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D-49 Transportation Center
Traffic Impact Study
(LSC #S214340)
October 12, 2021

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.

Butt Pedregon

EPCCSD49 - CBD

10/14/2021

Date

D-49 Transportation Center Traffic Impact Study

Prepared for:
School District 49
10850 East Woodmen Road
Peyton, Colorado 808031

Contact: Mr. Bruce Brown

← Please add PCD File
No. U-221

OCTOBER 12, 2021

LSC Transportation Consultants
Prepared by: Colleen Guillotte, P.E., PTOE, RSP
Reviewed by: Jeffrey C. Hodsdon, P.E.

LSC #S214340



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October 12, 2021

Bruce Brown
Facility Project Manager
School District 49
10850 East Woodmen Road
Peyton, CO 80831

RE: D-49 Transportation Center
Traffic Impact Study
El Paso County, Colorado
LSC #S214340

Dear Mr. Brown:

In response to your request, LSC Transportation Consultants, Inc. has prepared this traffic impact study (TIS) for the proposed District 49 (D-49) Transportation Center in Falcon. As shown in Figure 1, the site is located southeast of the intersection of US Highway 24 (US Hwy 24) and Meridian Road in the Falcon area of El Paso County, Colorado (El Paso County parcel IDs 4307300006 and 4307208002). This traffic impact study 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 the adjacent and nearby roadway system, 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;
- Reviewed relevant information on the *US Highway 24 Access Management Plan* (CDOT), *The US Highway 24 PEL Study* (CDOT), the *El Paso County Major Transportation Corridors Plan (MTCP)*, the *Meridian Road Corridor Study* (El Paso County), and the Meridian Road project plan documents.
- Weekday morning and evening peak-hour turning-movement traffic counts at the intersections of:

- Meridian Road/Falcon Highway
- Old Meridian Road/Swingline Road
- Falcon Elementary Access/Falcon Highway
- US Hwy 24/Woodmen Road
- US Hwy 24/New Meridian Road
- Estimated current average weekday traffic (AWT) volumes on the study-area streets;
- Projections of short-term future and 20-year background traffic volumes on the study-area streets;
- The proposed site land use;
- Estimates of average weekday and weekday peak-hour trip generation for the proposed site;
- Assignment of the site-generated traffic to the roadway network;
- Projected total daily (AWT) volumes on the study-area streets;
- Intersection level of service analysis at the study intersections for both background and total traffic scenarios;
- Queuing and auxiliary lane analysis at the site access; and
- Findings and recommendations.

RECENT TRAFFIC REPORTS

The most recent versions of the following traffic reports were utilized in preparing this report:

- Falcon Field (LSC)
- Falcon Marketplace (LSC)
- Meadowlake Ranch (LSC)
- The Ranch (LSC)
- US Highway 24 Planning and Linkage Study (CDOT)

This report is generally consistent with these reports. Minor adjustments to background traffic volumes have been made to account for newer traffic counts and traffic projections in the CDOT PEL study. Also, the background-traffic volumes attempt to adjust for some of the pairing of trips between developments (i.e., some trips shown to exit one development may be paired with an arriving trip at another development). Each project's Traffic Impact Study (TIS) shows the trip ends generated at each trip end. This can result in "double counting" of trips on roadways in intersections between these two developments.

Other known reports completed within the past five years include:

- Big O tires (Meridian Road/US Highway 24)
- Falcon Highlands Taco Bell deviation request memo
- Meridian Crossing Memo.

LAND USE AND ACCESS

Figure 1 shows the site location relative to the adjacent and nearby streets and roadways. As shown, the site is located southeast of the intersection of US Hwy 24 and Meridian Road. The transportation center will be located between the existing Falcon Elementary School and Patriot High School.

The proposed transportation center will have two access points, as shown in Figure 2. The primary ingress and egress will be from the east access point on Swingline Road. Additionally, an access drive for transportation center traffic is planned. This access drive would connect south to the west access to Falcon Elementary School on Falcon Highway. This southerly access to Falcon Highway will only be for **outbound** traffic. All inbound traffic will use Swingline Road.

Will all outbound traffic use the Falcon Hwy access?

There is also the possibility of a future access connection to the northeast as noted in Figure 2. However, there is currently no public right-of-way to/from the northeast (except for US Hwy 24, but no direct access to US Hwy 24 will be allowed by CDOT along the District property frontage). The adjacent properties are private.

The Transportation Center is a unique trip generator because it is planned to eventually store all of the buses for D-49. Every morning and early afternoon, staff will arrive in their private vehicles and pick up the buses. Buses will be dropped off after school pick-up/drop-off is complete and staff will leave the site in their private vehicles. Shift times are discussed in the Trip Generation section of the report.

Table 1 provides short-term and long-term estimates of the number of staff and buses, based on information provided by D-49.

Table 1: Staff and Buses

Scenario	Staff	Buses
Short-Term	100	80
Long-Term	225	175

Please explain why there is a discrepancy between number of staff and buses? Also, the letter of intent states 300 bus stalls are being proposed. Are more buses eventually going to be added to the schedule?

ACCESS SIGHT DISTANCE

The sight distance was field measured at the Falcon Elementary School access point on Swingline Highway. The entering sight-distance measurements at both access points meet ECW criteria.

The sight distance to the west is unobstructed to Meridian Road. The sight distance to the east is limited by a vertical curve in the vicinity of the adjacent church access. The sight-distance field measurements for passenger vehicles are 577 feet and 746 feet for the east and west school access points, respectively. The sight distance field measurements for single-unit trucks (and school busses) are 630 feet and 794 feet for the east and west school access points, respectively.

Please provide an exhibit with sight distance lines for both design vehicles.

The field-measured sight distances meet the *ECM*-prescribed distances of 450 feet and 585 feet in the *ECM* for passenger vehicles and single-unit trucks (and school busses), respectively (*ECM* Table 2-35; based on the posted speed of 45 mph).

Technical notes: The sight distance for single-unit trucks (and school busses) was measured from a drivers'-eye height of 7 1/3 feet high. The standard 3 1/2-foot-high drivers'-eye height was used for the passenger-vehicle sight-distance measurement. Note that the sight distance for school busses is met based on the 45-mph posted limit on Falcon highway, but also school speed-limit flashers operate on Falcon Highway for the beginning and ending of the school day. Therefore, the approach speed limit on Falcon Highway is significantly lower during times when loaded school busses (with children from Falcon Elementary) enter the roadway. Busses from this transportation facility would be unloaded when entering the roadway.

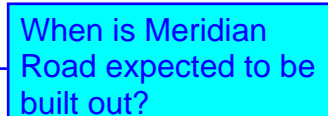
EXISTING ROAD AND TRAFFIC CONDITIONS

Figure 1 shows the streets adjacent to and in the vicinity of the site. Adjacent streets serving the site are identified below, followed by a brief description of each:

- **Woodmen Road** is a four-lane east/west Expressway that extends from west of Interstate 25 (I-25) to the east where it ends at the intersection with US Hwy 24. The intersections of Woodmen Road with Meridian Road, McLaughlin Road, and US Hwy 24 are all signalized.
- **US Highway 24** is a two-lane, category EX - Expressway/Major Bypass adjacent to the site that runs northeast/southwest with a 55-mile-per-hour (mph) posted speed limit. The corridor was studied in-depth in the *US Hwy 24 Planning and Environmental Linkages Study*. Two alternatives were carried forward in this study for the segment of US Hwy 24 adjacent to the site:
 - US Hwy 24 as a six-lane corridor
 - US Hwy 24 as a four-lane corridor with a peak-period shoulder lane in each direction

Because both scenarios result in US Hwy 24 operating a six-lane road during peak hours, this has been assumed for the 2040 analysis.

- **Old Meridian Road** is a two-lane north/south Collector. The intersection with US Hwy 24 has recently been converted to a right-in/right-out intersection.
- **New Meridian Road** is a four-lane north/south Principal Arterial. The US Hwy 24 connection has recently been opened and the US Hwy 24/Old Meridian Road intersection has been converted to a right-in/right-out intersection.



When is Meridian Road expected to be built out?

- **Swingline Road** is a two-lane urban-type street. The existing roadway extends approximately 1,140 feet east of Old Meridian Road, where it ends as a cul-de-sac. An extension of Swingline Road is currently under construction between New Meridian Road and Old Meridian Road. The intersection with Old Meridian Road is currently being reconstructed as a one-lane roundabout.

Swingline Road was platted and built with the Falcon Vista subdivision. The original PUD document does not appear to specify a classification. The *El Paso County Road System – 2019* publication identifies an Urban Area Local functional classification (FC) for this street. The street does not appear on the MTCP plan. The ROW is 80 feet and 40-foot width, which was the Collector standard circa 2000 (prior to the *ECM*). The roadway also has no direct lot residential driveways, which is also consistent with a Collector roadway. The street was constructed with vertical-type curb & gutter, similar to the current Collector standards. The sidewalks are attached, which **may** have been the Collector standard prior to the *ECM*.

- **Falcon Highway** is a two-lane east/west Major Collector that extends from US Hwy 24 to Soap Weed Road. The intersection with US Hwy 24 is signalized. The roadway has a posted speed limit of 45 mph. In the *El Paso County 2016 Major Transportation Corridors Plan*, the roadway is shown to be planned to be upgraded to an improved Minor Arterial.

Pedestrian, Bicycle, and Public Transit Access

Sidewalks currently exist on both sides of Swingline Road. In addition, sidewalks are planned to be installed along New Meridian Road with the construction and around the proposed Park-and-Ride that is being constructed north of Falcon Highway between the Old Meridian Road and New Meridian Road.

Mountain Metropolitan Transit does not have any routes in the vicinity of the study area.

The Rock Island Regional Trail is located along the north side of US Hwy 24. Likely, future connectivity to this trail and US Hwy 24 pedestrian crossings would be at the signalized intersections of (new) Meridian Road & Woodmen Road.

Existing Traffic Volumes

Figure 3 shows the results of peak-hour traffic-volume counts conducted in spring and summer 2021 at the intersections of Meridian Road/Falcon Highway, Old Meridian Road/Swingline Road, Falcon Highway/Falcon Elementary Access, US Hwy 24/Woodmen Road, and US Hwy 24/New Meridian Road. Newer counts were not collected at the intersection of US Hwy 24/Old Meridian Road because construction was still ongoing at the time. It should be noted that construction may have impacted the counts at Meridian Road/Falcon Highway and US Hwy 24/New Meridian Road.

Were traffic counts collected by other reports that studied the area considered?

FUTURE BACKGROUND CONDITIONS

Background traffic is traffic that is anticipated to occur without the addition of the proposed development. Only the afternoon peak was analyzed in the future scenarios. The morning peak hour of the site doesn't coincide with the morning peak hour of the adjacent roadways. Therefore, analyzing the two morning peaks together would not represent a realistic scenario and does not make sense to analyze. Short-term background volumes were developed that adjusted traffic volumes at the study intersections for the construction of the Park-and-Ride. Figure 4 provides the resulting short-term background volumes.

Figure 5 shows the estimated long-term background traffic volumes. These projected volumes include estimates from planned future Falcon-area development and increases in through traffic volumes on the study-area roadways to be consistent with the *US Highway 24 Planning and Linkage Study* (CDOT). In the long-term scenarios, it has been assumed that US Hwy 24 has been widened to a six-lane roadway.

TRIP GENERATION

Typically, estimates of site-generated vehicle trips for the proposed development are made using the nationally-published trip-generation rates from *Trip Generation, 10th Edition, 2017* by the Institute of Transportation Engineers (ITE). However, this site is unique and, therefore, estimates were made using information provided by D-49.

Tables 2 and 3 provide the estimated short-term and long-term peak-hour trip generation for the site, respectively. Tables 5 and 6 provide short-term and long-term detailed trip-generation estimates that include all high-volume hours of trip generation for the site, as well as a breakdown of passenger cars and buses.

As shown in the attached tables, staff are expected to arrive to the site between 5:00 and 5:30 a.m., with the buses leaving the site between 5:30-6:30 a.m. After taking children to school, the buses are expected to arrive back to the site and staff leave the site between 8:00 and 9:00 a.m. This period is the peak hour of the generator and used for all morning peak analysis.

A similar pattern is expected to occur in the afternoon, with staff arriving between 1:30 and 2:00 p.m., buses leaving between 2:00-2:30 p.m., then buses returning and staff leaving between 4:30 and 5:30 p.m. This last timeframe is the afternoon peak generator and has been used for the afternoon analysis.

Table 2: Short-Term Estimated Peak-Hour Vehicle-Trip Generation

Analysis Period	Weekday		
	In	Out	Total
Morning Peak Hour	85	100	185
Afternoon Peak Hour	85	100	185

Table 3: Long-Term Estimated Peak-Hour Vehicle-Trip Generation

Analysis Period	Weekday		
	In	Out	Total
Morning Peak Hour	180	225	405
Afternoon Peak Hour	180	225	405

TRIP DISTRIBUTION AND ASSIGNMENT

Short-Term

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 6 shows directional distribution of the site-generated vehicle trips. The directional distribution has been split because it is anticipated that staff will have a different directional distribution than the buses. Estimates for the staff directional distribution were based on existing counts, the access plan, the area road system serving the site, the site's geographic location, the Pikes Peak Area Council of Governments (PPACG) travel demand model, and previously conducted LSC studies in the vicinity.

The directional distribution for the buses was based on census data within the D-49 school boundaries. It was assumed that areas with higher density and more housing would have more buses.

Short-term site-generated traffic volumes have been estimated at the study intersections, as shown in Figure 7. These volumes have been calculated by applying the directional-distribution percentages to the trip-generation estimates (from Table 2).

Long-Term

The directional distribution was not changed for the long-term scenario. Figure 6 provides the directional distribution. Long-term site-generated traffic volumes have been estimated at the study intersections, as shown in Figure 8. These volumes have been calculated by applying the directional-distribution percentages to the trip-generation estimates (from Table 3).

Please explain what guarantees the directional distribution will remain the same if Gelbvien Road can provide both ingress and egress to the site?

TOTAL TRAFFIC

Short-Term Total Traffic Volumes

Figure 9 shows the sum of the short-term background traffic volumes (from 16) and site-generated peak-hour traffic volumes (shown in 16). These volumes represent the projected short-term total traffic following the opening of the Transportation Center. Laneage and traffic control at the study-area intersections are also shown in this figure.

2040 Total Traffic Volumes

Figure 10 shows the sum of the long-term background traffic volumes (from Figure 5) and the long-term site-generated peak-hour traffic volumes (shown in Figure 8). These volumes represent the projected long-term total traffic with the construction of the Transportation Center. Laneage and traffic control at the study-area intersections are also shown in this figure.

LEVEL OF SERVICE ANALYSIS

Intersection Level of Service

Level of service (LOS) is a quantitative measure of the level of congestion or delay at an intersection and is indicated on a scale from "A" to "F." LOS A is indicative of little congestion or delay. LOS F indicates a high level of congestion or delay. Table 4 shows the level of service delay ranges for signalized and unsignalized intersections.

Table 4: Intersection Levels of Service Delay Ranges

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

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

The study intersections have been analyzed to determine the projected intersection levels of service for existing, short- and long-term background, and total traffic scenarios for the morning and afternoon peak-hour periods.

Existing

As shown in Figure 3, the signalized intersection of US Hwy 24/New Meridian Road operates at LOS C during the peak hours. All turning movements operate at LOS D or better. The intersection of US Hwy 24/Woodmen Road currently operates at LOS B during the peak hours with all movements operating at LOS C or better.

The yielding turning movements at the unsignalized intersections all currently operate at LOS D or better during the peak hours.

Short-Term

As mentioned previously, only the afternoon peak hour was analyzed for all future scenarios. As shown in Figure 4 and Figure 9, the signalized intersection of US Hwy 24/New Meridian Road is projected to operate at an overall LOS D, both with and without the site-generated traffic. The turning movements are all anticipated to operate at LOS D or better with the exception of the southwest-bound left turn, which is projected to operate at LOS E.

The intersection of US Hwy 24/Falcon Highway is projected to operate at LOS B or better during the afternoon peak hour in both background and total scenarios.

The yielding turning movements at the unsignalized intersections are all expected to operate at LOS C or better during the peak hours, both with and without the site-generated traffic.

Long-Term

As shown in Figure 5 and Figure 10, the signalized intersection of US Hwy 24/New Meridian Road is projected to operate at an overall LOS D or better, both with and without the site-generated traffic. Most turning movements are anticipated to operate at LOS D or better with the exception of the southwest-bound left-turning movement.

The signalized intersection of US Hwy 24/Falcon Highway is projected to operate at LOS C or better with all movements operating at LOS D or better both with and without site generated traffic.

The westbound left at the future intersection of New Meridian Road/Swingline Road is projected to operate at LOS F with the addition of the site-generated traffic. It is anticipated to operate at LOS E without site-generated traffic. It is not unusual for left-turning movements from a side street to experience delay due to the large volume of traffic on the major roadway. The 95th percentile queue for this movement is anticipated to be one vehicle and the volume to capacity ratio is lower than one for all scenarios. This indicates that the movement is not above capacity and will not impact adjacent intersections. Transportation-center traffic would have the option to use the southerly access drive which will connect to the west Falcon Elementary access to

Falcon Highway. All other yielding turning movements at the unsignalized intersections within the study area are anticipated to operate at LOS C or better.

The long-term analysis assumes that future southbound left- and westbound right-turn lanes will have been added (by others) at the intersection of Meridian Road/Falcon Highway. The future need for these is anticipated due to the projected volume of traffic for the westbound-to-northbound and southbound-to-eastbound movements associated with future growth to the east. Given the transportation center circulation plan, this project is projected to add minimal trips to these turning movements.

Roadway Segment/Link Level of Service

Swingline Road is projected to carry approximately 2,470 vpd east of Old Meridian Road in the long-term future. This volume is within the design ADT of an Urban Local street and well below the 10,000 vpd design ADT of an Urban Collector standard street.

Old Meridian Road is projected to carry 3,200 to 4,800 vpd between US Hwy 24 and New Meridian Road. The roadway should continue to be classified as a Collector.

AUXILIARY TURN LANES

The intersections of New Meridian/US Highway 24 and Old Meridian/US Highway 24 currently have left- and right-turn lanes in place.

The intersection of New Meridian/Swingline Road will provide left- and right-turn lanes on the westbound approach, a right-turn lane on the northbound approach, and a left-turn bay on the southbound approach. The County design plans (June 2019 version) indicated a southbound left-turn lane of about 160-feet with a 240-foot taper

The school access points on Falcon Highway, or at least the west access, would be used for outbound transportation-center traffic. Entering traffic would use Swingline Road. As such, the transportation-center facility would not add any left- or right-turning movements from Falcon Highway into the access points. Note: related to the existing elementary school, it appears that the existing AM peak-hour school volume exceeds the *ECM* 25 vph turning-volume threshold for a left-turn lane by 2 vph (27 eastbound left turns). However, this entering volume occurs during the period of time when 20-mph school flashers are operating on Falcon Highway. This significantly reduces the posted speed limit from 45 to 20 mph during this time period.

As mentioned previously, the long-term analysis assumes that future southbound left- and westbound right-turn lanes will have been added (by others) at the intersection of Meridian Road/Falcon Highway. The future need for these is anticipated due to the projected volume of traffic for the westbound-to-northbound and southbound-to-eastbound movements associated

with future growth to the east. Given the transportation center circulation plan, this project is projected to add minimal trips to these turning movements.

QUEUING ANALYSIS

Due to the eastbound right-turn acceleration lane on US Hwy 24 at Old Meridian, the northbound right-turning movement at the intersection of US Hwy 24/Old Meridian is anticipated to function similar to a free right and, therefore, queuing is not expected to impact adjacent/upstream intersections.

Regarding the southbound left-turn lane at New Meridian/Swingline Road, the County design plans (June 2019 version) indicate a southbound left-turn lane of about 160-feet with a 240-foot taper. This lane is back-to-back with the northbound left at Meridian/US Highway 24. Note: the centerline spacing along New Meridian Road between US Highway 24 and Swingline Road is 825 feet. The queue reported in the HCM analysis indicated a PM peak-hour, 95th-percentile queue of four vehicles. Since busses are projected to use this turn lane, and the lane is relatively short, LSC recommends revisiting the back-to-back left-turn configuration between US Highway 24 and Swingline Road to determine if any striping modifications should be made.

PEDESTRIAN, BICYCLE, AND MULTI-MODAL ACCOMMODATION

A Park-and-Ride is under construction north of the intersection of New Meridian Road/Old Meridian Road. Additionally, the Rock Island Trail runs parallel to US Hwy 24 east of Old Meridian. There are no Mountain Metro bus stops in the vicinity of the site.

DEVIATIONS TO THE ENGINEERING CRITERIA MANUAL

A deviation may be needed for the southbound left-turn lane at the New Meridian/Swingline Road intersection. Please refer to the queuing analysis section for details.

MTCP-IDENTIFIED ROADWAY IMPROVEMENT PROJECTS

- The *MTCP* calls for improvement to US Hwy 24 from Garrett Road to Woodmen Road and upgrade to a rural six-lane Principal Arterial.
- The *MTCP* calls for an upgrade to Falcon Highway to a two-lane, rural Minor Arterial from US Hwy 24 to one mile east of Curtis Road.

COUNTY ROAD IMPROVEMENT FEE PROGRAM

This project may be subject to participation in the County Roadway Improvement Fee Program. However, consideration may be given in a potential fee calculation, that this will replace an existing transportation facility.

CONCLUSIONS AND RECOMMENDATIONS

Trip Generation

- The proposed transportation facility is projected to generate approximately 405 new morning and afternoon peak-hour trips, with 180 inbound and 225 outbound. These trips include passenger-vehicle and school-bus trips.

Traffic Operations Analysis

- Please refer to the Level of Service and Queuing Analysis sections of this report for additional details and discussion.
- The intersection and roadway link-level-of-service analysis indicates that the traffic to be generated by the proposed transportation facility could be accommodated. Swingline Road functions as a Collector street, as described in the “existing roadways” section above.

Auxiliary Turn-Lane Needs Evaluation

- An eastbound left-turn lane is currently warranted at the west Falcon Elementary School access driveway. This is based on current AM school-peak traffic volumes. However, this entering volume occurs during the period of time when 20-mph school flashers are operating on Falcon Highway. Please refer to the Auxiliary Turn Lanes section above for details. The transportation facility is projected to add only **exiting** turning movements at the eastaccess, and the transportation-center peak hours would be different from the elementary school.
- Right-turn lanes are being constructed on US Hwy 24 at New Meridian Road and Old Meridian Road (and left-turn lanes at US Hwy 24/New Meridian Road).
- Turn lanes are part of the design of New Meridian Road/Swingline Road. A deviation may be needed for the southbound left-turn lane at the New Meridian/Swingline Road intersection. Please refer to the queuing analysis section for details.

Other Recommendations

- The roundabout at Old Meridian/Swingline was likely designed for transit and school busses, as this is adjacent to a park n’ride facility and as Swingline serves existing school facilities. Regardless, as plans for this transportation center move forward, the design of the roundabout should be checked to ensure that school busses can be accommodated.

- As plans for this transportation center move forward, the access radii and width at the west Elementary School access to Falcon Highway should be checked to ensure that current standards for a school bus design vehicle are met.
- The design team is currently working on the configuration and design of the access connections to the existing cul-de-sac at the east terminus of Swingline Road.

* * * * *

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

Sincerely,

LSC TRANSPORTATION CONSULTANTS, INC.

By Jeffrey C. Hodsdon, P.E.
Principal

JCH/CRG:jas

Enclosures: Tables 5-6
Figures 1-10
Traffic Count Reports
Level of Service Reports

References:

El Paso County Major Transportation Corridors Plan, 2016
State Highway Access Code, Volume Two, 2002, Colorado Department of Transportation
US 24 Access Control Plan, 2005
US 24/Meridian Road Construction Plans
US 24 PEL Final Corridor Conditions Report, December 2016
US 24 PEL Final Alternatives Report, October 2017

Please note: comments issued during the rezone application are precursory and more comments will be issued during the site development plan.

Tables



Table 5: Short-Term Detailed Trip Generation Estimate

Time	Description	Total Trips Generated				
		Total Traffic	Cars		Buses	
			In	Out	In	Out
5:45 - 6:45 AM	Staff Arrives	105	100	5	0	0
6:00 - 7:00 AM	Buses Leave	80	0	0	0	80
Morning Peak Hour						
8:15 - 9:15 AM	Buses Arrive	80	0	0	80	0
8:15 - 9:15 AM	Staff Leave	105	5	100	0	0
8:15 - 9:15 AM¹	Morning Peak Hour Total	185	5	100	80	0
1:45 - 2:00 PM	Staff Arrives	105	100	5	0	0
2:00 - 3:00 PM	Buses Leave	80	0	0	0	80
Afternoon Peak Hour						
4:00 - 5:00 PM	Buses Arrive	80	0	0	80	0
4:00 - 5:00 PM	Staff Leave	105	5	100	0	0
4:00 - 5:00 PM²	Afternoon Peak Hour Total	185	5	100	80	0
Notes:						
(1) AM "Peak hour of the generator"						
(2) PM "Peak hour of the generator" and assumed "Peak hour of adjacent street traffic"						
Source: LSC Transportation Consultants, Inc.						

Table 6: Long-Term Detailed Trip Generation Estimate

Time	Description	Total Trips Generated				
		Total Traffic	Cars		Buses	
			In	Out	In	Out
5:45 - 6:45 AM	Staff Arrives	230	225	5	0	0
6:00 - 7:00 AM	Buses Leave	175	0	0	0	175
Morning Peak Hour						
8:15 - 9:15 AM	Buses Arrive	175	0	0	175	0
8:15 - 9:15 AM	Staff Leave	230	5	225	0	0
8:15 - 9:15 AM¹	Morning Peak Hour Total	405	5	225	175	0
1:45 - 2:00 PM	Staff Arrives	230	225	5	0	0
2:00 - 3:00 PM	Buses Leave	175	0	0	0	175
Afternoon Peak Hour						
4:00 - 5:00 PM	Buses Arrive	175	0	0	175	0
4:00 - 5:00 PM	Staff Leave	230	5	225	0	0
4:00 - 5:00 PM²	Afternoon Peak Hour Total	405	5	225	175	0
Notes:						
(1) AM "Peak hour of the generator"						
(2) PM "Peak hour of the generator" and assumed "Peak hour of adjacent street traffic"						
Source: LSC Transportation Consultants, Inc.						

