pm+pt | NA | Perm | pm+pt | NA | Perm | pm+pt | NA | Perm | |
| Protected Phases | 1 | 6 | | 5 | 2 | | 7 | 4 | | 3 | 8 | | |
| Permitted Phases | 6 | | 6 | 2 | | 2 | 4 | | 4 | 8 | | 8 | |

Lanes, Volumes, Timings
8: US 24 & Curtis/Stapleton

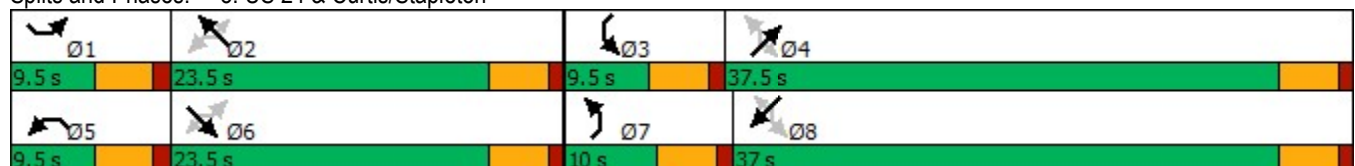
2040 Background
AM

| Lane Group | SEL | SET | SER | NWL | NWT | NWR | NEL | NET | NER | SWL | SWT | SWR |
|-------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Detector Phase | 1 | 6 | 6 | 5 | 2 | 2 | 7 | 4 | 4 | 3 | 8 | 8 |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 |
| Minimum Split (s) | 9.5 | 22.5 | 22.5 | 9.5 | 22.5 | 22.5 | 9.5 | 22.5 | 22.5 | 9.5 | 22.5 | 22.5 |
| Total Split (s) | 9.5 | 23.5 | 23.5 | 9.5 | 23.5 | 23.5 | 10.0 | 37.5 | 37.5 | 9.5 | 37.0 | 37.0 |
| Total Split (%) | 11.9% | 29.4% | 29.4% | 11.9% | 29.4% | 29.4% | 12.5% | 46.9% | 46.9% | 11.9% | 46.3% | 46.3% |
| Maximum Green (s) | 5.0 | 19.0 | 19.0 | 5.0 | 19.0 | 19.0 | 5.5 | 33.0 | 33.0 | 5.0 | 32.5 | 32.5 |
| Yellow Time (s) | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 |
| All-Red Time (s) | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 |
| Lead/Lag | Lead | Lag | Lag | Lead | Lag | Lag | Lead | Lag | Lag | Lead | Lag | Lag |
| Lead-Lag Optimize? | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Vehicle Extension (s) | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 |
| Recall Mode | None | Max | Max | None | Max | Max | None | None | None | None | None | None |
| Walk Time (s) | | 7.0 | 7.0 | | 7.0 | 7.0 | | 7.0 | 7.0 | | 7.0 | 7.0 |
| Flash Dont Walk (s) | | 11.0 | 11.0 | | 11.0 | 11.0 | | 11.0 | 11.0 | | 11.0 | 11.0 |
| Pedestrian Calls (#/hr) | | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 |
| Act Effct Green (s) | 25.2 | 21.3 | 21.3 | 24.1 | 19.1 | 19.1 | 30.3 | 26.0 | 26.0 | 28.4 | 23.4 | 23.4 |
| Actuated g/C Ratio | 0.35 | 0.30 | 0.30 | 0.34 | 0.27 | 0.27 | 0.43 | 0.37 | 0.37 | 0.40 | 0.33 | 0.33 |
| v/c Ratio | 0.28 | 0.32 | 0.59 | 0.10 | 0.39 | 0.09 | 0.76 | 0.40 | 0.10 | 0.17 | 0.69 | 0.49 |
| Control Delay | 16.3 | 22.7 | 10.3 | 15.4 | 24.0 | 0.3 | 23.3 | 18.1 | 0.3 | 10.6 | 23.8 | 6.5 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 16.3 | 22.7 | 10.3 | 15.4 | 24.0 | 0.3 | 23.3 | 18.1 | 0.3 | 10.6 | 23.8 | 6.5 |
| LOS | B | C | B | B | C | A | C | B | A | B | C | A |
| Approach Delay | | 14.7 | | | 20.3 | | | 19.0 | | | 17.8 | |
| Approach LOS | | B | | | C | | | B | | | B | |

Intersection Summary

| | |
|------------------------------------|------------------------|
| Area Type: | Other |
| Cycle Length: | 80 |
| Actuated Cycle Length: | 71.2 |
| Natural Cycle: | 65 |
| Control Type: | Actuated-Uncoordinated |
| Maximum v/c Ratio: | 0.76 |
| Intersection Signal Delay: | 17.4 |
| Intersection LOS: | B |
| Intersection Capacity Utilization: | 60.3% |
| ICU Level of Service: | B |
| Analysis Period (min): | 15 |

Splits and Phases: 8: US 24 & Curtis/Stapleton



| Intersection | | | | | | | | | |
|-----------------------------|-------|-------|-------|-------|-------|-------|-------|-------|--|
| Intersection Delay, s/veh | 13.6 | | | | | | | | |
| Intersection LOS | B | | | | | | | | |
| Approach | EB | | WB | | NB | | SB | | |
| Entry Lanes | 2 | | 2 | | 2 | | 2 | | |
| Conflicting Circle Lanes | 1 | | 1 | | 1 | | 1 | | |
| Adj Approach Flow, veh/h | 455 | | 299 | | 1135 | | 518 | | |
| Demand Flow Rate, veh/h | 465 | | 305 | | 1157 | | 529 | | |
| Vehicles Circulating, veh/h | 547 | | 1126 | | 384 | | 558 | | |
| Vehicles Exiting, veh/h | 539 | | 415 | | 628 | | 873 | | |
| Ped Vol Crossing Leg, #/h | 0 | | 0 | | 0 | | 0 | | |
| Ped Cap Adj | 1.000 | | 1.000 | | 1.000 | | 1.000 | | |
| Approach Delay, s/veh | 10.7 | | 15.8 | | 16.0 | | 9.8 | | |
| Approach LOS | B | | C | | C | | A | | |
| Lane | Left | Right | Left | Right | Left | Right | Left | Right | |
| Designated Moves | L | TR | L | TR | L | TR | L | TR | |
| Assumed Moves | L | TR | L | TR | L | TR | L | TR | |
| RT Channelized | | | | | | | | | |
| Lane Util | 0.062 | 0.938 | 0.144 | 0.856 | 0.315 | 0.685 | 0.202 | 0.798 | |
| Follow-Up Headway, s | 2.535 | 2.535 | 2.535 | 2.535 | 2.535 | 2.535 | 2.535 | 2.535 | |
| Critical Headway, s | 4.544 | 4.544 | 4.544 | 4.544 | 4.544 | 4.544 | 4.544 | 4.544 | |
| Entry Flow, veh/h | 29 | 436 | 44 | 261 | 365 | 792 | 107 | 422 | |
| Cap Entry Lane, veh/h | 863 | 863 | 510 | 510 | 1001 | 1001 | 855 | 855 | |
| Entry HV Adj Factor | 0.966 | 0.980 | 0.977 | 0.981 | 0.981 | 0.981 | 0.981 | 0.979 | |
| Flow Entry, veh/h | 28 | 427 | 43 | 256 | 358 | 777 | 105 | 413 | |
| Cap Entry, veh/h | 833 | 846 | 498 | 500 | 982 | 982 | 839 | 837 | |
| V/C Ratio | 0.034 | 0.505 | 0.086 | 0.512 | 0.365 | 0.791 | 0.125 | 0.494 | |
| Control Delay, s/veh | 4.6 | 11.0 | 8.3 | 17.1 | 7.6 | 19.9 | 5.5 | 10.9 | |
| LOS | A | B | A | C | A | C | A | B | |
| 95th %tile Queue, veh | 0 | 3 | 0 | 3 | 2 | 9 | 0 | 3 | |

























| Intersection | | | | | | | | | |
|-----------------------------|-------|-------|-------|-------|-------|-------|-------|-------|--|
| Intersection Delay, s/veh | 15.3 | | | | | | | | |
| Intersection LOS | C | | | | | | | | |
| Approach | EB | | WB | | NB | | SB | | |
| Entry Lanes | 2 | | 2 | | 2 | | 2 | | |
| Conflicting Circle Lanes | 1 | | 1 | | 1 | | 1 | | |
| Adj Approach Flow, veh/h | 413 | | 396 | | 995 | | 662 | | |
| Demand Flow Rate, veh/h | 421 | | 404 | | 1015 | | 675 | | |
| Vehicles Circulating, veh/h | 573 | | 1044 | | 514 | | 672 | | |
| Vehicles Exiting, veh/h | 774 | | 485 | | 480 | | 776 | | |
| Ped Vol Crossing Leg, #/h | 0 | | 0 | | 0 | | 0 | | |
| Ped Cap Adj | 1.000 | | 1.000 | | 1.000 | | 1.000 | | |
| Approach Delay, s/veh | 9.0 | | 24.2 | | 15.1 | | 14.1 | | |
| Approach LOS | A | | C | | C | | B | | |
| Lane | Left | Right | Left | Right | Left | Right | Left | Right | |
| Designated Moves | L | TR | L | TR | L | TR | L | TR | |
| Assumed Moves | L | TR | L | TR | L | TR | L | TR | |
| RT Channelized | | | | | | | | | |
| Lane Util | 0.150 | 0.850 | 0.037 | 0.963 | 0.354 | 0.646 | 0.256 | 0.744 | |
| Follow-Up Headway, s | 2.535 | 2.535 | 2.535 | 2.535 | 2.535 | 2.535 | 2.535 | 2.535 | |
| Critical Headway, s | 4.544 | 4.544 | 4.544 | 4.544 | 4.544 | 4.544 | 4.544 | 4.544 | |
| Entry Flow, veh/h | 63 | 358 | 15 | 389 | 359 | 656 | 173 | 502 | |
| Cap Entry Lane, veh/h | 843 | 843 | 549 | 549 | 890 | 890 | 770 | 770 | |
| Entry HV Adj Factor | 0.984 | 0.979 | 1.000 | 0.980 | 0.981 | 0.980 | 0.983 | 0.981 | |
| Flow Entry, veh/h | 62 | 351 | 15 | 381 | 352 | 643 | 170 | 492 | |
| Cap Entry, veh/h | 830 | 825 | 549 | 538 | 872 | 872 | 757 | 756 | |
| V/C Ratio | 0.075 | 0.425 | 0.027 | 0.708 | 0.404 | 0.737 | 0.225 | 0.652 | |
| Control Delay, s/veh | 5.1 | 9.7 | 6.9 | 24.9 | 8.9 | 18.5 | 7.3 | 16.5 | |
| LOS | A | A | A | C | A | C | A | C | |
| 95th %tile Queue, veh | 0 | 2 | 0 | 6 | 2 | 7 | 1 | 5 | |

| Intersection | | | |
|-----------------------------|-------|-------|-------|
| Intersection Delay, s/veh | 10.8 | | |
| Intersection LOS | B | | |
| Approach | EB | NB | SB |
| Entry Lanes | 1 | 1 | 1 |
| Conflicting Circle Lanes | 1 | 1 | 1 |
| Adj Approach Flow, veh/h | 209 | 839 | 601 |
| Demand Flow Rate, veh/h | 213 | 856 | 613 |
| Vehicles Circulating, veh/h | 483 | 140 | 52 |
| Vehicles Exiting, veh/h | 182 | 556 | 944 |
| Ped Vol Crossing Leg, #/h | 0 | 0 | 0 |
| Ped Cap Adj | 1.000 | 1.000 | 1.000 |
| Approach Delay, s/veh | 7.1 | 14.0 | 7.6 |
| Approach LOS | A | B | A |
| Lane | Left | Left | Left |
| Designated Moves | LR | LT | TR |
| Assumed Moves | LR | LT | TR |
| RT Channelized | | | |
| Lane Util | 1.000 | 1.000 | 1.000 |
| Follow-Up Headway, s | 2.609 | 2.609 | 2.609 |
| Critical Headway, s | 4.976 | 4.976 | 4.976 |
| Entry Flow, veh/h | 213 | 856 | 613 |
| Cap Entry Lane, veh/h | 843 | 1196 | 1309 |
| Entry HV Adj Factor | 0.981 | 0.980 | 0.980 |
| Flow Entry, veh/h | 209 | 839 | 601 |
| Cap Entry, veh/h | 827 | 1173 | 1282 |
| V/C Ratio | 0.253 | 0.716 | 0.468 |
| Control Delay, s/veh | 7.1 | 14.0 | 7.6 |
| LOS | A | B | A |
| 95th %tile Queue, veh | 1 | 7 | 3 |

| Intersection | | | |
|-----------------------------|-------|-------|-------|
| Intersection Delay, s/veh | 10.1 | | |
| Intersection LOS | B | | |
| Approach | EB | NB | SB |
| Entry Lanes | 1 | 1 | 1 |
| Conflicting Circle Lanes | 1 | 1 | 1 |
| Adj Approach Flow, veh/h | 284 | 770 | 583 |
| Demand Flow Rate, veh/h | 290 | 786 | 595 |
| Vehicles Circulating, veh/h | 510 | 151 | 81 |
| Vehicles Exiting, veh/h | 166 | 649 | 856 |
| Ped Vol Crossing Leg, #/h | 0 | 0 | 0 |
| Ped Cap Adj | 1.000 | 1.000 | 1.000 |
| Approach Delay, s/veh | 8.7 | 12.3 | 7.8 |
| Approach LOS | A | B | A |
| Lane | Left | Left | Left |
| Designated Moves | LR | LT | TR |
| Assumed Moves | LR | LT | TR |
| RT Channelized | | | |
| Lane Util | 1.000 | 1.000 | 1.000 |
| Follow-Up Headway, s | 2.609 | 2.609 | 2.609 |
| Critical Headway, s | 4.976 | 4.976 | 4.976 |
| Entry Flow, veh/h | 290 | 786 | 595 |
| Cap Entry Lane, veh/h | 820 | 1183 | 1270 |
| Entry HV Adj Factor | 0.979 | 0.980 | 0.980 |
| Flow Entry, veh/h | 284 | 770 | 583 |
| Cap Entry, veh/h | 803 | 1159 | 1245 |
| V/C Ratio | 0.354 | 0.664 | 0.468 |
| Control Delay, s/veh | 8.7 | 12.3 | 7.8 |
| LOS | A | B | A |
| 95th %tile Queue, veh | 2 | 5 | 3 |

Lanes, Volumes, Timings
8: US 24 & Curtis/Stapleton

2040 Background
PM

| |  |  |  |  |  |  |  |  |  |  |  |  |
|----------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Lane Group | SEL | SET | SER | NWL | NWT | NWR | NEL | NET | NER | SWL | SWT | SWR |
| Lane Configurations |  |  |  |  |  |  |  |  |  |  |  |  |
| Traffic Volume (vph) | 350 | 267 | 400 | 125 | 382 | 172 | 650 | 850 | 150 | 144 | 500 | 350 |
| Future Volume (vph) | 350 | 267 | 400 | 125 | 382 | 172 | 650 | 850 | 150 | 144 | 500 | 350 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | 190 | | 325 | 215 | | 215 | 890 | | 1000 | 790 | | 790 |
| Storage Lanes | 2 | | 2 | 2 | | 1 | 2 | | 1 | 2 | | 1 |
| Taper Length (ft) | 240 | | | 200 | | | 190 | | | 190 | | |
| Lane Util. Factor | 0.97 | 0.95 | 0.88 | 0.97 | 0.95 | 1.00 | 0.97 | 0.95 | 1.00 | 0.97 | 0.95 | 1.00 |
| Frt | | | 0.850 | | | 0.850 | | | 0.850 | | | 0.850 |
| Flt Protected | 0.950 | | | 0.950 | | | 0.950 | | | 0.950 | | |
| Satd. Flow (prot) | 3433 | 3539 | 2787 | 3433 | 3539 | 1583 | 3433 | 3539 | 1583 | 3433 | 3539 | 1583 |
| Flt Permitted | 0.432 | | | 0.587 | | | 0.312 | | | 0.163 | | |
| Satd. Flow (perm) | 1561 | 3539 | 2787 | 2121 | 3539 | 1583 | 1127 | 3539 | 1583 | 589 | 3539 | 1583 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | | 400 | | | 172 | | | 161 | | | 246 |
| Link Speed (mph) | | 45 | | 45 | | | 55 | | | 55 | | |
| Link Distance (ft) | | 4560 | | 3434 | | | 6479 | | | 6170 | | |
| Travel Time (s) | | 69.1 | | 52.0 | | | 80.3 | | | 76.5 | | |
| Peak Hour Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.93 | 0.93 | 0.93 | 0.85 | 0.85 | 0.85 |
| Adj. Flow (vph) | 350 | 267 | 400 | 125 | 382 | 172 | 699 | 914 | 161 | 169 | 588 | 412 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 350 | 267 | 400 | 125 | 382 | 172 | 699 | 914 | 161 | 169 | 588 | 412 |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Right | Left | Left | Right | Left | Left | Right | Left | Left | Right |
| Median Width(ft) | | 24 | | 24 | | | 24 | | | 24 | | 24 |
| Link Offset(ft) | | 0 | | 0 | | | 0 | | | 0 | | 0 |
| Crosswalk Width(ft) | | 16 | | 16 | | | 16 | | | 16 | | 16 |
| Two way Left Turn Lane | | | | | | | | | | | | |
| Headway Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Turning Speed (mph) | 15 | | 9 | 15 | | 9 | 15 | | 9 | 15 | | 9 |
| Number of Detectors | 1 | 2 | 1 | 1 | 2 | 1 | 1 | 2 | 1 | 1 | 2 | 1 |
| Detector Template | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right |
| Leading Detector (ft) | 20 | 100 | 20 | 20 | 100 | 20 | 20 | 100 | 20 | 20 | 100 | 20 |
| Trailing Detector (ft) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Detector 1 Position(ft) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Detector 1 Size(ft) | 20 | 6 | 20 | 20 | 6 | 20 | 20 | 6 | 20 | 20 | 6 | 20 |
| Detector 1 Type | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex |
| Detector 1 Channel | | | | | | | | | | | | |
| Detector 1 Extend (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Detector 1 Queue (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Detector 1 Delay (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Detector 2 Position(ft) | | 94 | | 94 | | | 94 | | | 94 | | 94 |
| Detector 2 Size(ft) | | 6 | | 6 | | | 6 | | | 6 | | 6 |
| Detector 2 Type | | Cl+Ex | | Cl+Ex | | | Cl+Ex | | | Cl+Ex | | Cl+Ex |
| Detector 2 Channel | | | | | | | | | | | | |
| Detector 2 Extend (s) | | 0.0 | | 0.0 | | | 0.0 | | | 0.0 | | 0.0 |
| Turn Type | pm+pt | NA | Perm | pm+pt | NA | Perm | pm+pt | NA | Perm | pm+pt | NA | Perm |
| Protected Phases | 1 | 6 | | 5 | 2 | | 7 | 4 | | 3 | 8 | |
| Permitted Phases | 6 | | 6 | 2 | | 2 | 4 | | 4 | 8 | | 8 |