Figures





Figure 1

Vicinity Map

D49 Transportation Facility - Falcon (LSC #S214340)

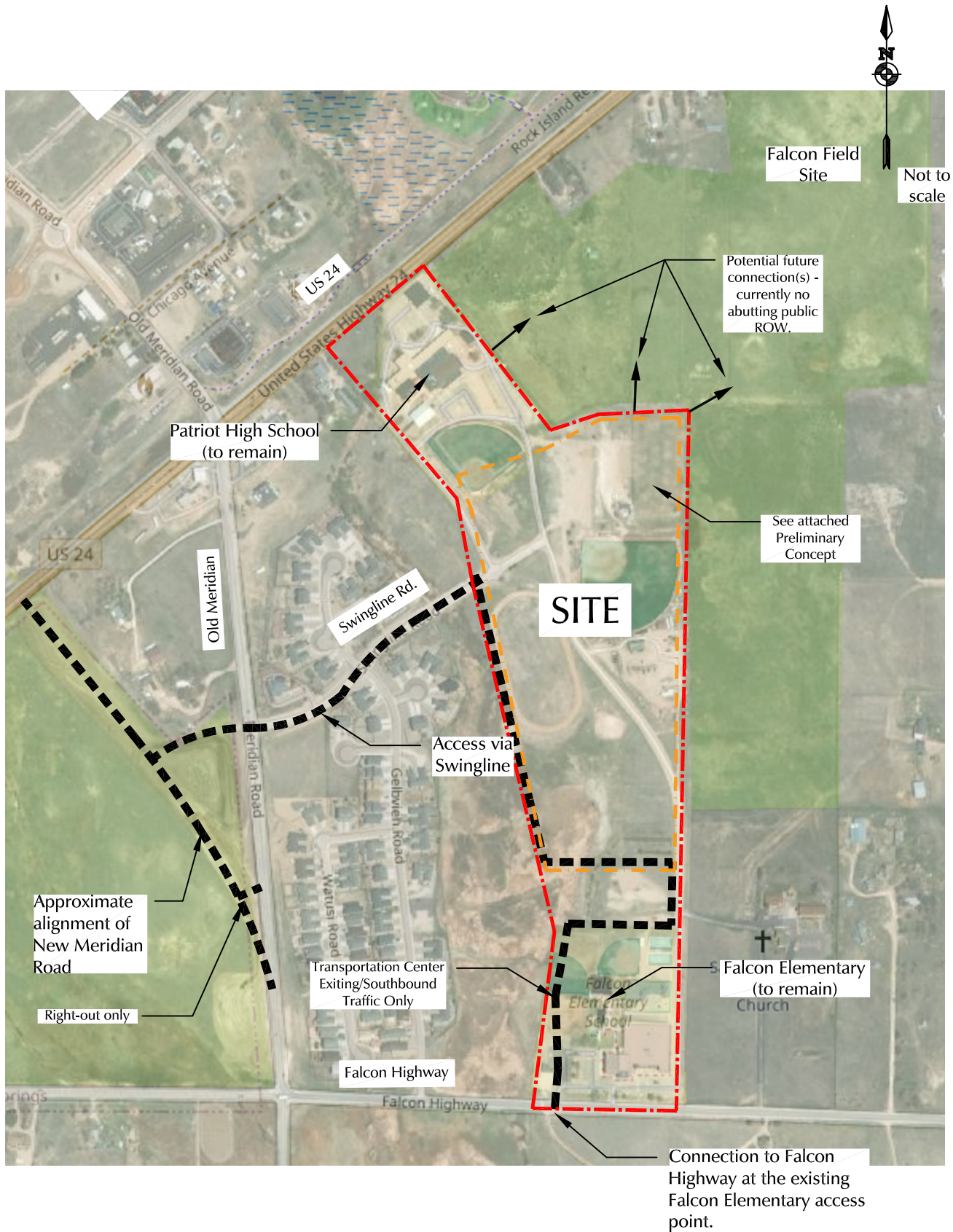


Figure 2

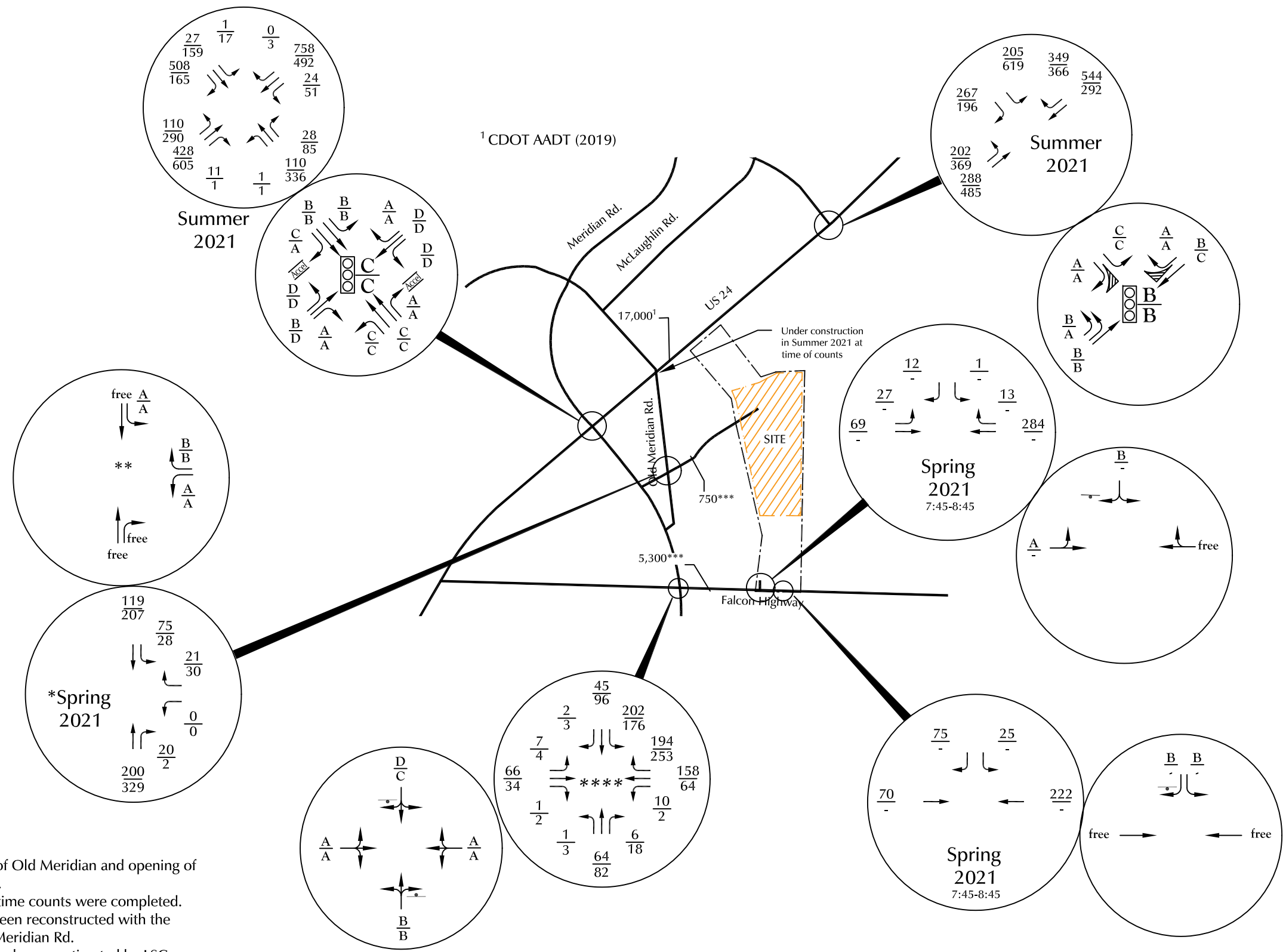
Proposed Site and Access Plan

D49 Transportation Facility - Falcon (LSC #S214340)





Not to scale



*Prior to closure of Old Meridian and opening of New Meridian Rd.
 **Laneage at the time counts were completed. Intersection has been reconstructed with the opening of New Meridian Rd.
 *** Approximate volume - estimated by LSC
 **** Traffic volumes were impacted by Swingline Rd closures at the time of counts.

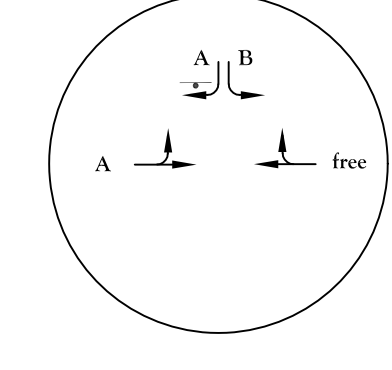
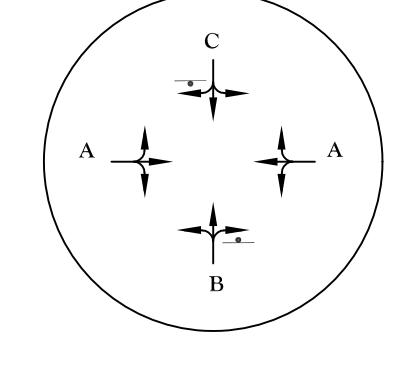
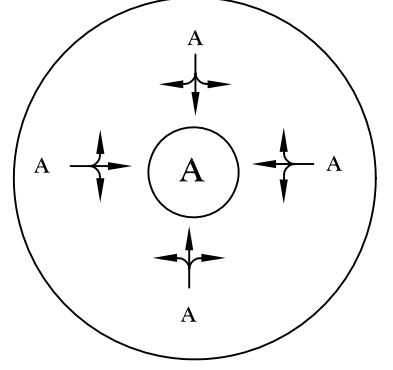
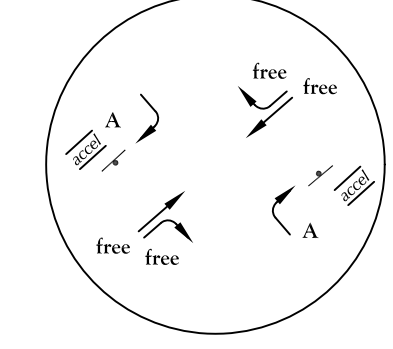
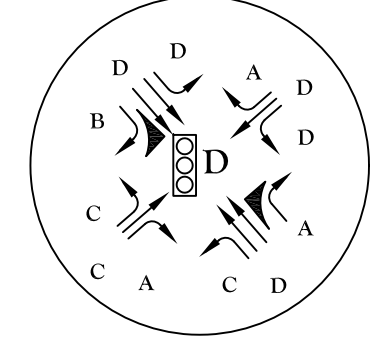
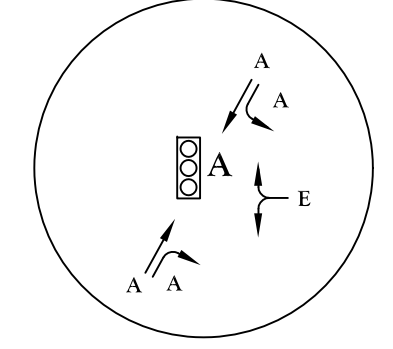
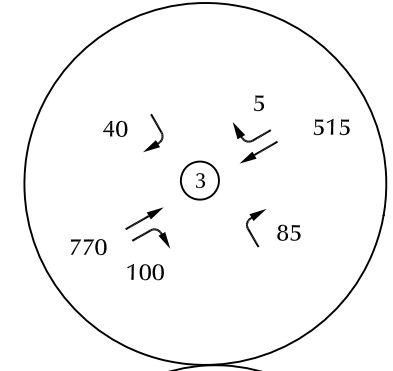
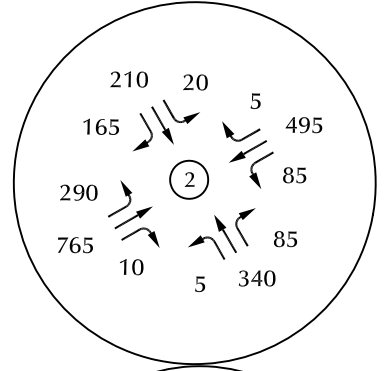
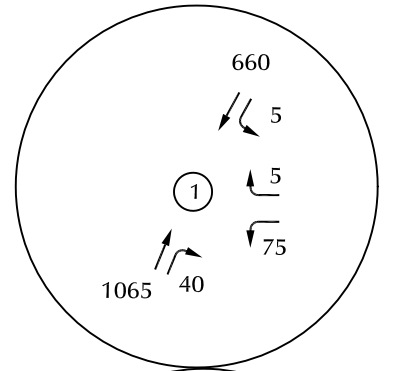
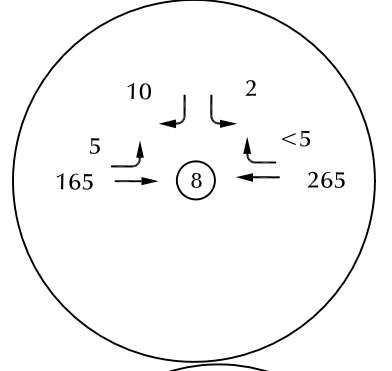
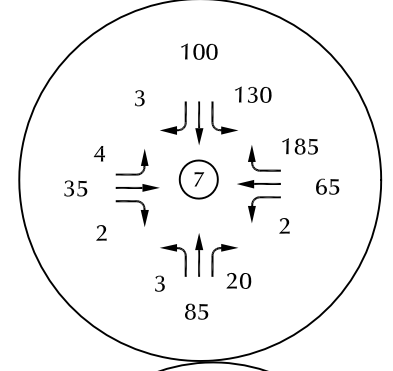
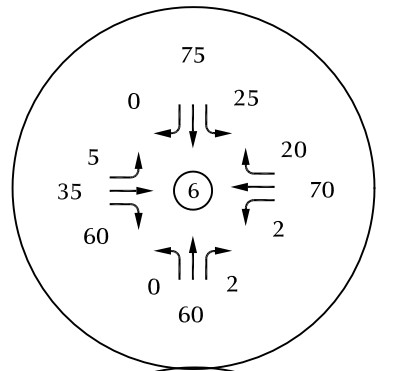
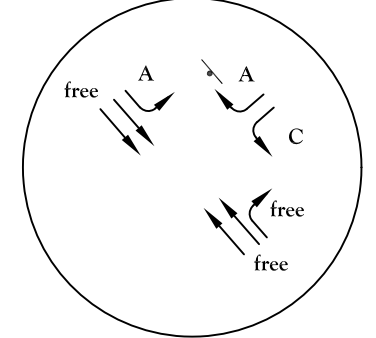
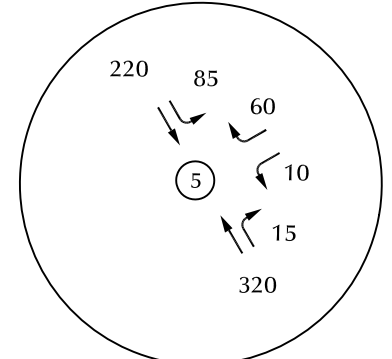
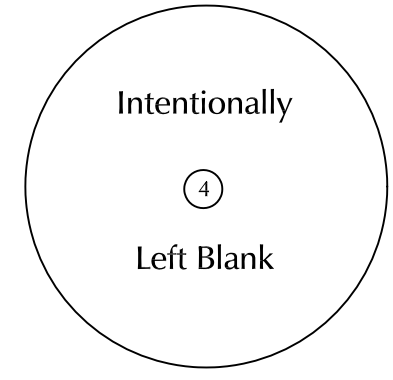
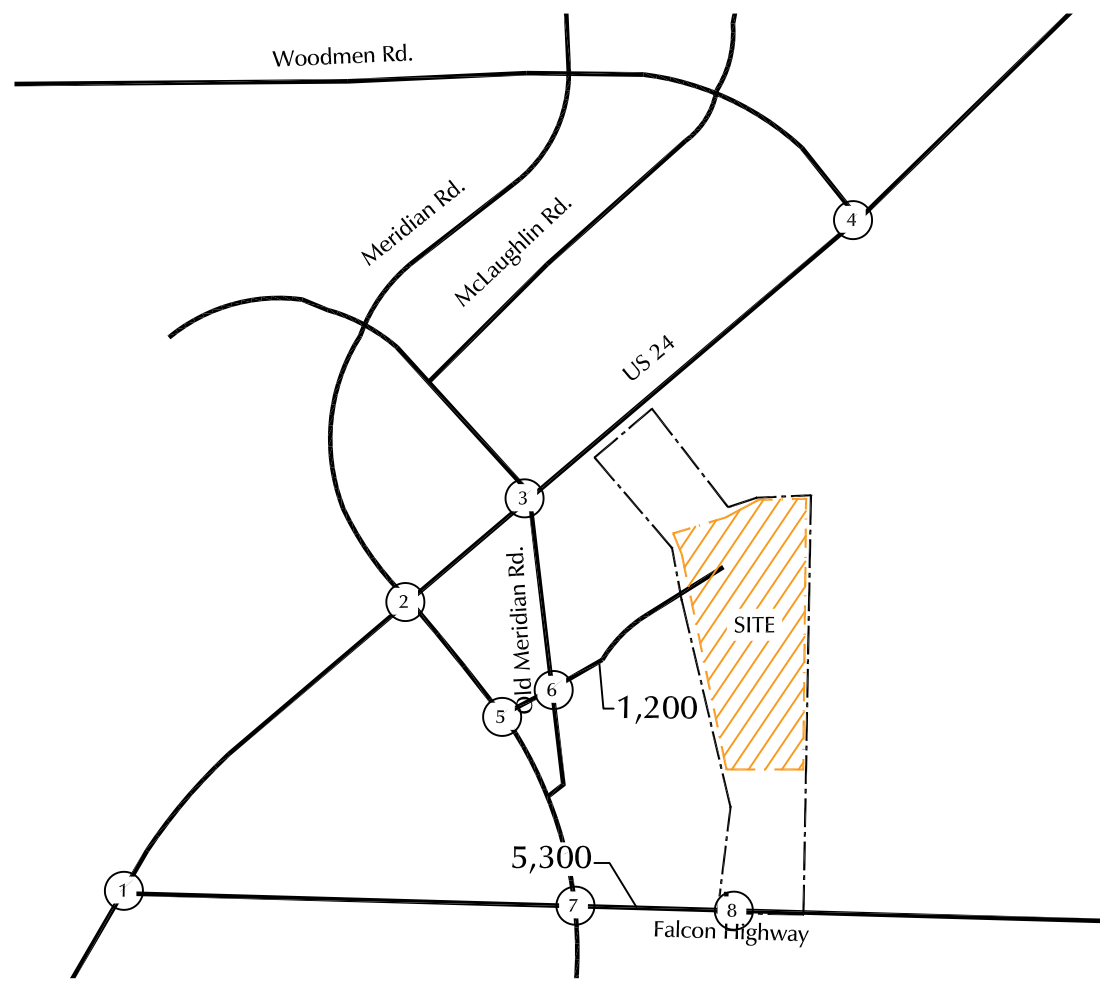
LEGEND: $\frac{XX}{XX}$ = AM Peak-Hour Traffic (veh/hr)
 $\frac{XX}{XX}$ = PM Peak-Hour Traffic (veh/hr)
 XXX = Average Weekday Traffic (vehicles per day)

$\frac{A}{B}$ = AM Individual Movement Peak-Hour Level of Service
 $\frac{A}{B}$ = PM Individual Movement Peak-Hour Level of Service
 $\frac{C}{D}$ = AM Entire Intersection Peak-Hour Level of Service
 $\frac{C}{D}$ = PM Entire Intersection Peak-Hour Level of Service

= Traffic Signal
 = Stop Sign



Figure 3
Existing Conditions
 D49 Transportation Facility - Falcon (LSC #S214340)



○ = Modern Roundabout

B = PM Individual Movement Peak-Hour Level of Service
 D = PM Entire Intersection Peak-Hour Level of Service

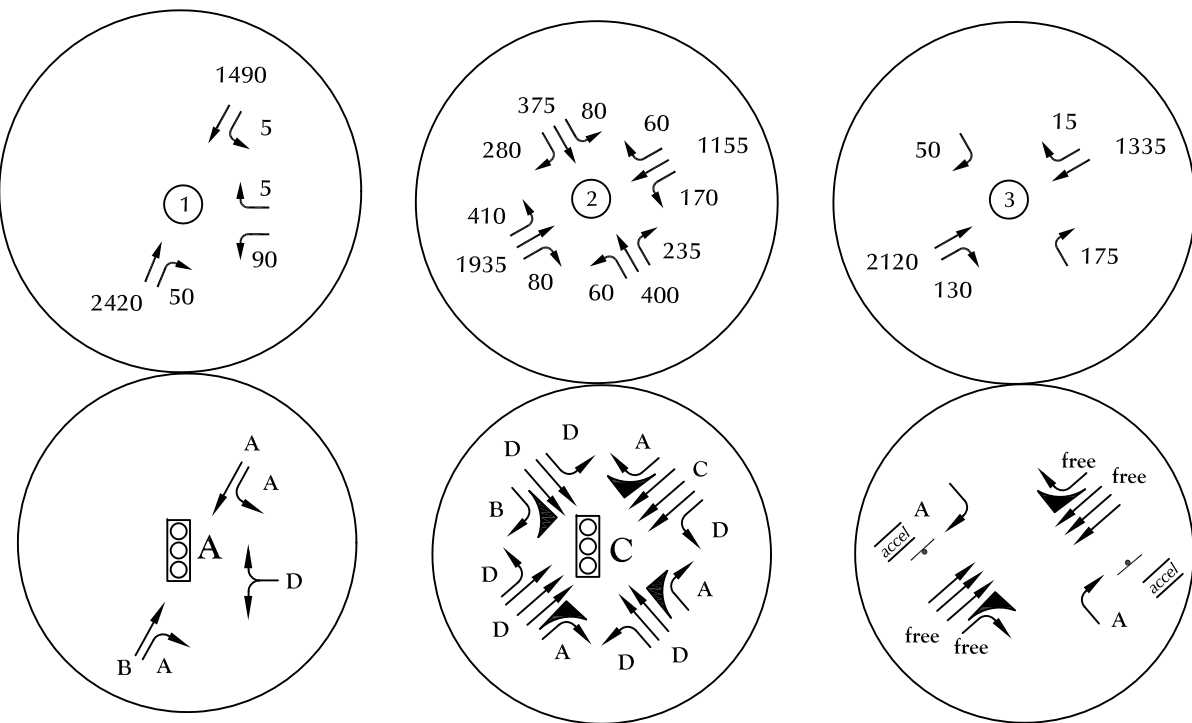
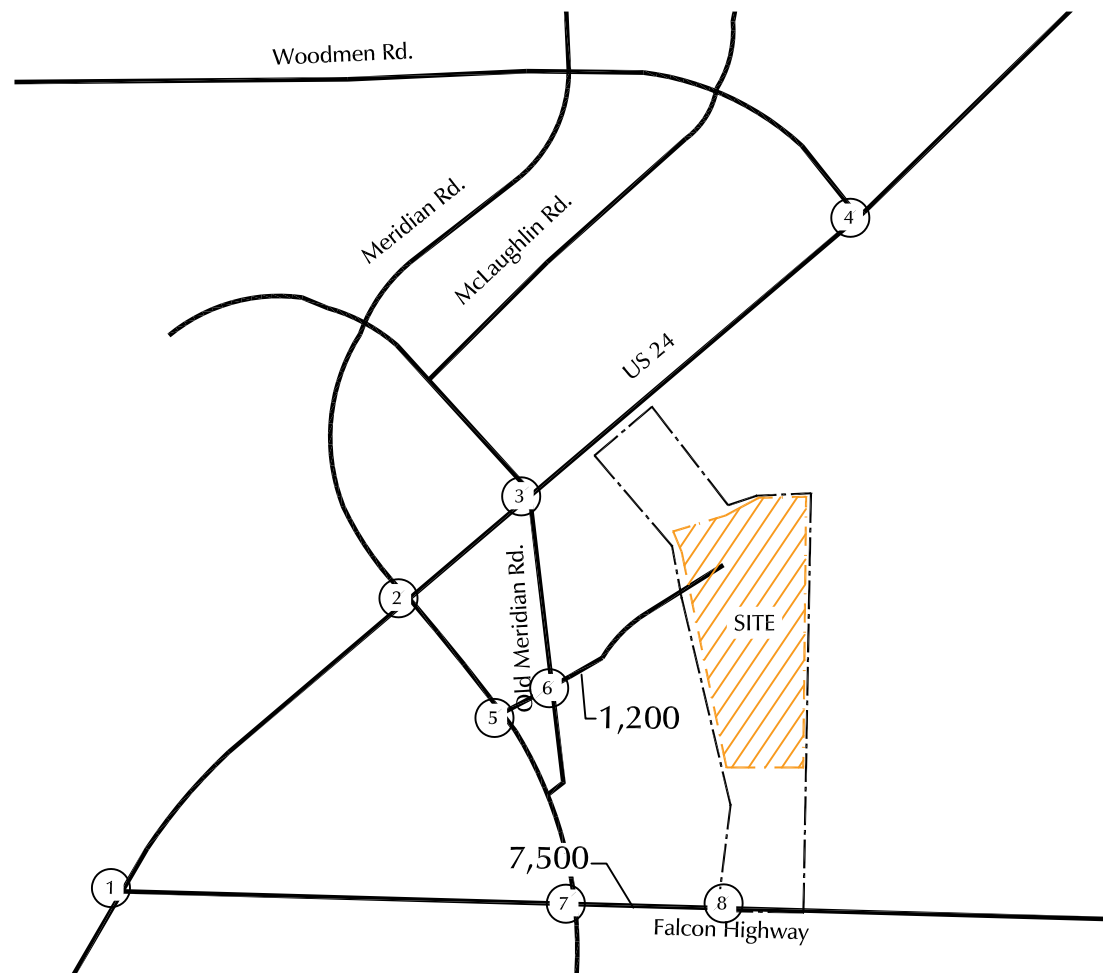
LEGEND:
 XX = PM Peak-Hour Traffic (veh/hr)
 XXX = Average Weekday Traffic (veh/hr)
 ┆ = Stop Sign
 ⊞ = Traffic Signal



Short-Term Background Conditions

D49 Transportation Facility - Falcon (LSC #S214340)

Figure 4



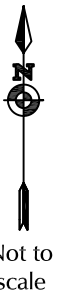
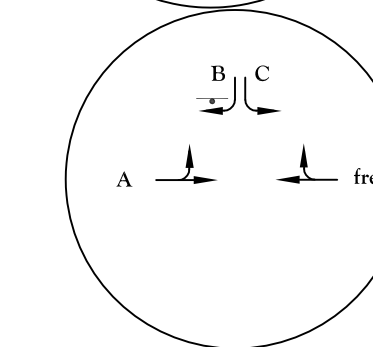
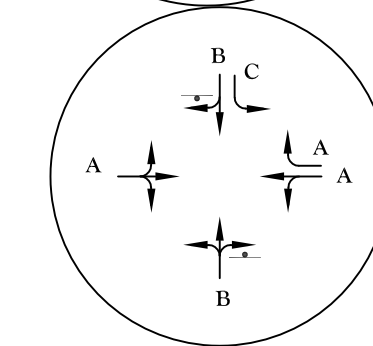
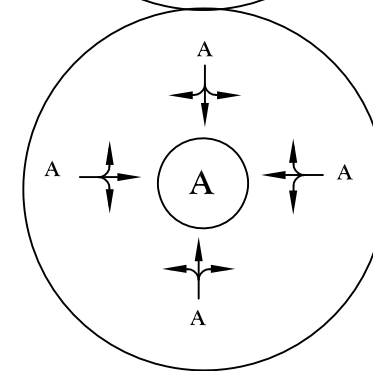
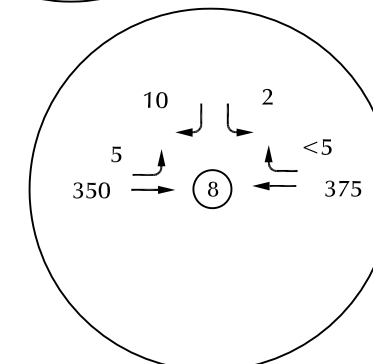
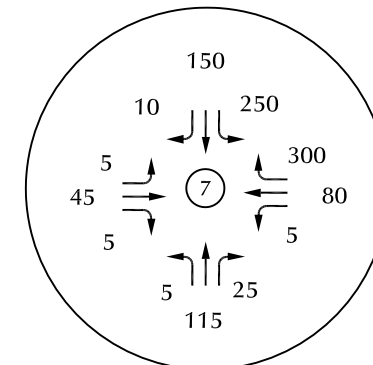
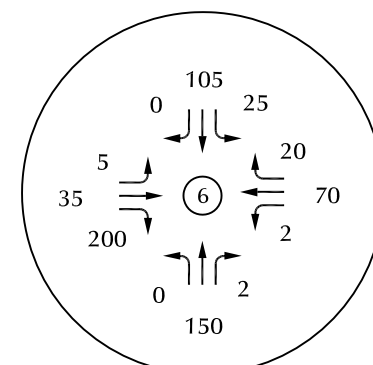
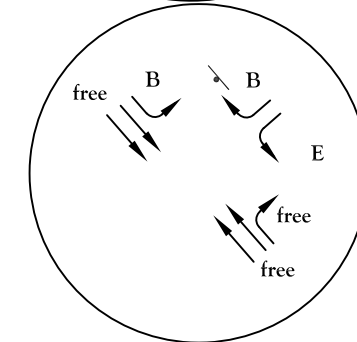
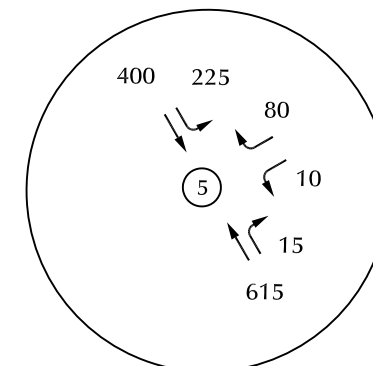
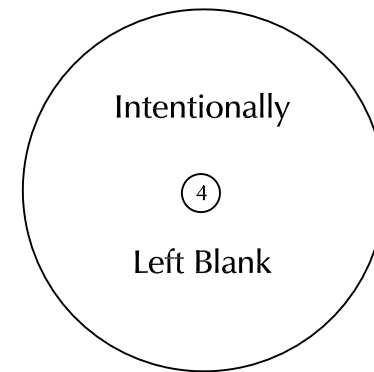
LEGEND:

XX = PM Peak-Hour Traffic (veh/hr)
 XXX = Average Weekday Traffic (veh/hr)

⊥ = Stop Sign
 ⊞ = Traffic Signal

○ = Modern Roundabout

B = PM Individual Movement Peak-Hour Level of Service
 D = PM Entire Intersection Peak-Hour Level of Service