Lanes, Volumes, Timings
8: US 24 & Curtis/Stapleton

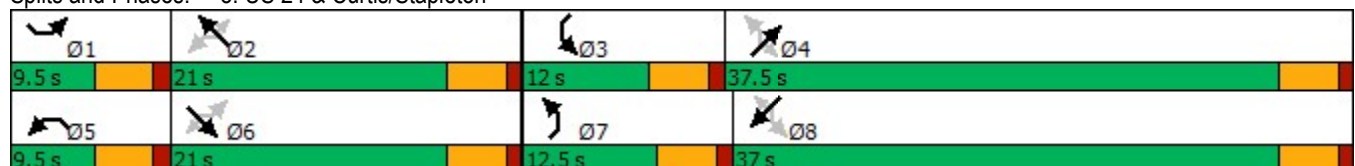
2040 Background
PM

| Lane Group | SEL | SET | SER | NWL | NWT | NWR | NEL | NET | NER | SWL | SWT | SWR |
|-------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Detector Phase | 1 | 6 | 6 | 5 | 2 | 2 | 7 | 4 | 4 | 3 | 8 | 8 |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 |
| Minimum Split (s) | 9.5 | 22.5 | 22.5 | 9.5 | 22.5 | 22.5 | 9.5 | 22.5 | 22.5 | 9.5 | 22.5 | 22.5 |
| Total Split (s) | 9.5 | 21.0 | 21.0 | 9.5 | 21.0 | 21.0 | 12.5 | 37.5 | 37.5 | 12.0 | 37.0 | 37.0 |
| Total Split (%) | 11.9% | 26.3% | 26.3% | 11.9% | 26.3% | 26.3% | 15.6% | 46.9% | 46.9% | 15.0% | 46.3% | 46.3% |
| Maximum Green (s) | 5.0 | 16.5 | 16.5 | 5.0 | 16.5 | 16.5 | 8.0 | 33.0 | 33.0 | 7.5 | 32.5 | 32.5 |
| Yellow Time (s) | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 |
| All-Red Time (s) | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 |
| Lead/Lag | Lead | Lag | Lag | Lead | Lag | Lag | Lead | Lag | Lag | Lead | Lag | Lag |
| Lead-Lag Optimize? | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Vehicle Extension (s) | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 |
| Recall Mode | None | Max | Max | None | Max | Max | None | None | None | None | None | None |
| Walk Time (s) | | 7.0 | 7.0 | | 7.0 | 7.0 | | 7.0 | 7.0 | | 7.0 | 7.0 |
| Flash Dont Walk (s) | | 11.0 | 11.0 | | 11.0 | 11.0 | | 11.0 | 11.0 | | 11.0 | 11.0 |
| Pedestrian Calls (#/hr) | | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 |
| Act Effct Green (s) | 24.2 | 20.3 | 20.3 | 23.2 | 18.1 | 18.1 | 33.6 | 25.6 | 25.6 | 31.6 | 24.6 | 24.6 |
| Actuated g/C Ratio | 0.33 | 0.27 | 0.27 | 0.31 | 0.24 | 0.24 | 0.45 | 0.35 | 0.35 | 0.43 | 0.33 | 0.33 |
| v/c Ratio | 0.55 | 0.27 | 0.38 | 0.17 | 0.44 | 0.33 | 0.91 | 0.75 | 0.25 | 0.32 | 0.50 | 0.60 |
| Control Delay | 22.4 | 24.5 | 4.2 | 17.4 | 26.7 | 6.6 | 32.3 | 25.3 | 3.9 | 11.2 | 20.9 | 11.6 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 22.4 | 24.5 | 4.2 | 17.4 | 26.7 | 6.6 | 32.3 | 25.3 | 3.9 | 11.2 | 20.9 | 11.6 |
| LOS | C | C | A | B | C | A | C | C | A | B | C | B |
| Approach Delay | | 15.8 | | | 19.9 | | | 26.1 | | | 16.2 | |
| Approach LOS | | B | | | B | | | C | | | B | |

Intersection Summary

| | |
|------------------------------------|------------------------|
| Area Type: | Other |
| Cycle Length: | 80 |
| Actuated Cycle Length: | 73.9 |
| Natural Cycle: | 70 |
| Control Type: | Actuated-Uncoordinated |
| Maximum v/c Ratio: | 0.91 |
| Intersection Signal Delay: | 20.5 |
| Intersection LOS: | C |
| Intersection Capacity Utilization: | 67.9% |
| ICU Level of Service: | C |
| Analysis Period (min): | 15 |

Splits and Phases: 8: US 24 & Curtis/Stapleton



| Intersection | | | | | | |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh | 1 | | | | | |
| Movement | EBL | EBR | NBL | NBT | SBT | SBR |
| Lane Configurations | ↙ | ↗ | ↙ | ↗ | ↗ | ↗ |
| Traffic Vol, veh/h | 26 | 13 | 41 | 350 | 593 | 96 |
| Future Vol, veh/h | 26 | 13 | 41 | 350 | 593 | 96 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 0 | 0 | 245 | - | - | 195 |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 92 | 92 | 100 | 100 | 90 | 90 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 28 | 14 | 41 | 350 | 659 | 107 |

| Major/Minor | Minor2 | Major1 | Major2 | | | |
|----------------------|--------|--------|--------|---|---|---|
| Conflicting Flow All | 1091 | 659 | 766 | 0 | - | 0 |
| Stage 1 | 659 | - | - | - | - | - |
| Stage 2 | 432 | - | - | - | - | - |
| Critical Hdwy | 6.42 | 6.22 | 4.12 | - | - | - |
| Critical Hdwy Stg 1 | 5.42 | - | - | - | - | - |
| Critical Hdwy Stg 2 | 5.42 | - | - | - | - | - |
| Follow-up Hdwy | 3.518 | 3.318 | 2.218 | - | - | - |
| Pot Cap-1 Maneuver | 238 | 464 | 847 | - | - | - |
| Stage 1 | 515 | - | - | - | - | - |
| Stage 2 | 655 | - | - | - | - | - |
| Platoon blocked, % | | | | - | - | - |
| Mov Cap-1 Maneuver | 227 | 464 | 847 | - | - | - |
| Mov Cap-2 Maneuver | 227 | - | - | - | - | - |
| Stage 1 | 490 | - | - | - | - | - |
| Stage 2 | 655 | - | - | - | - | - |

| Approach | EB | NB | SB |
|----------------------|------|----|----|
| HCM Control Delay, s | 19.7 | 1 | 0 |
| HCM LOS | C | | |

| Minor Lane/Major Mvmt | NBL | NBT | EBLn1 | EBLn2 | SBT | SBR |
|-----------------------|-------|-----|-------|-------|-----|-----|
| Capacity (veh/h) | 847 | - | 227 | 464 | - | - |
| HCM Lane V/C Ratio | 0.048 | - | 0.124 | 0.03 | - | - |
| HCM Control Delay (s) | 9.5 | - | 23.1 | 13 | - | - |
| HCM Lane LOS | A | - | C | B | - | - |
| HCM 95th %tile Q(veh) | 0.2 | - | 0.4 | 0.1 | - | - |

| Intersection | | | | | | |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh | 1.3 | | | | | |
| Movement | EBL | EBR | NBL | NBT | SBT | SBR |
| Lane Configurations | ↖ | ↗ | | ↖ | ↗ | ↗ |
| Traffic Vol, veh/h | 28 | 26 | 43 | 363 | 567 | 46 |
| Future Vol, veh/h | 28 | 26 | 43 | 363 | 567 | 46 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 0 | 0 | - | - | - | 0 |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 92 | 92 | 100 | 100 | 90 | 90 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 30 | 28 | 43 | 363 | 630 | 51 |

| Major/Minor | Minor2 | Major1 | Major2 | | | |
|----------------------|--------|--------|--------|---|---|---|
| Conflicting Flow All | 1079 | 630 | 681 | 0 | - | 0 |
| Stage 1 | 630 | - | - | - | - | - |
| Stage 2 | 449 | - | - | - | - | - |
| Critical Hdwy | 6.42 | 6.22 | 4.12 | - | - | - |
| Critical Hdwy Stg 1 | 5.42 | - | - | - | - | - |
| Critical Hdwy Stg 2 | 5.42 | - | - | - | - | - |
| Follow-up Hdwy | 3.518 | 3.318 | 2.218 | - | - | - |
| Pot Cap-1 Maneuver | 242 | 482 | 912 | - | - | - |
| Stage 1 | 531 | - | - | - | - | - |
| Stage 2 | 643 | - | - | - | - | - |
| Platoon blocked, % | | | | - | - | - |
| Mov Cap-1 Maneuver | 228 | 482 | 912 | - | - | - |
| Mov Cap-2 Maneuver | 228 | - | - | - | - | - |
| Stage 1 | 500 | - | - | - | - | - |
| Stage 2 | 643 | - | - | - | - | - |

| Approach | EB | NB | SB |
|----------------------|------|----|----|
| HCM Control Delay, s | 18.2 | 1 | 0 |
| HCM LOS | C | | |

| Minor Lane/Major Mvmt | NBL | NBT | EBLn1 | EBLn2 | SBT | SBR |
|-----------------------|-------|-----|-------|-------|-----|-----|
| Capacity (veh/h) | 912 | - | 228 | 482 | - | - |
| HCM Lane V/C Ratio | 0.047 | - | 0.133 | 0.059 | - | - |
| HCM Control Delay (s) | 9.1 | - | 23.2 | 12.9 | - | - |
| HCM Lane LOS | A | - | C | B | - | - |
| HCM 95th %tile Q(veh) | 0.1 | - | 0.5 | 0.2 | - | - |

| Intersection | | | | | | |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh | 1.5 | | | | | |
| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
| Lane Configurations | | ↑ | ↑ | ↑ | | ↑ |
| Traffic Vol, veh/h | 125 | 321 | 492 | 38 | 0 | 31 |
| Future Vol, veh/h | 125 | 321 | 492 | 38 | 0 | 31 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | 260 | - | 0 |
| Veh in Median Storage, # | - | 0 | 0 | - | 0 | - |
| Grade, % | - | 0 | 0 | - | 0 | - |
| Peak Hour Factor | 93 | 93 | 85 | 85 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 134 | 345 | 579 | 45 | 0 | 34 |

| Major/Minor | Major1 | Major2 | Minor2 |
|----------------------|--------|--------|--------|
| Conflicting Flow All | 624 | 0 | 0 |
| Stage 1 | - | - | - |
| Stage 2 | - | - | - |
| Critical Hdwy | 4.12 | - | 6.22 |
| Critical Hdwy Stg 1 | - | - | - |
| Critical Hdwy Stg 2 | - | - | - |
| Follow-up Hdwy | 2.218 | - | 3.318 |
| Pot Cap-1 Maneuver | 957 | - | 0 |
| Stage 1 | - | - | 0 |
| Stage 2 | - | - | 0 |
| Platoon blocked, % | - | - | - |
| Mov Cap-1 Maneuver | 957 | - | 515 |
| Mov Cap-2 Maneuver | - | - | - |
| Stage 1 | - | - | - |
| Stage 2 | - | - | - |

| Approach | EB | WB | SB |
|----------------------|-----|----|------|
| HCM Control Delay, s | 2.6 | 0 | 12.5 |
| HCM LOS | | | B |

| Minor Lane/Major Mvmt | EBL | EBT | WBT | WBR | SBLn1 |
|-----------------------|------|-----|-----|-----|-------|
| Capacity (veh/h) | 957 | - | - | - | 515 |
| HCM Lane V/C Ratio | 0.14 | - | - | - | 0.065 |
| HCM Control Delay (s) | 9.4 | - | - | - | 12.5 |
| HCM Lane LOS | A | - | - | - | B |
| HCM 95th %tile Q(veh) | 0.5 | - | - | - | 0.2 |

13: Curtis & Sugarland Performance by movement Interval #1 7:30

| Movement | EBL | EBR | NBL | SBT | SBR | All |
|--------------------|------|-----|-----|-----|-----|-----|
| Denied Del/Veh (s) | 0.1 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Del/Veh (s) | 11.0 | 3.0 | 3.6 | 0.5 | 0.5 | 1.1 |

13: Curtis & Sugarland Performance by movement Interval #2 7:45

| Movement | EBL | EBR | NBL | SBT | SBR | All |
|--------------------|------|-----|-----|-----|-----|-----|
| Denied Del/Veh (s) | 0.1 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Del/Veh (s) | 11.0 | 2.7 | 3.8 | 0.4 | 0.4 | 1.1 |

13: Curtis & Sugarland Performance by movement Interval #3 8:00

| Movement | EBL | EBR | NBL | NBT | SBT | SBR | All |
|--------------------|-----|-----|-----|-----|-----|-----|-----|
| Denied Del/Veh (s) | 0.1 | 0.1 | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 |
| Total Del/Veh (s) | 9.9 | 2.6 | 4.5 | 0.0 | 0.4 | 0.4 | 1.0 |

13: Curtis & Sugarland Performance by movement Interval #4 8:15

| Movement | EBL | EBR | NBL | NBT | SBT | SBR | All |
|--------------------|------|-----|-----|-----|-----|-----|-----|
| Denied Del/Veh (s) | 0.2 | 0.1 | 0.0 | | 0.0 | 0.0 | 0.0 |
| Total Del/Veh (s) | 10.9 | 2.7 | 4.0 | | 0.4 | 0.4 | 1.0 |

13: Curtis & Sugarland Performance by movement Entire Run

| Movement | EBL | EBR | NBL | NBT | SBT | SBR | All |
|--------------------|------|-----|-----|-----|-----|-----|-----|
| Denied Del/Veh (s) | 0.1 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Del/Veh (s) | 11.1 | 2.6 | 4.0 | 0.6 | 0.4 | 0.4 | 1.1 |

16: Curtis & Suncadia Performance by movement Interval #1 7:30

| Movement | EBL | EBR | NBL | SBT | SBR | All |
|--------------------|-----|-----|-----|-----|-----|-----|
| Denied Del/Veh (s) | 0.1 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Del/Veh (s) | 9.1 | 2.4 | 4.6 | 0.5 | 0.1 | 1.1 |

16: Curtis & Suncadia Performance by movement Interval #2 7:45

| Movement | EBL | EBR | NBL | SBT | SBR | All |
|--------------------|-----|-----|-----|-----|-----|-----|
| Denied Del/Veh (s) | 0.1 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Del/Veh (s) | 8.3 | 2.4 | 2.9 | 0.5 | 0.1 | 1.0 |

16: Curtis & Suncadia Performance by movement Interval #3 8:00

| Movement | EBL | EBR | NBL | NBT | SBT | SBR | All |
|--------------------|-----|-----|-----|-----|-----|-----|-----|
| Denied Del/Veh (s) | 0.1 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Del/Veh (s) | 9.2 | 2.5 | 2.3 | 0.0 | 0.5 | 0.1 | 1.1 |

16: Curtis & Suncadia Performance by movement Interval #4 8:15

| Movement | EBL | EBR | NBL | SBT | SBR | All |
|--------------------|------|-----|-----|-----|-----|-----|
| Denied Del/Veh (s) | 0.1 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Del/Veh (s) | 11.9 | 2.7 | 4.6 | 0.5 | 0.0 | 1.2 |

16: Curtis & Suncadia Performance by movement Entire Run

| Movement | EBL | EBR | NBL | NBT | SBT | SBR | All |
|--------------------|-----|-----|-----|-----|-----|-----|-----|
| Denied Del/Veh (s) | 0.1 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Del/Veh (s) | 9.9 | 2.5 | 3.5 | 0.0 | 0.5 | 0.1 | 1.1 |

Total Zone Performance By Interval

| Interval Start | 7:30 | 7:45 | 8:00 | 8:15 | All |
|--------------------|------|------|------|------|-------|
| Denied Del/Veh (s) | | 0.1 | 0.1 | 0.2 | 0.2 |
| Total Del/Veh (s) | | 59.3 | 92.9 | 55.8 | 104.3 |

| Intersection | | | | | | | | | |
|-----------------------------|-------|-------|-------|-------|-------|-------|-------|-------|--|
| Intersection Delay, s/veh | 8.1 | | | | | | | | |
| Intersection LOS | A | | | | | | | | |
| Approach | EB | | WB | | NB | | SB | | |
| Entry Lanes | 2 | | 2 | | 2 | | 2 | | |
| Conflicting Circle Lanes | 1 | | 1 | | 1 | | 1 | | |
| Adj Approach Flow, veh/h | 400 | | 438 | | 469 | | 485 | | |
| Demand Flow Rate, veh/h | 408 | | 447 | | 479 | | 495 | | |
| Vehicles Circulating, veh/h | 515 | | 471 | | 143 | | 471 | | |
| Vehicles Exiting, veh/h | 450 | | 150 | | 780 | | 447 | | |
| Ped Vol Crossing Leg, #/h | 0 | | 0 | | 0 | | 0 | | |
| Ped Cap Adj | 1.000 | | 1.000 | | 1.000 | | 1.000 | | |
| Approach Delay, s/veh | 9.3 | | 8.7 | | 4.9 | | 9.6 | | |
| Approach LOS | A | | A | | A | | A | | |
| Lane | Left | Right | Left | Right | Left | Right | Left | Right | |
| Designated Moves | L | TR | L | TR | L | TR | L | TR | |
| Assumed Moves | L | TR | L | TR | L | TR | L | TR | |
| RT Channelized | | | | | | | | | |
| Lane Util | 0.044 | 0.956 | 0.103 | 0.897 | 0.326 | 0.674 | 0.091 | 0.909 | |
| Follow-Up Headway, s | 2.535 | 2.535 | 2.535 | 2.535 | 2.535 | 2.535 | 2.535 | 2.535 | |
| Critical Headway, s | 4.544 | 4.544 | 4.544 | 4.544 | 4.544 | 4.544 | 4.544 | 4.544 | |
| Entry Flow, veh/h | 18 | 390 | 46 | 401 | 156 | 323 | 45 | 450 | |
| Cap Entry Lane, veh/h | 889 | 889 | 925 | 925 | 1247 | 1247 | 925 | 925 | |
| Entry HV Adj Factor | 1.000 | 0.981 | 0.978 | 0.979 | 0.981 | 0.979 | 0.978 | 0.979 | |
| Flow Entry, veh/h | 18 | 382 | 45 | 393 | 153 | 316 | 44 | 441 | |
| Cap Entry, veh/h | 889 | 871 | 905 | 906 | 1223 | 1220 | 904 | 906 | |
| V/C Ratio | 0.020 | 0.439 | 0.050 | 0.434 | 0.125 | 0.259 | 0.049 | 0.486 | |
| Control Delay, s/veh | 4.2 | 9.5 | 4.4 | 9.1 | 4.0 | 5.3 | 4.4 | 10.1 | |
| LOS | A | A | A | A | A | A | A | B | |
| 95th %tile Queue, veh | 0 | 2 | 0 | 2 | 0 | 1 | 0 | 3 | |

























| Intersection | | | | | | | | | |
|-----------------------------|-------|-------|-------|-------|-------|-------|-------|-------|--|
| Intersection Delay, s/veh | 9.0 | | | | | | | | |
| Intersection LOS | A | | | | | | | | |
| Approach | EB | | WB | | NB | | SB | | |
| Entry Lanes | 2 | | 2 | | 2 | | 2 | | |
| Conflicting Circle Lanes | 1 | | 1 | | 1 | | 1 | | |
| Adj Approach Flow, veh/h | 351 | | 306 | | 395 | | 700 | | |
| Demand Flow Rate, veh/h | 358 | | 312 | | 402 | | 714 | | |
| Vehicles Circulating, veh/h | 674 | | 456 | | 161 | | 350 | | |
| Vehicles Exiting, veh/h | 390 | | 107 | | 871 | | 418 | | |
| Ped Vol Crossing Leg, #/h | 0 | | 0 | | 0 | | 0 | | |
| Ped Cap Adj | 1.000 | | 1.000 | | 1.000 | | 1.000 | | |
| Approach Delay, s/veh | 8.9 | | 6.8 | | 4.5 | | 12.6 | | |
| Approach LOS | A | | A | | A | | B | | |
| Lane | Left | Right | Left | Right | Left | Right | Left | Right | |
| Designated Moves | L | TR | L | TR | L | TR | L | TR | |
| Assumed Moves | L | TR | L | TR | L | TR | L | TR | |
| RT Channelized | | | | | | | | | |
| Lane Util | 0.179 | 0.821 | 0.096 | 0.904 | 0.408 | 0.592 | 0.060 | 0.940 | |
| Follow-Up Headway, s | 2.535 | 2.535 | 2.535 | 2.535 | 2.535 | 2.535 | 2.535 | 2.535 | |
| Critical Headway, s | 4.544 | 4.544 | 4.544 | 4.544 | 4.544 | 4.544 | 4.544 | 4.544 | |
| Entry Flow, veh/h | 64 | 294 | 30 | 282 | 164 | 238 | 43 | 671 | |
| Cap Entry Lane, veh/h | 769 | 769 | 938 | 938 | 1227 | 1227 | 1033 | 1033 | |
| Entry HV Adj Factor | 0.984 | 0.979 | 0.967 | 0.982 | 0.982 | 0.981 | 0.977 | 0.981 | |
| Flow Entry, veh/h | 63 | 288 | 29 | 277 | 161 | 234 | 42 | 658 | |
| Cap Entry, veh/h | 757 | 753 | 906 | 921 | 1204 | 1204 | 1009 | 1013 | |
| V/C Ratio | 0.083 | 0.382 | 0.032 | 0.301 | 0.134 | 0.194 | 0.042 | 0.650 | |
| Control Delay, s/veh | 5.6 | 9.6 | 4.3 | 7.1 | 4.1 | 4.7 | 3.9 | 13.1 | |
| LOS | A | A | A | A | A | A | A | B | |
| 95th %tile Queue, veh | 0 | 2 | 0 | 1 | 0 | 1 | 0 | 5 | |

| Intersection | | | |
|-----------------------------|-------|-------|-------|
| Intersection Delay, s/veh | 8.1 | | |
| Intersection LOS | A | | |
| Approach | EB | NB | SB |
| Entry Lanes | 1 | 1 | 1 |
| Conflicting Circle Lanes | 1 | 1 | 1 |
| Adj Approach Flow, veh/h | 42 | 391 | 766 |
| Demand Flow Rate, veh/h | 43 | 399 | 781 |
| Vehicles Circulating, veh/h | 672 | 29 | 42 |
| Vehicles Exiting, veh/h | 151 | 686 | 386 |
| Ped Vol Crossing Leg, #/h | 0 | 0 | 0 |
| Ped Cap Adj | 1.000 | 1.000 | 1.000 |
| Approach Delay, s/veh | 6.0 | 5.4 | 9.7 |
| Approach LOS | A | A | A |
| Lane | Left | Left | Left |
| Designated Moves | LR | LT | TR |
| Assumed Moves | LR | LT | TR |
| RT Channelized | | | |
| Lane Util | 1.000 | 1.000 | 1.000 |
| Follow-Up Headway, s | 2.609 | 2.609 | 2.609 |
| Critical Headway, s | 4.976 | 4.976 | 4.976 |
| Entry Flow, veh/h | 43 | 399 | 781 |
| Cap Entry Lane, veh/h | 695 | 1340 | 1322 |
| Entry HV Adj Factor | 0.977 | 0.980 | 0.981 |
| Flow Entry, veh/h | 42 | 391 | 766 |
| Cap Entry, veh/h | 679 | 1313 | 1296 |
| V/C Ratio | 0.062 | 0.298 | 0.591 |
| Control Delay, s/veh | 6.0 | 5.4 | 9.7 |
| LOS | A | A | A |
| 95th %tile Queue, veh | 0 | 1 | 4 |

| Intersection | | | |
|-----------------------------|-------|-------|-------|
| Intersection Delay, s/veh | 7.3 | | |
| Intersection LOS | A | | |
| Approach | EB | NB | SB |
| Entry Lanes | 1 | 1 | 1 |
| Conflicting Circle Lanes | 1 | 1 | 1 |
| Adj Approach Flow, veh/h | 58 | 406 | 681 |
| Demand Flow Rate, veh/h | 60 | 414 | 695 |
| Vehicles Circulating, veh/h | 643 | 31 | 44 |
| Vehicles Exiting, veh/h | 96 | 672 | 401 |
| Ped Vol Crossing Leg, #/h | 0 | 0 | 0 |
| Ped Cap Adj | 1.000 | 1.000 | 1.000 |
| Approach Delay, s/veh | 6.1 | 5.5 | 8.5 |
| Approach LOS | A | A | A |
| Lane | Left | Left | Left |
| Designated Moves | LR | LT | TR |
| Assumed Moves | LR | LT | TR |
| RT Channelized | | | |
| Lane Util | 1.000 | 1.000 | 1.000 |
| Follow-Up Headway, s | 2.609 | 2.609 | 2.609 |
| Critical Headway, s | 4.976 | 4.976 | 4.976 |
| Entry Flow, veh/h | 60 | 414 | 695 |
| Cap Entry Lane, veh/h | 716 | 1337 | 1319 |
| Entry HV Adj Factor | 0.967 | 0.980 | 0.980 |
| Flow Entry, veh/h | 58 | 406 | 681 |
| Cap Entry, veh/h | 692 | 1310 | 1293 |
| V/C Ratio | 0.084 | 0.310 | 0.527 |
| Control Delay, s/veh | 6.1 | 5.5 | 8.5 |
| LOS | A | A | A |
| 95th %tile Queue, veh | 0 | 1 | 3 |