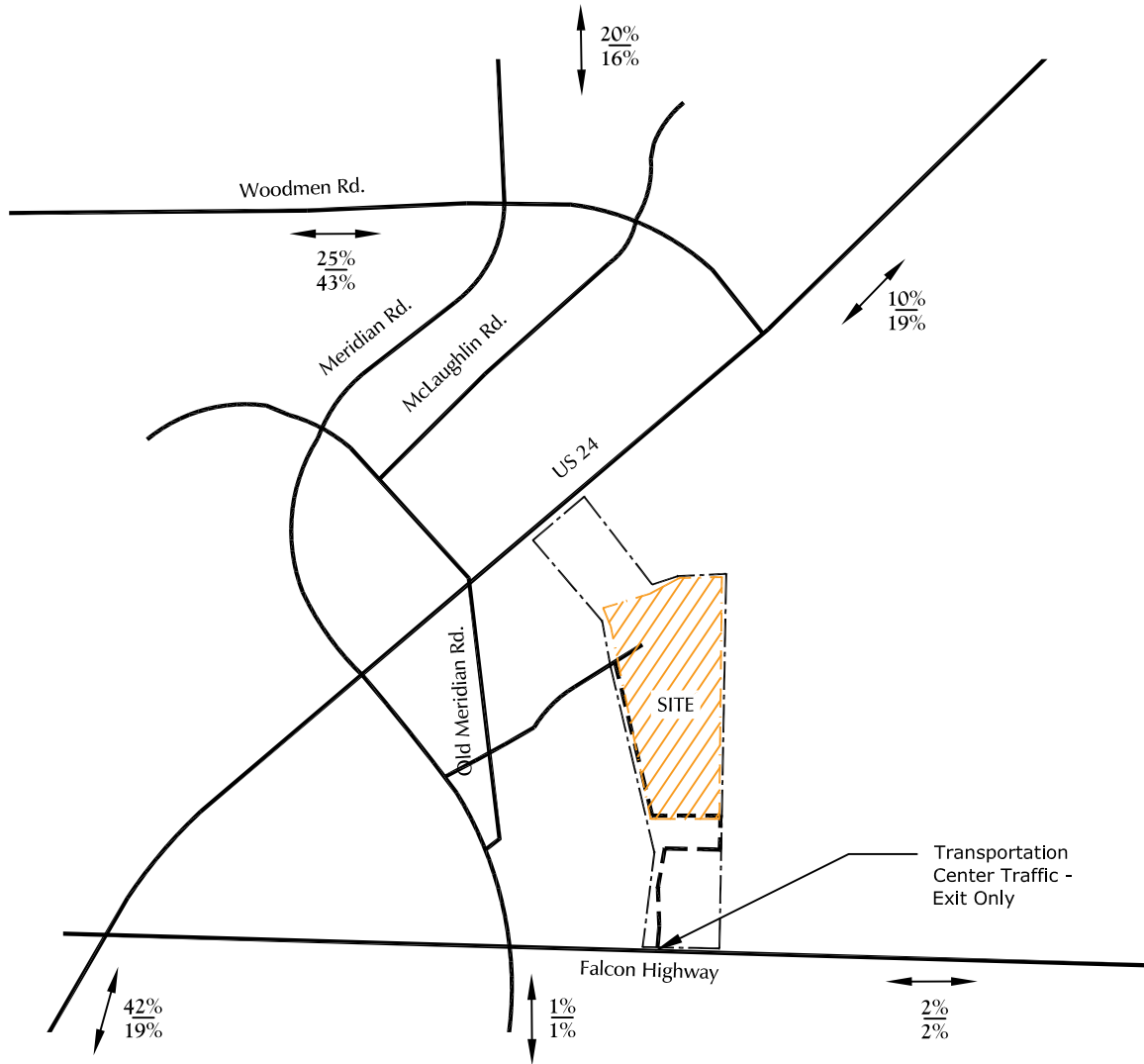
Long-Term Background Conditions

D49 Transportation Facility - Falcon (LSC #S214340)

Figure 5



Not to scale

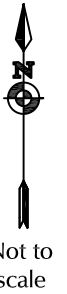
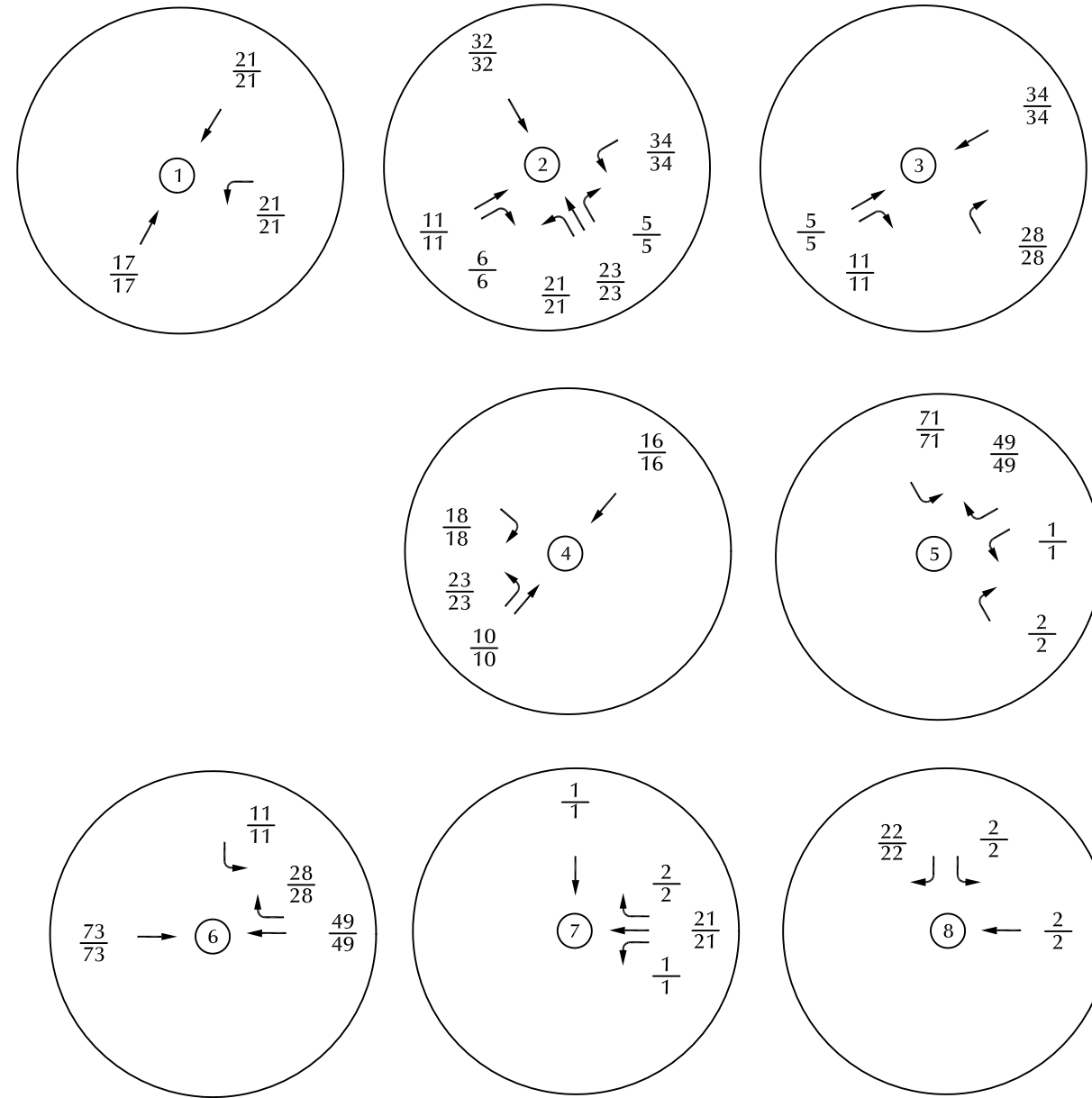
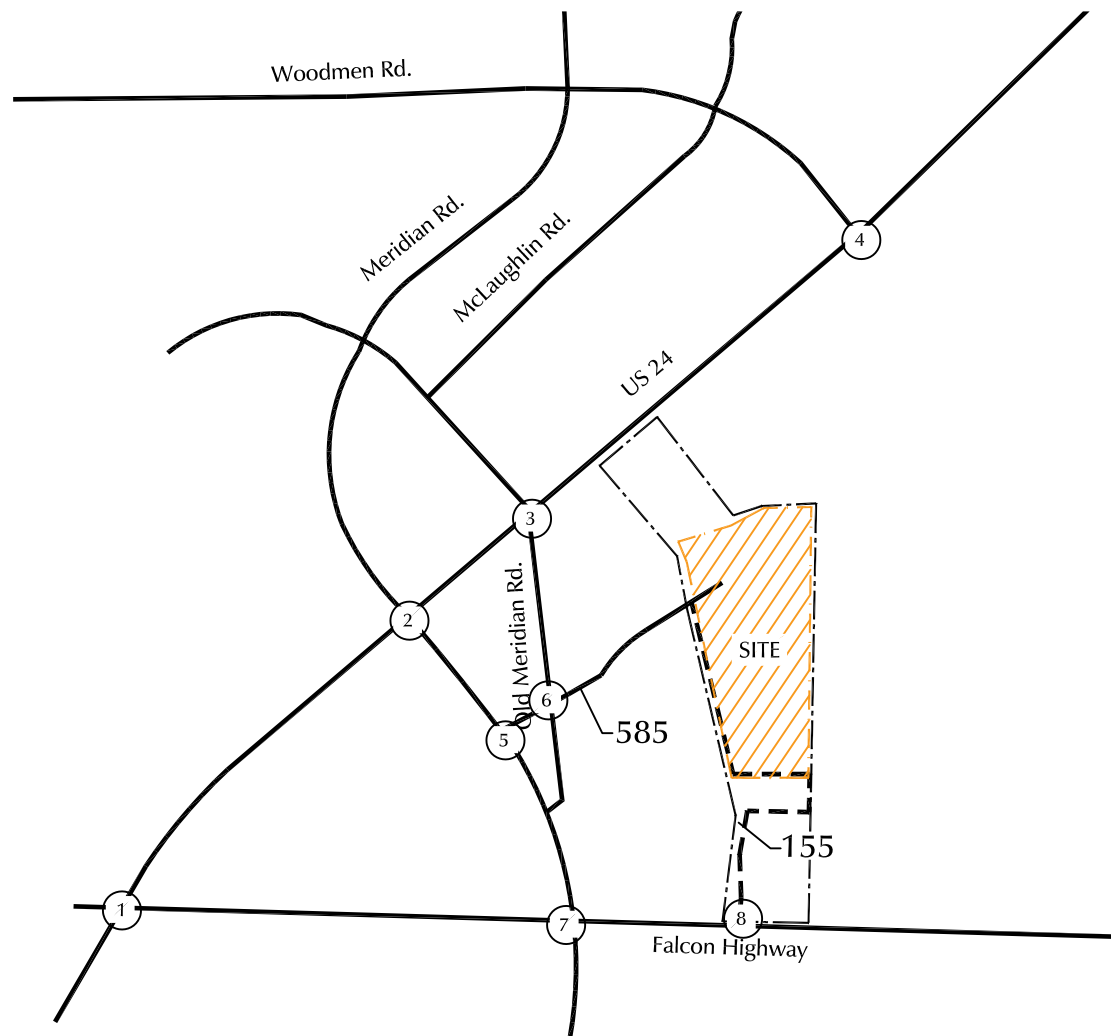


LEGEND:

$\frac{XX}{XX}$ = Staff Percent Directional Distribution
 $\frac{XX}{XX}$ = Buses Percent Directional Distribution

Figure 6
Directional Distribution
 D49 Transportation Facility - Falcon (LSC #S214340)

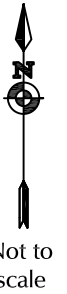
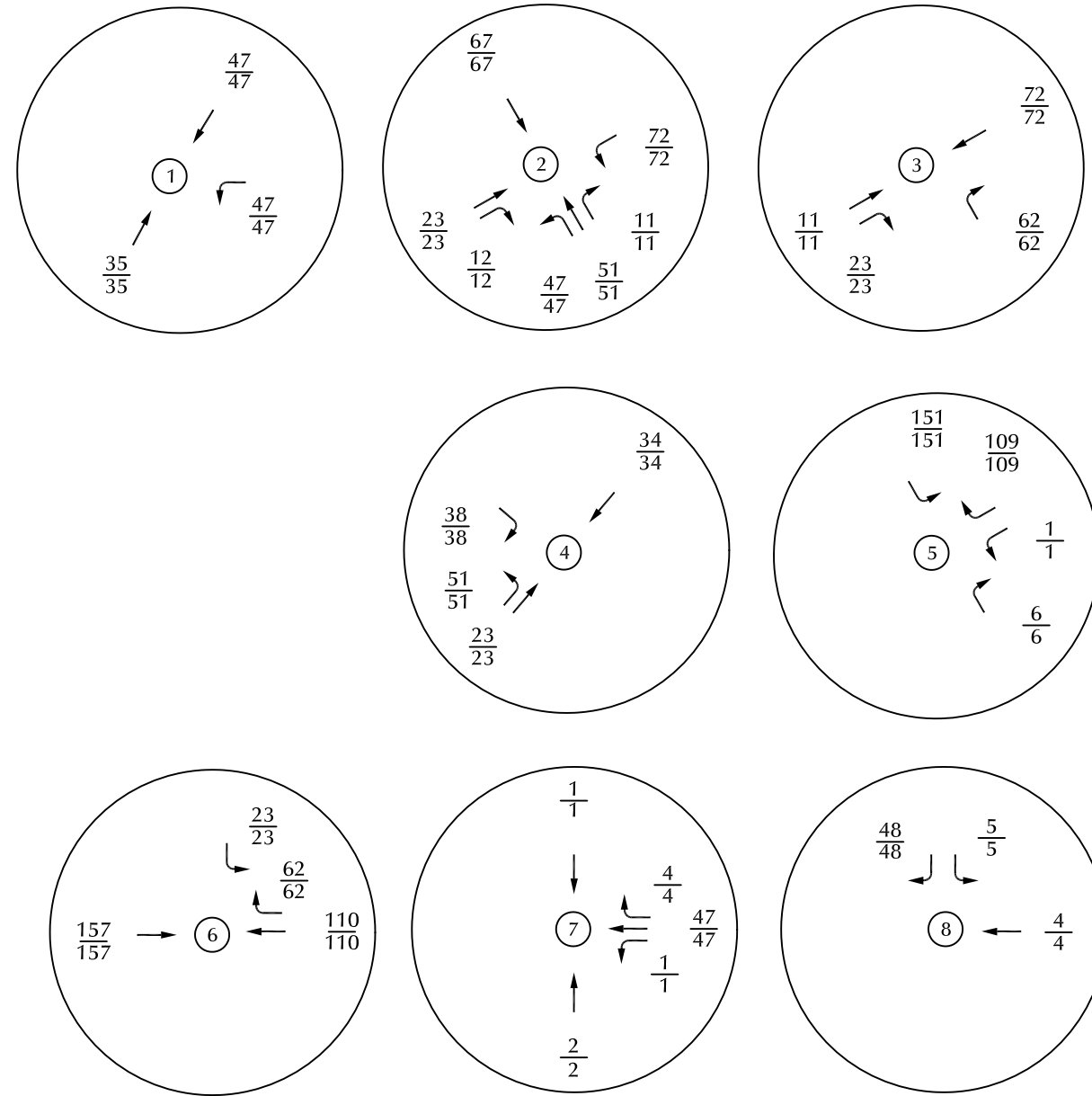
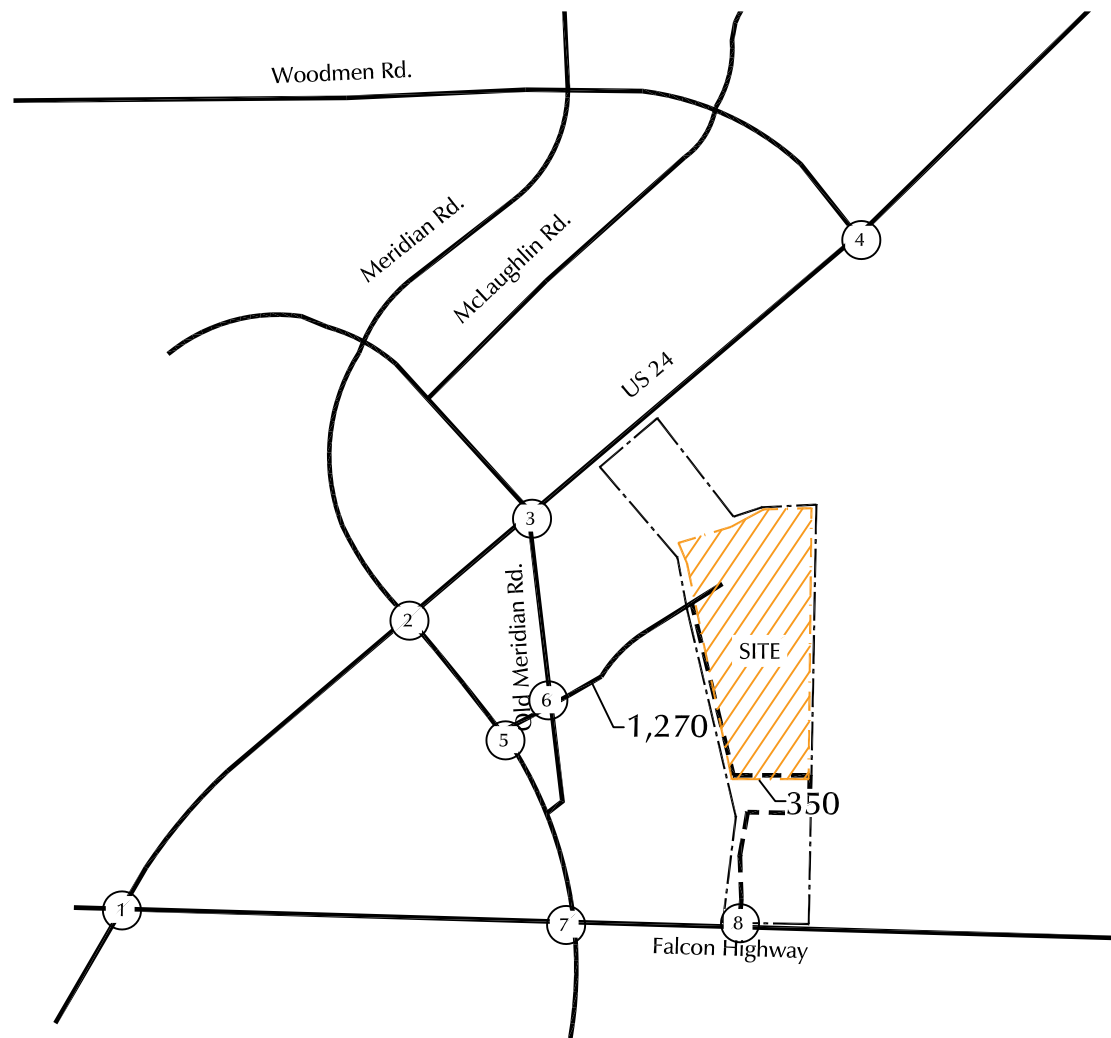




LEGEND: $\frac{XX}{XX}$ = AM Peak-Hour of the Generator Traffic (veh/hr)
 $\frac{XX}{XX}$ = PM Peak-Hour of the Generator Traffic and Peak-Hour of Adjacent Street Traffic (veh/hr)
 XXX = Average Weekday Traffic (veh/hr)



Figure 7
 Short-Term Site-Generated Traffic

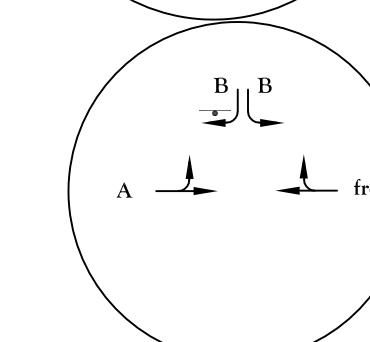
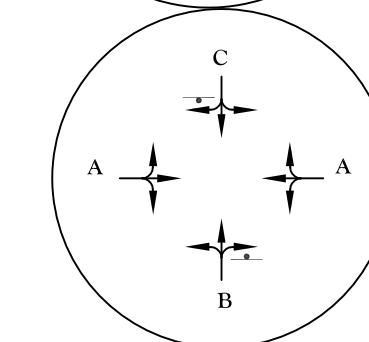
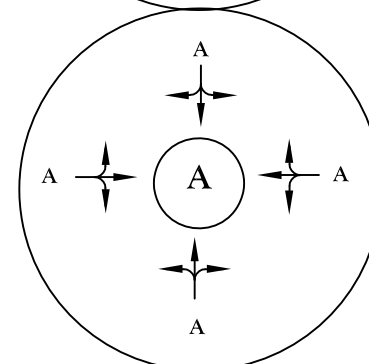
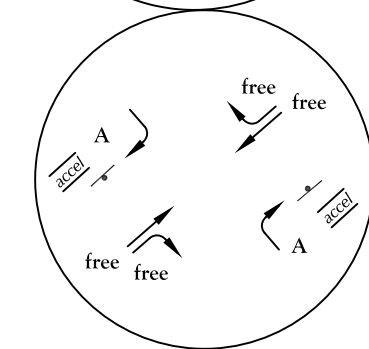
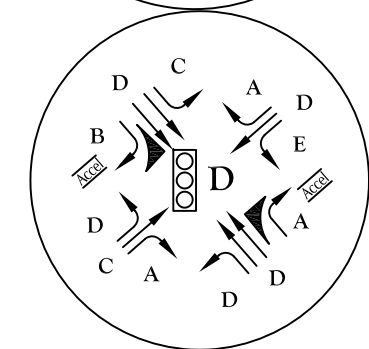
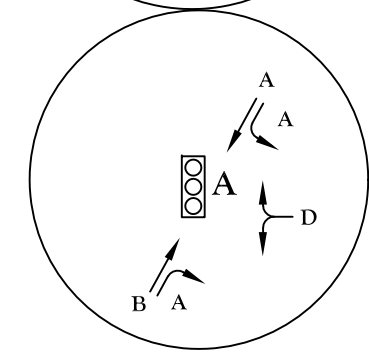
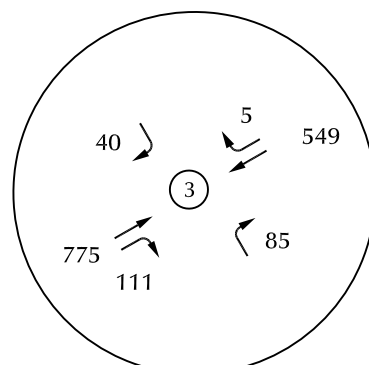
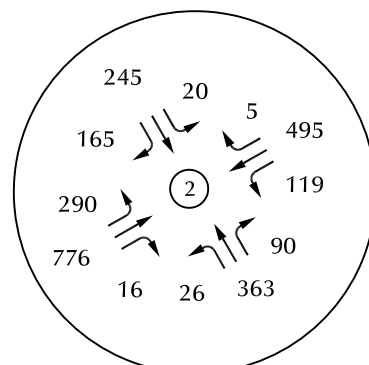
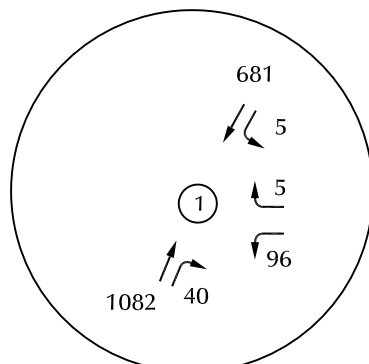
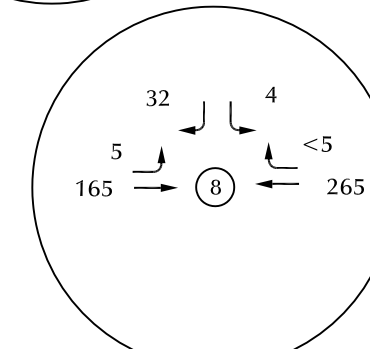
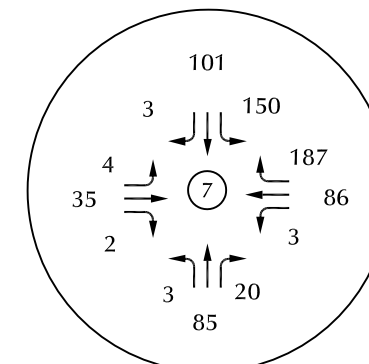
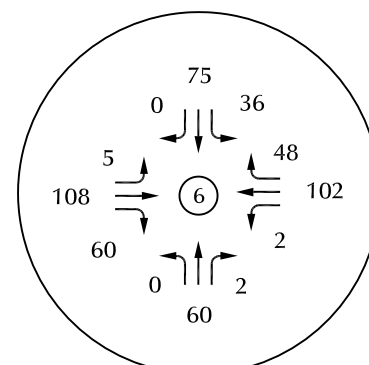
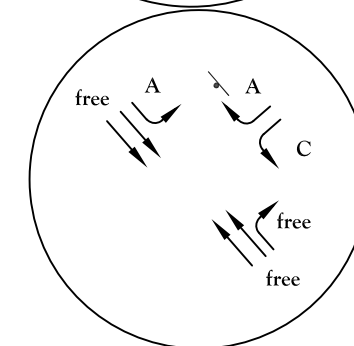
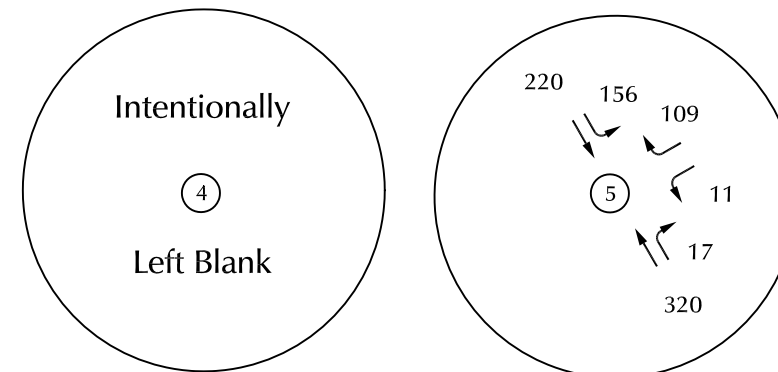


LEGEND: $\frac{XX}{XX}$ = AM Peak-Hour of the Generator Traffic (veh/hr)
 $\frac{XX}{XX}$ = PM Peak-Hour of the Generator Traffic and Peak-Hour of Adjacent Street Traffic (veh/hr)
 XXX = Average Weekday Traffic (veh/hr)



Figure 8
 Long-Term Site-Generated Traffic

D49 Transportation Facility - Falcon (LSC #S214340)



○ = Modern Roundabout

LEGEND:

XX = PM Peak-Hour Traffic (veh/hr)
 XXX = Average Weekday Traffic (veh/hr)

⊥ = Stop Sign

⊞ = Traffic Signal

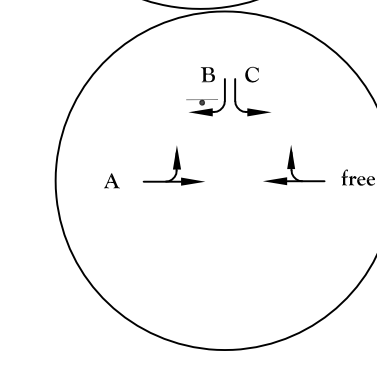
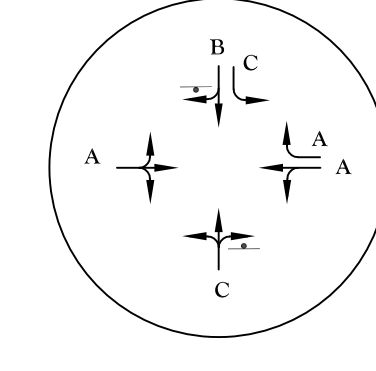
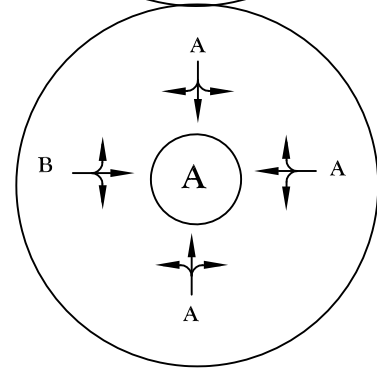
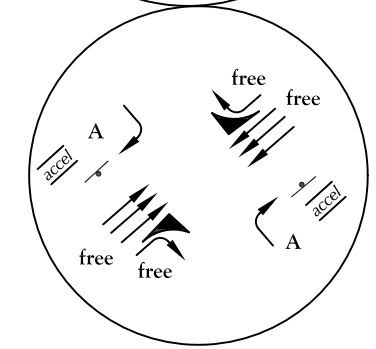
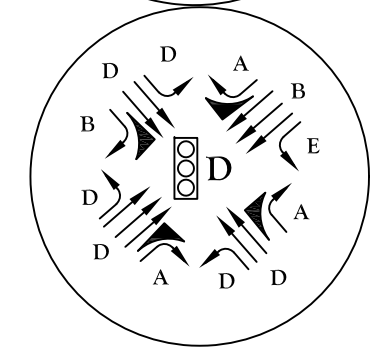
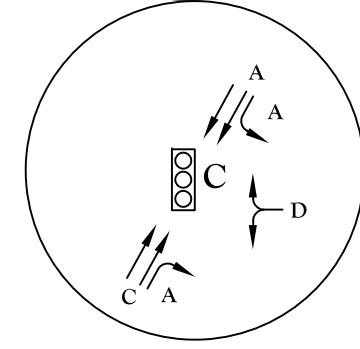
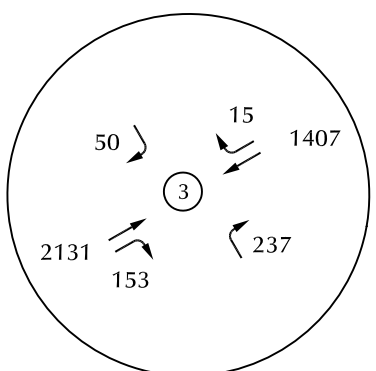
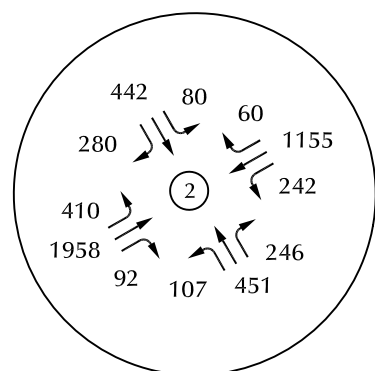
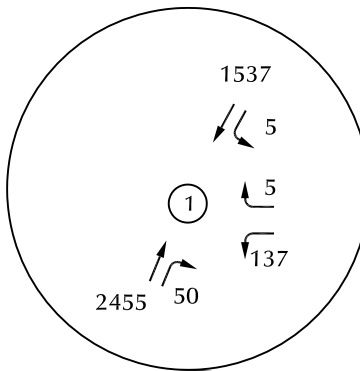
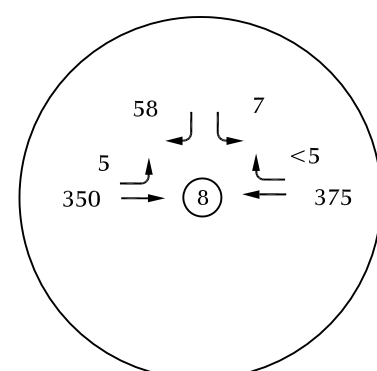
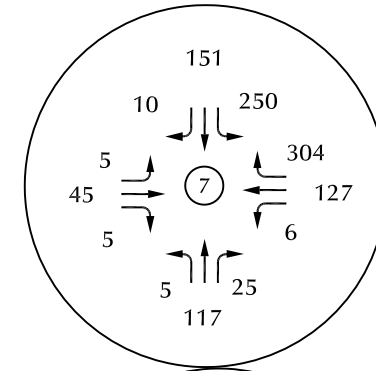
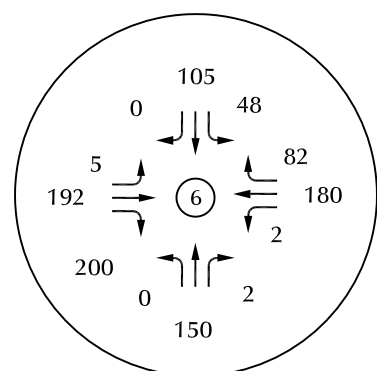
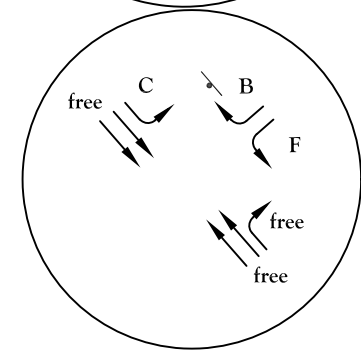
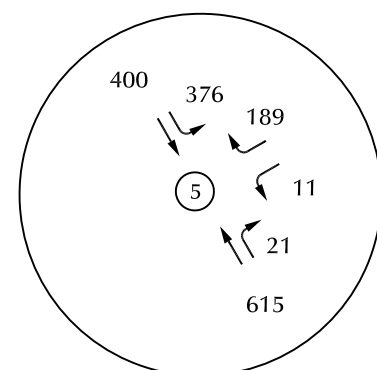
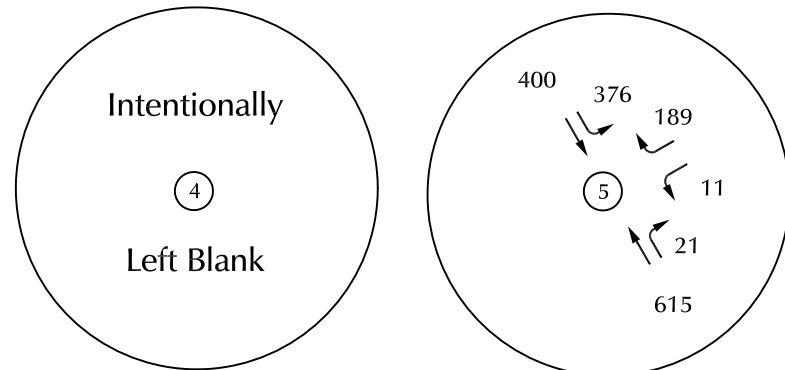
B = PM Individual Movement Peak-Hour Level of Service

D = PM Entire Intersection Peak-Hour Level of Service



Figure 9
 Short-Term Total Conditions

D49 Transportation Facility - Falcon (LSC #S214340)



○ = Modern Roundabout

LEGEND: XX = PM Peak-Hour Traffic (veh/hr) | = Stop Sign
 XXX = Average Weekday Traffic (veh/hr) [] = Traffic Signal

B = PM Individual Movement Peak-Hour Level of Service
 D = PM Entire Intersection Peak-Hour Level of Service



Figure 10
Long-Term Total Conditions
 D49 Transportation Facility - Falcon (LSC #S214340)

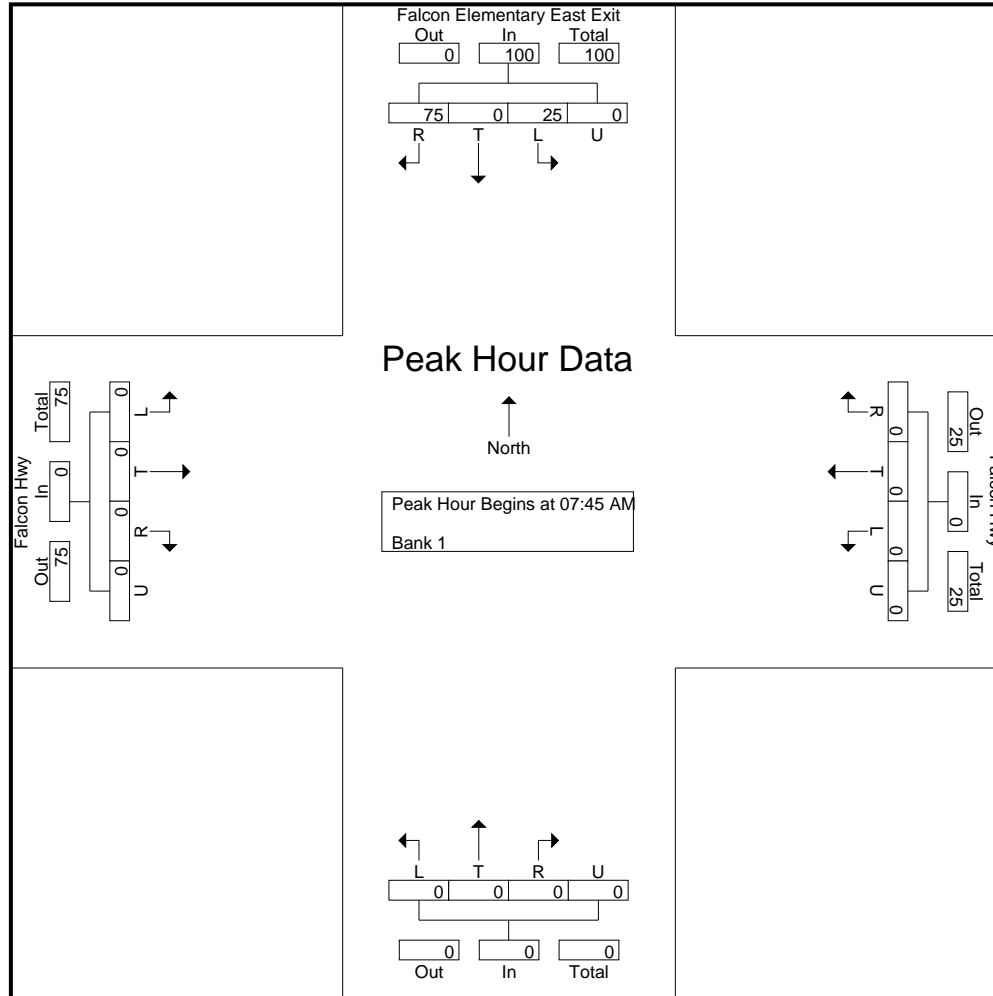
Traffic Counts



LSC Transportation Consultants, Inc.

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

File Name : Falcon Elementary AM East Exit
 Site Code : S214340
 Start Date : 5/12/2021
 Page No : 3



LSC Transportation Consultants, Inc.

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

File Name : Falcon Elementary AM East Exit
 Site Code : S214340
 Start Date : 5/12/2021
 Page No : 4

Start Time	Falcon Elementary East Exit Southbound					Falcon Hwy Westbound					Northbound					Falcon Hwy Eastbound					Int. Total
	L	T	R	U	App. Total	L	T	R	U	App. Total	L	T	R	U	App. Total	L	T	R	U	App. Total	

Peak Hour Analysis From 07:45 AM to 08:55 AM - Peak 1 of 1

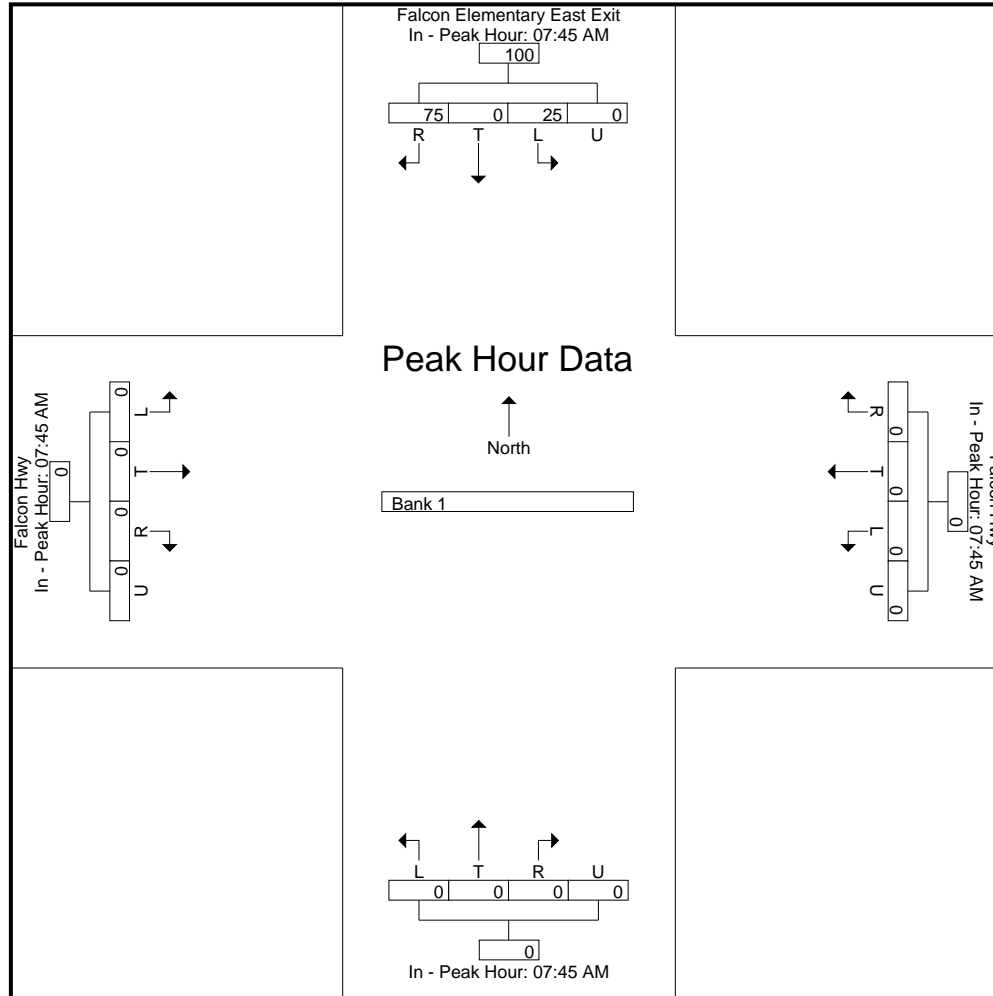
Peak Hour for Each Approach Begins at:

	07:45 AM					07:45 AM					07:45 AM					07:45 AM				
+0 mins.	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+5 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+10 mins.	0	0	2	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+15 mins.	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+20 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+25 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+30 mins.	5	0	16	0	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+35 mins.	3	0	5	0	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+40 mins.	9	0	18	0	27	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+45 mins.	7	0	25	0	32	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+50 mins.	1	0	7	0	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+55 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	25	0	75	0	100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% App. Total	25	0	75	0		0	0	0	0		0	0	0	0		0	0	0	0	
PHF	.231	.000	.250	.000	.260	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

LSC Transportation Consultants, Inc.

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

File Name : Falcon Elementary AM East Exit
 Site Code : S214340
 Start Date : 5/12/2021
 Page No : 5



LSC Transportation Consultants, Inc.

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

File Name : Falcon Elementary AM West Entrance-Exit
 Site Code : S214340
 Start Date : 5/12/2021
 Page No : 1

Groups Printed- Unshifted

Start Time	Falcon Elementary West Entrance-Exit Southbound					Falcon Hwy Westbound					Northbound					Falcon Hwy Eastbound					Int. Total
	L	T	R	U	App. Total	L	T	R	U	App. Total	L	T	R	U	App. Total	L	T	R	U	App. Total	
07:45 AM	0	0	0	0	0	0	20	2	0	22	0	0	0	0	0	3	10	0	0	13	35
07:50 AM	0	0	1	0	1	0	21	0	0	21	0	0	0	0	0	6	9	0	0	15	37
07:55 AM	0	0	0	0	0	0	16	0	0	16	0	0	0	0	0	6	0	0	0	6	22
Total	0	0	1	0	1	0	57	2	0	59	0	0	0	0	0	15	19	0	0	34	94
08:00 AM	0	0	3	0	3	0	13	1	0	14	0	0	0	0	0	5	9	0	0	14	31
08:05 AM	1	0	0	0	1	0	19	1	0	20	0	0	0	0	0	1	6	0	0	7	28
08:10 AM	0	0	1	0	1	0	20	3	0	23	0	0	0	0	0	1	6	0	0	7	31
08:15 AM	0	0	4	0	4	0	34	1	0	35	0	0	0	0	0	2	6	0	0	8	47
08:20 AM	0	0	2	0	2	0	30	1	0	31	0	0	0	0	0	2	4	0	0	6	39
08:25 AM	0	0	1	0	1	0	36	3	0	39	0	0	0	0	0	0	5	0	0	5	45
08:30 AM	0	0	0	0	0	0	40	0	0	40	0	0	0	0	0	0	5	0	0	5	45
08:35 AM	0	0	0	0	0	0	26	1	0	27	0	0	0	0	0	0	6	0	0	6	33
08:40 AM	0	0	0	0	0	0	9	0	0	9	0	0	0	0	0	1	3	0	0	4	13
08:45 AM	0	0	0	0	0	0	19	0	0	19	0	0	0	0	0	3	5	0	0	8	27
08:50 AM	0	0	1	0	1	0	7	0	0	7	0	0	0	0	0	2	4	0	0	6	14
08:55 AM	0	0	0	0	0	0	14	0	0	14	0	0	0	0	0	0	7	0	0	7	21
Total	1	0	12	0	13	0	267	11	0	278	0	0	0	0	0	17	66	0	0	83	374
Grand Total	1	0	13	0	14	0	324	13	0	337	0	0	0	0	0	32	85	0	0	117	468
Apprch %	7.1	0	92.9	0		0	96.1	3.9	0		0	0	0	0		27.4	72.6	0	0		
Total %	0.2	0	2.8	0	3	0	69.2	2.8	0	72	0	0	0	0	0	6.8	18.2	0	0	25	

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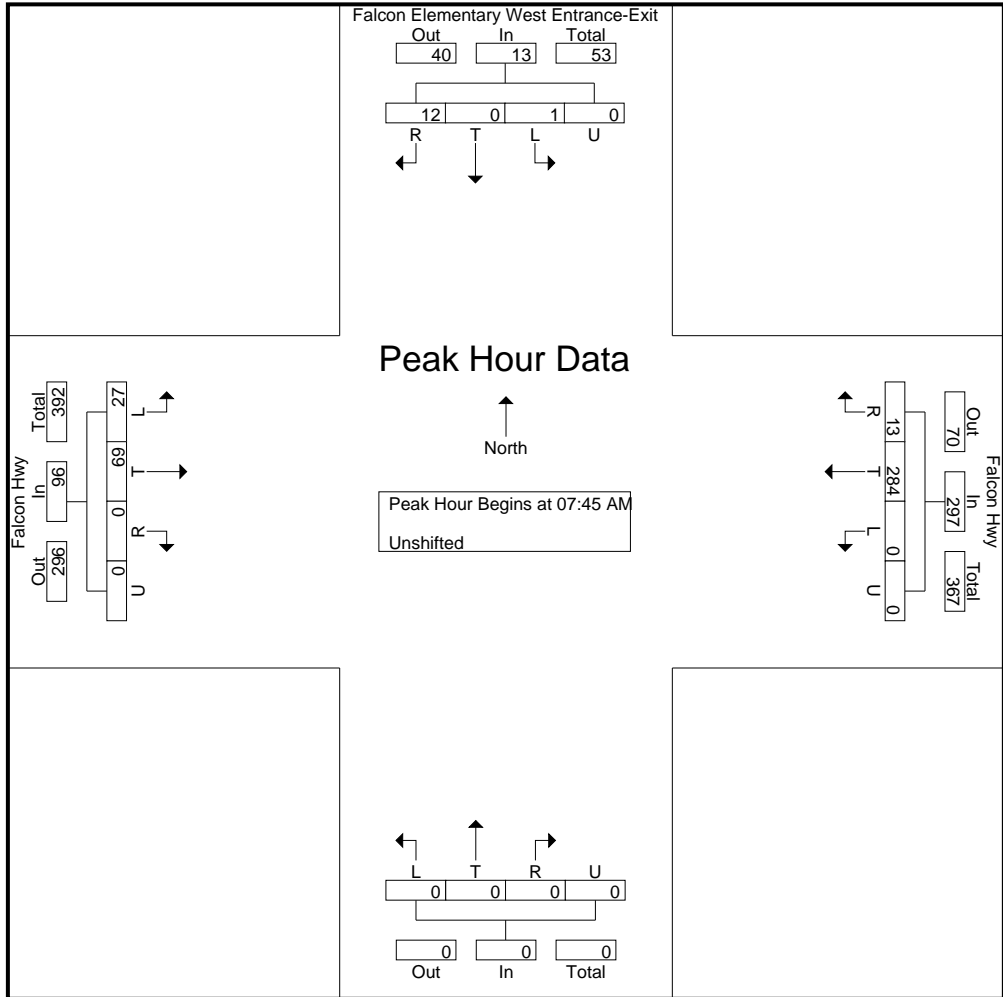
File Name : Falcon Elementary AM West Entrance-Exit
 Site Code : S214340
 Start Date : 5/12/2021
 Page No : 2

Start Time	Falcon Elementary West Entrance-Exit Southbound					Falcon Hwy Westbound					Northbound					Falcon Hwy Eastbound					Int. Total
	L	T	R	U	App. Total	L	T	R	U	App. Total	L	T	R	U	App. Total	L	T	R	U	App. Total	
Peak Hour Analysis From 07:45 AM to 08:55 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:45 AM																					
07:45 AM	0	0	0	0	0	0	20	2	0	22	0	0	0	0	0	3	10	0	0	13	35
07:50 AM	0	0	1	0	1	0	21	0	0	21	0	0	0	0	0	6	9	0	0	15	37
07:55 AM	0	0	0	0	0	0	16	0	0	16	0	0	0	0	0	6	0	0	0	6	22
08:00 AM	0	0	3	0	3	0	13	1	0	14	0	0	0	0	0	5	9	0	0	14	31
08:05 AM	1	0	0	0	1	0	19	1	0	20	0	0	0	0	0	1	6	0	0	7	28
08:10 AM	0	0	1	0	1	0	20	3	0	23	0	0	0	0	0	1	6	0	0	7	31
08:15 AM	0	0	4	0	4	0	34	1	0	35	0	0	0	0	0	2	6	0	0	8	47
08:20 AM	0	0	2	0	2	0	30	1	0	31	0	0	0	0	0	2	4	0	0	6	39
08:25 AM	0	0	1	0	1	0	36	3	0	39	0	0	0	0	0	0	5	0	0	5	45
08:30 AM	0	0	0	0	0	0	40	0	0	40	0	0	0	0	0	0	5	0	0	5	45
08:35 AM	0	0	0	0	0	0	26	1	0	27	0	0	0	0	0	0	6	0	0	6	33
08:40 AM	0	0	0	0	0	0	9	0	0	9	0	0	0	0	0	1	3	0	0	4	13
Total Volume	1	0	12	0	13	0	284	13	0	297	0	0	0	0	0	27	69	0	0	96	406
% App. Total	7.7	0	92.3	0		0	95.6	4.4	0		0	0	0	0		28.1	71.9	0	0		
PHF	.083	.000	.250	.000	.271	.000	.592	.361	.000	.619	.000	.000	.000	.000	.000	.375	.575	.000	.000	.533	.720

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File Name : Falcon Elementary AM West Entrance-Exit
 Site Code : S214340
 Start Date : 5/12/2021
 Page No : 3



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File Name : Falcon Elementary AM West Entrance-Exit
 Site Code : S214340
 Start Date : 5/12/2021
 Page No : 4

Start Time	Falcon Elementary West Entrance-Exit Southbound					Falcon Hwy Westbound					Northbound					Falcon Hwy Eastbound					Int. Total
	L	T	R	U	App. Total	L	T	R	U	App. Total	L	T	R	U	App. Total	L	T	R	U	App. Total	

Peak Hour Analysis From 07:45 AM to 08:55 AM - Peak 1 of 1

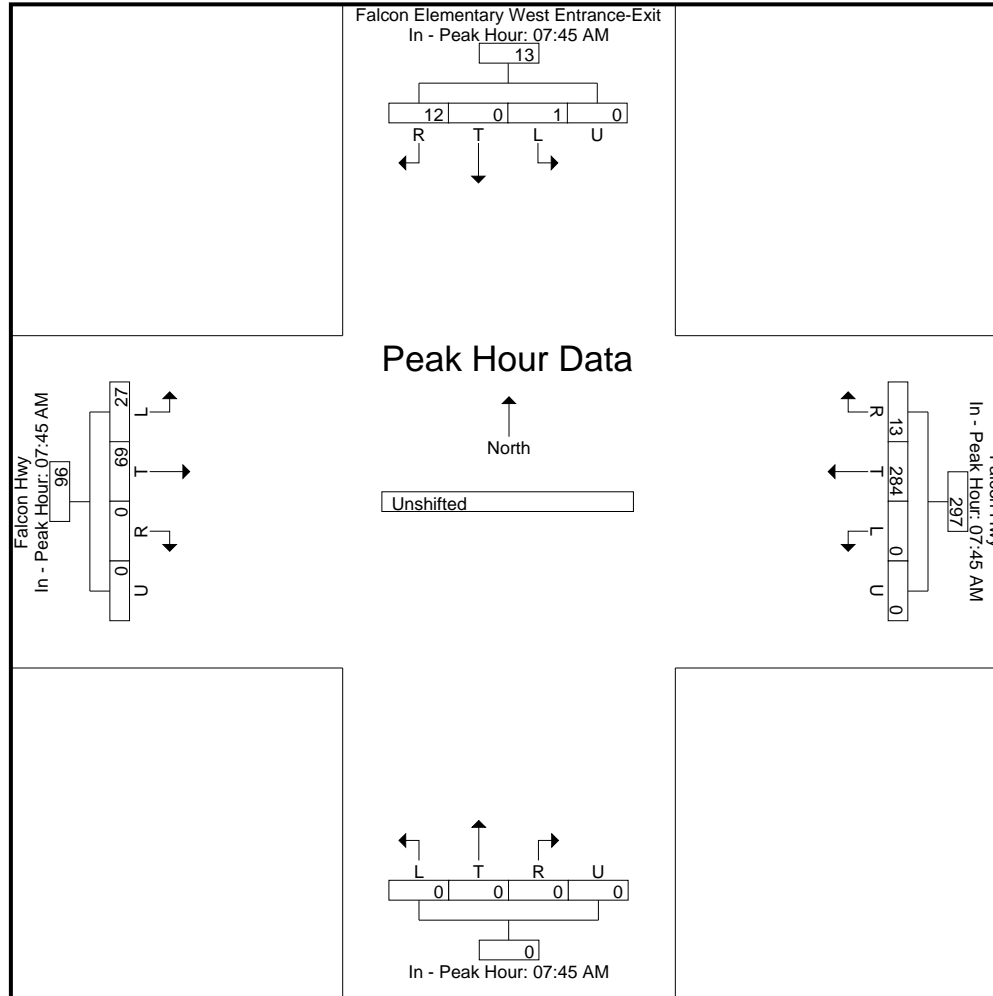
Peak Hour for Each Approach Begins at:

	07:45 AM					07:45 AM					07:45 AM					07:45 AM				
+0 mins.	0	0	0	0	0	0	20	2	0	22	0	0	0	0	0	3	10	0	0	13
+5 mins.	0	0	1	0	1	0	21	0	0	21	0	0	0	0	0	6	9	0	0	15
+10 mins.	0	0	0	0	0	0	16	0	0	16	0	0	0	0	0	6	0	0	0	6
+15 mins.	0	0	3	0	3	0	13	1	0	14	0	0	0	0	0	5	9	0	0	14
+20 mins.	1	0	0	0	1	0	19	1	0	20	0	0	0	0	0	1	6	0	0	7
+25 mins.	0	0	1	0	1	0	20	3	0	23	0	0	0	0	0	1	6	0	0	7
+30 mins.	0	0	4	0	4	0	34	1	0	35	0	0	0	0	0	2	6	0	0	8
+35 mins.	0	0	2	0	2	0	30	1	0	31	0	0	0	0	0	2	4	0	0	6
+40 mins.	0	0	1	0	1	0	36	3	0	39	0	0	0	0	0	0	5	0	0	5
+45 mins.	0	0	0	0	0	0	40	0	0	40	0	0	0	0	0	0	5	0	0	5
+50 mins.	0	0	0	0	0	0	26	1	0	27	0	0	0	0	0	0	6	0	0	6
+55 mins.	0	0	0	0	0	0	9	0	0	9	0	0	0	0	0	1	3	0	0	4
Total Volume	1	0	12	0	13	0	284	13	0	297	0	0	0	0	0	27	69	0	0	96
% App. Total	7.7	0	92.3	0		0	95.6	4.4	0		0	0	0	0		28.1	71.9	0	0	
PHF	.083	.000	.250	.000	.271	.000	.592	.361	.000	.619	.000	.000	.000	.000	.000	.375	.575	.000	.000	.533

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File Name : Falcon Elementary AM West Entrance-Exit
 Site Code : S214340
 Start Date : 5/12/2021
 Page No : 5



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File Name : Hwy 24 - New Meridian Rd AM
 Site Code : S214620
 Start Date : 8/5/2021
 Page No : 1

Groups Printed- Unshifted

Start Time	Hwy 24 Southbound					New Meridian Rd Westbound					Hwy 24 Northbound					New Meridian Rd Eastbound					Int. Total
	L	T	R	U	App. Total	L	T	R	U	App. Total	L	T	R	U	App. Total	L	T	R	U	App. Total	
06:30 AM	9	173	0	0	182	1	36	7	0	44	30	109	2	0	141	1	22	93	0	116	483
06:45 AM	10	213	0	0	223	0	28	10	0	38	21	109	4	0	134	0	1	120	0	121	516
Total	19	386	0	0	405	1	64	17	0	82	51	218	6	0	275	1	23	213	0	237	999
07:00 AM	3	171	0	0	174	0	44	10	0	54	15	92	4	0	111	0	4	126	1	131	470
07:15 AM	2	201	0	0	203	0	2	1	0	3	44	118	1	0	163	0	0	169	0	169	538
Grand Total	24	758	0	0	782	1	110	28	0	139	110	428	11	0	549	1	27	508	1	537	2007
Apprch %	3.1	96.9	0	0		0.7	79.1	20.1	0		20	78	2	0		0.2	5	94.6	0.2		
Total %	1.2	37.8	0	0	39	0	5.5	1.4	0	6.9	5.5	21.3	0.5	0	27.4	0	1.3	25.3	0	26.8	