Lanes, Volumes, Timings
8: US 24 & Curtis/Stapleton

2040 Background + Site
AM

| |  |  |  |  |  |  |  |  |  |  |  |  |
|----------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Lane Group | SEL | SET | SER | NWL | NWT | NWR | NEL | NET | NER | SWL | SWT | SWR |
| Lane Configurations |  |  |  |  |  |  |  |  |  |  |  |  |
| Traffic Volume (vph) | 174 | 368 | 593 | 75 | 372 | 51 | 300 | 400 | 50 | 142 | 797 | 350 |
| Future Volume (vph) | 174 | 368 | 593 | 75 | 372 | 51 | 300 | 400 | 50 | 142 | 797 | 350 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | 190 | | 325 | 215 | | 215 | 890 | | 1000 | 790 | | 790 |
| Storage Lanes | 2 | | 2 | 2 | | 1 | 2 | | 1 | 2 | | 1 |
| Taper Length (ft) | 240 | | | 200 | | | 190 | | | 190 | | |
| Lane Util. Factor | 0.97 | 0.95 | 0.88 | 0.97 | 0.95 | 1.00 | 0.97 | 0.95 | 1.00 | 0.97 | 0.95 | 1.00 |
| Frt | | | 0.850 | | | 0.850 | | | 0.850 | | | 0.850 |
| Flt Protected | 0.950 | | | 0.950 | | | 0.950 | | | 0.950 | | |
| Satd. Flow (prot) | 3433 | 3539 | 2787 | 3433 | 3539 | 1583 | 3433 | 3539 | 1583 | 3433 | 3539 | 1583 |
| Flt Permitted | 0.433 | | | 0.462 | | | 0.190 | | | 0.421 | | |
| Satd. Flow (perm) | 1565 | 3539 | 2787 | 1670 | 3539 | 1583 | 687 | 3539 | 1583 | 1521 | 3539 | 1583 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | | 461 | | | 143 | | | 143 | | | 273 |
| Link Speed (mph) | | 45 | | | 45 | | | 55 | | | 55 | |
| Link Distance (ft) | | 4560 | | | 3434 | | | 6479 | | | 6170 | |
| Travel Time (s) | | 69.1 | | | 52.0 | | | 80.3 | | | 76.5 | |
| Peak Hour Factor | 0.87 | 0.87 | 0.87 | 0.94 | 0.94 | 0.94 | 0.78 | 0.78 | 0.78 | 1.00 | 1.00 | 1.00 |
| Adj. Flow (vph) | 200 | 423 | 682 | 80 | 396 | 54 | 385 | 513 | 64 | 142 | 797 | 350 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 200 | 423 | 682 | 80 | 396 | 54 | 385 | 513 | 64 | 142 | 797 | 350 |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Right | Left | Left | Right | Left | Left | Right | Left | Left | Right |
| Median Width(ft) | | 24 | | | 24 | | | 24 | | | 24 | |
| Link Offset(ft) | | 0 | | | 0 | | | 0 | | | 0 | |
| Crosswalk Width(ft) | | 16 | | | 16 | | | 16 | | | 16 | |
| Two way Left Turn Lane | | | | | | | | | | | | |
| Headway Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Turning Speed (mph) | 15 | | 9 | 15 | | 9 | 15 | | 9 | 15 | | 9 |
| Number of Detectors | 1 | 2 | 1 | 1 | 2 | 1 | 1 | 2 | 1 | 1 | 2 | 1 |
| Detector Template | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right |
| Leading Detector (ft) | 20 | 100 | 20 | 20 | 100 | 20 | 20 | 100 | 20 | 20 | 100 | 20 |
| Trailing Detector (ft) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Detector 1 Position(ft) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Detector 1 Size(ft) | 20 | 6 | 20 | 20 | 6 | 20 | 20 | 6 | 20 | 20 | 6 | 20 |
| Detector 1 Type | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex |
| Detector 1 Channel | | | | | | | | | | | | |
| Detector 1 Extend (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Detector 1 Queue (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Detector 1 Delay (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Detector 2 Position(ft) | | 94 | | | 94 | | | 94 | | | 94 | |
| Detector 2 Size(ft) | | 6 | | | 6 | | | 6 | | | 6 | |
| Detector 2 Type | | Cl+Ex | | | Cl+Ex | | | Cl+Ex | | | Cl+Ex | |
| Detector 2 Channel | | | | | | | | | | | | |
| Detector 2 Extend (s) | | 0.0 | | | 0.0 | | | 0.0 | | | 0.0 | |
| Turn Type | pm+pt | NA | Perm | pm+pt | NA | Perm | pm+pt | NA | Perm | pm+pt | NA | Perm |
| Protected Phases | 1 | 6 | | 5 | 2 | | 7 | 4 | | 3 | 8 | |
| Permitted Phases | 6 | | 6 | 2 | | 2 | 4 | | 4 | 8 | | 8 |

Lanes, Volumes, Timings
8: US 24 & Curtis/Stapleton

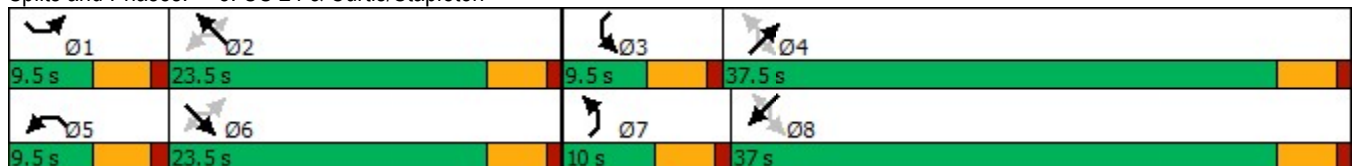
2040 Background + Site
AM

| Lane Group | SEL | SET | SER | NWL | NWT | NWR | NEL | NET | NER | SWL | SWT | SWR |
|-------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Detector Phase | 1 | 6 | 6 | 5 | 2 | 2 | 7 | 4 | 4 | 3 | 8 | 8 |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 |
| Minimum Split (s) | 9.5 | 22.5 | 22.5 | 9.5 | 22.5 | 22.5 | 9.5 | 22.5 | 22.5 | 9.5 | 22.5 | 22.5 |
| Total Split (s) | 9.5 | 23.5 | 23.5 | 9.5 | 23.5 | 23.5 | 10.0 | 37.5 | 37.5 | 9.5 | 37.0 | 37.0 |
| Total Split (%) | 11.9% | 29.4% | 29.4% | 11.9% | 29.4% | 29.4% | 12.5% | 46.9% | 46.9% | 11.9% | 46.3% | 46.3% |
| Maximum Green (s) | 5.0 | 19.0 | 19.0 | 5.0 | 19.0 | 19.0 | 5.5 | 33.0 | 33.0 | 5.0 | 32.5 | 32.5 |
| Yellow Time (s) | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 |
| All-Red Time (s) | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 |
| Lead/Lag | Lead | Lag | Lag | Lead | Lag | Lag | Lead | Lag | Lag | Lead | Lag | Lag |
| Lead-Lag Optimize? | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Vehicle Extension (s) | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 |
| Recall Mode | None | Max | Max | None | Max | Max | None | None | None | None | None | None |
| Walk Time (s) | | 7.0 | 7.0 | | 7.0 | 7.0 | | 7.0 | 7.0 | | 7.0 | 7.0 |
| Flash Dont Walk (s) | | 11.0 | 11.0 | | 11.0 | 11.0 | | 11.0 | 11.0 | | 11.0 | 11.0 |
| Pedestrian Calls (#/hr) | | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 |
| Act Effct Green (s) | 25.2 | 21.3 | 21.3 | 24.2 | 19.1 | 19.1 | 30.3 | 26.0 | 26.0 | 28.4 | 23.4 | 23.4 |
| Actuated g/C Ratio | 0.35 | 0.30 | 0.30 | 0.34 | 0.27 | 0.27 | 0.43 | 0.37 | 0.37 | 0.40 | 0.33 | 0.33 |
| v/c Ratio | 0.29 | 0.40 | 0.59 | 0.12 | 0.42 | 0.10 | 0.76 | 0.40 | 0.10 | 0.19 | 0.69 | 0.50 |
| Control Delay | 16.3 | 23.5 | 10.3 | 15.5 | 24.2 | 0.4 | 23.2 | 18.1 | 0.3 | 10.8 | 23.7 | 7.1 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 16.3 | 23.5 | 10.3 | 15.5 | 24.2 | 0.4 | 23.2 | 18.1 | 0.3 | 10.8 | 23.7 | 7.1 |
| LOS | B | C | B | B | C | A | C | B | A | B | C | A |
| Approach Delay | | 15.5 | | | 20.5 | | | 19.0 | | | 17.8 | |
| Approach LOS | | B | | | C | | | B | | | B | |

Intersection Summary

Area Type: Other
 Cycle Length: 80
 Actuated Cycle Length: 71.2
 Natural Cycle: 65
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.76
 Intersection Signal Delay: 17.7
 Intersection Capacity Utilization 60.8%
 Analysis Period (min) 15
 Intersection LOS: B
 ICU Level of Service B

Splits and Phases: 8: US 24 & Curtis/Stapleton



13: Curtis & Sugarland Performance by movement Interval #1 7:30

| Movement | EBL | EBR | NBL | SBT | SBR | All |
|--------------------|------|-----|-----|-----|-----|-----|
| Denied Del/Veh (s) | 0.2 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Del/Veh (s) | 10.8 | 2.8 | 2.7 | 0.4 | 0.4 | 2.7 |

13: Curtis & Sugarland Performance by movement Interval #2 7:45

| Movement | EBL | EBR | NBL | SBT | SBR | All |
|--------------------|-----|-----|-----|-----|-----|-----|
| Denied Del/Veh (s) | 0.2 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Del/Veh (s) | 9.4 | 2.9 | 2.9 | 0.3 | 0.5 | 2.4 |

13: Curtis & Sugarland Performance by movement Interval #3 8:00

| Movement | EBL | EBR | NBL | NBT | SBT | SBR | All |
|--------------------|------|-----|-----|-----|-----|-----|-----|
| Denied Del/Veh (s) | 0.2 | 0.1 | 0.0 | 0.0 | 0.0 | 0.1 | 0.1 |
| Total Del/Veh (s) | 10.8 | 2.9 | 3.0 | 0.2 | 0.4 | 0.5 | 2.6 |

13: Curtis & Sugarland Performance by movement Interval #4 8:15

| Movement | EBL | EBR | NBL | NBT | SBT | SBR | All |
|--------------------|-----|-----|-----|-----|-----|-----|-----|
| Denied Del/Veh (s) | 0.1 | 0.1 | 0.0 | | 0.0 | 0.0 | 0.0 |
| Total Del/Veh (s) | 8.3 | 3.3 | 2.7 | | 0.3 | 0.3 | 2.1 |

13: Curtis & Sugarland Performance by movement Entire Run

| Movement | EBL | EBR | NBL | NBT | SBT | SBR | All |
|--------------------|------|-----|-----|-----|-----|-----|-----|
| Denied Del/Veh (s) | 0.2 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Del/Veh (s) | 10.1 | 3.1 | 2.9 | 0.2 | 0.4 | 0.4 | 2.5 |

16: Curtis & Suncadia Performance by movement Interval #1 7:30

| Movement | EBL | EBR | NBL | SBT | SBR | All |
|--------------------|------|-----|-----|-----|-----|-----|
| Denied Del/Veh (s) | 0.1 | 0.2 | 0.0 | 0.0 | 0.0 | 0.1 |
| Total Del/Veh (s) | 11.6 | 3.3 | 2.7 | 0.5 | 0.2 | 3.0 |

16: Curtis & Suncadia Performance by movement Interval #2 7:45

| Movement | EBL | EBR | NBL | SBT | SBR | All |
|--------------------|------|-----|-----|-----|-----|-----|
| Denied Del/Veh (s) | 0.2 | 0.2 | 0.0 | 0.0 | 0.0 | 0.1 |
| Total Del/Veh (s) | 11.6 | 3.5 | 3.6 | 0.5 | 0.2 | 3.1 |

16: Curtis & Suncadia Performance by movement Interval #3 8:00

| Movement | EBL | EBR | NBL | NBT | SBT | SBR | All |
|--------------------|------|-----|-----|-----|-----|-----|-----|
| Denied Del/Veh (s) | 0.2 | 0.2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 |
| Total Del/Veh (s) | 11.8 | 3.3 | 3.2 | 0.0 | 0.6 | 0.1 | 3.0 |

16: Curtis & Suncadia Performance by movement Interval #4 8:15

| Movement | EBL | EBR | NBL | SBT | SBR | All |
|--------------------|------|-----|-----|-----|-----|-----|
| Denied Del/Veh (s) | 0.2 | 0.2 | 0.0 | 0.0 | 0.0 | 0.1 |
| Total Del/Veh (s) | 10.4 | 3.4 | 2.9 | 0.5 | 0.2 | 2.7 |

16: Curtis & Suncadia Performance by movement Entire Run

| Movement | EBL | EBR | NBL | NBT | SBT | SBR | All |
|--------------------|------|-----|-----|-----|-----|-----|-----|
| Denied Del/Veh (s) | 0.2 | 0.2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 |
| Total Del/Veh (s) | 11.7 | 3.4 | 3.2 | 0.0 | 0.6 | 0.2 | 3.0 |

Total Zone Performance By Interval

| Interval Start | 7:30 | 7:45 | 8:00 | 8:15 | All |
|--------------------|------|-------|-------|-------|-------|
| Denied Del/Veh (s) | | 0.2 | 0.2 | 0.2 | 0.2 |
| Total Del/Veh (s) | | 111.1 | 132.4 | 107.4 | 134.1 |

| Intersection | | | | | | |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh | 9.2 | | | | | |
| Movement | EBL | EBR | NBL | NBT | SBT | SBR |
| Lane Configurations | ↖ | ↗ | ↖ | ↗ | ↗ | ↖ |
| Traffic Vol, veh/h | 126 | 66 | 47 | 725 | 384 | 103 |
| Future Vol, veh/h | 126 | 66 | 47 | 725 | 384 | 103 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 0 | 0 | 245 | - | - | 195 |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 81 | 81 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 137 | 72 | 51 | 788 | 474 | 127 |

| Major/Minor | Minor2 | Major1 | Major2 | | | |
|----------------------|--------|--------|--------|---|---|---|
| Conflicting Flow All | 1364 | 474 | 601 | 0 | - | 0 |
| Stage 1 | 474 | - | - | - | - | - |
| Stage 2 | 890 | - | - | - | - | - |
| Critical Hdwy | 6.42 | 6.22 | 4.12 | - | - | - |
| Critical Hdwy Stg 1 | 5.42 | - | - | - | - | - |
| Critical Hdwy Stg 2 | 5.42 | - | - | - | - | - |
| Follow-up Hdwy | 3.518 | 3.318 | 2.218 | - | - | - |
| Pot Cap-1 Maneuver | 163 | 590 | 976 | - | - | - |
| Stage 1 | 626 | - | - | - | - | - |
| Stage 2 | 401 | - | - | - | - | - |
| Platoon blocked, % | | | | - | - | - |
| Mov Cap-1 Maneuver | 155 | 590 | 976 | - | - | - |
| Mov Cap-2 Maneuver | 155 | - | - | - | - | - |
| Stage 1 | 593 | - | - | - | - | - |
| Stage 2 | 401 | - | - | - | - | - |

| Approach | EB | NB | SB |
|----------------------|------|-----|----|
| HCM Control Delay, s | 70.8 | 0.5 | 0 |
| HCM LOS | F | | |

| Minor Lane/Major Mvmt | NBL | NBT | EBLn1 | EBLn2 | SBT | SBR |
|-----------------------|-------|-----|-------|-------|-----|-----|
| Capacity (veh/h) | 976 | - | 155 | 590 | - | - |
| HCM Lane V/C Ratio | 0.052 | - | 0.884 | 0.122 | - | - |
| HCM Control Delay (s) | 8.9 | - | 101.6 | 11.9 | - | - |
| HCM Lane LOS | A | - | F | B | - | - |
| HCM 95th %tile Q(veh) | 0.2 | - | 6.1 | 0.4 | - | - |

| Intersection | | | | | | |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh | 14.3 | | | | | |
| Movement | EBL | EBR | NBL | NBT | SBT | SBR |
| Lane Configurations | ↘ | ↗ | | ↑ | ↑ | ↗ |
| Traffic Vol, veh/h | 136 | 125 | 73 | 636 | 405 | 67 |
| Future Vol, veh/h | 136 | 125 | 73 | 636 | 405 | 67 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 0 | 0 | - | - | - | 0 |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 81 | 81 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 148 | 136 | 79 | 691 | 500 | 83 |

| Major/Minor | Minor2 | Major1 | Major2 | | | |
|----------------------|--------|--------|--------|---|---|---|
| Conflicting Flow All | 1349 | 500 | 583 | 0 | - | 0 |
| Stage 1 | 500 | - | - | - | - | - |
| Stage 2 | 849 | - | - | - | - | - |
| Critical Hdwy | 6.42 | 6.22 | 4.12 | - | - | - |
| Critical Hdwy Stg 1 | 5.42 | - | - | - | - | - |
| Critical Hdwy Stg 2 | 5.42 | - | - | - | - | - |
| Follow-up Hdwy | 3.518 | 3.318 | 2.218 | - | - | - |
| Pot Cap-1 Maneuver | 166 | 571 | 991 | - | - | - |
| Stage 1 | 609 | - | - | - | - | - |
| Stage 2 | 419 | - | - | - | - | - |
| Platoon blocked, % | | | | - | - | - |
| Mov Cap-1 Maneuver | ~ 145 | 571 | 991 | - | - | - |
| Mov Cap-2 Maneuver | ~ 145 | - | - | - | - | - |
| Stage 1 | 530 | - | - | - | - | - |
| Stage 2 | 419 | - | - | - | - | - |

| Approach | EB | NB | SB |
|----------------------|------|-----|----|
| HCM Control Delay, s | 79.8 | 0.9 | 0 |
| HCM LOS | F | | |

| Minor Lane/Major Mvmt | NBL | NBT | EBLn1 | EBLn2 | SBT | SBR |
|-----------------------|------|-----|-------|-------|-----|-----|
| Capacity (veh/h) | 991 | - | 145 | 571 | - | - |
| HCM Lane V/C Ratio | 0.08 | - | 1.019 | 0.238 | - | - |
| HCM Control Delay (s) | 8.9 | - | 141 | 13.3 | - | - |
| HCM Lane LOS | A | - | F | B | - | - |
| HCM 95th %tile Q(veh) | 0.3 | - | 7.6 | 0.9 | - | - |

Notes
 ~: Volume exceeds capacity \$: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

| Intersection | | | | | | |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh | 2.6 | | | | | |
| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
| Lane Configurations | | ↑ | ↑ | ↑ | | ↑ |
| Traffic Vol, veh/h | 88 | 395 | 497 | 48 | 0 | 154 |
| Future Vol, veh/h | 88 | 395 | 497 | 48 | 0 | 154 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | - | 260 | - | 0 |
| Veh in Median Storage, # | - | 0 | 0 | - | 0 | - |
| Grade, % | - | 0 | 0 | - | 0 | - |
| Peak Hour Factor | 100 | 100 | 100 | 100 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 88 | 395 | 497 | 48 | 0 | 167 |

| Major/Minor | Major1 | Major2 | Minor2 |
|----------------------|--------|--------|--------|
| Conflicting Flow All | 545 | 0 | 0 |
| Stage 1 | - | - | - |
| Stage 2 | - | - | - |
| Critical Hdwy | 4.12 | - | - |
| Critical Hdwy Stg 1 | - | - | - |
| Critical Hdwy Stg 2 | - | - | - |
| Follow-up Hdwy | 2.218 | - | - |
| Pot Cap-1 Maneuver | 1024 | - | 0 |
| Stage 1 | - | - | 0 |
| Stage 2 | - | - | 0 |
| Platoon blocked, % | - | - | - |
| Mov Cap-1 Maneuver | 1024 | - | - |
| Mov Cap-2 Maneuver | - | - | - |
| Stage 1 | - | - | - |
| Stage 2 | - | - | - |

| Approach | EB | WB | SB |
|----------------------|-----|----|------|
| HCM Control Delay, s | 1.6 | 0 | 13.9 |
| HCM LOS | | | B |

| Minor Lane/Major Mvmt | EBL | EBT | WBT | WBR | SBLn1 |
|-----------------------|-------|-----|-----|-----|-------|
| Capacity (veh/h) | 1024 | - | - | - | 573 |
| HCM Lane V/C Ratio | 0.086 | - | - | - | 0.292 |
| HCM Control Delay (s) | 8.8 | - | - | - | 13.9 |
| HCM Lane LOS | A | - | - | - | B |
| HCM 95th %tile Q(veh) | 0.3 | - | - | - | 1.2 |

| Intersection | | | | | | | | | |
|-----------------------------|-------|-------|-------|-------|-------|-------|-------|-------|--|
| Intersection Delay, s/veh | 13.6 | | | | | | | | |
| Intersection LOS | B | | | | | | | | |
| Approach | EB | | WB | | NB | | SB | | |
| Entry Lanes | 2 | | 2 | | 2 | | 2 | | |
| Conflicting Circle Lanes | 1 | | 1 | | 1 | | 1 | | |
| Adj Approach Flow, veh/h | 455 | | 299 | | 1135 | | 518 | | |
| Demand Flow Rate, veh/h | 465 | | 305 | | 1157 | | 529 | | |
| Vehicles Circulating, veh/h | 547 | | 1126 | | 384 | | 558 | | |
| Vehicles Exiting, veh/h | 539 | | 415 | | 628 | | 873 | | |
| Ped Vol Crossing Leg, #/h | 0 | | 0 | | 0 | | 0 | | |
| Ped Cap Adj | 1.000 | | 1.000 | | 1.000 | | 1.000 | | |
| Approach Delay, s/veh | 10.7 | | 15.8 | | 16.0 | | 9.8 | | |
| Approach LOS | B | | C | | C | | A | | |
| Lane | Left | Right | Left | Right | Left | Right | Left | Right | |
| Designated Moves | L | TR | L | TR | L | TR | L | TR | |
| Assumed Moves | L | TR | L | TR | L | TR | L | TR | |
| RT Channelized | | | | | | | | | |
| Lane Util | 0.062 | 0.938 | 0.144 | 0.856 | 0.315 | 0.685 | 0.202 | 0.798 | |
| Follow-Up Headway, s | 2.535 | 2.535 | 2.535 | 2.535 | 2.535 | 2.535 | 2.535 | 2.535 | |
| Critical Headway, s | 4.544 | 4.544 | 4.544 | 4.544 | 4.544 | 4.544 | 4.544 | 4.544 | |
| Entry Flow, veh/h | 29 | 436 | 44 | 261 | 365 | 792 | 107 | 422 | |
| Cap Entry Lane, veh/h | 863 | 863 | 510 | 510 | 1001 | 1001 | 855 | 855 | |
| Entry HV Adj Factor | 0.966 | 0.980 | 0.977 | 0.981 | 0.981 | 0.981 | 0.981 | 0.979 | |
| Flow Entry, veh/h | 28 | 427 | 43 | 256 | 358 | 777 | 105 | 413 | |
| Cap Entry, veh/h | 833 | 846 | 498 | 500 | 982 | 982 | 839 | 837 | |
| V/C Ratio | 0.034 | 0.505 | 0.086 | 0.512 | 0.365 | 0.791 | 0.125 | 0.494 | |
| Control Delay, s/veh | 4.6 | 11.0 | 8.3 | 17.1 | 7.6 | 19.9 | 5.5 | 10.9 | |
| LOS | A | B | A | C | A | C | A | B | |
| 95th %tile Queue, veh | 0 | 3 | 0 | 3 | 2 | 9 | 0 | 3 | |
































| Intersection | | | | | | | | | |
|-----------------------------|-------|-------|-------|-------|-------|-------|-------|-------|--|
| Intersection Delay, s/veh | 13.9 | | | | | | | | |
| Intersection LOS | B | | | | | | | | |
| Approach | EB | | WB | | NB | | SB | | |
| Entry Lanes | 2 | | 2 | | 2 | | 2 | | |
| Conflicting Circle Lanes | 1 | | 1 | | 1 | | 1 | | |
| Adj Approach Flow, veh/h | 413 | | 396 | | 995 | | 662 | | |
| Demand Flow Rate, veh/h | 421 | | 404 | | 1015 | | 675 | | |
| Vehicles Circulating, veh/h | 573 | | 1044 | | 514 | | 672 | | |
| Vehicles Exiting, veh/h | 774 | | 485 | | 480 | | 776 | | |
| Ped Vol Crossing Leg, #/h | 0 | | 0 | | 0 | | 0 | | |
| Ped Cap Adj | 1.000 | | 1.000 | | 1.000 | | 1.000 | | |
| Approach Delay, s/veh | 8.5 | | 16.0 | | 15.1 | | 14.1 | | |
| Approach LOS | A | | C | | C | | B | | |
| Lane | Left | Right | Left | Right | Left | Right | Left | Right | |
| Designated Moves | LT | R | LT | R | L | TR | L | TR | |
| Assumed Moves | LT | R | LT | R | L | TR | L | TR | |
| RT Channelized | | | | | | | | | |
| Lane Util | 0.810 | 0.190 | 0.775 | 0.225 | 0.354 | 0.646 | 0.256 | 0.744 | |
| Follow-Up Headway, s | 2.535 | 2.535 | 2.535 | 2.535 | 2.535 | 2.535 | 2.535 | 2.535 | |
| Critical Headway, s | 4.544 | 4.544 | 4.544 | 4.544 | 4.544 | 4.544 | 4.544 | 4.544 | |
| Entry Flow, veh/h | 341 | 80 | 313 | 91 | 359 | 656 | 173 | 502 | |
| Cap Entry Lane, veh/h | 843 | 843 | 549 | 549 | 890 | 890 | 770 | 770 | |
| Entry HV Adj Factor | 0.981 | 0.975 | 0.981 | 0.978 | 0.981 | 0.980 | 0.983 | 0.981 | |
| Flow Entry, veh/h | 335 | 78 | 307 | 89 | 352 | 643 | 170 | 492 | |
| Cap Entry, veh/h | 827 | 822 | 539 | 537 | 872 | 872 | 757 | 756 | |
| V/C Ratio | 0.405 | 0.095 | 0.570 | 0.166 | 0.404 | 0.737 | 0.225 | 0.652 | |
| Control Delay, s/veh | 9.3 | 5.3 | 18.0 | 8.9 | 8.9 | 18.5 | 7.3 | 16.5 | |
| LOS | A | A | C | A | A | C | A | C | |
| 95th %tile Queue, veh | 2 | 0 | 4 | 1 | 2 | 7 | 1 | 5 | |

| Intersection | | | |
|-----------------------------|-------|-------|-------|
| Intersection Delay, s/veh | 10.8 | | |
| Intersection LOS | B | | |
| Approach | EB | NB | SB |
| Entry Lanes | 1 | 1 | 1 |
| Conflicting Circle Lanes | 1 | 1 | 1 |
| Adj Approach Flow, veh/h | 209 | 839 | 601 |
| Demand Flow Rate, veh/h | 213 | 856 | 613 |
| Vehicles Circulating, veh/h | 483 | 140 | 52 |
| Vehicles Exiting, veh/h | 182 | 556 | 944 |
| Ped Vol Crossing Leg, #/h | 0 | 0 | 0 |
| Ped Cap Adj | 1.000 | 1.000 | 1.000 |
| Approach Delay, s/veh | 7.1 | 14.0 | 7.6 |
| Approach LOS | A | B | A |
| Lane | Left | Left | Left |
| Designated Moves | LR | LT | TR |
| Assumed Moves | LR | LT | TR |
| RT Channelized | | | |
| Lane Util | 1.000 | 1.000 | 1.000 |
| Follow-Up Headway, s | 2.609 | 2.609 | 2.609 |
| Critical Headway, s | 4.976 | 4.976 | 4.976 |
| Entry Flow, veh/h | 213 | 856 | 613 |
| Cap Entry Lane, veh/h | 843 | 1196 | 1309 |
| Entry HV Adj Factor | 0.981 | 0.980 | 0.980 |
| Flow Entry, veh/h | 209 | 839 | 601 |
| Cap Entry, veh/h | 827 | 1173 | 1282 |
| V/C Ratio | 0.253 | 0.716 | 0.468 |
| Control Delay, s/veh | 7.1 | 14.0 | 7.6 |
| LOS | A | B | A |
| 95th %tile Queue, veh | 1 | 7 | 3 |

| Intersection | | | |
|-----------------------------|-------|-------|-------|
| Intersection Delay, s/veh | 10.1 | | |
| Intersection LOS | B | | |
| Approach | EB | NB | SB |
| Entry Lanes | 1 | 1 | 1 |
| Conflicting Circle Lanes | 1 | 1 | 1 |
| Adj Approach Flow, veh/h | 284 | 770 | 583 |
| Demand Flow Rate, veh/h | 290 | 786 | 595 |
| Vehicles Circulating, veh/h | 510 | 151 | 81 |
| Vehicles Exiting, veh/h | 166 | 649 | 856 |
| Ped Vol Crossing Leg, #/h | 0 | 0 | 0 |
| Ped Cap Adj | 1.000 | 1.000 | 1.000 |
| Approach Delay, s/veh | 8.7 | 12.3 | 7.8 |
| Approach LOS | A | B | A |
| Lane | Left | Left | Left |
| Designated Moves | LR | LT | TR |
| Assumed Moves | LR | LT | TR |
| RT Channelized | | | |
| Lane Util | 1.000 | 1.000 | 1.000 |
| Follow-Up Headway, s | 2.609 | 2.609 | 2.609 |
| Critical Headway, s | 4.976 | 4.976 | 4.976 |
| Entry Flow, veh/h | 290 | 786 | 595 |
| Cap Entry Lane, veh/h | 820 | 1183 | 1270 |
| Entry HV Adj Factor | 0.979 | 0.980 | 0.980 |
| Flow Entry, veh/h | 284 | 770 | 583 |
| Cap Entry, veh/h | 803 | 1159 | 1245 |
| V/C Ratio | 0.354 | 0.664 | 0.468 |
| Control Delay, s/veh | 8.7 | 12.3 | 7.8 |
| LOS | A | B | A |
| 95th %tile Queue, veh | 2 | 5 | 3 |

Lanes, Volumes, Timings
8: US 24 & Curtis/Stapleton

2040 Background + Site
PM

| |  |  |  |  |  |  |  |  |  |  |  |  |
|----------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Lane Group | SEL | SET | SER | NWL | NWT | NWR | NEL | NET | NER | SWL | SWT | SWR |
| Lane Configurations |   |   |    |    |   |   |    |   | | | | |
| Traffic Volume (vph) | 347 | 352 | 375 | 125 | 503 | 202 | 650 | 850 | 150 | 165 | 493 | 350 |
| Future Volume (vph) | 347 | 352 | 375 | 125 | 503 | 202 | 650 | 850 | 150 | 165 | 493 | 350 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length (ft) | 190 | | 325 | 215 | | 215 | 890 | | 1000 | 790 | | 790 |
| Storage Lanes | 2 | | 2 | 2 | | 1 | 2 | | 1 | 2 | | 1 |
| Taper Length (ft) | 240 | | | 200 | | | 190 | | | 190 | | |
| Lane Util. Factor | 0.97 | 0.95 | 0.88 | 0.97 | 0.95 | 1.00 | 0.97 | 0.95 | 1.00 | 0.97 | 0.95 | 1.00 |
| Frt | | | 0.850 | | | 0.850 | | | 0.850 | | | 0.850 |
| Flt Protected | 0.950 | | | 0.950 | | | 0.950 | | | 0.950 | | |
| Satd. Flow (prot) | 3433 | 3539 | 2787 | 3433 | 3539 | 1583 | 3433 | 3539 | 1583 | 3433 | 3539 | 1583 |
| Flt Permitted | 0.324 | | | 0.522 | | | 0.321 | | | 0.162 | | |
| Satd. Flow (perm) | 1171 | 3539 | 2787 | 1886 | 3539 | 1583 | 1160 | 3539 | 1583 | 585 | 3539 | 1583 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | | 375 | | | 202 | | | 161 | | | 217 |
| Link Speed (mph) | | 45 | | | 45 | | | 55 | | | 55 | |
| Link Distance (ft) | | 4560 | | | 3434 | | | 6479 | | | 6170 | |
| Travel Time (s) | | 69.1 | | | 52.0 | | | 80.3 | | | 76.5 | |
| Peak Hour Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.93 | 0.93 | 0.93 | 0.85 | 0.85 | 0.85 |
| Adj. Flow (vph) | 347 | 352 | 375 | 125 | 503 | 202 | 699 | 914 | 161 | 194 | 580 | 412 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 347 | 352 | 375 | 125 | 503 | 202 | 699 | 914 | 161 | 194 | 580 | 412 |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Right | Left | Left | Right | Left | Left | Right | Left | Left | Right |
| Median Width(ft) | | 24 | | | 24 | | | 24 | | | 24 | |
| Link Offset(ft) | | 0 | | | 0 | | | 0 | | | 0 | |
| Crosswalk Width(ft) | | 16 | | | 16 | | | 16 | | | 16 | |
| Two way Left Turn Lane | | | | | | | | | | | | |
| Headway Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Turning Speed (mph) | 15 | | 9 | 15 | | 9 | 15 | | 9 | 15 | | 9 |
| Number of Detectors | 1 | 2 | 1 | 1 | 2 | 1 | 1 | 2 | 1 | 1 | 2 | 1 |
| Detector Template | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right |
| Leading Detector (ft) | 20 | 100 | 20 | 20 | 100 | 20 | 20 | 100 | 20 | 20 | 100 | 20 |
| Trailing Detector (ft) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Detector 1 Position(ft) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Detector 1 Size(ft) | 20 | 6 | 20 | 20 | 6 | 20 | 20 | 6 | 20 | 20 | 6 | 20 |
| Detector 1 Type | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex | Cl+Ex |
| Detector 1 Channel | | | | | | | | | | | | |
| Detector 1 Extend (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Detector 1 Queue (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Detector 1 Delay (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Detector 2 Position(ft) | | 94 | | | 94 | | | 94 | | | 94 | |
| Detector 2 Size(ft) | | 6 | | | 6 | | | 6 | | | 6 | |
| Detector 2 Type | | Cl+Ex | | | Cl+Ex | | | Cl+Ex | | | Cl+Ex | |
| Detector 2 Channel | | | | | | | | | | | | |
| Detector 2 Extend (s) | | 0.0 | | | 0.0 | | | 0.0 | | | 0.0 | |
| Turn Type | pm+pt | NA | Perm | pm+pt | NA | Perm | pm+pt | NA | Perm | pm+pt | NA | Perm |
| Protected Phases | 1 | 6 | | 5 | 2 | | 7 | 4 | | 3 | 8 | |
| Permitted Phases | 6 | | 6 | 2 | | 2 | 4 | | 4 | 8 | | 8 |

Lanes, Volumes, Timings
8: US 24 & Curtis/Stapleton

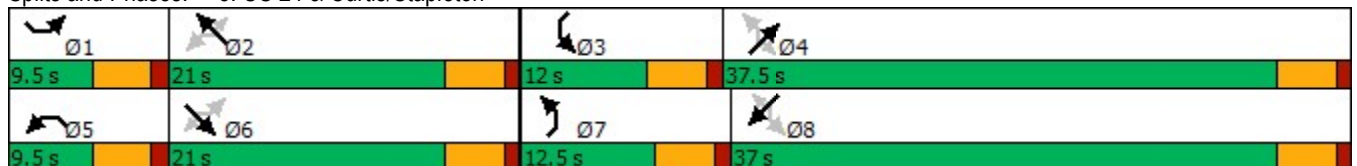
2040 Background + Site
PM

| Lane Group | SEL | SET | SER | NWL | NWT | NWR | NEL | NET | NER | SWL | SWT | SWR |
|-------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Detector Phase | 1 | 6 | 6 | 5 | 2 | 2 | 7 | 4 | 4 | 3 | 8 | 8 |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 |
| Minimum Split (s) | 9.5 | 22.5 | 22.5 | 9.5 | 22.5 | 22.5 | 9.5 | 22.5 | 22.5 | 9.5 | 22.5 | 22.5 |
| Total Split (s) | 9.5 | 21.0 | 21.0 | 9.5 | 21.0 | 21.0 | 12.5 | 37.5 | 37.5 | 12.0 | 37.0 | 37.0 |
| Total Split (%) | 11.9% | 26.3% | 26.3% | 11.9% | 26.3% | 26.3% | 15.6% | 46.9% | 46.9% | 15.0% | 46.3% | 46.3% |
| Maximum Green (s) | 5.0 | 16.5 | 16.5 | 5.0 | 16.5 | 16.5 | 8.0 | 33.0 | 33.0 | 7.5 | 32.5 | 32.5 |
| Yellow Time (s) | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 |
| All-Red Time (s) | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 |
| Lead/Lag | Lead | Lag | Lag | Lead | Lag | Lag | Lead | Lag | Lag | Lead | Lag | Lag |
| Lead-Lag Optimize? | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Vehicle Extension (s) | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 |
| Recall Mode | None | Max | Max | None | Max | Max | None | None | None | None | None | None |
| Walk Time (s) | | 7.0 | 7.0 | | 7.0 | 7.0 | | 7.0 | 7.0 | | 7.0 | 7.0 |
| Flash Dont Walk (s) | | 11.0 | 11.0 | | 11.0 | 11.0 | | 11.0 | 11.0 | | 11.0 | 11.0 |
| Pedestrian Calls (#/hr) | | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 |
| Act Effct Green (s) | 24.2 | 20.3 | 20.3 | 23.2 | 18.1 | 18.1 | 33.7 | 25.6 | 25.6 | 32.0 | 24.8 | 24.8 |
| Actuated g/C Ratio | 0.33 | 0.27 | 0.27 | 0.31 | 0.24 | 0.24 | 0.45 | 0.35 | 0.35 | 0.43 | 0.33 | 0.33 |
| v/c Ratio | 0.65 | 0.36 | 0.36 | 0.18 | 0.58 | 0.37 | 0.90 | 0.75 | 0.25 | 0.37 | 0.49 | 0.61 |
| Control Delay | 25.9 | 25.4 | 4.2 | 17.6 | 28.9 | 6.5 | 30.5 | 25.4 | 3.9 | 11.6 | 20.7 | 13.2 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 25.9 | 25.4 | 4.2 | 17.6 | 28.9 | 6.5 | 30.5 | 25.4 | 3.9 | 11.6 | 20.7 | 13.2 |
| LOS | C | C | A | B | C | A | C | C | A | B | C | B |
| Approach Delay | | 18.2 | | | 21.8 | | | 25.5 | | | 16.6 | |
| Approach LOS | | B | | | C | | | C | | | B | |

Intersection Summary

| | |
|------------------------------------|------------------------|
| Area Type: | Other |
| Cycle Length: | 80 |
| Actuated Cycle Length: | 74.1 |
| Natural Cycle: | 70 |
| Control Type: | Actuated-Uncoordinated |
| Maximum v/c Ratio: | 0.90 |
| Intersection Signal Delay: | 21.1 |
| Intersection LOS: | C |
| Intersection Capacity Utilization: | 71.0% |
| ICU Level of Service: | C |
| Analysis Period (min): | 15 |

Splits and Phases: 8: US 24 & Curtis/Stapleton





LSC Transportation Consultants, Inc.