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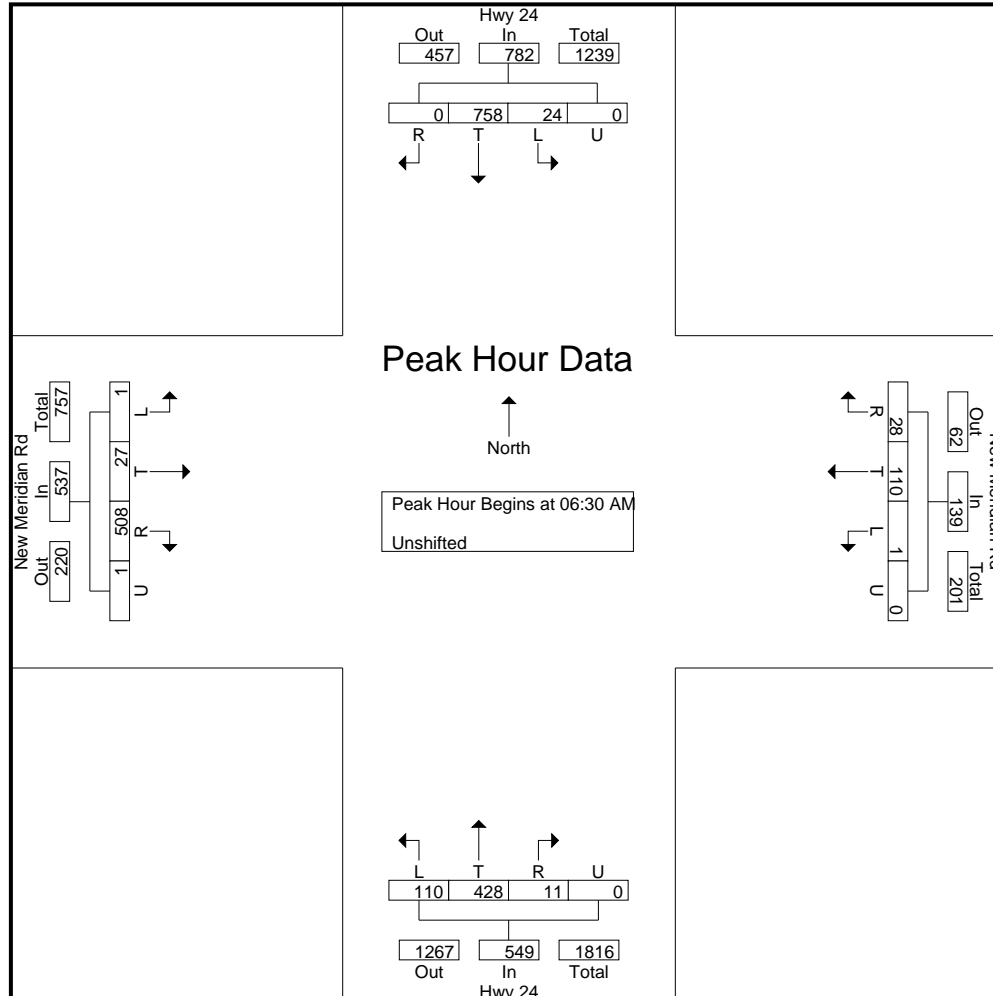
File Name : Hwy 24 - New Meridian Rd AM
 Site Code : S214620
 Start Date : 8/5/2021
 Page No : 2

Start Time	Hwy 24 Southbound					New Meridian Rd Westbound					Hwy 24 Northbound					New Meridian Rd Eastbound					Int. Total
	L	T	R	U	App. Total	L	T	R	U	App. Total	L	T	R	U	App. Total	L	T	R	U	App. Total	
Peak Hour Analysis From 6:30:00 AM to 7:15:00 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 6:30:00 AM																					
6:30:00 AM	9	173	0	0	182	1	36	7	0	44	30	109	2	0	141	1	22	93	0	116	483
6:45:00 AM	10	213	0	0	223	0	28	10	0	38	21	109	4	0	134	0	1	120	0	121	516
7:00:00 AM	3	171	0	0	174	0	44	10	0	54	15	92	4	0	111	0	4	126	1	131	470
7:15:00 AM	2	201	0	0	203	0	2	1	0	3	44	118	1	0	163	0	0	169	0	169	538
Total Volume	24	758	0	0	782	1	110	28	0	139	110	428	11	0	549	1	27	508	1	537	2007
% App. Total	3.1	96.9	0	0		0.7	79.1	20.1	0		20	78	2	0		0.2	5	94.6	0.2		
PHF	.600	.890	.000	.000	.877	.250	.625	.700	.000	.644	.625	.907	.688	.000	.842	.250	.307	.751	.250	.794	.933

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File Name : Hwy 24 - New Meridian Rd AM
 Site Code : S214620
 Start Date : 8/5/2021
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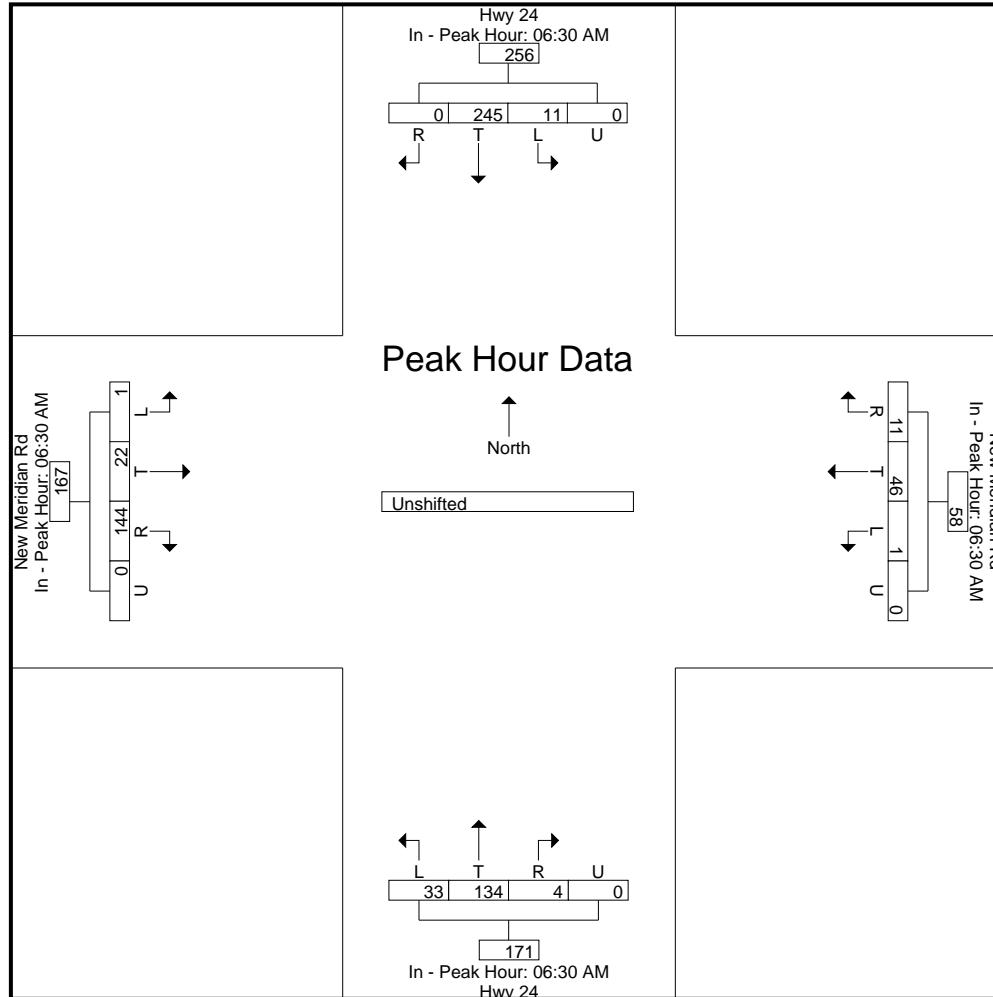
File Name : Hwy 24 - New Meridian Rd AM
 Site Code : S214620
 Start Date : 8/5/2021
 Page No : 4

Start Time	Hwy 24 Southbound					New Meridian Rd Westbound					Hwy 24 Northbound					New Meridian Rd Eastbound					Int. Total
	L	T	R	U	App. Total	L	T	R	U	App. Total	L	T	R	U	App. Total	L	T	R	U	App. Total	
Peak Hour Analysis From 6:30:00 AM to 7:15:00 AM - Peak 1 of 1																					
Peak Hour for Each Approach Begins at:																					
	6:30:00 AM					6:30:00 AM					6:30:00 AM					6:30:00 AM					
+0 mins.	9	173	0	0	182	1	36	7	0	44	30	109	2	0	141	1	22	93	0	116	
+5 mins.	10	213	0	0	223	0	28	10	0	38	21	109	4	0	134	0	1	120	0	121	
+10 mins.	3	171	0	0	174	0	44	10	0	54	15	92	4	0	111	0	4	126	1	131	
+15 mins.	2	201	0	0	203	0	2	1	0	3	44	118	1	0	163	0	0	169	0	169	
Total Volume	24	758	0	0	782	1	110	28	0	139	110	428	11	0	549	1	27	508	1	537	
% App. Total	3.1	96.9	0	0		0.7	79.1	20.1	0		20	78	2	0		0.2	5	94.6	0.2		
PHF	.600	.890	.000	.000	.877	.250	.625	.700	.000	.644	.625	.907	.688	.000	.842	.250	.307	.751	.250	.794	

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File Name : Hwy 24 - New Meridian Rd AM
 Site Code : S214620
 Start Date : 8/5/2021
 Page No : 5



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File Name : Hwy 24 - New Meridian Rd PM
 Site Code : S214620
 Start Date : 8/4/2021
 Page No : 1

Groups Printed- Unshifted

Start Time	Hwy 24 Southbound					New Meridian Rd Westbound					Hwy 24 Northbound					New Meridian Rd Eastbound					Int. Total
	L	T	R	U	App. Total	L	T	R	U	App. Total	L	T	R	U	App. Total	L	T	R	U	App. Total	
04:00 PM	18	138	0	0	156	1	61	22	0	84	62	156	0	0	218	4	30	43	0	77	535
04:15 PM	9	139	2	0	150	0	72	29	0	101	60	149	1	0	210	4	37	37	0	78	539
04:30 PM	17	105	1	0	123	0	91	17	0	108	88	161	0	0	249	4	40	42	0	86	566
04:45 PM	11	139	0	0	150	1	82	12	0	95	63	145	0	0	208	4	41	38	3	86	539
Total	55	521	3	0	579	2	306	80	0	388	273	611	1	0	885	16	148	160	3	327	2179
05:00 PM	14	109	0	0	123	0	91	27	0	118	79	150	0	0	229	5	41	48	0	94	564
05:15 PM	6	114	1	0	121	0	52	26	0	78	78	162	0	0	240	3	32	42	1	78	517
05:30 PM	11	89	4	0	104	1	81	14	0	96	76	156	0	0	232	1	55	44	0	100	532
05:45 PM	22	119	1	0	142	1	45	10	0	56	81	174	0	0	255	2	52	33	0	87	540
Total	53	431	6	0	490	2	269	77	0	348	314	642	0	0	956	11	180	167	1	359	2153
Grand Total	108	952	9	0	1069	4	575	157	0	736	587	1253	1	0	1841	27	328	327	4	686	4332
Apprch %	10.1	89.1	0.8	0		0.5	78.1	21.3	0		31.9	68.1	0.1	0		3.9	47.8	47.7	0.6		
Total %	2.5	22	0.2	0	24.7	0.1	13.3	3.6	0	17	13.6	28.9	0	0	42.5	0.6	7.6	7.5	0.1	15.8	

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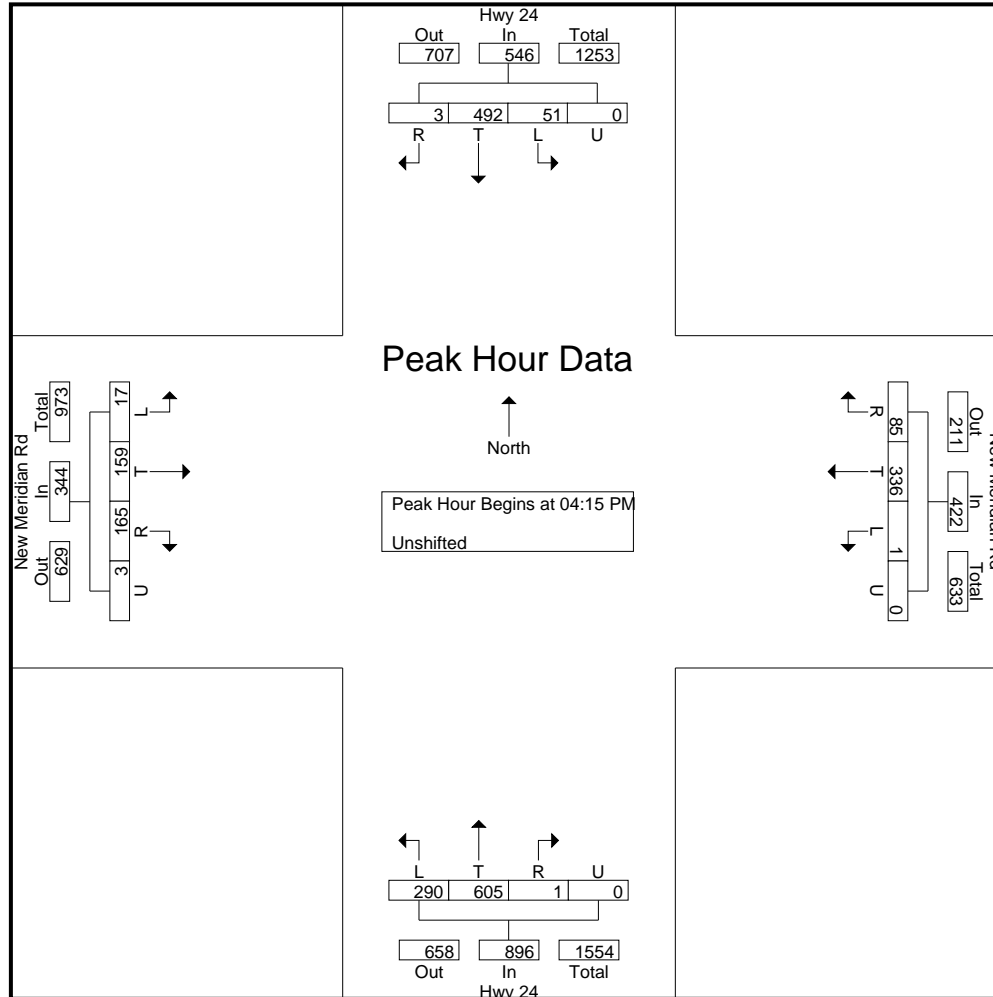
File Name : Hwy 24 - New Meridian Rd PM
 Site Code : S214620
 Start Date : 8/4/2021
 Page No : 2

Start Time	Hwy 24 Southbound					New Meridian Rd Westbound					Hwy 24 Northbound					New Meridian Rd Eastbound					Int. Total
	L	T	R	U	App. Total	L	T	R	U	App. Total	L	T	R	U	App. Total	L	T	R	U	App. Total	
Peak Hour Analysis From 4:00:00 PM to 5:45:00 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 4:15:00 PM																					
4:15:00 PM	9	139	2	0	150	0	72	29	0	101	60	149	1	0	210	4	37	37	0	78	539
4:30:00 PM	17	105	1	0	123	0	91	17	0	108	88	161	0	0	249	4	40	42	0	86	566
4:45:00 PM	11	139	0	0	150	1	82	12	0	95	63	145	0	0	208	4	41	38	3	86	539
5:00:00 PM	14	109	0	0	123	0	91	27	0	118	79	150	0	0	229	5	41	48	0	94	564
Total Volume	51	492	3	0	546	1	336	85	0	422	290	605	1	0	896	17	159	165	3	344	2208
% App. Total	9.3	90.1	0.5	0		0.2	79.6	20.1	0		32.4	67.5	0.1	0		4.9	46.2	48	0.9		
PHF	.750	.885	.375	.000	.910	.250	.923	.733	.000	.894	.824	.939	.250	.000	.900	.850	.970	.859	.250	.915	.975

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File Name : Hwy 24 - New Meridian Rd PM
 Site Code : S214620
 Start Date : 8/4/2021
 Page No : 3



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File Name : Hwy 24 - New Meridian Rd PM
 Site Code : S214620
 Start Date : 8/4/2021
 Page No : 4

Start Time	Hwy 24 Southbound					New Meridian Rd Westbound					Hwy 24 Northbound					New Meridian Rd Eastbound					Int. Total
	L	T	R	U	App. Total	L	T	R	U	App. Total	L	T	R	U	App. Total	L	T	R	U	App. Total	

Peak Hour Analysis From 4:00:00 PM to 5:45:00 PM - Peak 1 of 1

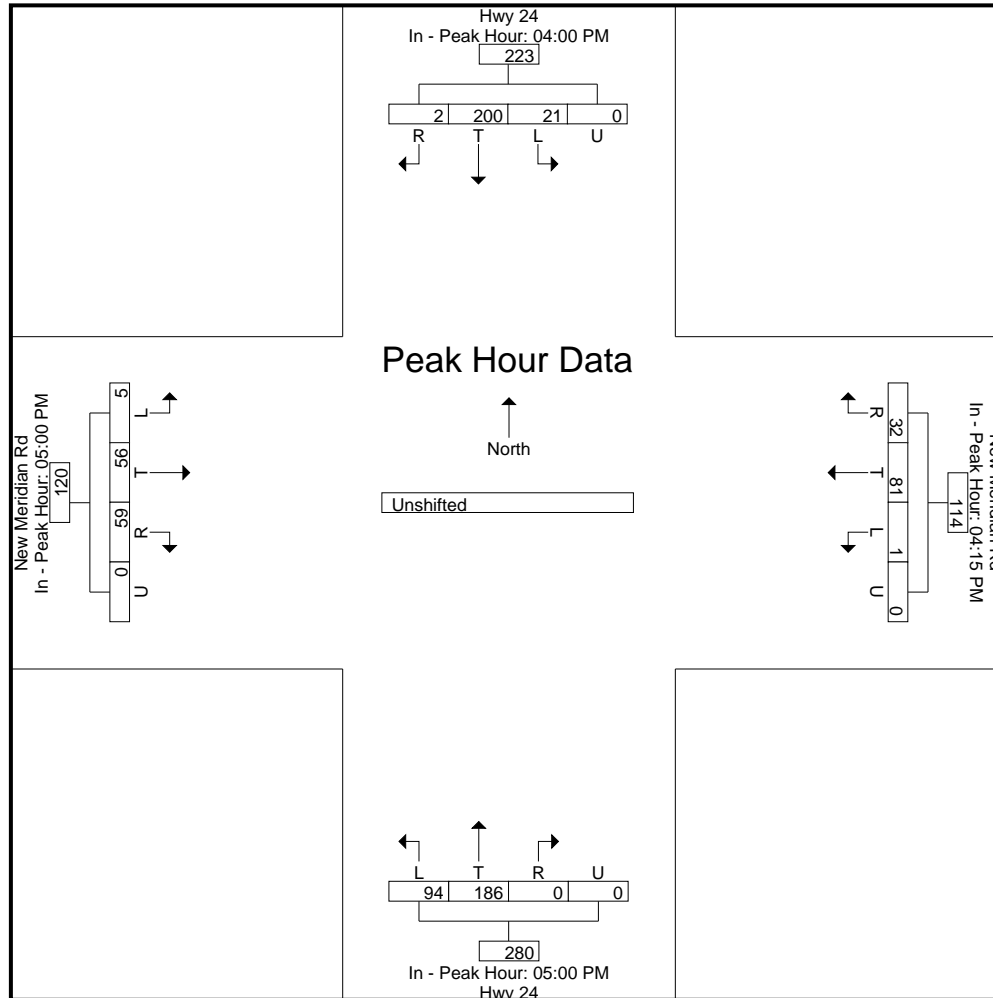
Peak Hour for Each Approach Begins at:

	4:00:00 PM					4:15:00 PM					5:00:00 PM					5:00:00 PM				
+0 mins.	18	138	0	0	156	0	72	29	0	101	79	150	0	0	229	5	41	48	0	94
+5 mins.	9	139	2	0	150	0	91	17	0	108	78	162	0	0	240	3	32	42	1	78
+10 mins.	17	105	1	0	123	1	82	12	0	95	76	156	0	0	232	1	55	44	0	100
+15 mins.	11	139	0	0	150	0	91	27	0	118	81	174	0	0	255	2	52	33	0	87
Total Volume	55	521	3	0	579	1	336	85	0	422	314	642	0	0	956	11	180	167	1	359
% App. Total	9.5	90	0.5	0		0.2	79.6	20.1	0		32.8	67.2	0	0		3.1	50.1	46.5	0.3	
PHF	.764	.937	.375	.000	.928	.250	.923	.733	.000	.894	.969	.922	.000	.000	.937	.550	.818	.870	.250	.898

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File Name : Hwy 24 - New Meridian Rd PM
 Site Code : S214620
 Start Date : 8/4/2021
 Page No : 5



LSC Transportation Consultants, Inc.

545 E Pikes Peak Ave, Suite 210
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 719-633-2868

File Name : Hwy 24 - Woodmen Rd AM
 Site Code : S214730
 Start Date : 8/12/2021
 Page No : 1

Groups Printed- Unshifted

Start Time	Hwy 24 Southbound					Westbound					Hwy 24 Northbound					Woodmen Rd Eastbound					Int. Total
	L	T	R	U	App. Total	L	T	R	U	App. Total	L	T	R	U	App. Total	L	T	R	U	App. Total	
06:30 AM	0	140	79	0	219	0	0	0	0	0	39	59	0	0	98	49	0	71	0	120	437
06:45 AM	0	123	64	0	187	0	0	0	0	0	48	86	0	0	134	84	5	70	0	159	480
Total	0	263	143	0	406	0	0	0	0	0	87	145	0	0	232	133	5	141	0	279	917
07:00 AM	0	137	84	0	221	0	0	0	0	0	52	71	0	0	123	64	2	58	0	124	468
07:15 AM	0	150	99	0	249	0	0	0	0	0	54	72	0	0	126	72	0	74	0	146	521
07:30 AM	0	134	102	0	236	0	0	0	0	0	48	59	0	0	107	83	0	65	0	148	491
07:45 AM	0	100	79	0	179	0	0	0	0	0	63	67	0	0	130	81	0	55	2	138	447
Total	0	521	364	0	885	0	0	0	0	0	217	269	0	0	486	300	2	252	2	556	1927
08:00 AM	0	75	83	0	158	0	0	0	0	0	33	72	0	0	105	68	0	59	0	127	390
08:15 AM	0	93	69	0	162	0	0	0	0	0	44	82	0	0	126	68	0	61	0	129	417
Grand Total	0	952	659	0	1611	0	0	0	0	0	381	568	0	0	949	569	7	513	2	1091	3651
Apprch %	0	59.1	40.9	0		0	0	0	0	0	40.1	59.9	0	0		52.2	0.6	47	0.2		
Total %	0	26.1	18	0	44.1	0	0	0	0	0	10.4	15.6	0	0	26	15.6	0.2	14.1	0.1	29.9	

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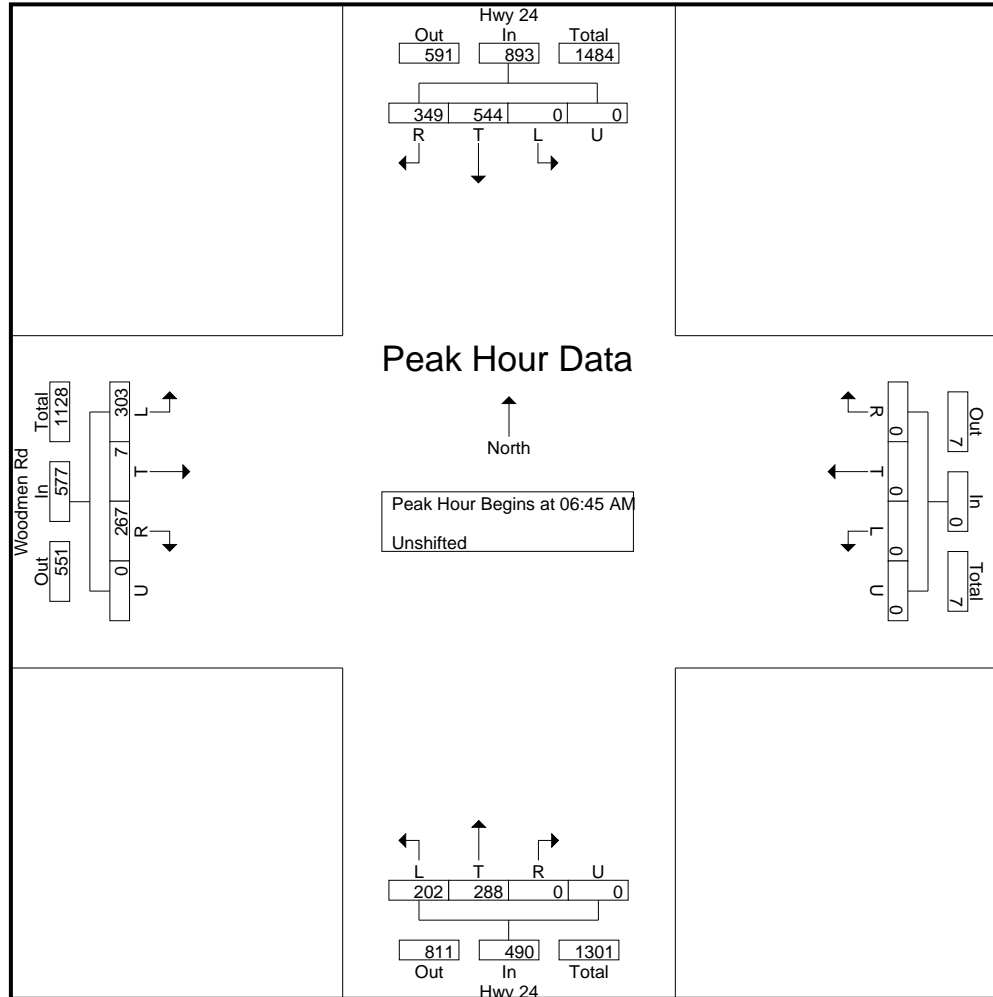
File Name : Hwy 24 - Woodmen Rd AM
 Site Code : S214730
 Start Date : 8/12/2021
 Page No : 2

Start Time	Hwy 24 Southbound					Westbound					Hwy 24 Northbound					Woodmen Rd Eastbound					Int. Total
	L	T	R	U	App. Total	L	T	R	U	App. Total	L	T	R	U	App. Total	L	T	R	U	App. Total	
Peak Hour Analysis From 6:30:00 AM to 8:15:00 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 6:45:00 AM																					
6:45:00 AM	0	123	64	0	187	0	0	0	0	0	48	86	0	0	134	84	5	70	0	159	480
7:00:00 AM	0	137	84	0	221	0	0	0	0	0	52	71	0	0	123	64	2	58	0	124	468
7:15:00 AM	0	150	99	0	249	0	0	0	0	0	54	72	0	0	126	72	0	74	0	146	521
7:30:00 AM	0	134	102	0	236	0	0	0	0	0	48	59	0	0	107	83	0	65	0	148	491
Total Volume	0	544	349	0	893	0	0	0	0	0	202	288	0	0	490	303	7	267	0	577	1960
% App. Total	0	60.9	39.1	0		0	0	0	0	0	41.2	58.8	0	0		52.5	1.2	46.3	0		
PHF	.000	.907	.855	.000	.897	.000	.000	.000	.000	.000	.935	.837	.000	.000	.914	.902	.350	.902	.000	.907	.940

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File Name : Hwy 24 - Woodmen Rd AM
 Site Code : S214730
 Start Date : 8/12/2021
 Page No : 3



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File Name : Hwy 24 - Woodmen Rd AM
 Site Code : S214730
 Start Date : 8/12/2021
 Page No : 4

Start Time	Hwy 24 Southbound					Westbound					Hwy 24 Northbound					Woodmen Rd Eastbound					Int. Total
	L	T	R	U	App. Total	L	T	R	U	App. Total	L	T	R	U	App. Total	L	T	R	U	App. Total	