545 E Pikes Peak Ave, Suite 210

Colorado Springs, CO 80905

719-633-2868

File Name : Curtis Rd - Falcon Hwy AM 1-20

Site Code : 195140

Start Date : 1/7/2020

Page No : 1

Groups Printed- Unshifted

| Start Time | Curtis Rd Southbound | | | | | Falcon Hwy Westbound | | | | | Curtis Rd Northbound | | | | | Falcon Hwy Eastbound | | | | | Int. Total |
|-------------|----------------------|---------|-------|------|------------|----------------------|---------|-------|------|------------|----------------------|---------|-------|------|------------|----------------------|---------|-------|------|------------|------------|
| | Left | Through | Right | Peds | App. Total | Left | Through | Right | Peds | App. Total | Left | Through | Right | Peds | App. Total | Left | Through | Right | Peds | App. Total | |
| 06:30 AM | 0 | 72 | 2 | 0 | 74 | 4 | 42 | 4 | 0 | 50 | 12 | 6 | 1 | 0 | 19 | 1 | 4 | 44 | 0 | 49 | 192 |
| 06:45 AM | 0 | 63 | 2 | 0 | 65 | 5 | 35 | 5 | 0 | 45 | 14 | 11 | 1 | 0 | 26 | 1 | 7 | 59 | 0 | 67 | 203 |
| Total | 0 | 135 | 4 | 0 | 139 | 9 | 77 | 9 | 0 | 95 | 26 | 17 | 2 | 0 | 45 | 2 | 11 | 103 | 0 | 116 | 395 |
| 07:00 AM | 2 | 65 | 6 | 0 | 73 | 0 | 46 | 8 | 0 | 54 | 18 | 26 | 0 | 0 | 44 | 3 | 9 | 58 | 0 | 70 | 241 |
| 07:15 AM | 2 | 75 | 5 | 0 | 82 | 5 | 48 | 7 | 0 | 60 | 17 | 9 | 0 | 0 | 26 | 0 | 7 | 69 | 0 | 76 | 244 |
| 07:30 AM | 4 | 66 | 4 | 0 | 74 | 1 | 42 | 2 | 0 | 45 | 10 | 9 | 0 | 0 | 19 | 1 | 5 | 65 | 0 | 71 | 209 |
| 07:45 AM | 0 | 47 | 3 | 0 | 50 | 3 | 32 | 6 | 0 | 41 | 12 | 4 | 2 | 0 | 18 | 0 | 12 | 30 | 0 | 42 | 151 |
| Total | 8 | 253 | 18 | 0 | 279 | 9 | 168 | 23 | 0 | 200 | 57 | 48 | 2 | 0 | 107 | 4 | 33 | 222 | 0 | 259 | 845 |
| 08:00 AM | 0 | 21 | 0 | 0 | 21 | 2 | 35 | 3 | 0 | 40 | 14 | 14 | 1 | 0 | 29 | 0 | 5 | 26 | 0 | 31 | 121 |
| 08:15 AM | 3 | 24 | 4 | 0 | 31 | 2 | 37 | 1 | 0 | 40 | 19 | 10 | 0 | 0 | 29 | 3 | 15 | 27 | 0 | 45 | 145 |
| Grand Total | 11 | 433 | 26 | 0 | 470 | 22 | 317 | 36 | 0 | 375 | 116 | 89 | 5 | 0 | 210 | 9 | 64 | 378 | 0 | 451 | 1506 |
| Apprch % | 2.3 | 92.1 | 5.5 | 0 | | 5.9 | 84.5 | 9.6 | 0 | | 55.2 | 42.4 | 2.4 | 0 | | 2 | 14.2 | 83.8 | 0 | | |
| Total % | 0.7 | 28.8 | 1.7 | 0 | 31.2 | 1.5 | 21 | 2.4 | 0 | 24.9 | 7.7 | 5.9 | 0.3 | 0 | 13.9 | 0.6 | 4.2 | 25.1 | 0 | 29.9 | |

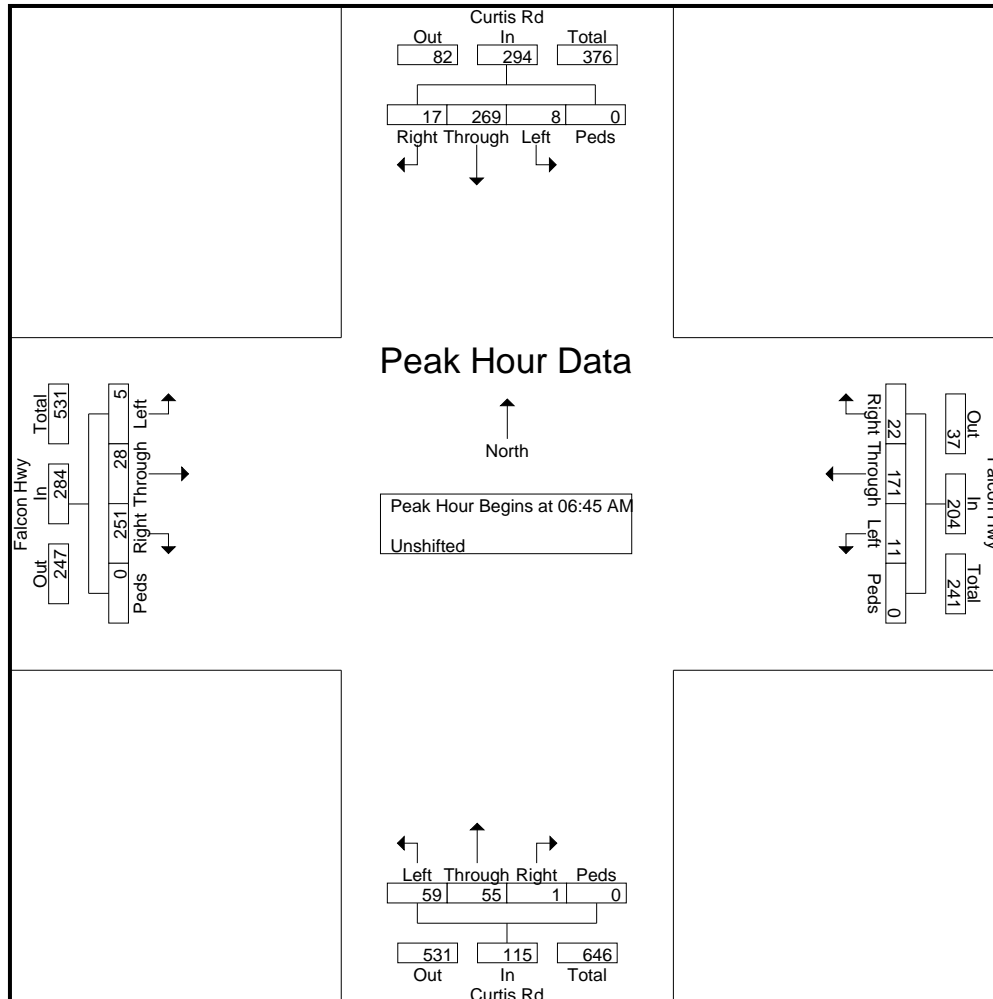


LSC Transportation Consultants, Inc.

545 E Pikes Peak Ave, Suite 210
 Colorado Springs, CO 80905
 719-633-2868

File Name : Curtis Rd - Falcon Hwy AM 1-20
 Site Code : 195140
 Start Date : 1/7/2020
 Page No : 2

| Start Time | Curtis Rd Southbound | | | | | Falcon Hwy Westbound | | | | | Curtis Rd Northbound | | | | | Falcon Hwy Eastbound | | | | | Int. Total |
|-------------------------------------------------------------------|----------------------|---------|-------|------|------------|----------------------|---------|-------|------|------------|----------------------|---------|-------|------|------------|----------------------|---------|-------|------|------------|------------|
| | Left | Through | Right | Peds | App. Total | Left | Through | Right | Peds | App. Total | Left | Through | Right | Peds | App. Total | Left | Through | Right | Peds | App. Total | |
| Peak Hour Analysis From 06:30 AM to 08:15 AM - Peak 1 of 1 | | | | | | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 06:45 AM | | | | | | | | | | | | | | | | | | | | | |
| 06:45 AM | 0 | 63 | 2 | 0 | 65 | 5 | 35 | 5 | 0 | 45 | 14 | 11 | 1 | 0 | 26 | 1 | 7 | 59 | 0 | 67 | 203 |
| 07:00 AM | 2 | 65 | 6 | 0 | 73 | 0 | 46 | 8 | 0 | 54 | 18 | 26 | 0 | 0 | 44 | 3 | 9 | 58 | 0 | 70 | 241 |
| 07:15 AM | 2 | 75 | 5 | 0 | 82 | 5 | 48 | 7 | 0 | 60 | 17 | 9 | 0 | 0 | 26 | 0 | 7 | 69 | 0 | 76 | 244 |
| 07:30 AM | 4 | 66 | 4 | 0 | 74 | 1 | 42 | 2 | 0 | 45 | 10 | 9 | 0 | 0 | 19 | 1 | 5 | 65 | 0 | 71 | 209 |
| Total Volume | 8 | 269 | 17 | 0 | 294 | 11 | 171 | 22 | 0 | 204 | 59 | 55 | 1 | 0 | 115 | 5 | 28 | 251 | 0 | 284 | 897 |
| % App. Total | 2.7 | 91.5 | 5.8 | 0 | | 5.4 | 83.8 | 10.8 | 0 | | 51.3 | 47.8 | 0.9 | 0 | | 1.8 | 9.9 | 88.4 | 0 | | |
| PHF | .500 | .897 | .708 | .000 | .896 | .550 | .891 | .688 | .000 | .850 | .819 | .529 | .250 | .000 | .653 | .417 | .778 | .909 | .000 | .934 | .919 |



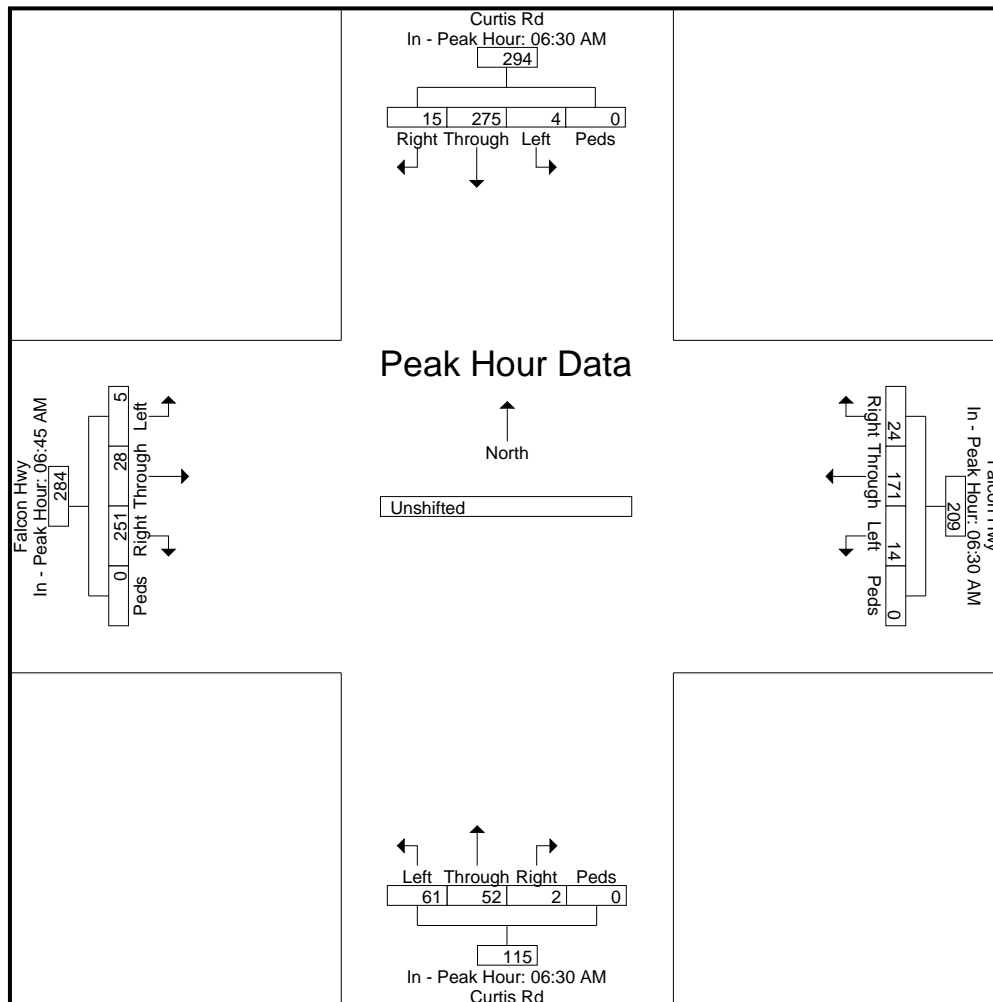


LSC Transportation Consultants, Inc.

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 Colorado Springs, CO 80905
 719-633-2868

File Name : Curtis Rd - Falcon Hwy AM 1-20
 Site Code : 195140
 Start Date : 1/7/2020
 Page No : 3

| Start Time | Curtis Rd Southbound | | | | | Falcon Hwy Westbound | | | | | Curtis Rd Northbound | | | | | Falcon Hwy Eastbound | | | | | Int. Total |
|-------------------------------------------------------------------|----------------------|---------|-------|------|------------|----------------------|---------|-------|------|------------|----------------------|---------|-------|------|------------|----------------------|---------|-------|------|------------|------------|
| | Left | Through | Right | Peds | App. Total | Left | Through | Right | Peds | App. Total | Left | Through | Right | Peds | App. Total | Left | Through | Right | Peds | App. Total | |
| Peak Hour Analysis From 06:30 AM to 08:15 AM - Peak 1 of 1 | | | | | | | | | | | | | | | | | | | | | |
| Peak Hour for Each Approach Begins at: | | | | | | | | | | | | | | | | | | | | | |
| | 06:30 AM | | | | | 06:30 AM | | | | | 06:30 AM | | | | | 06:45 AM | | | | | |
| +0 mins. | 0 | 72 | 2 | 0 | 74 | 4 | 42 | 4 | 0 | 50 | 12 | 6 | 1 | 0 | 19 | 1 | 7 | 59 | 0 | 67 | |
| +15 mins. | 0 | 63 | 2 | 0 | 65 | 5 | 35 | 5 | 0 | 45 | 14 | 11 | 1 | 0 | 26 | 3 | 9 | 58 | 0 | 70 | |
| +30 mins. | 2 | 65 | 6 | 0 | 73 | 0 | 46 | 8 | 0 | 54 | 18 | 26 | 0 | 0 | 44 | 0 | 7 | 69 | 0 | 76 | |
| +45 mins. | 2 | 75 | 5 | 0 | 82 | 5 | 48 | 7 | 0 | 60 | 17 | 9 | 0 | 0 | 26 | 1 | 5 | 65 | 0 | 71 | |
| Total Volume | 4 | 275 | 15 | 0 | 294 | 14 | 171 | 24 | 0 | 209 | 61 | 52 | 2 | 0 | 115 | 5 | 28 | 251 | 0 | 284 | |
| % App. Total | 1.4 | 93.5 | 5.1 | 0 | | 6.7 | 81.8 | 11.5 | 0 | | 53 | 45.2 | 1.7 | 0 | | 1.8 | 9.9 | 88.4 | 0 | | |
| PHF | .500 | .917 | .625 | .000 | .896 | .700 | .891 | .750 | .000 | .871 | .847 | .500 | .500 | .000 | .653 | .417 | .778 | .909 | .000 | .934 | |





LSC Transportation Consultants, Inc.

545 E Pikes Peak Ave, Suite 210

Colorado Springs, CO 80905

719-633-2868

File Name : Curtis Rd - Falcon Hwy PM 1-20

Site Code : 195140

Start Date : 1/7/2020

Page No : 1

Groups Printed- Unshifted

| Start Time | Curtis Rd Southbound | | | | | Falcon Hwy Westbound | | | | | Curtis Rd Northbound | | | | | Falcon Hwy Eastbound | | | | | Int. Total |
|-------------|----------------------|---------|-------|------|------------|----------------------|---------|-------|------|------------|----------------------|---------|-------|------|------------|----------------------|---------|-------|------|------------|------------|
| | Left | Through | Right | Peds | App. Total | Left | Through | Right | Peds | App. Total | Left | Through | Right | Peds | App. Total | Left | Through | Right | Peds | App. Total | |
| 04:00 PM | 6 | 12 | 3 | 0 | 21 | 1 | 16 | 2 | 0 | 19 | 47 | 55 | 4 | 0 | 106 | 1 | 48 | 18 | 0 | 67 | 213 |
| 04:15 PM | 6 | 14 | 1 | 0 | 21 | 0 | 14 | 2 | 0 | 16 | 68 | 76 | 8 | 0 | 152 | 7 | 47 | 13 | 0 | 67 | 256 |
| 04:30 PM | 3 | 14 | 1 | 0 | 18 | 0 | 18 | 4 | 0 | 22 | 66 | 71 | 3 | 0 | 140 | 4 | 47 | 15 | 0 | 66 | 246 |
| 04:45 PM | 5 | 11 | 1 | 0 | 17 | 1 | 24 | 1 | 0 | 26 | 59 | 70 | 5 | 0 | 134 | 8 | 52 | 14 | 0 | 74 | 251 |
| Total | 20 | 51 | 6 | 0 | 77 | 2 | 72 | 9 | 0 | 83 | 240 | 272 | 20 | 0 | 532 | 20 | 194 | 60 | 0 | 274 | 966 |
| 05:00 PM | 3 | 7 | 2 | 0 | 12 | 0 | 19 | 1 | 0 | 20 | 58 | 63 | 10 | 0 | 131 | 6 | 63 | 14 | 0 | 83 | 246 |
| 05:15 PM | 5 | 5 | 0 | 0 | 10 | 2 | 30 | 2 | 0 | 34 | 27 | 48 | 11 | 0 | 86 | 8 | 43 | 14 | 0 | 65 | 195 |
| 05:30 PM | 5 | 5 | 4 | 0 | 14 | 2 | 17 | 2 | 0 | 21 | 46 | 38 | 7 | 0 | 91 | 8 | 49 | 22 | 0 | 79 | 205 |
| 05:45 PM | 8 | 12 | 4 | 0 | 24 | 2 | 11 | 0 | 0 | 13 | 21 | 30 | 4 | 0 | 55 | 3 | 35 | 17 | 0 | 55 | 147 |
| Total | 21 | 29 | 10 | 0 | 60 | 6 | 77 | 5 | 0 | 88 | 152 | 179 | 32 | 0 | 363 | 25 | 190 | 67 | 0 | 282 | 793 |
| Grand Total | 41 | 80 | 16 | 0 | 137 | 8 | 149 | 14 | 0 | 171 | 392 | 451 | 52 | 0 | 895 | 45 | 384 | 127 | 0 | 556 | 1759 |
| Apprch % | 29.9 | 58.4 | 11.7 | 0 | | 4.7 | 87.1 | 8.2 | 0 | | 43.8 | 50.4 | 5.8 | 0 | | 8.1 | 69.1 | 22.8 | 0 | | |
| Total % | 2.3 | 4.5 | 0.9 | 0 | 7.8 | 0.5 | 8.5 | 0.8 | 0 | 9.7 | 22.3 | 25.6 | 3 | 0 | 50.9 | 2.6 | 21.8 | 7.2 | 0 | 31.6 | |

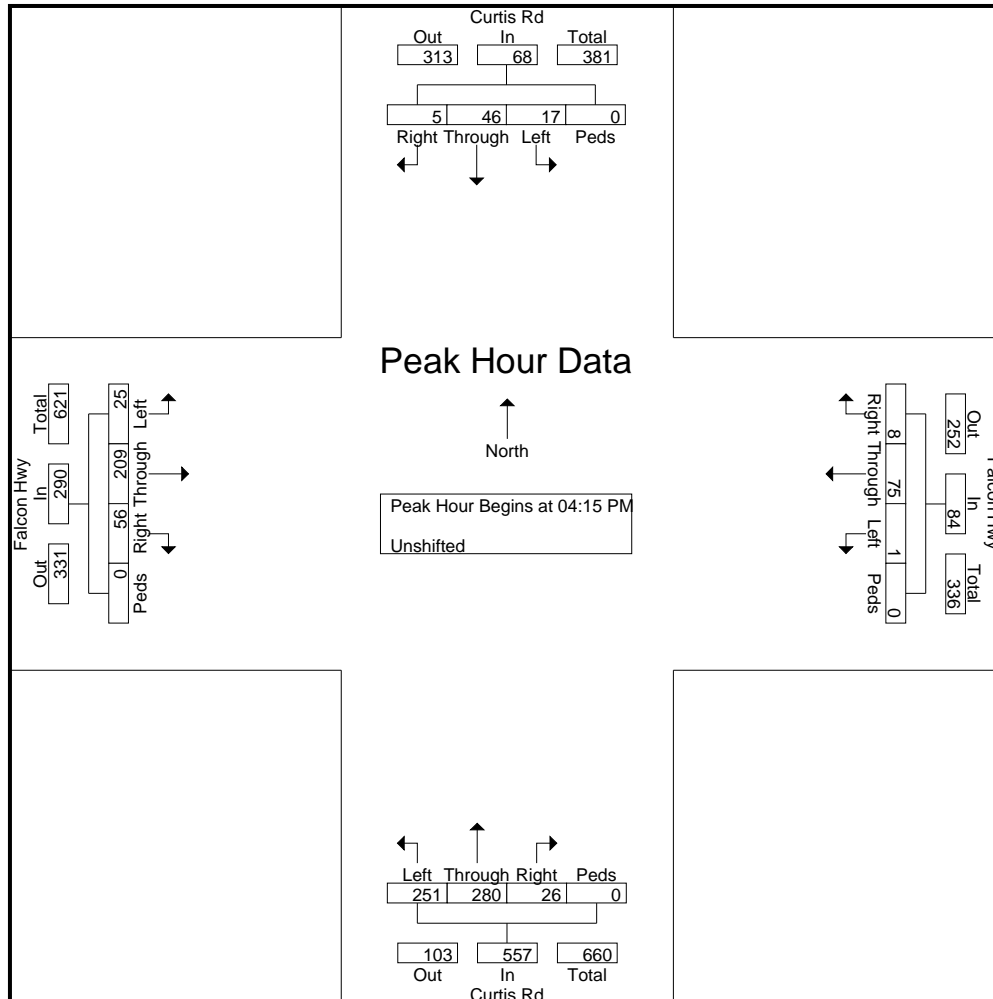


LSC Transportation Consultants, Inc.