Peak Hour Analysis From 6:30:00 AM to 8:15:00 AM - Peak 1 of 1

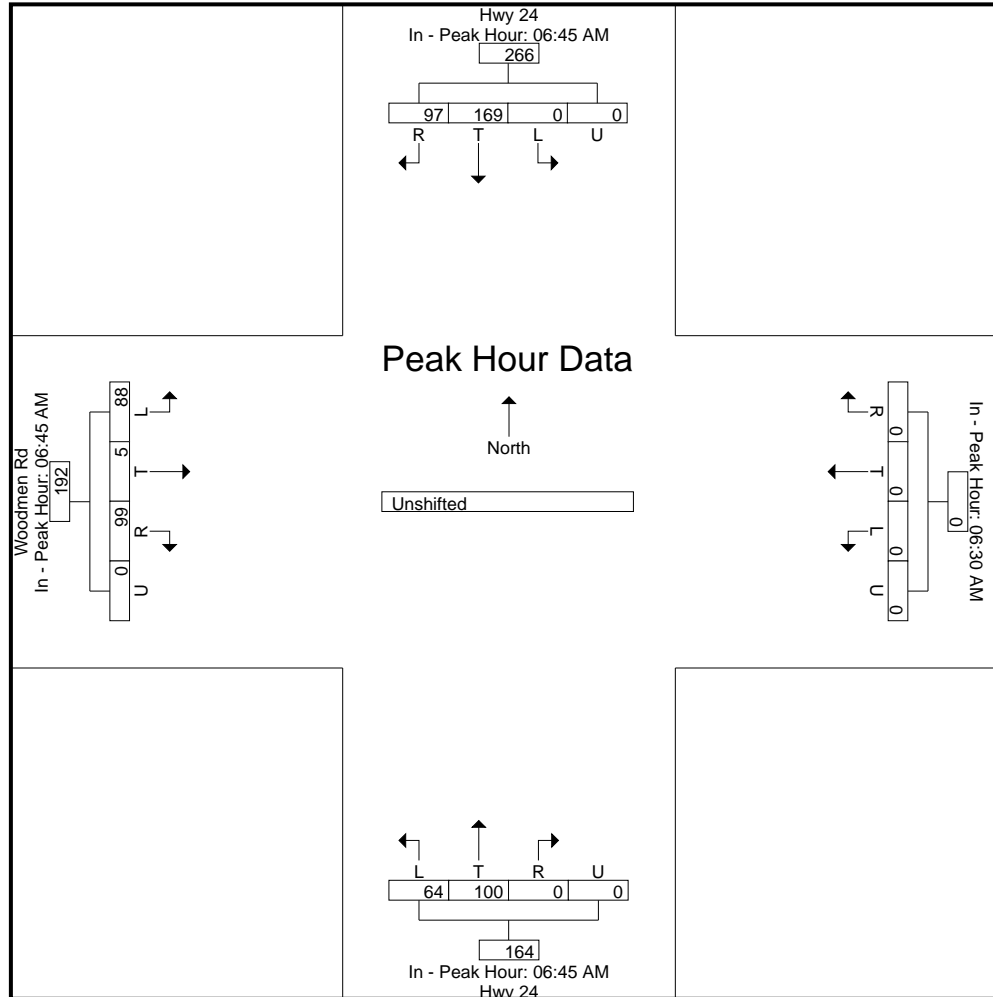
Peak Hour for Each Approach Begins at:

	6:45:00 AM					6:30:00 AM					6:45:00 AM					6:45:00 AM				
+0 mins.	0	123	64	0	187	0	0	0	0	0	48	86	0	0	134	84	5	70	0	159
+5 mins.	0	137	84	0	221	0	0	0	0	0	52	71	0	0	123	64	2	58	0	124
+10 mins.	0	150	99	0	249	0	0	0	0	0	54	72	0	0	126	72	0	74	0	146
+15 mins.	0	134	102	0	236	0	0	0	0	0	48	59	0	0	107	83	0	65	0	148
Total Volume	0	544	349	0	893	0	0	0	0	0	202	288	0	0	490	303	7	267	0	577
% App. Total	0	60.9	39.1	0		0	0	0	0	0	41.2	58.8	0	0		52.5	1.2	46.3	0	
PHF	.000	.907	.855	.000	.897	.000	.000	.000	.000	.000	.935	.837	.000	.000	.914	.902	.350	.902	.000	.907

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File Name : Hwy 24 - Woodmen Rd AM
 Site Code : S214730
 Start Date : 8/12/2021
 Page No : 5



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File Name : Hwy 24 - Woodmen Rd PM
 Site Code : S214730
 Start Date : 8/12/2021
 Page No : 1

Groups Printed- Unshifted

Start Time	Hwy 24 Southbound					Westbound					Hwy 24 Northbound					Woodmen Rd Eastbound					Int. Total
	L	T	R	U	App. Total	L	T	R	U	App. Total	L	T	R	U	App. Total	L	T	R	U	App. Total	
04:00 PM	0	102	91	0	193	0	0	0	0	0	60	117	0	0	177	120	0	44	0	164	534
04:15 PM	0	68	99	2	169	0	0	0	0	0	85	113	0	0	198	144	0	58	2	204	571
04:30 PM	0	70	101	0	171	0	0	0	0	0	85	103	0	0	188	141	0	43	1	185	544
04:45 PM	0	79	105	0	184	0	0	0	0	0	93	120	0	0	213	156	0	51	1	208	605
Total	0	319	396	2	717	0	0	0	0	0	323	453	0	0	776	561	0	196	4	761	2254
05:00 PM	0	72	91	0	163	0	0	0	0	0	108	115	0	0	223	157	0	57	0	214	600
05:15 PM	0	71	69	0	140	0	0	0	0	0	83	147	0	0	230	165	0	45	0	210	580
05:30 PM	0	81	87	0	168	0	0	0	0	0	70	104	0	0	174	130	0	43	0	173	515
05:45 PM	0	42	78	0	120	0	0	0	0	0	74	128	0	0	202	160	0	47	0	207	529
Total	0	266	325	0	591	0	0	0	0	0	335	494	0	0	829	612	0	192	0	804	2224
Grand Total	0	585	721	2	1308	0	0	0	0	0	658	947	0	0	1605	1173	0	388	4	1565	4478
Apprch %	0	44.7	55.1	0.2		0	0	0	0	0	41	59	0	0		75	0	24.8	0.3		
Total %	0	13.1	16.1	0	29.2	0	0	0	0	0	14.7	21.1	0	0	35.8	26.2	0	8.7	0.1	34.9	

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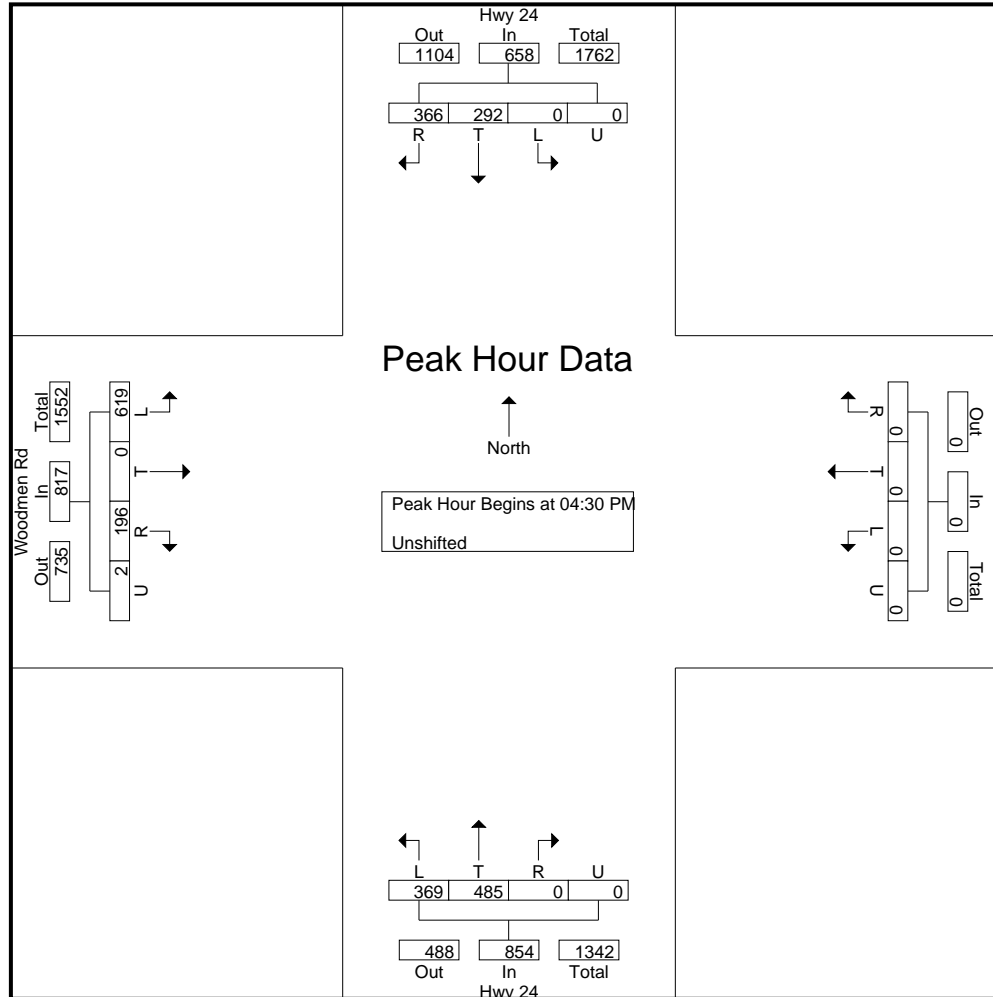
File Name : Hwy 24 - Woodmen Rd PM
 Site Code : S214730
 Start Date : 8/12/2021
 Page No : 2

Start Time	Hwy 24 Southbound					Westbound					Hwy 24 Northbound					Woodmen Rd Eastbound					Int. Total
	L	T	R	U	App. Total	L	T	R	U	App. Total	L	T	R	U	App. Total	L	T	R	U	App. Total	
Peak Hour Analysis From 4:00:00 PM to 5:45:00 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 4:30:00 PM																					
4:30:00 PM	0	70	101	0	171	0	0	0	0	0	85	103	0	0	188	141	0	43	1	185	544
4:45:00 PM	0	79	105	0	184	0	0	0	0	0	93	120	0	0	213	156	0	51	1	208	605
5:00:00 PM	0	72	91	0	163	0	0	0	0	0	108	115	0	0	223	157	0	57	0	214	600
5:15:00 PM	0	71	69	0	140	0	0	0	0	0	83	147	0	0	230	165	0	45	0	210	580
Total Volume	0	292	366	0	658	0	0	0	0	0	369	485	0	0	854	619	0	196	2	817	2329
% App. Total	0	44.4	55.6	0		0	0	0	0		43.2	56.8	0	0		75.8	0	24	0.2		
PHF	.000	.924	.871	.000	.894	.000	.000	.000	.000	.000	.854	.825	.000	.000	.928	.938	.000	.860	.500	.954	.962

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File Name : Hwy 24 - Woodmen Rd PM
 Site Code : S214730
 Start Date : 8/12/2021
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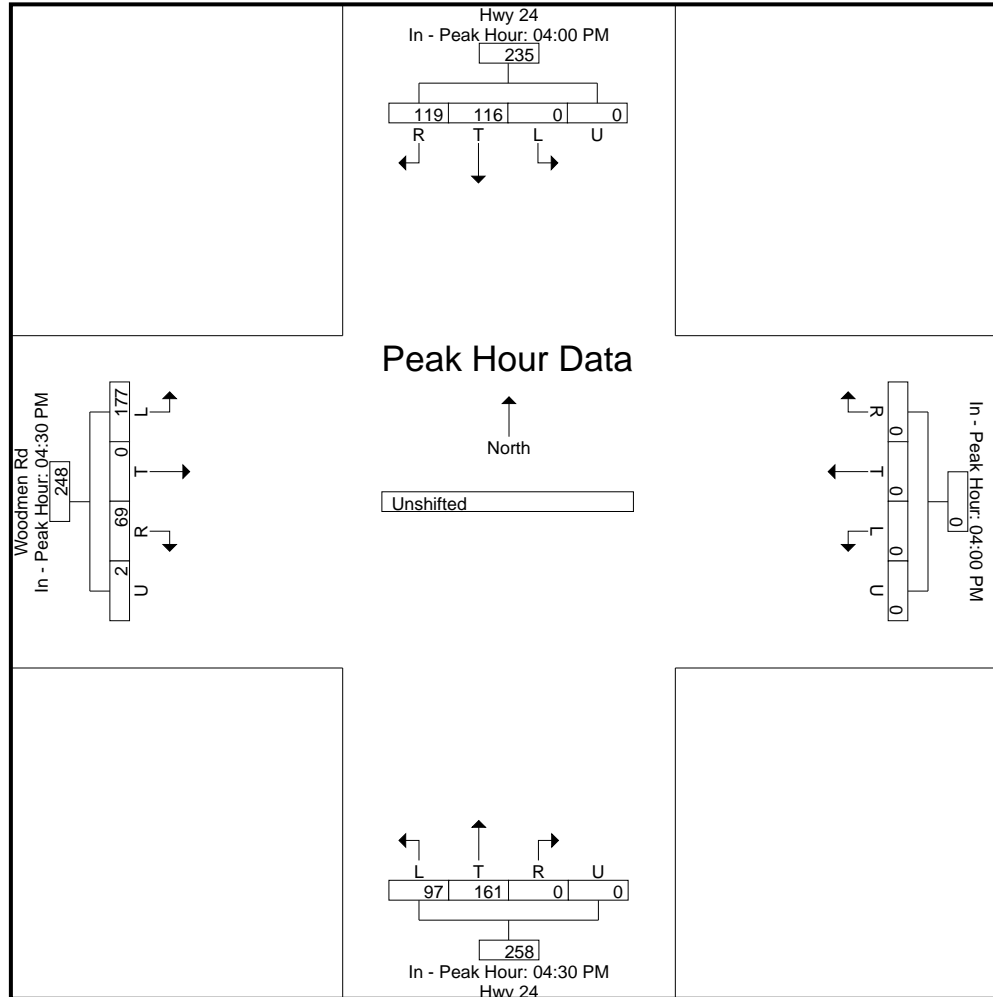
File Name : Hwy 24 - Woodmen Rd PM
 Site Code : S214730
 Start Date : 8/12/2021
 Page No : 4

Start Time	Hwy 24 Southbound					Westbound					Hwy 24 Northbound					Woodmen Rd Eastbound					Int. Total
	L	T	R	U	App. Total	L	T	R	U	App. Total	L	T	R	U	App. Total	L	T	R	U	App. Total	
Peak Hour Analysis From 4:00:00 PM to 5:45:00 PM - Peak 1 of 1																					
Peak Hour for Each Approach Begins at:																					
	4:00:00 PM					4:00:00 PM					4:30:00 PM					4:30:00 PM					
+0 mins.	0	102	91	0	193	0	0	0	0	0	85	103	0	0	188	141	0	43	1	185	
+5 mins.	0	68	99	2	169	0	0	0	0	0	93	120	0	0	213	156	0	51	1	208	
+10 mins.	0	70	101	0	171	0	0	0	0	0	108	115	0	0	223	157	0	57	0	214	
+15 mins.	0	79	105	0	184	0	0	0	0	0	83	147	0	0	230	165	0	45	0	210	
Total Volume	0	319	396	2	717	0	0	0	0	0	369	485	0	0	854	619	0	196	2	817	
% App. Total	0	44.5	55.2	0.3		0	0	0	0		43.2	56.8	0	0		75.8	0	24	0.2		
PHF	.000	.782	.943	.250	.929	.000	.000	.000	.000	.000	.854	.825	.000	.000	.928	.938	.000	.860	.500	.954	

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File Name : Hwy 24 - Woodmen Rd PM
 Site Code : S214730
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File Name : Old Meridian Rd - Swingline Rd AM
 Site Code : S214340
 Start Date : 4/21/2021
 Page No : 1

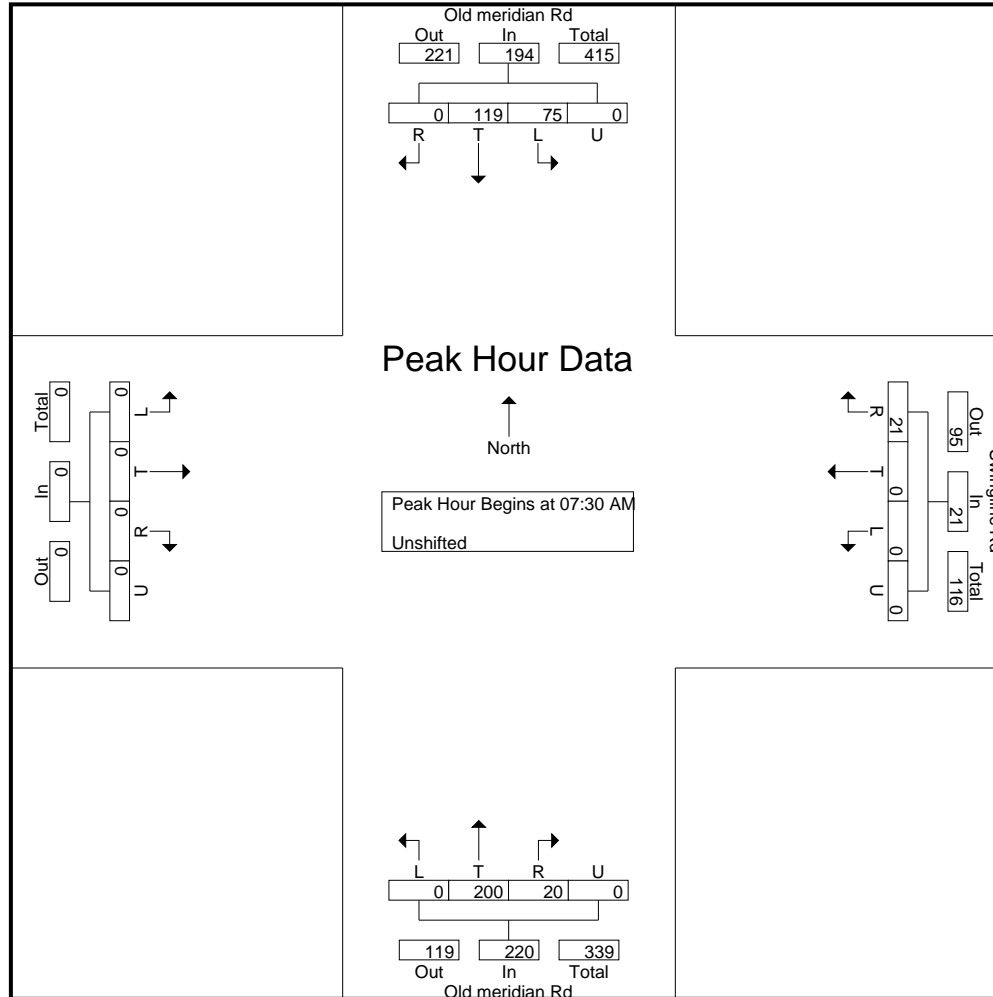
Groups Printed- Unshifted

Start Time	Old meridian Rd Southbound					Swingline Rd Westbound					Old meridian Rd Northbound					Eastbound					Int. Total
	L	T	R	U	App. Total	L	T	R	U	App. Total	L	T	R	U	App. Total	L	T	R	U	App. Total	
07:15 AM	9	25	0	0	34	0	0	8	0	8	0	47	0	0	47	0	0	0	0	0	89
07:30 AM	17	30	0	0	47	0	0	7	0	7	0	47	2	0	49	0	0	0	0	0	103
07:45 AM	14	36	0	0	50	0	0	1	0	1	0	33	3	0	36	0	0	0	0	0	87
Total	40	91	0	0	131	0	0	16	0	16	0	127	5	0	132	0	0	0	0	0	279
08:00 AM	20	30	0	0	50	0	0	6	0	6	0	34	7	0	41	0	0	0	0	0	97
08:15 AM	24	23	0	0	47	0	0	7	0	7	0	86	8	0	94	0	0	0	0	0	148
08:30 AM	5	33	0	0	38	0	0	2	0	2	0	52	1	0	53	0	0	0	0	0	93
08:45 AM	9	24	0	0	33	0	0	6	0	6	0	40	0	0	40	0	0	0	0	0	79
Total	58	110	0	0	168	0	0	21	0	21	0	212	16	0	228	0	0	0	0	0	417
09:00 AM	5	20	0	0	25	0	0	6	0	6	0	29	0	0	29	0	0	0	0	0	60
Grand Total	103	221	0	0	324	0	0	43	0	43	0	368	21	0	389	0	0	0	0	0	756
Apprch %	31.8	68.2	0	0		0	0	100	0		0	94.6	5.4	0		0	0	0	0		
Total %	13.6	29.2	0	0	42.9	0	0	5.7	0	5.7	0	48.7	2.8	0	51.5	0	0	0	0	0	

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File Name : Old Meridian Rd - Swingline Rd AM
 Site Code : S214340
 Start Date : 4/21/2021
 Page No : 3



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 Colorado Springs, CO 80905
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File Name : Old Meridian Rd - Swingline Rd AM
 Site Code : S214340
 Start Date : 4/21/2021
 Page No : 4

Start Time	Old meridian Rd Southbound					Swingline Rd Westbound					Old meridian Rd Northbound					Eastbound					Int. Total
	L	T	R	U	App. Total	L	T	R	U	App. Total	L	T	R	U	App. Total	L	T	R	U	App. Total	

Peak Hour Analysis From 7:15:00 AM to 9:00:00 AM - Peak 1 of 1

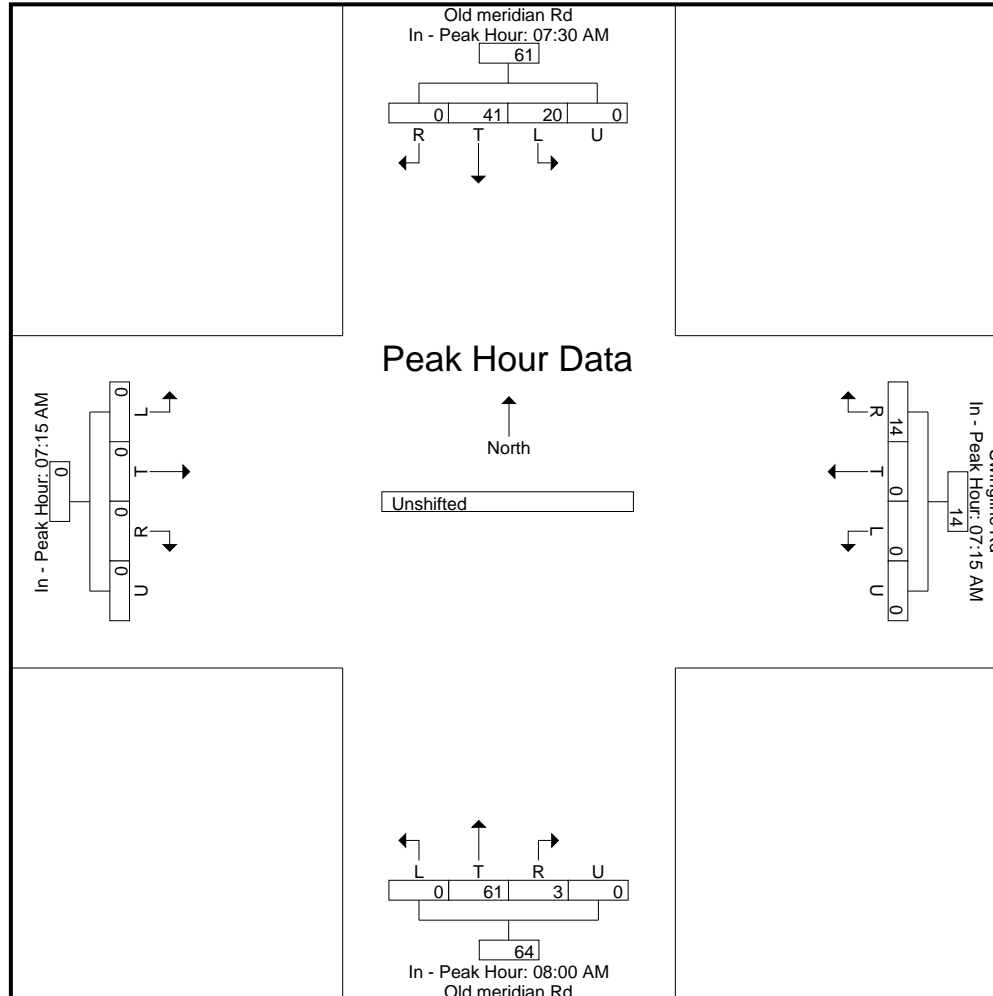
Peak Hour for Each Approach Begins at:

	7:30:00 AM					7:15:00 AM					8:00:00 AM					7:15:00 AM				
+0 mins.	17	30	0	0	47	0	0	8	0	8	0	34	7	0	41	0	0	0	0	0
+5 mins.	14	36	0	0	50	0	0	7	0	7	0	86	8	0	94	0	0	0	0	0
+10 mins.	20	30	0	0	50	0	0	1	0	1	0	52	1	0	53	0	0	0	0	0
+15 mins.	24	23	0	0	47	0	0	6	0	6	0	40	0	0	40	0	0	0	0	0
Total Volume	75	119	0	0	194	0	0	22	0	22	0	212	16	0	228	0	0	0	0	0
% App. Total	38.7	61.3	0	0		0	0	100	0		0	93	7	0		0	0	0	0	
PHF	.781	.826	.000	.000	.970	.000	.000	.688	.000	.688	.000	.616	.500	.000	.606	.000	.000	.000	.000	.000

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File Name : Old Meridian Rd - Swingline Rd AM
 Site Code : S214340
 Start Date : 4/21/2021
 Page No : 5



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File Name : Old Meridian Rd - Swingline Rd PM
 Site Code : S214340
 Start Date : 4/21/2021
 Page No : 1

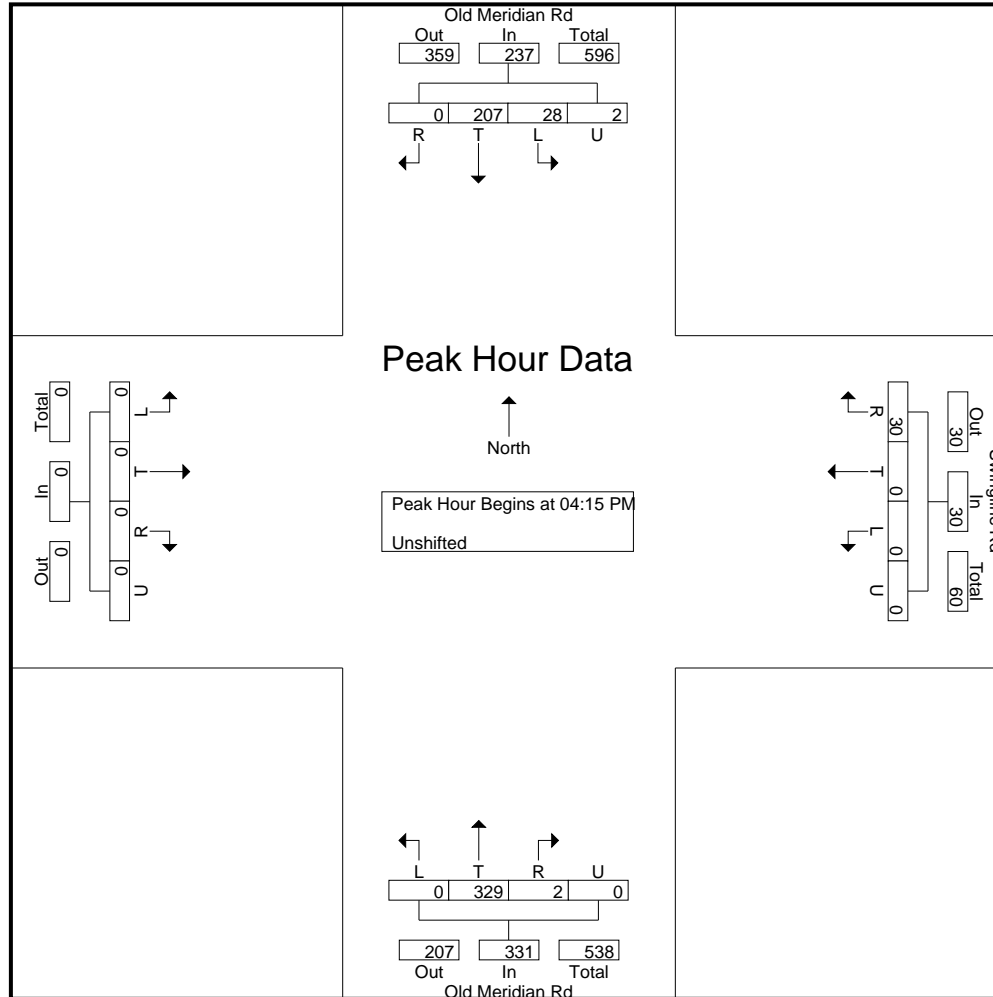
Groups Printed- Unshifted

Start Time	Old Meridian Rd Southbound					Swingline Rd Westbound					Old Meridian Rd Northbound					Eastbound					Int. Total
	L	T	R	U	App. Total	L	T	R	U	App. Total	L	T	R	U	App. Total	L	T	R	U	App. Total	
04:00 PM	5	47	0	0	52	1	0	4	0	5	0	72	0	0	72	0	0	0	0	0	129
04:15 PM	7	49	0	1	57	0	0	7	0	7	0	80	1	0	81	0	0	0	0	0	145
04:30 PM	12	60	0	0	72	0	0	7	0	7	0	75	0	0	75	0	0	0	0	0	154
04:45 PM	5	39	0	0	44	0	0	9	0	9	0	103	1	0	104	0	0	0	0	0	157
Total	29	195	0	1	225	1	0	27	0	28	0	330	2	0	332	0	0	0	0	0	585
05:00 PM	4	59	0	1	64	0	0	7	0	7	0	71	0	0	71	0	0	0	0	0	142
05:15 PM	9	51	0	0	60	0	0	4	0	4	0	56	0	0	56	0	0	0	0	0	120
05:30 PM	8	58	0	0	66	0	0	3	0	3	0	62	0	0	62	0	0	0	0	0	131
05:45 PM	6	53	0	0	59	0	0	3	0	3	0	45	0	0	45	0	0	0	0	0	107
Total	27	221	0	1	249	0	0	17	0	17	0	234	0	0	234	0	0	0	0	0	500
Grand Total	56	416	0	2	474	1	0	44	0	45	0	564	2	0	566	0	0	0	0	0	1085
Apprch %	11.8	87.8	0	0.4		2.2	0	97.8	0		0	99.6	0.4	0		0	0	0	0		
Total %	5.2	38.3	0	0.2	43.7	0.1	0	4.1	0	4.1	0	52	0.2	0	52.2	0	0	0	0	0	

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File Name : Old Meridian Rd - Swingline Rd PM
 Site Code : S214340
 Start Date : 4/21/2021
 Page No : 3



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File Name : Old Meridian Rd - Swingline Rd PM
 Site Code : S214340
 Start Date : 4/21/2021
 Page No : 4

Start Time	Old Meridian Rd Southbound					Swingline Rd Westbound					Old Meridian Rd Northbound					Eastbound					Int. Total
	L	T	R	U	App. Total	L	T	R	U	App. Total	L	T	R	U	App. Total	L	T	R	U	App. Total	

Peak Hour Analysis From 4:00:00 PM to 5:45:00 PM - Peak 1 of 1

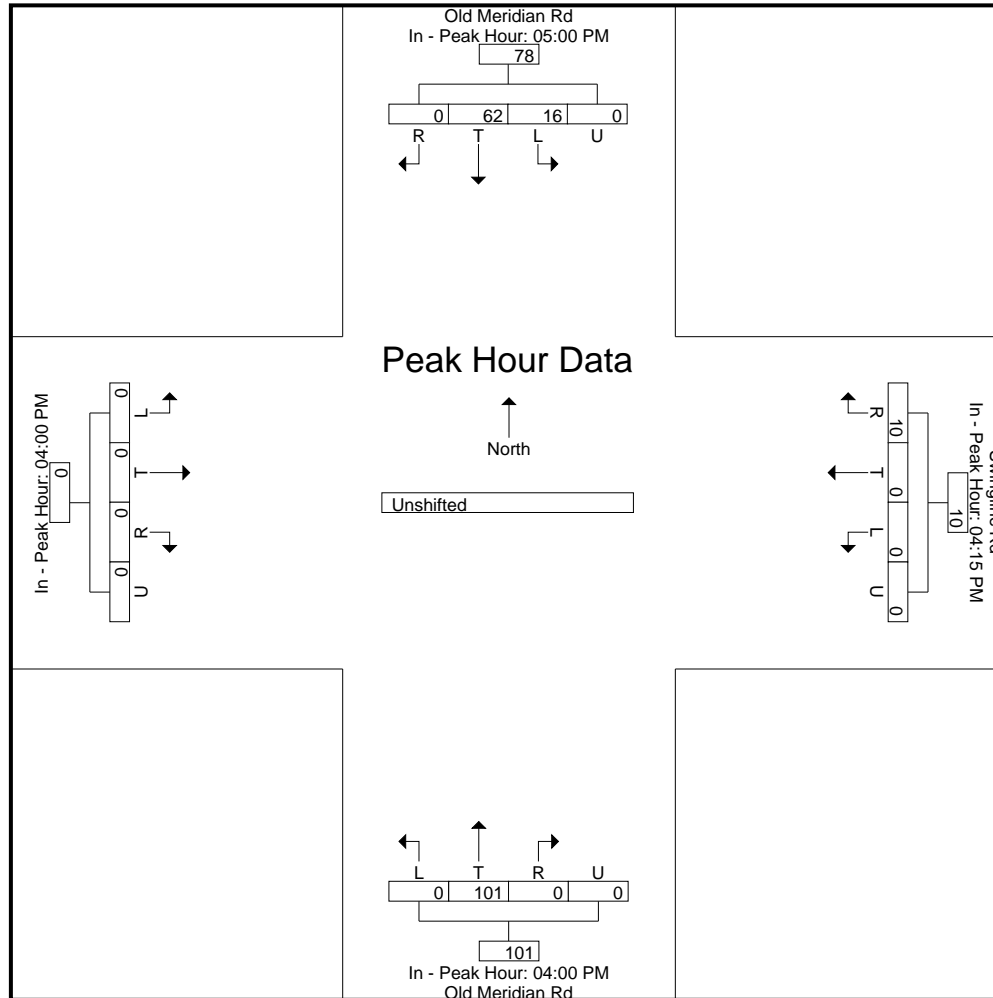
Peak Hour for Each Approach Begins at:

	5:00:00 PM					4:15:00 PM					4:00:00 PM					4:00:00 PM				
+0 mins.	4	59	0	1	64	0	0	7	0	7	0	72	0	0	72	0	0	0	0	0
+5 mins.	9	51	0	0	60	0	0	7	0	7	0	80	1	0	81	0	0	0	0	0
+10 mins.	8	58	0	0	66	0	0	9	0	9	0	75	0	0	75	0	0	0	0	0
+15 mins.	6	53	0	0	59	0	0	7	0	7	0	103	1	0	104	0	0	0	0	0
Total Volume	27	221	0	1	249	0	0	30	0	30	0	330	2	0	332	0	0	0	0	0
% App. Total	10.8	88.8	0	0.4		0	0	100	0		0	99.4	0.6	0		0	0	0	0	
PHF	.750	.936	.000	.250	.943	.000	.000	.833	.000	.833	.000	.801	.500	.000	.798	.000	.000	.000	.000	.000

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File Name : Old Meridian Rd - Swingline Rd PM
 Site Code : S214340
 Start Date : 4/21/2021
 Page No : 5



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File Name : Meridian Rd - Falcon Hwy AM 9-21
 Site Code : S214340
 Start Date : 9/23/2021
 Page No : 1

Groups Printed- Unshifted

Start Time	Meridian Rd Southbound					Falcon Hwy Westbound					Meridian Rd Northbound					Falcon Hwy Eastbound					Int. Total
	L	T	R	U	App. Total	L	T	R	U	App. Total	L	T	R	U	App. Total	L	T	R	U	App. Total	
06:30 AM	20	6	1	0	27	0	28	24	0	52	0	18	0	0	18	0	9	0	0	9	106
06:45 AM	35	9	2	0	46	2	32	44	0	78	0	19	1	0	20	0	8	0	0	8	152
Total	55	15	3	0	73	2	60	68	0	130	0	37	1	0	38	0	17	0	0	17	258
07:00 AM	42	11	0	0	53	2	39	39	0	80	1	20	0	0	21	2	13	0	0	15	169
07:15 AM	48	14	2	0	64	2	39	41	0	82	0	19	1	0	20	3	11	0	0	14	180
07:30 AM	62	12	0	0	74	5	36	57	0	98	0	16	5	0	21	2	16	0	0	18	211
07:45 AM	50	8	0	0	58	1	44	57	0	102	0	9	0	0	9	0	26	1	0	27	196
Total	202	45	2	0	249	10	158	194	0	362	1	64	6	0	71	7	66	1	0	74	756
08:00 AM	46	6	1	0	53	1	19	36	0	56	0	12	3	0	15	1	18	0	0	19	143
08:15 AM	26	2	0	0	28	5	43	56	0	104	0	10	6	0	16	1	12	1	0	14	162
Grand Total	329	68	6	0	403	18	280	354	0	652	1	123	16	0	140	9	113	2	0	124	1319
Apprch %	81.6	16.9	1.5	0		2.8	42.9	54.3	0		0.7	87.9	11.4	0		7.3	91.1	1.6	0		
Total %	24.9	5.2	0.5	0	30.6	1.4	21.2	26.8	0	49.4	0.1	9.3	1.2	0	10.6	0.7	8.6	0.2	0	9.4	

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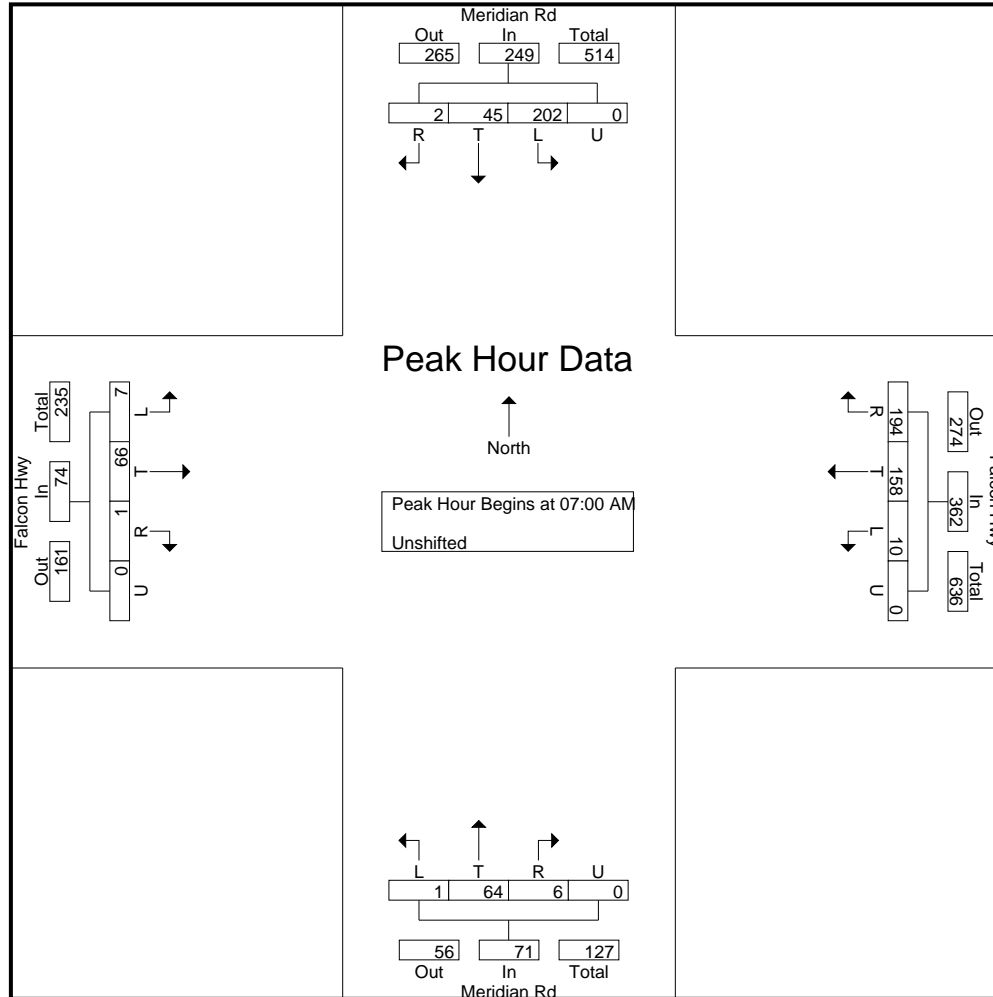
File Name : Meridian Rd - Falcon Hwy AM 9-21
 Site Code : S214340
 Start Date : 9/23/2021
 Page No : 2

Start Time	Meridian Rd Southbound					Falcon Hwy Westbound					Meridian Rd Northbound					Falcon Hwy Eastbound					Int. Total
	L	T	R	U	App. Total	L	T	R	U	App. Total	L	T	R	U	App. Total	L	T	R	U	App. Total	
Peak Hour Analysis From 6:30:00 AM to 8:15:00 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 7:00:00 AM																					
7:00:00 AM	42	11	0	0	53	2	39	39	0	80	1	20	0	0	21	2	13	0	0	15	169
7:15:00 AM	48	14	2	0	64	2	39	41	0	82	0	19	1	0	20	3	11	0	0	14	180
7:30:00 AM	62	12	0	0	74	5	36	57	0	98	0	16	5	0	21	2	16	0	0	18	211
7:45:00 AM	50	8	0	0	58	1	44	57	0	102	0	9	0	0	9	0	26	1	0	27	196
Total Volume	202	45	2	0	249	10	158	194	0	362	1	64	6	0	71	7	66	1	0	74	756
% App. Total	81.1	18.1	0.8	0		2.8	43.6	53.6	0		1.4	90.1	8.5	0		9.5	89.2	1.4	0		
PHF	.815	.804	.250	.000	.841	.500	.898	.851	.000	.887	.250	.800	.300	.000	.845	.583	.635	.250	.000	.685	.896

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File Name : Meridian Rd - Falcon Hwy AM 9-21
 Site Code : S214340
 Start Date : 9/23/2021
 Page No : 3



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File Name : Meridian Rd - Falcon Hwy AM 9-21
 Site Code : S214340
 Start Date : 9/23/2021
 Page No : 4

Start Time	Meridian Rd Southbound					Falcon Hwy Westbound					Meridian Rd Northbound					Falcon Hwy Eastbound					Int. Total
	L	T	R	U	App. Total	L	T	R	U	App. Total	L	T	R	U	App. Total	L	T	R	U	App. Total	

Peak Hour Analysis From 6:30:00 AM to 8:15:00 AM - Peak 1 of 1

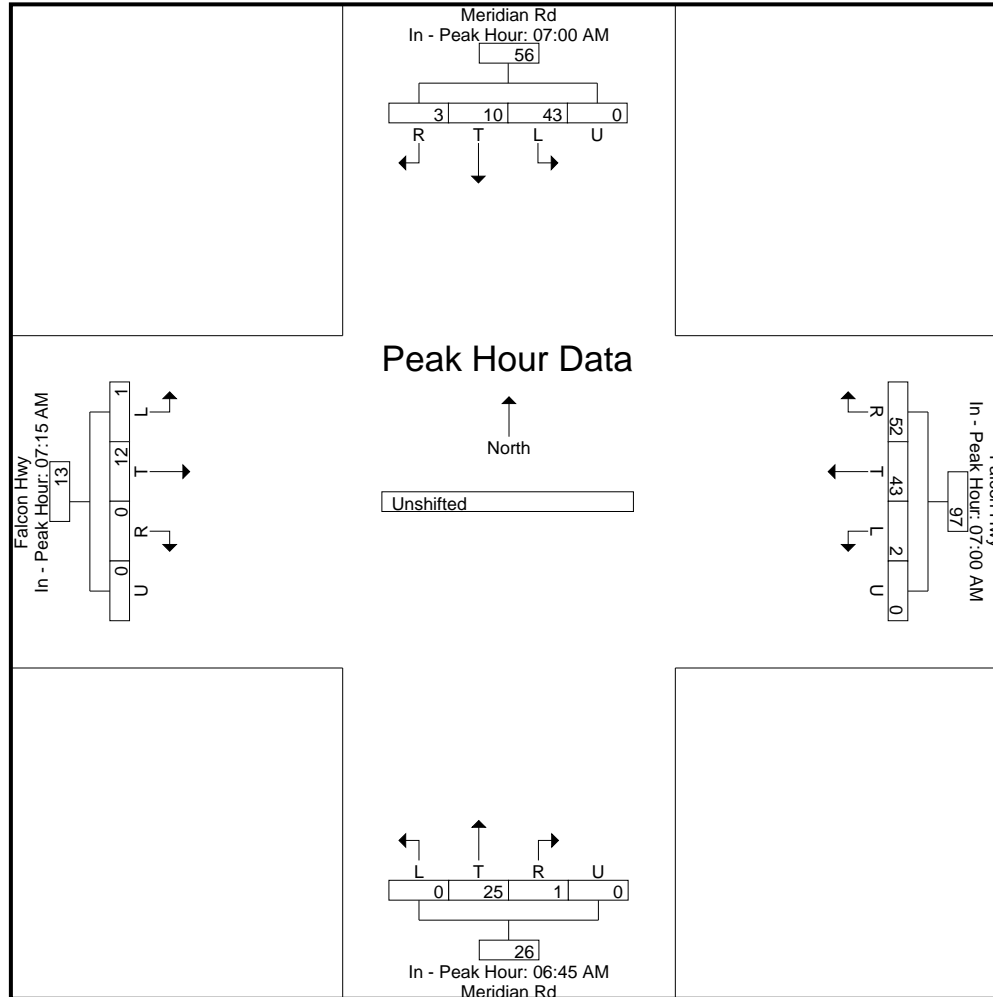
Peak Hour for Each Approach Begins at:

	7:00:00 AM					7:00:00 AM					6:45:00 AM					7:15:00 AM				
+0 mins.	42	11	0	0	53	2	39	39	0	80	0	19	1	0	20	3	11	0	0	14
+5 mins.	48	14	2	0	64	2	39	41	0	82	1	20	0	0	21	2	16	0	0	18
+10 mins.	62	12	0	0	74	5	36	57	0	98	0	19	1	0	20	0	26	1	0	27
+15 mins.	50	8	0	0	58	1	44	57	0	102	0	16	5	0	21	1	18	0	0	19
Total Volume	202	45	2	0	249	10	158	194	0	362	1	74	7	0	82	6	71	1	0	78
% App. Total	81.1	18.1	0.8	0		2.8	43.6	53.6	0		1.2	90.2	8.5	0		7.7	91	1.3	0	
PHF	.815	.804	.250	.000	.841	.500	.898	.851	.000	.887	.250	.925	.350	.000	.976	.500	.683	.250	.000	.722

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File Name : Meridian Rd - Falcon Hwy AM 9-21
 Site Code : S214340
 Start Date : 9/23/2021
 Page No : 5



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File Name : Meridian Rd - Falcon Hwy PM 9-21
 Site Code : S214340
 Start Date : 9/23/2021
 Page No : 1

Groups Printed- Unshifted

Start Time	Meridian Rd Southbound					Falcon Hwy Westbound					Meridian Rd Northbound					Falcon Hwy Eastbound					Int. Total
	L	T	R	U	App. Total	L	T	R	U	App. Total	L	T	R	U	App. Total	L	T	R	U	App. Total	
04:00 PM	45	21	0	0	66	1	20	67	0	88	0	15	1	0	16	1	6	0	0	7	177
04:15 PM	41	25	2	0	68	1	13	56	0	70	2	20	8	0	30	2	11	1	0	14	182
04:30 PM	48	24	0	0	72	0	19	58	0	77	0	22	6	0	28	0	9	1	0	10	187
04:45 PM	42	26	1	0	69	0	12	72	0	84	1	25	3	0	29	1	8	0	0	9	191
Total	176	96	3	0	275	2	64	253	0	319	3	82	18	0	103	4	34	2	0	40	737
05:00 PM	37	25	0	0	62	3	18	42	0	63	0	20	8	0	28	3	16	0	0	19	172
05:15 PM	36	19	5	0	60	1	16	44	0	61	0	24	4	0	28	4	14	0	0	18	167
05:30 PM	36	37	4	0	77	1	14	29	0	44	1	21	6	0	28	0	22	0	0	22	171
05:45 PM	43	37	1	0	81	0	14	27	0	41	0	34	3	0	37	0	11	1	0	12	171
Total	152	118	10	0	280	5	62	142	0	209	1	99	21	0	121	7	63	1	0	71	681
Grand Total	328	214	13	0	555	7	126	395	0	528	4	181	39	0	224	11	97	3	0	111	1418
Apprch %	59.1	38.6	2.3	0		1.3	23.9	74.8	0		1.8	80.8	17.4	0		9.9	87.4	2.7	0		
Total %	23.1	15.1	0.9	0	39.1	0.5	8.9	27.9	0	37.2	0.3	12.8	2.8	0	15.8	0.8	6.8	0.2	0	7.8	

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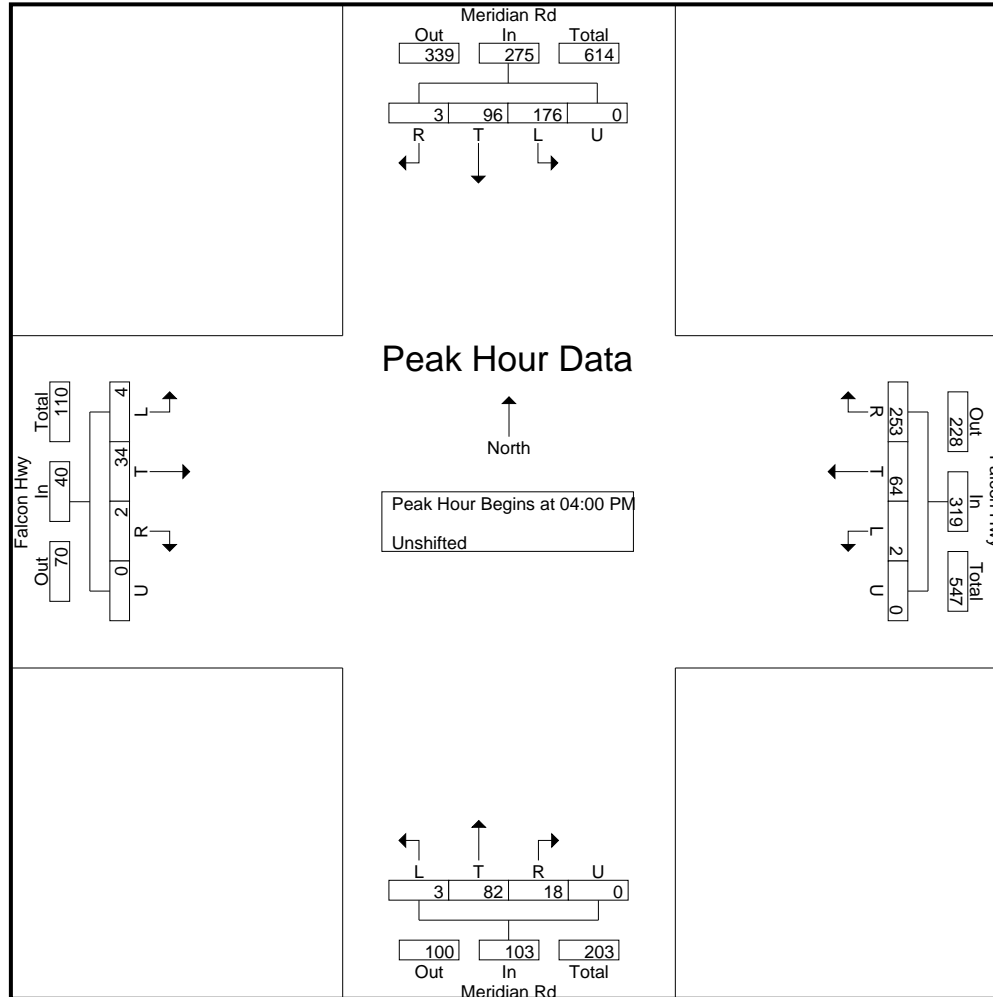
File Name : Meridian Rd - Falcon Hwy PM 9-21
 Site Code : S214340
 Start Date : 9/23/2021
 Page No : 2

Start Time	Meridian Rd Southbound					Falcon Hwy Westbound					Meridian Rd Northbound					Falcon Hwy Eastbound					Int. Total
	L	T	R	U	App. Total	L	T	R	U	App. Total	L	T	R	U	App. Total	L	T	R	U	App. Total	
Peak Hour Analysis From 4:00:00 PM to 5:45:00 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 4:00:00 PM																					
4:00:00 PM	45	21	0	0	66	1	20	67	0	88	0	15	1	0	16	1	6	0	0	7	177
4:15:00 PM	41	25	2	0	68	1	13	56	0	70	2	20	8	0	30	2	11	1	0	14	182
4:30:00 PM	48	24	0	0	72	0	19	58	0	77	0	22	6	0	28	0	9	1	0	10	187
4:45:00 PM	42	26	1	0	69	0	12	72	0	84	1	25	3	0	29	1	8	0	0	9	191
Total Volume	176	96	3	0	275	2	64	253	0	319	3	82	18	0	103	4	34	2	0	40	737
% App. Total	64	34.9	1.1	0		0.6	20.1	79.3	0		2.9	79.6	17.5	0		10	85	5	0		
PHF	.917	.923	.375	.000	.955	.500	.800	.878	.000	.906	.375	.820	.563	.000	.858	.500	.773	.500	.000	.714	.965

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File Name : Meridian Rd - Falcon Hwy PM 9-21
 Site Code : S214340
 Start Date : 9/23/2021
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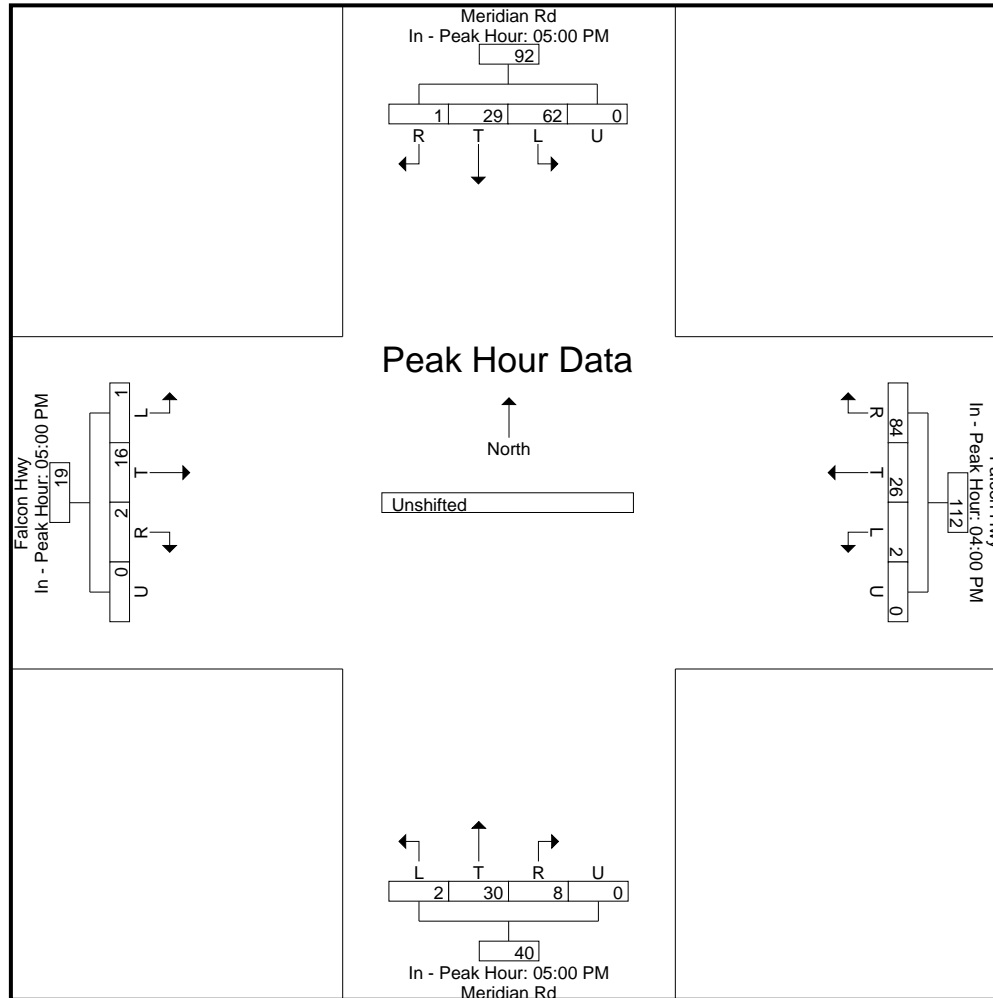
File Name : Meridian Rd - Falcon Hwy PM 9-21
 Site Code : S214340
 Start Date : 9/23/2021
 Page No : 4

Start Time	Meridian Rd Southbound					Falcon Hwy Westbound					Meridian Rd Northbound					Falcon Hwy Eastbound					Int. Total
	L	T	R	U	App. Total	L	T	R	U	App. Total	L	T	R	U	App. Total	L	T	R	U	App. Total	
Peak Hour Analysis From 4:00:00 PM to 5:45:00 PM - Peak 1 of 1																					
Peak Hour for Each Approach Begins at:																					
	5:00:00 PM					4:00:00 PM					5:00:00 PM					5:00:00 PM					
+0 mins.	37	25	0	0	62	1	20	67	0	88	0	20	8	0	28	3	16	0	0	19	
+5 mins.	36	19	5	0	60	1	13	56	0	70	0	24	4	0	28	4	14	0	0	18	
+10 mins.	36	37	4	0	77	0	19	58	0	77	1	21	6	0	28	0	22	0	0	22	
+15 mins.	43	37	1	0	81	0	12	72	0	84	0	34	3	0	37	0	11	1	0	12	
Total Volume	152	118	10	0	280	2	64	253	0	319	1	99	21	0	121	7	63	1	0	71	
% App. Total	54.3	42.1	3.6	0		0.6	20.1	79.3	0		0.8	81.8	17.4	0		9.9	88.7	1.4	0		
PHF	.884	.797	.500	.000	.864	.500	.800	.878	.000	.906	.250	.728	.656	.000	.818	.438	.716	.250	.000	.807	