545 E Pikes Peak Ave, Suite 210
 Colorado Springs, CO 80905
 719-633-2868

File Name : Curtis Rd - Falcon Hwy PM 1-20
 Site Code : 195140
 Start Date : 1/7/2020
 Page No : 2

| Start Time | Curtis Rd Southbound | | | | | Falcon Hwy Westbound | | | | | Curtis Rd Northbound | | | | | Falcon Hwy Eastbound | | | | | Int. Total |
|-------------------------------------------------------------------|----------------------|---------|-------|------|------------|----------------------|---------|-------|------|------------|----------------------|---------|-------|------|------------|----------------------|---------|-------|------|------------|------------|
| | Left | Through | Right | Peds | App. Total | Left | Through | Right | Peds | App. Total | Left | Through | Right | Peds | App. Total | Left | Through | Right | Peds | App. Total | |
| Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1 | | | | | | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 04:15 PM | | | | | | | | | | | | | | | | | | | | | |
| 04:15 PM | 6 | 14 | 1 | 0 | 21 | 0 | 14 | 2 | 0 | 16 | 68 | 76 | 8 | 0 | 152 | 7 | 47 | 13 | 0 | 67 | 256 |
| 04:30 PM | 3 | 14 | 1 | 0 | 18 | 0 | 18 | 4 | 0 | 22 | 66 | 71 | 3 | 0 | 140 | 4 | 47 | 15 | 0 | 66 | 246 |
| 04:45 PM | 5 | 11 | 1 | 0 | 17 | 1 | 24 | 1 | 0 | 26 | 59 | 70 | 5 | 0 | 134 | 8 | 52 | 14 | 0 | 74 | 251 |
| 05:00 PM | 3 | 7 | 2 | 0 | 12 | 0 | 19 | 1 | 0 | 20 | 58 | 63 | 10 | 0 | 131 | 6 | 63 | 14 | 0 | 83 | 246 |
| Total Volume | 17 | 46 | 5 | 0 | 68 | 1 | 75 | 8 | 0 | 84 | 251 | 280 | 26 | 0 | 557 | 25 | 209 | 56 | 0 | 290 | 999 |
| % App. Total | 25 | 67.6 | 7.4 | 0 | | 1.2 | 89.3 | 9.5 | 0 | | 45.1 | 50.3 | 4.7 | 0 | | 8.6 | 72.1 | 19.3 | 0 | | |
| PHF | .708 | .821 | .625 | .000 | .810 | .250 | .781 | .500 | .000 | .808 | .923 | .921 | .650 | .000 | .916 | .781 | .829 | .933 | .000 | .873 | .976 |





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545 E Pikes Peak Ave, Suite 210

Colorado Springs, CO 80905

719-633-2868

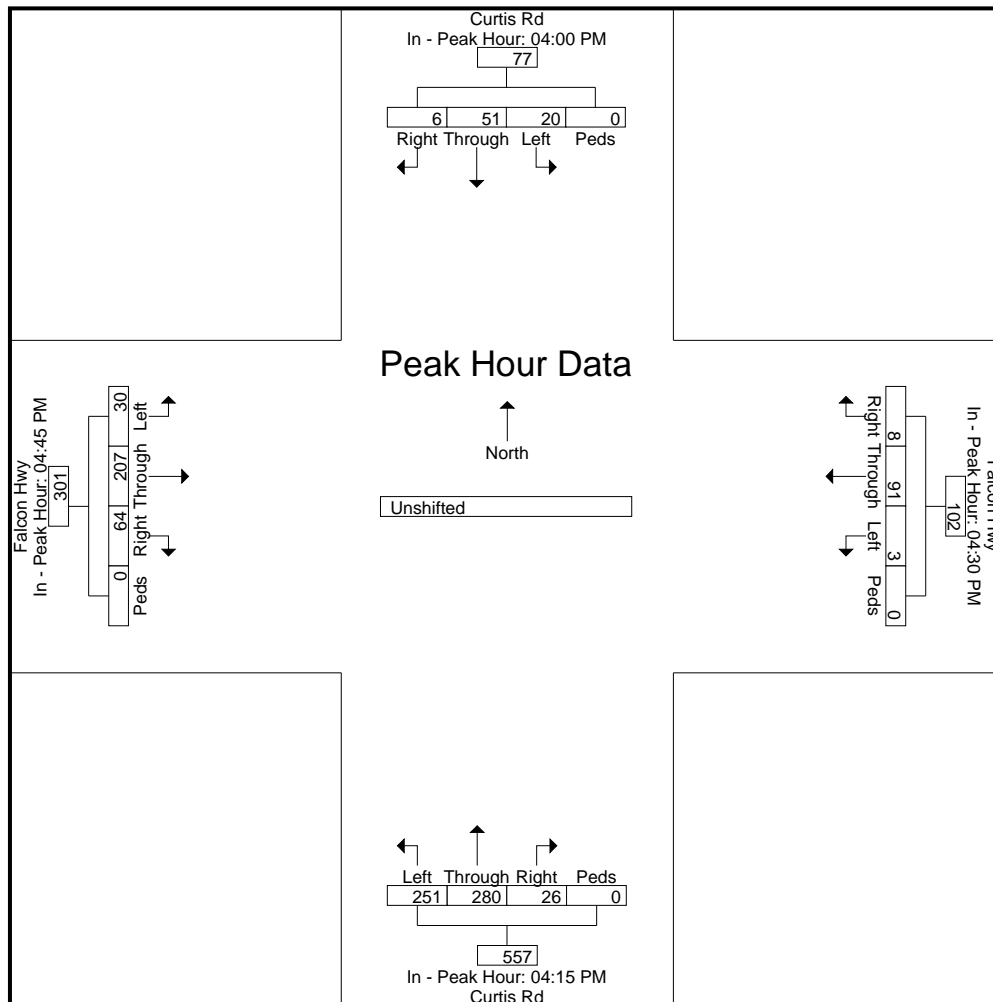
File Name : Curtis Rd - Falcon Hwy PM 1-20

Site Code : 195140

Start Date : 1/7/2020

Page No : 3

| Start Time | Curtis Rd Southbound | | | | | Falcon Hwy Westbound | | | | | Curtis Rd Northbound | | | | | Falcon Hwy Eastbound | | | | | Int. Total |
|-------------------------------------------------------------------|----------------------|---------|-------|------|------------|----------------------|---------|-------|------|------------|----------------------|---------|-------|------|------------|----------------------|---------|-------|------|------------|------------|
| | Left | Through | Right | Peds | App. Total | Left | Through | Right | Peds | App. Total | Left | Through | Right | Peds | App. Total | Left | Through | Right | Peds | App. Total | |
| Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1 | | | | | | | | | | | | | | | | | | | | | |
| Peak Hour for Each Approach Begins at: | | | | | | | | | | | | | | | | | | | | | |
| | 04:00 PM | | | | | 04:30 PM | | | | | 04:15 PM | | | | | 04:45 PM | | | | | |
| +0 mins. | 6 | 12 | 3 | 0 | 21 | 0 | 18 | 4 | 0 | 22 | 68 | 76 | 8 | 0 | 152 | 8 | 52 | 14 | 0 | 74 | |
| +15 mins. | 6 | 14 | 1 | 0 | 21 | 1 | 24 | 1 | 0 | 26 | 66 | 71 | 3 | 0 | 140 | 6 | 63 | 14 | 0 | 83 | |
| +30 mins. | 3 | 14 | 1 | 0 | 18 | 0 | 19 | 1 | 0 | 20 | 59 | 70 | 5 | 0 | 134 | 8 | 43 | 14 | 0 | 65 | |
| +45 mins. | 5 | 11 | 1 | 0 | 17 | 2 | 30 | 2 | 0 | 34 | 58 | 63 | 10 | 0 | 131 | 8 | 49 | 22 | 0 | 79 | |
| Total Volume | 20 | 51 | 6 | 0 | 77 | 3 | 91 | 8 | 0 | 102 | 251 | 280 | 26 | 0 | 557 | 30 | 207 | 64 | 0 | 301 | |
| % App. Total | 26 | 66.2 | 7.8 | 0 | | 2.9 | 89.2 | 7.8 | 0 | | 45.1 | 50.3 | 4.7 | 0 | | 10 | 68.8 | 21.3 | 0 | | |
| PHF | .833 | .911 | .500 | .000 | .917 | .375 | .758 | .500 | .000 | .750 | .923 | .921 | .650 | .000 | .916 | .938 | .821 | .727 | .000 | .907 | |





LSC Transportation Consultants, Inc.

545 E Pikes Peak Ave, Suite 210
 Colorado Springs, CO 80905
 719-633-2868

File Name : Curtis Rd - Judge Orr Rd AM 1-20
 Site Code : 195140
 Start Date : 1/8/2020
 Page No : 1

Groups Printed- Unshifted

| Start Time | Curtis Rd Southbound | | | | | Judge Orr Rd Westbound | | | | | Curtis Rd Northbound | | | | | Judge Orr Rd Eastbound | | | | | Int. Total |
|-------------|----------------------|---------|-------|------|------------|------------------------|---------|-------|------|------------|----------------------|---------|-------|------|------------|------------------------|---------|-------|------|------------|------------|
| | Left | Through | Right | Peds | App. Total | Left | Through | Right | Peds | App. Total | Left | Through | Right | Peds | App. Total | Left | Through | Right | Peds | App. Total | |
| 06:30 AM | 2 | 48 | 0 | 0 | 50 | 3 | 30 | 4 | 0 | 37 | 4 | 10 | 1 | 0 | 15 | 0 | 7 | 18 | 0 | 25 | 127 |
| 06:45 AM | 3 | 43 | 0 | 0 | 46 | 6 | 26 | 5 | 0 | 37 | 5 | 11 | 2 | 0 | 18 | 0 | 5 | 24 | 0 | 29 | 130 |
| Total | 5 | 91 | 0 | 0 | 96 | 9 | 56 | 9 | 0 | 74 | 9 | 21 | 3 | 0 | 33 | 0 | 12 | 42 | 0 | 54 | 257 |
| 07:00 AM | 2 | 46 | 0 | 0 | 48 | 6 | 24 | 3 | 0 | 33 | 10 | 21 | 1 | 0 | 32 | 0 | 9 | 21 | 0 | 30 | 143 |
| 07:15 AM | 0 | 44 | 0 | 0 | 44 | 6 | 29 | 4 | 0 | 39 | 6 | 23 | 0 | 0 | 29 | 0 | 12 | 25 | 0 | 37 | 149 |
| 07:30 AM | 2 | 51 | 1 | 0 | 54 | 1 | 18 | 3 | 0 | 22 | 7 | 12 | 0 | 0 | 19 | 0 | 3 | 25 | 0 | 28 | 123 |
| 07:45 AM | 3 | 37 | 1 | 0 | 41 | 4 | 20 | 1 | 0 | 25 | 5 | 11 | 2 | 0 | 18 | 0 | 7 | 10 | 0 | 17 | 101 |
| Total | 7 | 178 | 2 | 0 | 187 | 17 | 91 | 11 | 0 | 119 | 28 | 67 | 3 | 0 | 98 | 0 | 31 | 81 | 0 | 112 | 516 |
| 08:00 AM | 0 | 16 | 0 | 0 | 16 | 1 | 29 | 0 | 0 | 30 | 4 | 8 | 0 | 0 | 12 | 0 | 7 | 5 | 0 | 12 | 70 |
| 08:15 AM | 3 | 22 | 0 | 0 | 25 | 4 | 16 | 5 | 0 | 25 | 9 | 8 | 0 | 0 | 17 | 0 | 12 | 15 | 0 | 27 | 94 |
| Grand Total | 15 | 307 | 2 | 0 | 324 | 31 | 192 | 25 | 0 | 248 | 50 | 104 | 6 | 0 | 160 | 0 | 62 | 143 | 0 | 205 | 937 |
| Apprch % | 4.6 | 94.8 | 0.6 | 0 | | 12.5 | 77.4 | 10.1 | 0 | | 31.2 | 65 | 3.8 | 0 | | 0 | 30.2 | 69.8 | 0 | | |
| Total % | 1.6 | 32.8 | 0.2 | 0 | 34.6 | 3.3 | 20.5 | 2.7 | 0 | 26.5 | 5.3 | 11.1 | 0.6 | 0 | 17.1 | 0 | 6.6 | 15.3 | 0 | 21.9 | |

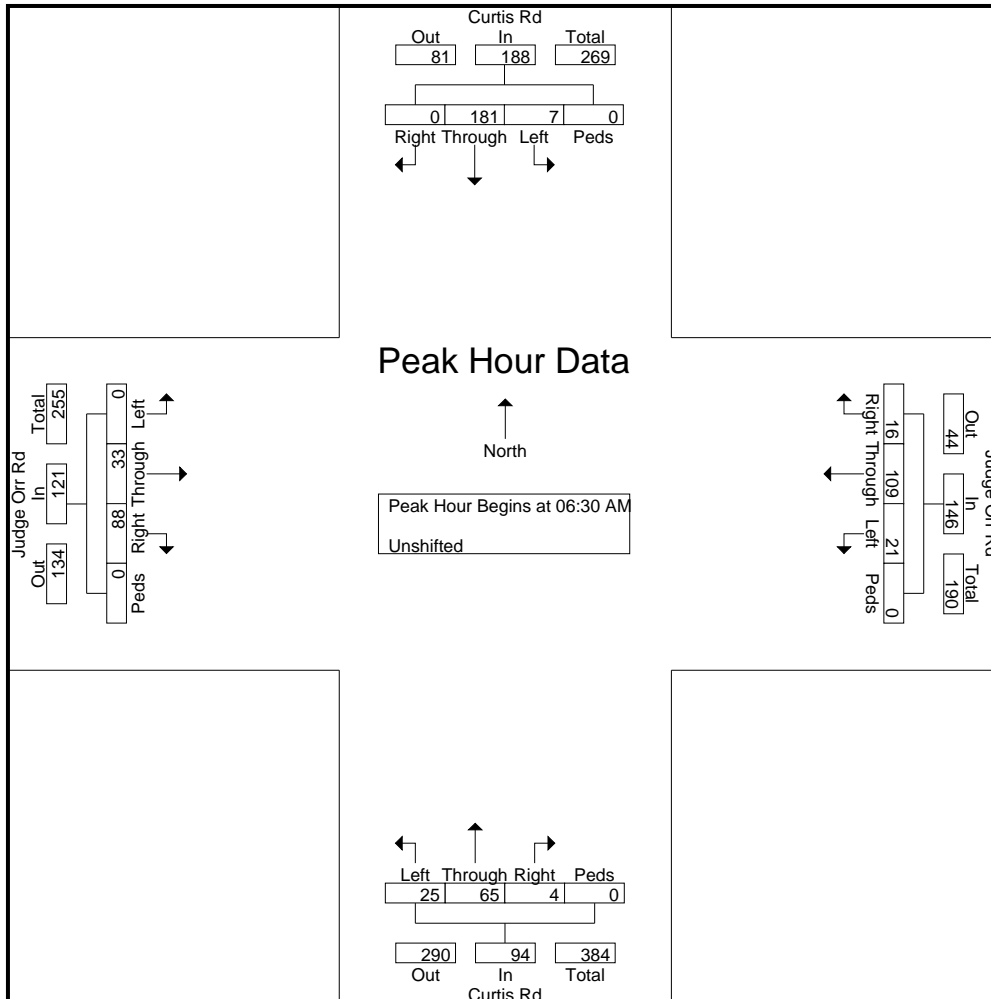


LSC Transportation Consultants, Inc.

545 E Pikes Peak Ave, Suite 210
 Colorado Springs, CO 80905
 719-633-2868

File Name : Curtis Rd - Judge Orr Rd AM 1-20
 Site Code : 195140
 Start Date : 1/8/2020
 Page No : 2

| Start Time | Curtis Rd Southbound | | | | | Judge Orr Rd Westbound | | | | | Curtis Rd Northbound | | | | | Judge Orr Rd Eastbound | | | | | Int. Total |
|-------------------------------------------------------------------|----------------------|---------|-------|------|------------|------------------------|---------|-------|------|------------|----------------------|---------|-------|------|------------|------------------------|---------|-------|------|------------|------------|
| | Left | Through | Right | Peds | App. Total | Left | Through | Right | Peds | App. Total | Left | Through | Right | Peds | App. Total | Left | Through | Right | Peds | App. Total | |
| Peak Hour Analysis From 06:30 AM to 08:15 AM - Peak 1 of 1 | | | | | | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 06:30 AM | | | | | | | | | | | | | | | | | | | | | |
| 06:30 AM | 2 | 48 | 0 | 0 | 50 | 3 | 30 | 4 | 0 | 37 | 4 | 10 | 1 | 0 | 15 | 0 | 7 | 18 | 0 | 25 | 127 |
| 06:45 AM | 3 | 43 | 0 | 0 | 46 | 6 | 26 | 5 | 0 | 37 | 5 | 11 | 2 | 0 | 18 | 0 | 5 | 24 | 0 | 29 | 130 |
| 07:00 AM | 2 | 46 | 0 | 0 | 48 | 6 | 24 | 3 | 0 | 33 | 10 | 21 | 1 | 0 | 32 | 0 | 9 | 21 | 0 | 30 | 143 |
| 07:15 AM | 0 | 44 | 0 | 0 | 44 | 6 | 29 | 4 | 0 | 39 | 6 | 23 | 0 | 0 | 29 | 0 | 12 | 25 | 0 | 37 | 149 |
| Total Volume | 7 | 181 | 0 | 0 | 188 | 21 | 109 | 16 | 0 | 146 | 25 | 65 | 4 | 0 | 94 | 0 | 33 | 88 | 0 | 121 | 549 |
| % App. Total | 3.7 | 96.3 | 0 | 0 | | 14.4 | 74.7 | 11 | 0 | | 26.6 | 69.1 | 4.3 | 0 | | 0 | 27.3 | 72.7 | 0 | | |
| PHF | .583 | .943 | .000 | .000 | .940 | .875 | .908 | .800 | .000 | .936 | .625 | .707 | .500 | .000 | .734 | .000 | .688 | .880 | .000 | .818 | .921 |



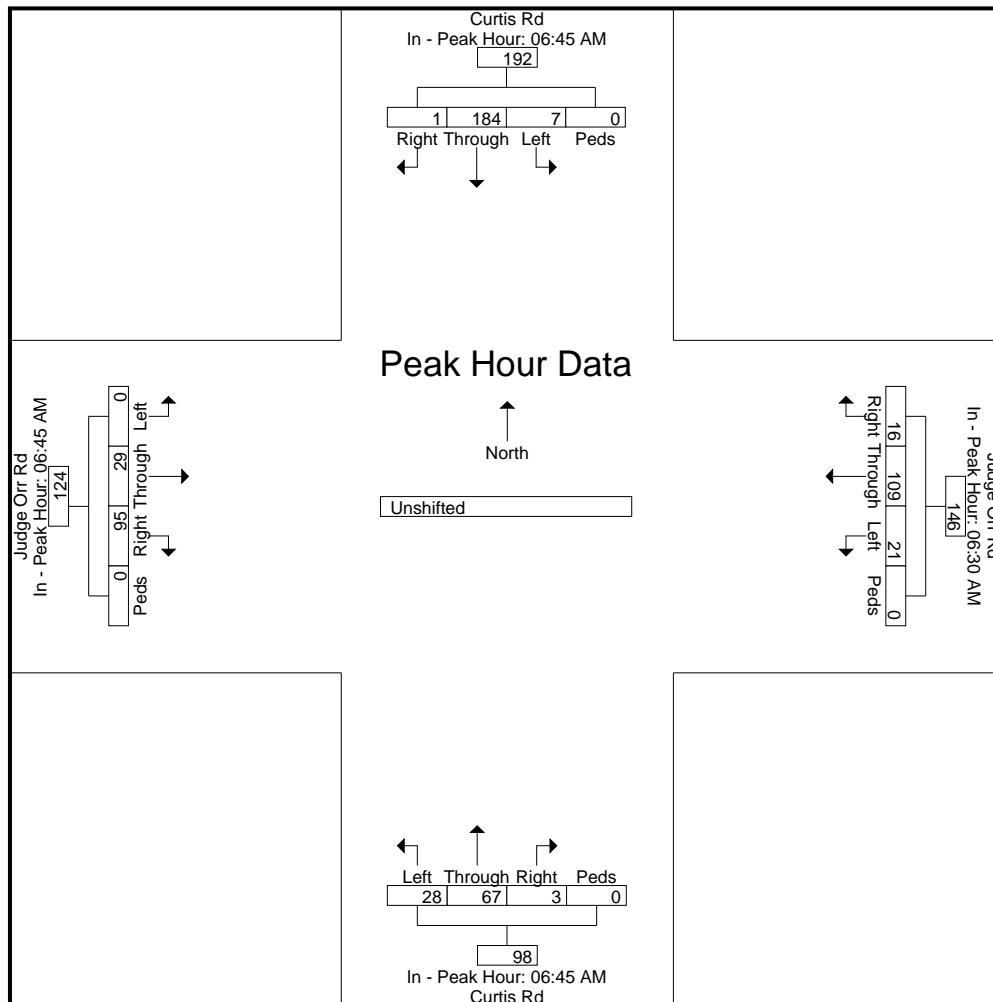


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 719-633-2868

File Name : Curtis Rd - Judge Orr Rd AM 1-20
 Site Code : 195140
 Start Date : 1/8/2020
 Page No : 3

| Start Time | Curtis Rd Southbound | | | | | Judge Orr Rd Westbound | | | | | Curtis Rd Northbound | | | | | Judge Orr Rd Eastbound | | | | | Int. Total |
|-------------------------------------------------------------------|----------------------|---------|-------|------|------------|------------------------|---------|-------|------|------------|----------------------|---------|-------|------|------------|------------------------|---------|-------|------|------------|------------|
| | Left | Through | Right | Peds | App. Total | Left | Through | Right | Peds | App. Total | Left | Through | Right | Peds | App. Total | Left | Through | Right | Peds | App. Total | |
| Peak Hour Analysis From 06:30 AM to 08:15 AM - Peak 1 of 1 | | | | | | | | | | | | | | | | | | | | | |
| Peak Hour for Each Approach Begins at: | | | | | | | | | | | | | | | | | | | | | |
| | 06:45 AM | | | | | 06:30 AM | | | | | 06:45 AM | | | | | 06:45 AM | | | | | |
| +0 mins. | 3 | 43 | 0 | 0 | 46 | 3 | 30 | 4 | 0 | 37 | 5 | 11 | 2 | 0 | 18 | 0 | 5 | 24 | 0 | 29 | |
| +15 mins. | 2 | 46 | 0 | 0 | 48 | 6 | 26 | 5 | 0 | 37 | 10 | 21 | 1 | 0 | 32 | 0 | 9 | 21 | 0 | 30 | |
| +30 mins. | 0 | 44 | 0 | 0 | 44 | 6 | 24 | 3 | 0 | 33 | 6 | 23 | 0 | 0 | 29 | 0 | 12 | 25 | 0 | 37 | |
| +45 mins. | 2 | 51 | 1 | 0 | 54 | 6 | 29 | 4 | 0 | 39 | 7 | 12 | 0 | 0 | 19 | 0 | 3 | 25 | 0 | 28 | |
| Total Volume | 7 | 184 | 1 | 0 | 192 | 21 | 109 | 16 | 0 | 146 | 28 | 67 | 3 | 0 | 98 | 0 | 29 | 95 | 0 | 124 | |
| % App. Total | 3.6 | 95.8 | 0.5 | 0 | | 14.4 | 74.7 | 11 | 0 | | 28.6 | 68.4 | 3.1 | 0 | | 0 | 23.4 | 76.6 | 0 | | |
| PHF | .583 | .902 | .250 | .000 | .889 | .875 | .908 | .800 | .000 | .936 | .700 | .728 | .375 | .000 | .766 | .000 | .604 | .950 | .000 | .838 | |





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545 E Pikes Peak Ave, Suite 210

Colorado Springs, CO 80905

719-633-2868

File Name : Curtis Rd - Judge Orr Rd PM 1-20

Site Code : 00195140

Start Date : 1/8/2020

Page No : 1

Groups Printed- Unshifted

| Start Time | Curtis Rd Southbound | | | | | Judge Orr Rd Westbound | | | | | Curtis Rd Northbound | | | | | Judge Orr Rd Eastbound | | | | | Int. Total |
|-------------|----------------------|---------|-------|------|------------|------------------------|---------|-------|------|------------|----------------------|---------|-------|------|------------|------------------------|---------|-------|------|------------|------------|
| | Left | Through | Right | Peds | App. Total | Left | Through | Right | Peds | App. Total | Left | Through | Right | Peds | App. Total | Left | Through | Right | Peds | App. Total | |
| 04:00 PM | 3 | 12 | 3 | 0 | 18 | 0 | 12 | 3 | 0 | 15 | 11 | 36 | 1 | 0 | 48 | 1 | 24 | 10 | 0 | 35 | 116 |
| 04:15 PM | 6 | 7 | 1 | 0 | 14 | 1 | 20 | 1 | 0 | 22 | 42 | 60 | 3 | 0 | 105 | 0 | 26 | 6 | 0 | 32 | 173 |
| 04:30 PM | 3 | 11 | 0 | 0 | 14 | 1 | 15 | 0 | 0 | 16 | 19 | 42 | 4 | 0 | 65 | 1 | 27 | 3 | 0 | 31 | 126 |
| 04:45 PM | 3 | 10 | 1 | 0 | 14 | 0 | 16 | 1 | 0 | 17 | 30 | 43 | 3 | 0 | 76 | 0 | 24 | 3 | 0 | 27 | 134 |
| Total | 15 | 40 | 5 | 0 | 60 | 2 | 63 | 5 | 0 | 70 | 102 | 181 | 11 | 0 | 294 | 2 | 101 | 22 | 0 | 125 | 549 |
| 05:00 PM | 4 | 10 | 0 | 0 | 14 | 1 | 12 | 3 | 0 | 16 | 32 | 48 | 4 | 0 | 84 | 0 | 19 | 4 | 0 | 23 | 137 |
| 05:15 PM | 4 | 11 | 0 | 0 | 15 | 1 | 13 | 3 | 0 | 17 | 19 | 31 | 4 | 0 | 54 | 0 | 31 | 2 | 0 | 33 | 119 |
| 05:30 PM | 5 | 13 | 0 | 0 | 18 | 1 | 12 | 0 | 0 | 13 | 12 | 35 | 3 | 0 | 50 | 1 | 22 | 2 | 0 | 25 | 106 |
| 05:45 PM | 3 | 10 | 0 | 0 | 13 | 1 | 11 | 1 | 0 | 13 | 10 | 33 | 2 | 0 | 45 | 1 | 20 | 2 | 0 | 23 | 94 |
| Total | 16 | 44 | 0 | 0 | 60 | 4 | 48 | 7 | 0 | 59 | 73 | 147 | 13 | 0 | 233 | 2 | 92 | 10 | 0 | 104 | 456 |
| Grand Total | 31 | 84 | 5 | 0 | 120 | 6 | 111 | 12 | 0 | 129 | 175 | 328 | 24 | 0 | 527 | 4 | 193 | 32 | 0 | 229 | 1005 |
| Apprch % | 25.8 | 70 | 4.2 | 0 | | 4.7 | 86 | 9.3 | 0 | | 33.2 | 62.2 | 4.6 | 0 | | 1.7 | 84.3 | 14 | 0 | | |
| Total % | 3.1 | 8.4 | 0.5 | 0 | 11.9 | 0.6 | 11 | 1.2 | 0 | 12.8 | 17.4 | 32.6 | 2.4 | 0 | 52.4 | 0.4 | 19.2 | 3.2 | 0 | 22.8 | |

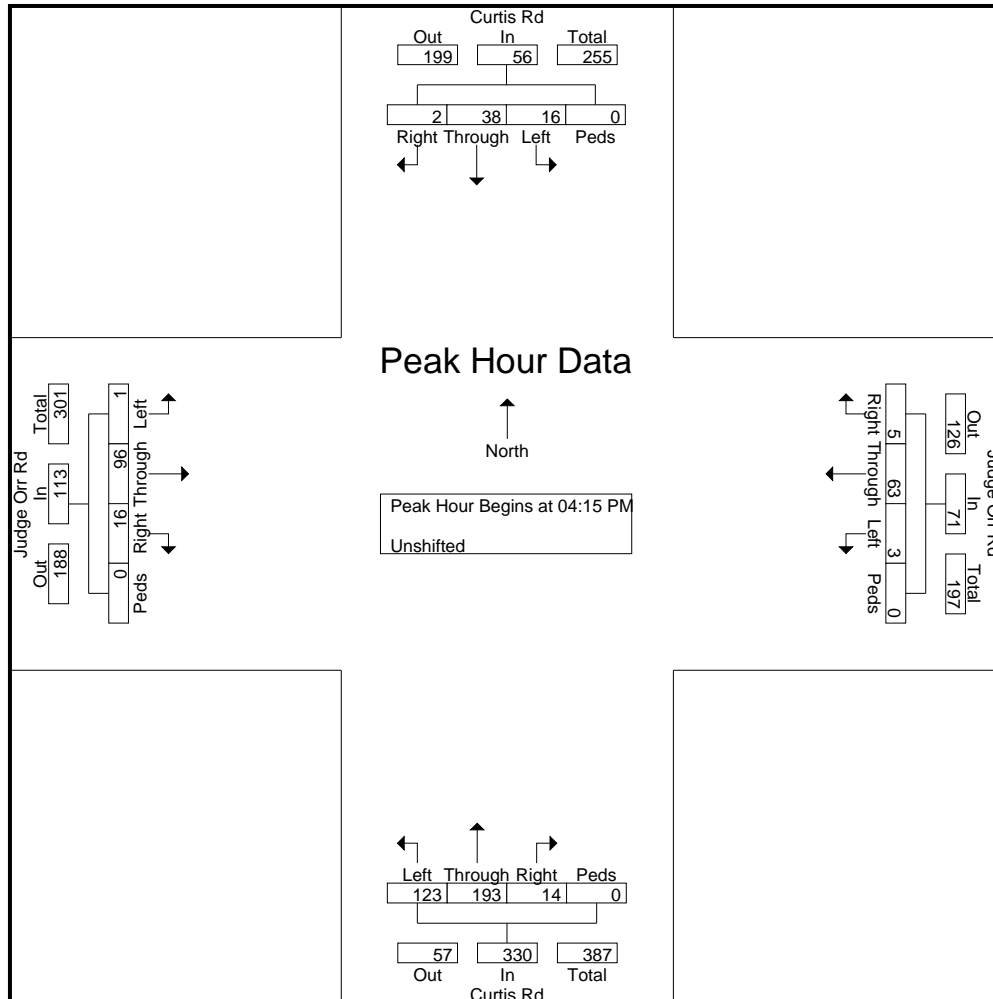


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 719-633-2868

File Name : Curtis Rd - Judge Orr Rd PM 1-20
 Site Code : 00195140
 Start Date : 1/8/2020
 Page No : 2

| Start Time | Curtis Rd Southbound | | | | | Judge Orr Rd Westbound | | | | | Curtis Rd Northbound | | | | | Judge Orr Rd Eastbound | | | | | Int. Total |
|-------------------------------------------------------------------|----------------------|---------|-------|------|------------|------------------------|---------|-------|------|------------|----------------------|---------|-------|------|------------|------------------------|---------|-------|------|------------|------------|
| | Left | Through | Right | Peds | App. Total | Left | Through | Right | Peds | App. Total | Left | Through | Right | Peds | App. Total | Left | Through | Right | Peds | App. Total | |
| Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1 | | | | | | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 04:15 PM | | | | | | | | | | | | | | | | | | | | | |
| 04:15 PM | 6 | 7 | 1 | 0 | 14 | 1 | 20 | 1 | 0 | 22 | 42 | 60 | 3 | 0 | 105 | 0 | 26 | 6 | 0 | 32 | 173 |
| 04:30 PM | 3 | 11 | 0 | 0 | 14 | 1 | 15 | 0 | 0 | 16 | 19 | 42 | 4 | 0 | 65 | 1 | 27 | 3 | 0 | 31 | 126 |
| 04:45 PM | 3 | 10 | 1 | 0 | 14 | 0 | 16 | 1 | 0 | 17 | 30 | 43 | 3 | 0 | 76 | 0 | 24 | 3 | 0 | 27 | 134 |
| 05:00 PM | 4 | 10 | 0 | 0 | 14 | 1 | 12 | 3 | 0 | 16 | 32 | 48 | 4 | 0 | 84 | 0 | 19 | 4 | 0 | 23 | 137 |
| Total Volume | 16 | 38 | 2 | 0 | 56 | 3 | 63 | 5 | 0 | 71 | 123 | 193 | 14 | 0 | 330 | 1 | 96 | 16 | 0 | 113 | 570 |
| % App. Total | 28.6 | 67.9 | 3.6 | 0 | | 4.2 | 88.7 | 7 | 0 | | 37.3 | 58.5 | 4.2 | 0 | | 0.9 | 85 | 14.2 | 0 | | |
| PHF | .667 | .864 | .500 | .000 | 1.00 | .750 | .788 | .417 | .000 | .807 | .732 | .804 | .875 | .000 | .786 | .250 | .889 | .667 | .000 | .883 | .824 |



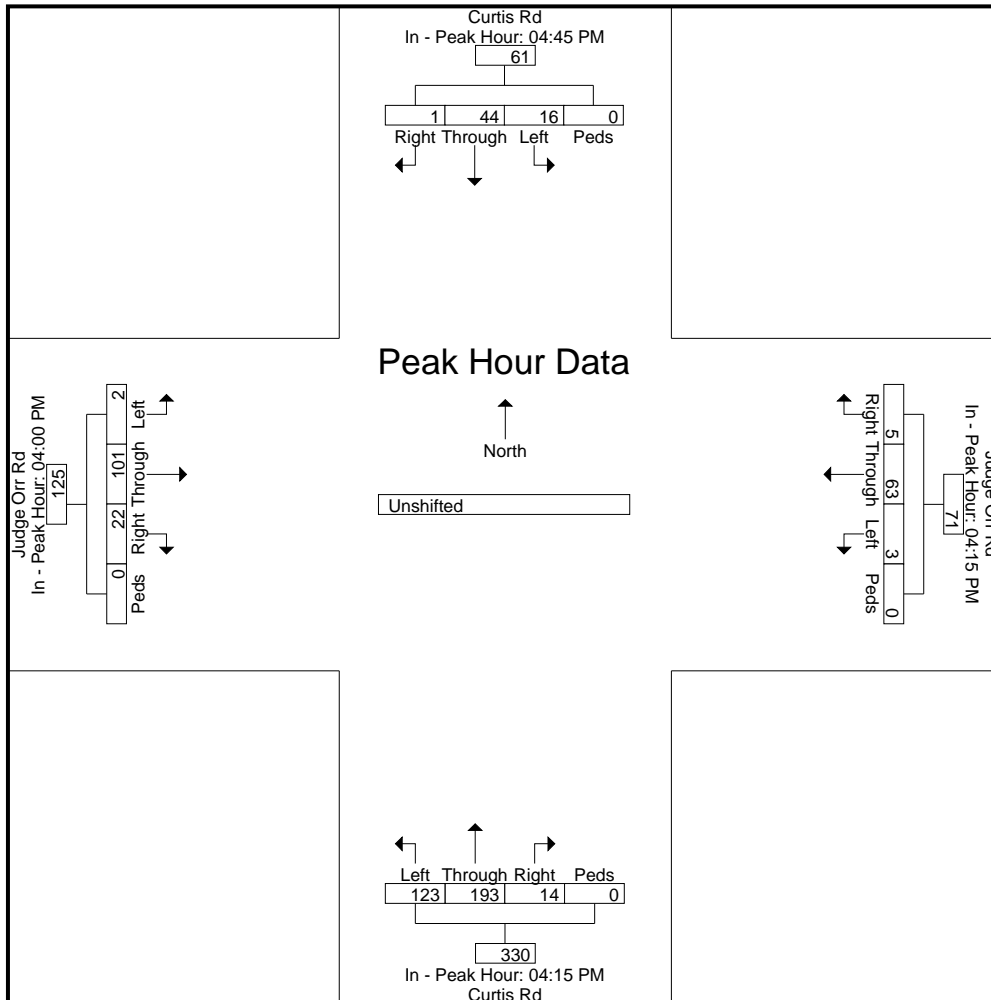


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545 E Pikes Peak Ave, Suite 210
 Colorado Springs, CO 80905
 719-633-2868

File Name : Curtis Rd - Judge Orr Rd PM 1-20
 Site Code : 00195140
 Start Date : 1/8/2020
 Page No : 3

| Start Time | Curtis Rd Southbound | | | | | Judge Orr Rd Westbound | | | | | Curtis Rd Northbound | | | | | Judge Orr Rd Eastbound | | | | | Int. Total |
|-------------------------------------------------------------------|----------------------|---------|-------|------|------------|------------------------|---------|-------|------|------------|----------------------|---------|-------|------|------------|------------------------|---------|-------|------|------------|------------|
| | Left | Through | Right | Peds | App. Total | Left | Through | Right | Peds | App. Total | Left | Through | Right | Peds | App. Total | Left | Through | Right | Peds | App. Total | |
| Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1 | | | | | | | | | | | | | | | | | | | | | |
| Peak Hour for Each Approach Begins at: | | | | | | | | | | | | | | | | | | | | | |
| | 04:45 PM | | | | | 04:15 PM | | | | | 04:15 PM | | | | | 04:00 PM | | | | | |
| +0 mins. | 3 | 10 | 1 | 0 | 14 | 1 | 20 | 1 | 0 | 22 | 42 | 60 | 3 | 0 | 105 | 1 | 24 | 10 | 0 | 35 | |
| +15 mins. | 4 | 10 | 0 | 0 | 14 | 1 | 15 | 0 | 0 | 16 | 19 | 42 | 4 | 0 | 65 | 0 | 26 | 6 | 0 | 32 | |
| +30 mins. | 4 | 11 | 0 | 0 | 15 | 0 | 16 | 1 | 0 | 17 | 30 | 43 | 3 | 0 | 76 | 1 | 27 | 3 | 0 | 31 | |
| +45 mins. | 5 | 13 | 0 | 0 | 18 | 1 | 12 | 3 | 0 | 16 | 32 | 48 | 4 | 0 | 84 | 0 | 24 | 3 | 0 | 27 | |
| Total Volume | 16 | 44 | 1 | 0 | 61 | 3 | 63 | 5 | 0 | 71 | 123 | 193 | 14 | 0 | 330 | 2 | 101 | 22 | 0 | 125 | |
| % App. Total | 26.2 | 72.1 | 1.6 | 0 | | 4.2 | 88.7 | 7 | 0 | | 37.3 | 58.5 | 4.2 | 0 | | 1.6 | 80.8 | 17.6 | 0 | | |
| PHF | .800 | .846 | .250 | .000 | .847 | .750 | .788 | .417 | .000 | .807 | .732 | .804 | .875 | .000 | .786 | .500 | .935 | .550 | .000 | .893 | |





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545 E Pikes Peak Ave, Suite 210
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File Name : Hwy 24 - Stapleton Rd AM 11-18

Site Code : 184750

Start Date : 11/15/2018

Page No : 1

Groups Printed- Unshifted

| Start Time | Hwy 24 Southbound | | | | Stapleton Dr Westbound | | | | Hwy 24 Northbound | | | | Stapleton Dr Eastbound | | | | Int. Total |
|-------------|-------------------|------|-------|------|------------------------|------|-------|------|-------------------|------|-------|------|------------------------|------|-------|------|------------|
| | Left | Thru | Right | Peds | Left | Thru | Right | Peds | Left | Thru | Right | Peds | Left | Thru | Right | Peds | |
| 06:30 AM | 4 | 120 | 3 | 0 | 0 | 11 | 3 | 0 | 5 | 39 | 0 | 0 | 2 | 30 | 26 | 0 | 243 |
| 06:45 AM | 7 | 123 | 7 | 0 | 0 | 12 | 4 | 0 | 13 | 55 | 0 | 0 | 11 | 25 | 33 | 0 | 290 |
| Total | 11 | 243 | 10 | 0 | 0 | 23 | 7 | 0 | 18 | 94 | 0 | 0 | 13 | 55 | 59 | 0 | 533 |
| 07:00 AM | 9 | 125 | 8 | 0 | 1 | 22 | 4 | 0 | 24 | 70 | 0 | 0 | 12 | 37 | 33 | 0 | 345 |
| 07:15 AM | 7 | 139 | 11 | 0 | 0 | 29 | 4 | 0 | 18 | 51 | 0 | 0 | 10 | 39 | 27 | 0 | 335 |
| 07:30 AM | 6 | 115 | 10 | 0 | 1 | 24 | 0 | 0 | 15 | 48 | 1 | 0 | 3 | 28 | 28 | 0 | 279 |
| 07:45 AM | 6 | 106 | 9 | 0 | 0 | 11 | 4 | 0 | 6 | 43 | 1 | 0 | 5 | 19 | 19 | 0 | 229 |
| Total | 28 | 485 | 38 | 0 | 2 | 86 | 12 | 0 | 63 | 212 | 2 | 0 | 30 | 123 | 107 | 0 | 1188 |
| 08:00 AM | 2 | 74 | 6 | 0 | 4 | 11 | 2 | 0 | 13 | 66 | 0 | 0 | 1 | 10 | 17 | 0 | 206 |
| 08:15 AM | 3 | 86 | 5 | 0 | 3 | 9 | 0 | 0 | 8 | 60 | 2 | 0 | 2 | 9 | 13 | 0 | 200 |
| Grand Total | 44 | 888 | 59 | 0 | 9 | 129 | 21 | 0 | 102 | 432 | 4 | 0 | 46 | 197 | 196 | 0 | 2127 |
| Apprch % | 4.4 | 89.6 | 6 | 0 | 5.7 | 81.1 | 13.2 | 0 | 19 | 80.3 | 0.7 | 0 | 10.5 | 44.9 | 44.6 | 0 | |
| Total % | 2.1 | 41.7 | 2.8 | 0 | 0.4 | 6.1 | 1 | 0 | 4.8 | 20.3 | 0.2 | 0 | 2.2 | 9.3 | 9.2 | 0 | |

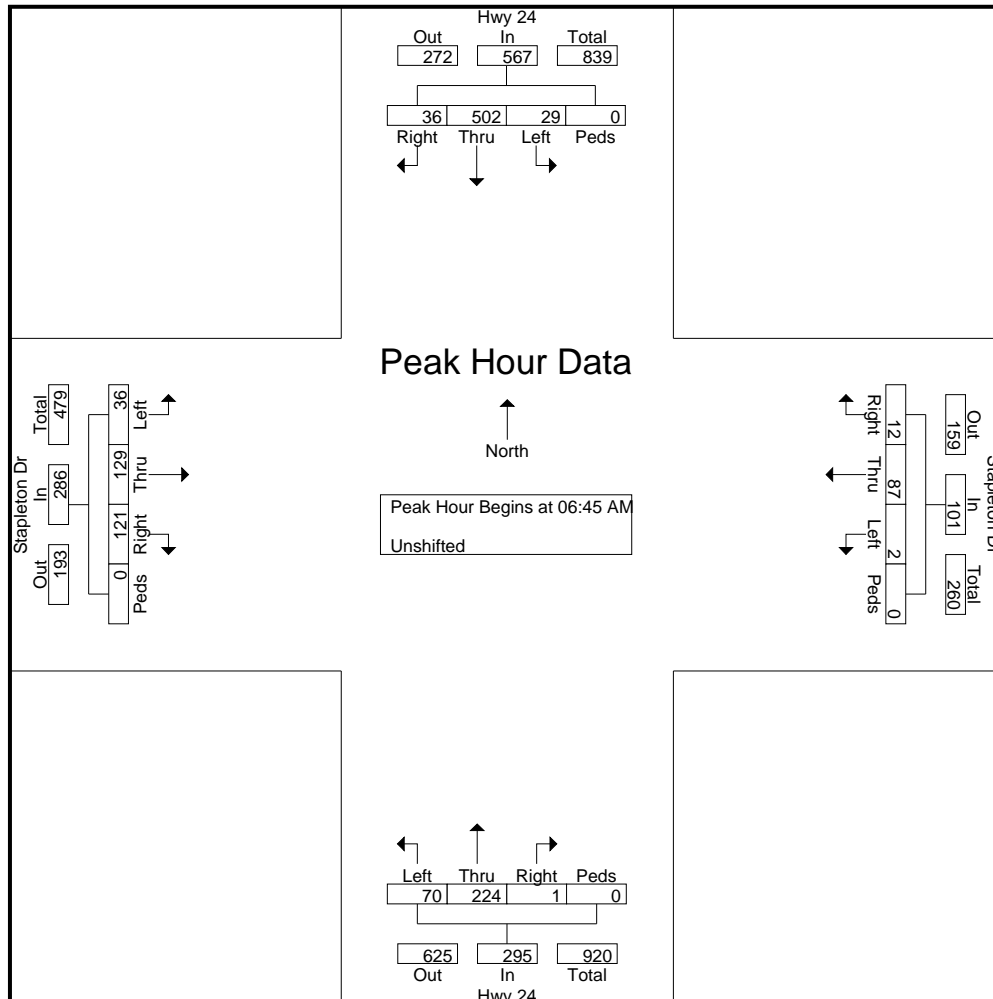


LSC Transportation Consultants, Inc.

545 E Pikes Peak Ave, Suite 210
 Colorado Springs, CO 80905
 719-633-2868

File Name : Hwy 24 - Stapleton Rd AM 11-18
 Site Code : 184750
 Start Date : 11/15/2018
 Page No : 2

| Start Time | Hwy 24 Southbound | | | | | Stapleton Dr Westbound | | | | | Hwy 24 Northbound | | | | | Stapleton Dr Eastbound | | | | | Int. Total |
|------------------------------------------------------------|-------------------|------|-------|------|------------|------------------------|------|-------|------|------------|-------------------|------|-------|------|------------|------------------------|------|-------|------|------------|------------|
| | Left | Thru | Right | Peds | App. Total | Left | Thru | Right | Peds | App. Total | Left | Thru | Right | Peds | App. Total | Left | Thru | Right | Peds | App. Total | |
| Peak Hour Analysis From 06:30 AM to 08:15 AM - Peak 1 of 1 | | | | | | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 06:45 AM | | | | | | | | | | | | | | | | | | | | | |
| 06:45 AM | 7 | 123 | 7 | 0 | 137 | 0 | 12 | 4 | 0 | 16 | 13 | 55 | 0 | 0 | 68 | 11 | 25 | 33 | 0 | 69 | 290 |
| 07:00 AM | 9 | 125 | 8 | 0 | 142 | 1 | 22 | 4 | 0 | 27 | 24 | 70 | 0 | 0 | 94 | 12 | 37 | 33 | 0 | 82 | 345 |
| 07:15 AM | 7 | 139 | 11 | 0 | 157 | 0 | 29 | 4 | 0 | 33 | 18 | 51 | 0 | 0 | 69 | 10 | 39 | 27 | 0 | 76 | 335 |
| 07:30 AM | 6 | 115 | 10 | 0 | 131 | 1 | 24 | 0 | 0 | 25 | 15 | 48 | 1 | 0 | 64 | 3 | 28 | 28 | 0 | 59 | 279 |
| Total Volume | 29 | 502 | 36 | 0 | 567 | 2 | 87 | 12 | 0 | 101 | 70 | 224 | 1 | 0 | 295 | 36 | 129 | 121 | 0 | 286 | 1249 |
| % App. Total | 5.1 | 88.5 | 6.3 | 0 | | 2 | 86.1 | 11.9 | 0 | | 23.7 | 75.9 | 0.3 | 0 | | 12.6 | 45.1 | 42.3 | 0 | | |
| PHF | .806 | .903 | .818 | .000 | .903 | .500 | .750 | .750 | .000 | .765 | .729 | .800 | .250 | .000 | .785 | .750 | .827 | .917 | .000 | .872 | .905 |





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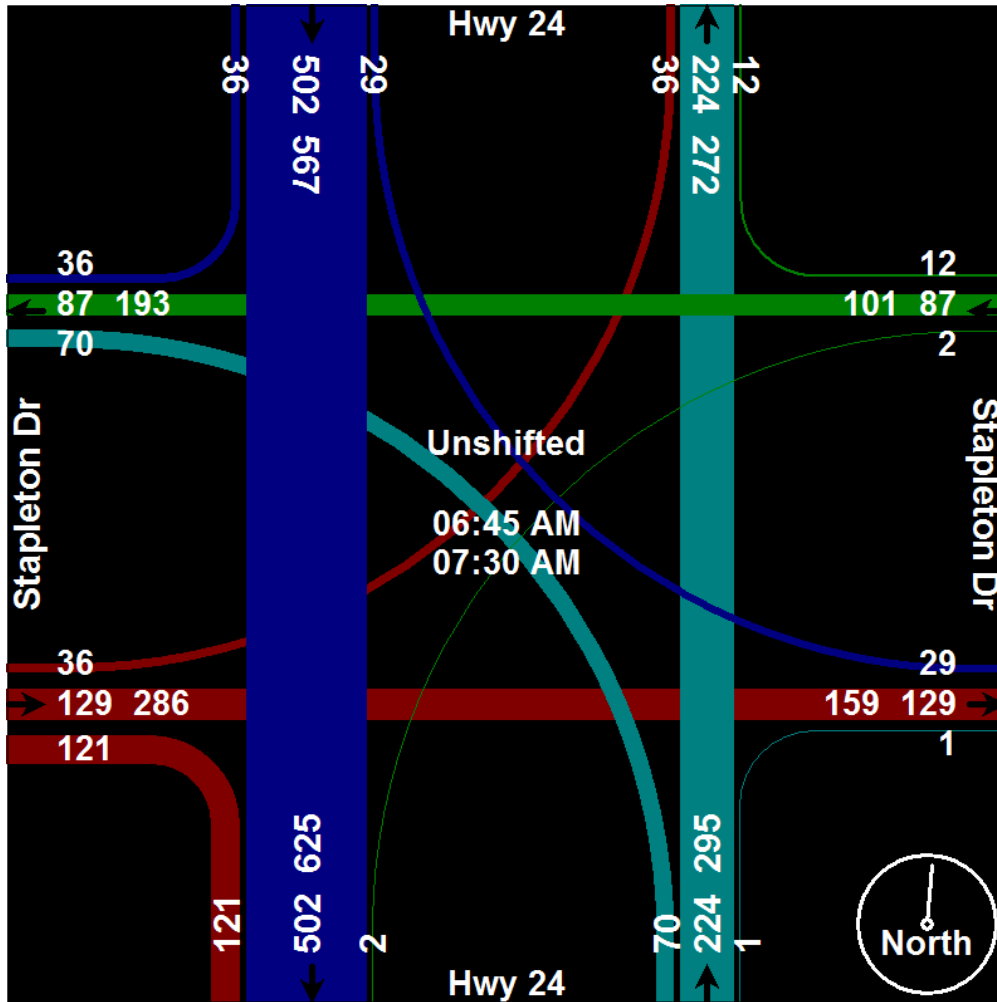
719-633-2868

File Name : Hwy 24 - Stapleton Rd AM 11-18

Site Code : 184750

Start Date : 11/15/2018

Page No : 3





LSC Transportation Consultants, Inc.

545 E Pikes Peak Ave, Suite 210

Colorado Springs, CO 80905

719-633-2868

File Name : Hwy 24 - Stapleton Rd PM 11-18

Site Code : 00184750

Start Date : 11/28/2018

Page No : 1

Groups Printed- Unshifted

| Start Time | Hwy 24 Southbound | | | | Stapleton Rd Westbound | | | | Hwy 24 Northbound | | | | Stapleton Rd Eastbound | | | | Int. Total |
|-------------|-------------------|------|-------|------|------------------------|------|-------|------|-------------------|------|-------|------|------------------------|------|-------|------|------------|
| | Left | Thru | Right | Peds | Left | Thru | Right | Peds | Left | Thru | Right | Peds | Left | Thru | Right | Peds | |
| 04:00 PM | 4 | 73 | 11 | 0 | 1 | 20 | 6 | 0 | 20 | 127 | 5 | 0 | 5 | 6 | 11 | 0 | 289 |
| 04:15 PM | 1 | 73 | 9 | 0 | 3 | 31 | 5 | 0 | 13 | 100 | 5 | 1 | 7 | 5 | 9 | 0 | 262 |
| 04:30 PM | 3 | 85 | 3 | 0 | 1 | 23 | 7 | 0 | 28 | 96 | 4 | 0 | 2 | 6 | 13 | 0 | 271 |
| 04:45 PM | 4 | 73 | 9 | 0 | 1 | 29 | 7 | 0 | 32 | 98 | 6 | 0 | 5 | 7 | 14 | 0 | 285 |
| Total | 12 | 304 | 32 | 0 | 6 | 103 | 25 | 0 | 93 | 421 | 20 | 1 | 19 | 24 | 47 | 0 | 1107 |
| 05:00 PM | 2 | 94 | 2 | 0 | 0 | 22 | 5 | 0 | 18 | 138 | 4 | 0 | 0 | 10 | 16 | 0 | 311 |
| 05:15 PM | 1 | 74 | 7 | 0 | 2 | 23 | 9 | 0 | 29 | 109 | 7 | 0 | 7 | 15 | 13 | 0 | 296 |
| 05:30 PM | 1 | 63 | 4 | 0 | 1 | 23 | 6 | 0 | 20 | 133 | 4 | 0 | 5 | 8 | 7 | 0 | 275 |
| 05:45 PM | 4 | 55 | 4 | 0 | 1 | 15 | 6 | 0 | 18 | 136 | 5 | 0 | 4 | 8 | 6 | 0 | 262 |
| Total | 8 | 286 | 17 | 0 | 4 | 83 | 26 | 0 | 85 | 516 | 20 | 0 | 16 | 41 | 42 | 0 | 1144 |
| Grand Total | 20 | 590 | 49 | 0 | 10 | 186 | 51 | 0 | 178 | 937 | 40 | 1 | 35 | 65 | 89 | 0 | 2251 |
| Apprch % | 3 | 89.5 | 7.4 | 0 | 4 | 75.3 | 20.6 | 0 | 15.4 | 81.1 | 3.5 | 0.1 | 18.5 | 34.4 | 47.1 | 0 | |
| Total % | 0.9 | 26.2 | 2.2 | 0 | 0.4 | 8.3 | 2.3 | 0 | 7.9 | 41.6 | 1.8 | 0 | 1.6 | 2.9 | 4 | 0 | |

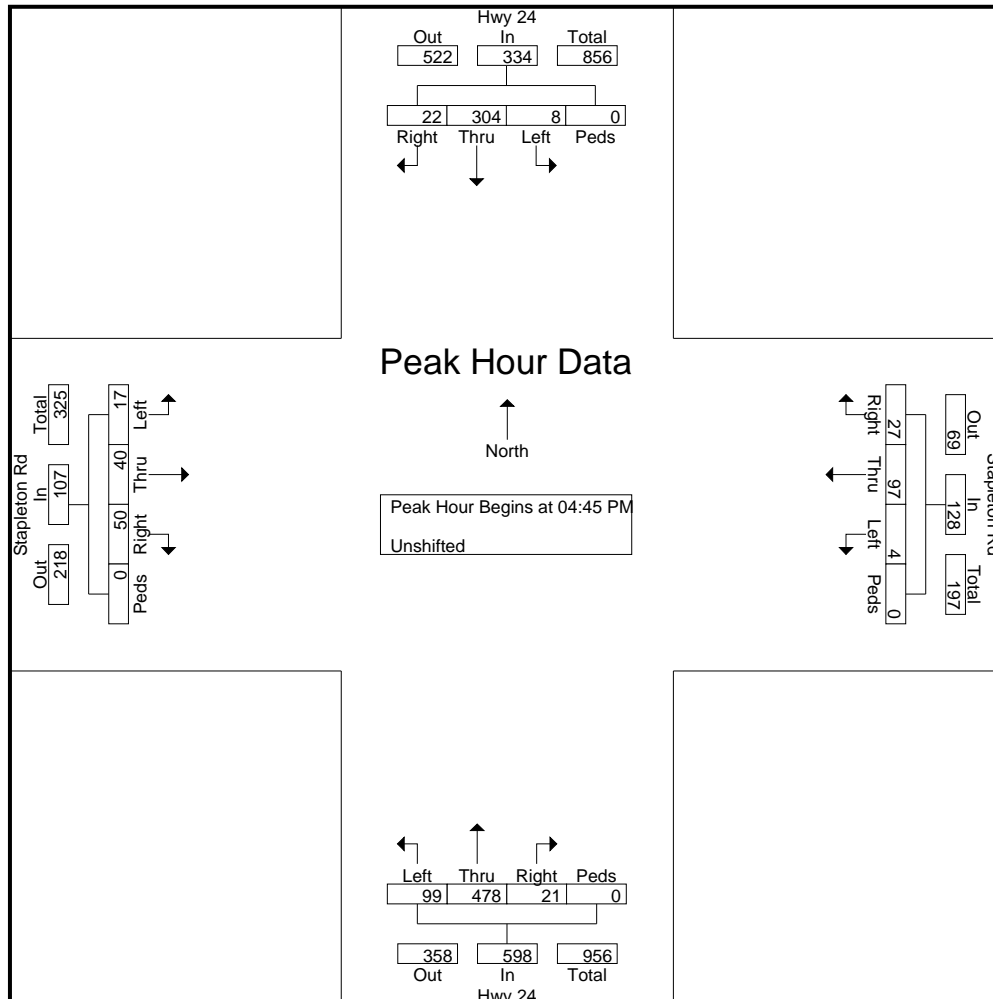


LSC Transportation Consultants, Inc.

545 E Pikes Peak Ave, Suite 210
 Colorado Springs, CO 80905
 719-633-2868

File Name : Hwy 24 - Stapleton Rd PM 11-18
 Site Code : 00184750
 Start Date : 11/28/2018
 Page No : 2

| Start Time | Hwy 24 Southbound | | | | | Stapleton Rd Westbound | | | | | Hwy 24 Northbound | | | | | Stapleton Rd Eastbound | | | | | Int. Total |
|------------------------------------------------------------|-------------------|------|-------|------|------------|------------------------|------|-------|------|------------|-------------------|------|-------|------|------------|------------------------|------|-------|------|------------|------------|
| | Left | Thru | Right | Peds | App. Total | Left | Thru | Right | Peds | App. Total | Left | Thru | Right | Peds | App. Total | Left | Thru | Right | Peds | App. Total | |
| Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1 | | | | | | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 04:45 PM | | | | | | | | | | | | | | | | | | | | | |
| 04:45 PM | 4 | 73 | 9 | 0 | 86 | 1 | 29 | 7 | 0 | 37 | 32 | 98 | 6 | 0 | 136 | 5 | 7 | 14 | 0 | 26 | 285 |
| 05:00 PM | 2 | 94 | 2 | 0 | 98 | 0 | 22 | 5 | 0 | 27 | 18 | 138 | 4 | 0 | 160 | 0 | 10 | 16 | 0 | 26 | 311 |
| 05:15 PM | 1 | 74 | 7 | 0 | 82 | 2 | 23 | 9 | 0 | 34 | 29 | 109 | 7 | 0 | 145 | 7 | 15 | 13 | 0 | 35 | 296 |
| 05:30 PM | 1 | 63 | 4 | 0 | 68 | 1 | 23 | 6 | 0 | 30 | 20 | 133 | 4 | 0 | 157 | 5 | 8 | 7 | 0 | 20 | 275 |
| Total Volume | 8 | 304 | 22 | 0 | 334 | 4 | 97 | 27 | 0 | 128 | 99 | 478 | 21 | 0 | 598 | 17 | 40 | 50 | 0 | 107 | 1167 |
| % App. Total | 2.4 | 91 | 6.6 | 0 | | 3.1 | 75.8 | 21.1 | 0 | | 16.6 | 79.9 | 3.5 | 0 | | 15.9 | 37.4 | 46.7 | 0 | | |
| PHF | .500 | .809 | .611 | .000 | .852 | .500 | .836 | .750 | .000 | .865 | .773 | .866 | .750 | .000 | .934 | .607 | .667 | .781 | .000 | .764 | .938 |





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File Name : Hwy 24 - Stapleton Rd PM 11-18

Site Code : 00184750

Start Date : 11/28/2018

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