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File Name : Meridian Rd - Falcon Hwy PM 9-21
 Site Code : S214340
 Start Date : 9/23/2021
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File Name : Gelbvieh Rd - Falcon Hwy AM
 Site Code : S214340
 Start Date : 9/23/2021
 Page No : 1

Groups Printed- Bank 1

Start Time	Gelbvieh Rd Southbound					Falcon Hwy Westbound					Northbound					Falcon Hwy Eastbound					Int. Total
	L	T	R	U	App. Total	L	T	R	U	App. Total	L	T	R	U	App. Total	L	T	R	U	App. Total	
06:30 AM	2	0	8	0	10	0	0	1	0	1	0	0	0	0	0	2	0	0	0	2	13
06:45 AM	2	0	9	0	11	0	0	2	0	2	0	0	0	0	0	1	0	0	0	1	14
Total	4	0	17	0	21	0	0	3	0	3	0	0	0	0	0	3	0	0	0	3	27
07:00 AM	0	0	17	0	17	0	0	1	0	1	0	0	0	0	0	10	0	0	0	10	28
07:15 AM	0	0	13	0	13	0	0	9	0	9	0	0	0	0	0	29	0	0	0	29	51
07:30 AM	3	0	31	0	34	0	0	11	0	11	0	0	0	0	0	39	0	0	0	39	84
07:45 AM	3	0	27	0	30	0	0	9	0	9	0	0	0	0	0	35	0	0	0	35	74
Total	6	0	88	0	94	0	0	30	0	30	0	0	0	0	0	113	0	0	0	113	237
08:00 AM	0	0	13	0	13	0	0	17	0	17	0	0	0	0	0	26	0	0	0	26	56
08:15 AM	0	0	11	0	11	0	0	33	0	33	0	0	0	0	0	31	0	0	0	31	75
Grand Total	10	0	129	0	139	0	0	83	0	83	0	0	0	0	0	173	0	0	0	173	395
Apprch %	7.2	0	92.8	0		0	0	100	0		0	0	0	0		100	0	0	0		
Total %	2.5	0	32.7	0	35.2	0	0	21	0	21	0	0	0	0	0	43.8	0	0	0	43.8	

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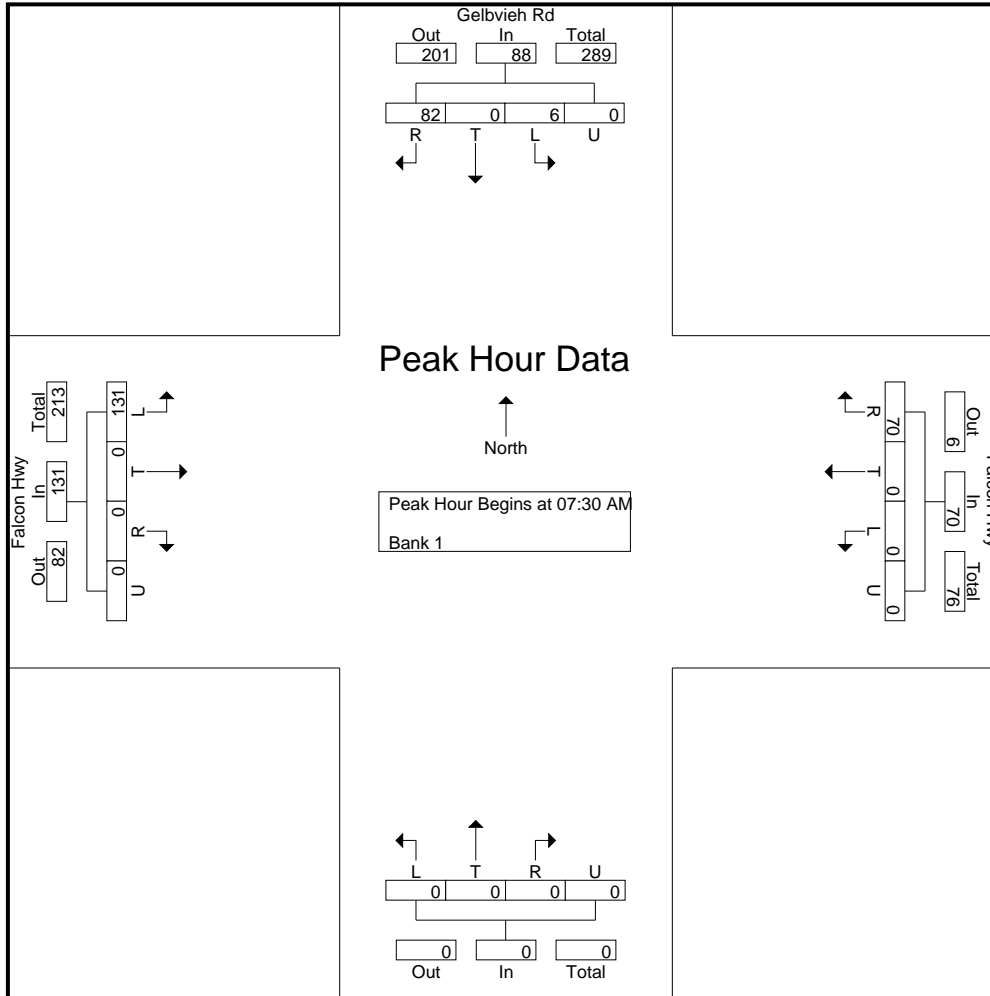
File Name : Gelbvieh Rd - Falcon Hwy AM
 Site Code : S214340
 Start Date : 9/23/2021
 Page No : 2

Start Time	Gelbvieh Rd Southbound					Falcon Hwy Westbound					Northbound					Falcon Hwy Eastbound					Int. Total
	L	T	R	U	App. Total	L	T	R	U	App. Total	L	T	R	U	App. Total	L	T	R	U	App. Total	
Peak Hour Analysis From 6:30:00 AM to 8:15:00 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 7:30:00 AM																					
7:30:00 AM	3	0	31	0	34	0	0	11	0	11	0	0	0	0	0	39	0	0	0	39	84
7:45:00 AM	3	0	27	0	30	0	0	9	0	9	0	0	0	0	0	35	0	0	0	35	74
8:00:00 AM	0	0	13	0	13	0	0	17	0	17	0	0	0	0	0	26	0	0	0	26	56
8:15:00 AM	0	0	11	0	11	0	0	33	0	33	0	0	0	0	0	31	0	0	0	31	75
Total Volume	6	0	82	0	88	0	0	70	0	70	0	0	0	0	0	131	0	0	0	131	289
% App. Total	6.8	0	93.2	0		0	0	100	0		0	0	0	0		100	0	0	0		
PHF	.500	.000	.661	.000	.647	.000	.000	.530	.000	.530	.000	.000	.000	.000	.000	.840	.000	.000	.000	.840	.860

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File Name : Gelbvieh Rd - Falcon Hwy AM
 Site Code : S214340
 Start Date : 9/23/2021
 Page No : 3



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File Name : Gelbvieh Rd - Falcon Hwy AM
 Site Code : S214340
 Start Date : 9/23/2021
 Page No : 4

Start Time	Gelbvieh Rd Southbound					Falcon Hwy Westbound					Northbound					Falcon Hwy Eastbound					Int. Total
	L	T	R	U	App. Total	L	T	R	U	App. Total	L	T	R	U	App. Total	L	T	R	U	App. Total	

Peak Hour Analysis From 6:30:00 AM to 8:15:00 AM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	7:00:00 AM					7:30:00 AM					6:30:00 AM					7:30:00 AM				
+0 mins.	0	0	17	0	17	0	0	11	0	11	0	0	0	0	0	39	0	0	0	39
+5 mins.	0	0	13	0	13	0	0	9	0	9	0	0	0	0	0	35	0	0	0	35
+10 mins.	3	0	31	0	34	0	0	17	0	17	0	0	0	0	0	26	0	0	0	26
+15 mins.	3	0	27	0	30	0	0	33	0	33	0	0	0	0	0	31	0	0	0	31
Total Volume	6	0	88	0	94	0	0	70	0	70	0	0	0	0	0	131	0	0	0	131
% App. Total	6.4	0	93.6	0		0	0	100	0		0	0	0	0		100	0	0	0	
PHF	.500	.000	.710	.000	.691	.000	.000	.530	.000	.530	.000	.000	.000	.000	.000	.840	.000	.000	.000	.840

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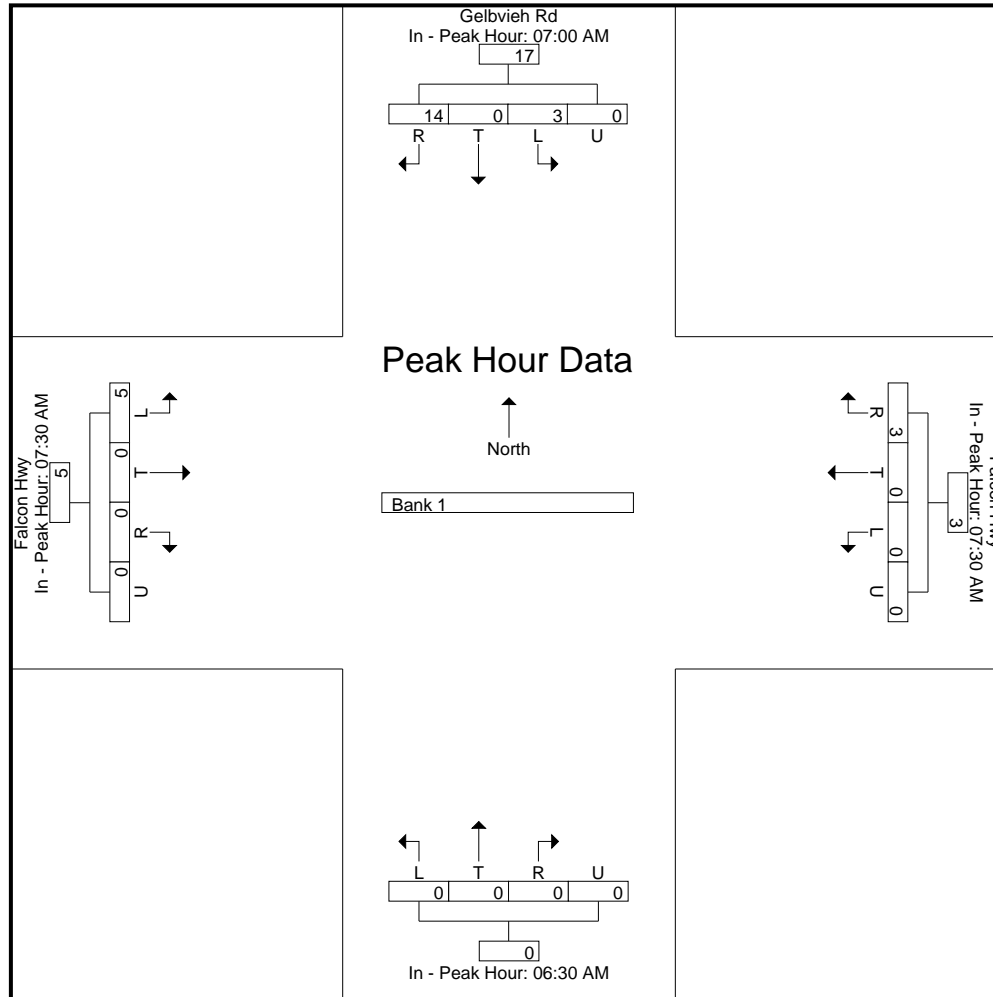
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File Name : Gelbvieh Rd - Falcon Hwy AM

Site Code : S214340

Start Date : 9/23/2021

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File Name : Gelbvieh Rd - Falcon Hwy PM
 Site Code : S214340
 Start Date : 9/23/2021
 Page No : 1

Groups Printed- Bank 1

Start Time	Gelbvieh Rd Southbound					Falcon Hwy Westbound					Northbound					Falcon Hwy Eastbound					Int. Total	
	L	T	R	U	App. Total	L	T	R	U	App. Total	L	T	R	U	App. Total	L	T	R	U	App. Total		
04:00 PM	0	0	14	0	14	0	0	3	0	3	0	0	0	0	0	14	0	0	0	0	14	31
04:15 PM	0	0	11	0	11	0	0	0	0	0	0	0	0	0	0	14	0	0	0	0	14	25
04:30 PM	1	0	10	0	11	0	0	1	0	1	0	0	0	0	0	11	0	0	0	0	11	23
04:45 PM	1	0	11	0	12	0	0	0	0	0	0	0	0	0	0	14	0	0	0	0	14	26
Total	2	0	46	0	48	0	0	4	0	4	0	0	0	0	0	53	0	0	0	0	53	105
05:00 PM	0	0	8	0	8	0	0	1	0	1	0	0	0	0	0	10	0	0	0	0	10	19
05:15 PM	1	0	6	0	7	0	0	1	0	1	0	0	0	0	0	10	0	0	0	0	10	18
05:30 PM	2	0	7	0	9	0	0	5	0	5	0	0	0	0	0	16	0	0	0	0	16	30
05:45 PM	2	0	12	0	14	0	0	3	0	3	0	0	0	0	0	27	0	0	0	0	27	44
Total	5	0	33	0	38	0	0	10	0	10	0	0	0	0	0	63	0	0	0	0	63	111
Grand Total	7	0	79	0	86	0	0	14	0	14	0	0	0	0	0	116	0	0	0	0	116	216
Apprch %	8.1	0	91.9	0		0	0	100	0		0	0	0	0		100	0	0	0	0		
Total %	3.2	0	36.6	0	39.8	0	0	6.5	0	6.5	0	0	0	0	0	53.7	0	0	0	0	53.7	

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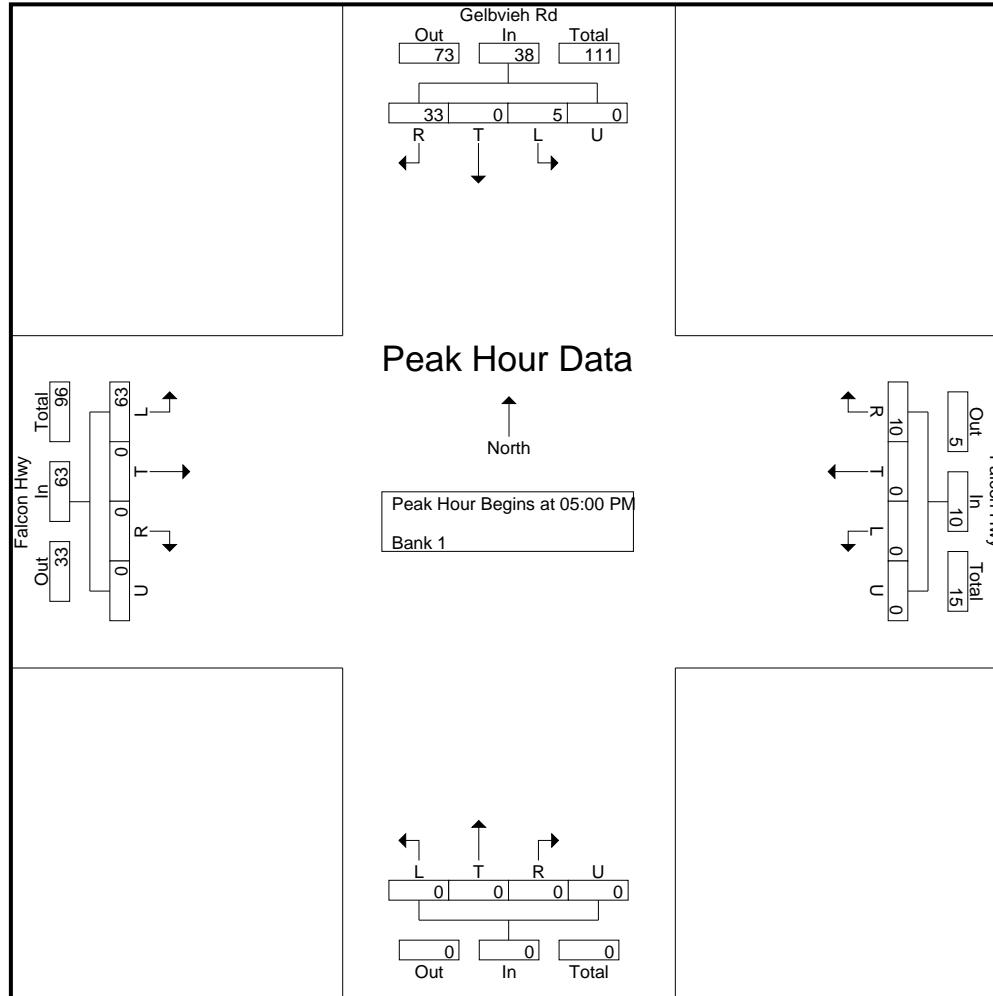
File Name : Gelbvieh Rd - Falcon Hwy PM
 Site Code : S214340
 Start Date : 9/23/2021
 Page No : 2

Start Time	Gelbvieh Rd Southbound					Falcon Hwy Westbound					Northbound					Falcon Hwy Eastbound					Int. Total
	L	T	R	U	App. Total	L	T	R	U	App. Total	L	T	R	U	App. Total	L	T	R	U	App. Total	
Peak Hour Analysis From 4:00:00 PM to 5:45:00 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 5:00:00 PM																					
5:00:00 PM	0	0	8	0	8	0	0	1	0	1	0	0	0	0	0	10	0	0	0	10	19
5:15:00 PM	1	0	6	0	7	0	0	1	0	1	0	0	0	0	0	10	0	0	0	10	18
5:30:00 PM	2	0	7	0	9	0	0	5	0	5	0	0	0	0	0	16	0	0	0	16	30
5:45:00 PM	2	0	12	0	14	0	0	3	0	3	0	0	0	0	0	27	0	0	0	27	44
Total Volume	5	0	33	0	38	0	0	10	0	10	0	0	0	0	0	63	0	0	0	63	111
% App. Total	13.2	0	86.8	0		0	0	100	0		0	0	0	0		100	0	0	0		
PHF	.625	.000	.688	.000	.679	.000	.000	.500	.000	.500	.000	.000	.000	.000	.000	.583	.000	.000	.000	.583	.631

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File Name : Gelbvieh Rd - Falcon Hwy PM
 Site Code : S214340
 Start Date : 9/23/2021
 Page No : 3



LSC Transportation Consultants, Inc.

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

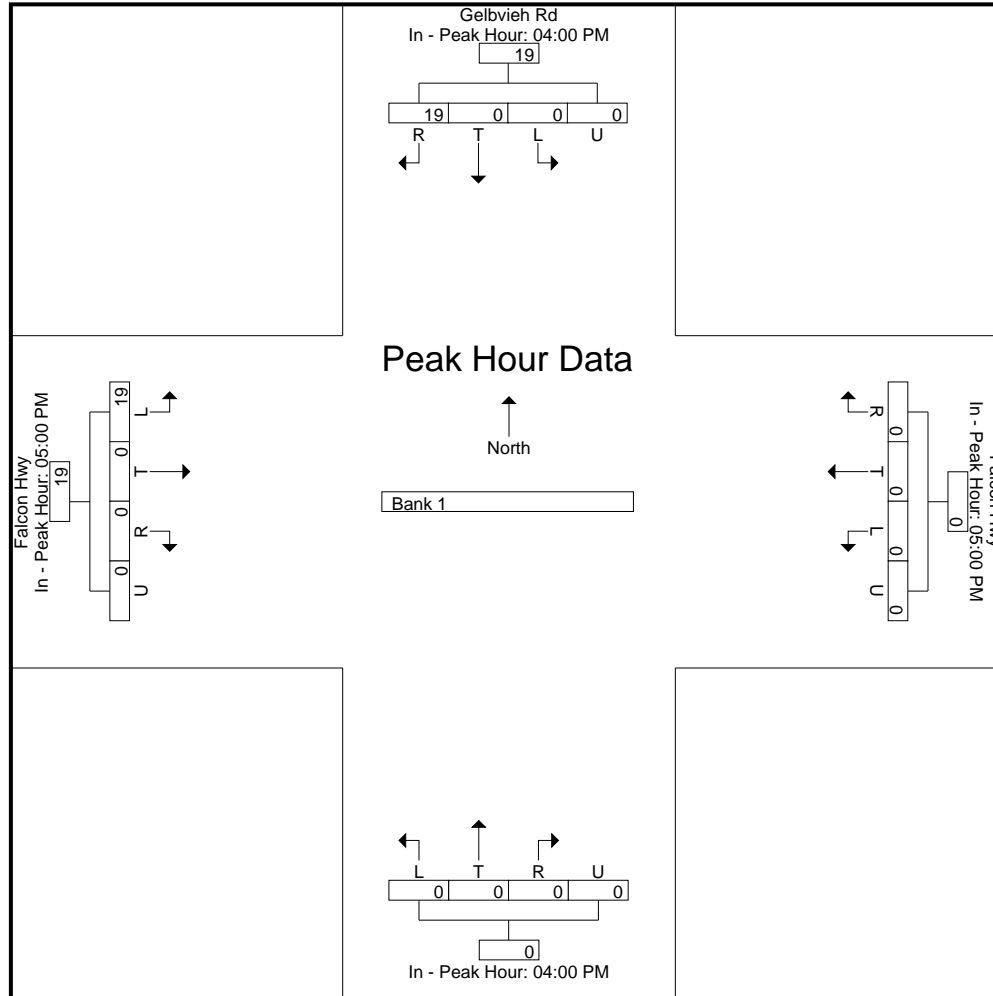
File Name : Gelbvieh Rd - Falcon Hwy PM
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Start Time	Gelbvieh Rd Southbound					Falcon Hwy Westbound					Northbound					Falcon Hwy Eastbound					Int. Total
	L	T	R	U	App. Total	L	T	R	U	App. Total	L	T	R	U	App. Total	L	T	R	U	App. Total	
Peak Hour Analysis From 4:00:00 PM to 5:45:00 PM - Peak 1 of 1																					
Peak Hour for Each Approach Begins at:																					
	4:00:00 PM					5:00:00 PM					4:00:00 PM					5:00:00 PM					
+0 mins.	0	0	14	0	14	0	0	1	0	1	0	0	0	0	0	10	0	0	0	10	
+5 mins.	0	0	11	0	11	0	0	1	0	1	0	0	0	0	0	10	0	0	0	10	
+10 mins.	1	0	10	0	11	0	0	5	0	5	0	0	0	0	0	16	0	0	0	16	
+15 mins.	1	0	11	0	12	0	0	3	0	3	0	0	0	0	0	27	0	0	0	27	
Total Volume	2	0	46	0	48	0	0	10	0	10	0	0	0	0	0	63	0	0	0	63	
% App. Total	4.2	0	95.8	0		0	0	100	0		0	0	0	0		100	0	0	0		
PHF	.500	.000	.821	.000	.857	.000	.000	.500	.000	.500	.000	.000	.000	.000	.000	.583	.000	.000	.000	.583	

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

















Levels of Service



Lanes, Volumes, Timings
2: US 24

Existing
AM Peak Hour

												
Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (vph)	1	27	508	1	110	28	110	428	11	24	758	0
Future Volume (vph)	1	27	508	1	110	28	110	428	11	24	758	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	300		300	300		300	500		500	500		0
Storage Lanes	1		1	1		1	1		1	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850			0.850			0.850			
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	3539	1583	1770	3539	1583	1770	1863	1583	1770	1863	1863
Flt Permitted	0.676			0.737			0.950			0.950		
Satd. Flow (perm)	1259	3539	1583	1373	3539	1583	1770	1863	1583	1770	1863	1863
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			333			127			127			
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		119			583			1391			1034	
Travel Time (s)		2.7			13.3			31.6			23.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	1	29	552	1	120	30	120	465	12	26	824	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	1	29	552	1	120	30	120	465	12	26	824	0
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	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	1	6		5	2		7	4		3	8	
Permitted Phases	6		6	2		2			4			8

Lanes, Volumes, Timings
2: US 24

Existing
AM Peak Hour



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	22.0	22.0	9.5	22.0	22.0	16.0	46.3	46.3	12.2	42.5	42.5
Total Split (%)	10.6%	24.4%	24.4%	10.6%	24.4%	24.4%	17.8%	51.4%	51.4%	13.6%	47.2%	47.2%
Maximum Green (s)	5.0	17.5	17.5	5.0	17.5	17.5	11.5	41.8	41.8	7.7	38.0	38.0
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	C-Max	C-Max	None	C-Max	C-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)	26.1	25.1	25.1	26.1	25.1	25.1	10.2	49.1	49.1	6.7	39.3	
Actuated g/C Ratio	0.29	0.28	0.28	0.29	0.28	0.28	0.11	0.55	0.55	0.07	0.44	
v/c Ratio	0.00	0.03	0.81	0.00	0.12	0.06	0.60	0.46	0.01	0.20	1.01	
Control Delay	12.0	14.8	31.9	22.0	25.9	0.2	50.5	15.6	0.0	44.5	48.0	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	12.0	14.8	31.9	22.0	25.9	0.2	50.5	15.6	0.0	44.5	48.0	
LOS	B	B	C	C	C	A	D	B	A	D	D	
Approach Delay		31.1			20.8			22.3			47.9	
Approach LOS		C			C			C			D	
Queue Length 50th (ft)	0	7	283	0	25	0	65	129	0	13	~511	
Queue Length 95th (ft)	m1	m18	#377	4	54	0	121	273	0	m15	m#602	
Internal Link Dist (ft)		39			503			1311			954	
Turn Bay Length (ft)	300		300	300		300	500		500	500		
Base Capacity (vph)	393	986	682	419	986	532	226	1017	921	151	813	
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	
Reduced v/c Ratio	0.00	0.03	0.81	0.00	0.12	0.06	0.53	0.46	0.01	0.17	1.01	

Intersection Summary

Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	90
Offset:	0 (0%), Referenced to phase 2:NWTL and 6:SETL, Start of Green
Natural Cycle:	90
Control Type:	Actuated-Coordinated
Maximum v/c Ratio:	1.01
Intersection Signal Delay:	34.5
Intersection LOS:	C
Intersection Capacity Utilization:	86.8%
ICU Level of Service:	E
Analysis Period (min):	15

~ Volume exceeds capacity, queue is theoretically infinite.

Lanes, Volumes, Timings
2: US 24

Existing
AM Peak Hour

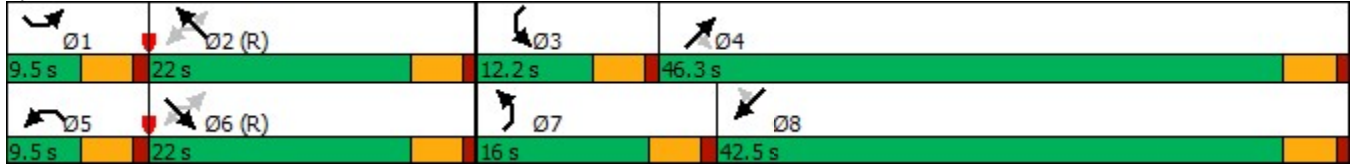
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.























m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 2: US 24



Lanes, Volumes, Timings
3: US 24 & Old Meridian Road/Old Meridian Rd

Existing
AM Peak Hour

												
Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (vph)	3	152	708	21	151	186	124	234	130	167	445	34
Future Volume (vph)	3	152	708	21	151	186	124	234	130	167	445	34
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		25	0		50	500		360	570		550
Storage Lanes	0		1	0		1	1		1	1		1
Taper Length (ft)	25			25			25			25		
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		0.999			0.994		0.950			0.950		
Satd. Flow (prot)	0	1861	1583	0	1852	1583	1770	1863	1583	1770	1863	1583
Flt Permitted		0.999			0.946		0.238			0.454		
Satd. Flow (perm)	0	1861	1583	0	1762	1583	443	1863	1583	846	1863	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			424			177			141			127
Link Speed (mph)		30			30			30				30
Link Distance (ft)		936			1138			1034				1839
Travel Time (s)		21.3			25.9			23.5				41.8
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	3	165	770	23	164	202	135	254	141	182	484	37
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	168	770	0	187	202	135	254	141	182	484	37
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)		0			0			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	1	1	1	1	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	100	20	20	100	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							
Detector 2 Size(ft)		6			6							
Detector 2 Type		Cl+Ex			Cl+Ex							
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0							
Turn Type	Split	NA	pm+ov	Perm	NA	pm+ov	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	4	4	5		3	1	5	2		1	6	
Permitted Phases			4	3		3	2		2	6		6

Lanes, Volumes, Timings
 3: US 24 & Old Meridian Road/Old Meridian Rd

Existing
 AM Peak Hour



Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Detector Phase	4	4	5	3	3	1	5	2	2	1	6	6
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)	22.5	22.5	9.5	22.5	22.5	9.5	9.5	22.5	22.5	9.5	22.5	22.5
Total Split (s)	28.0	28.0	7.0	19.0	19.0	9.0	7.0	34.0	34.0	9.0	36.0	36.0
Total Split (%)	31.1%	31.1%	7.8%	21.1%	21.1%	10.0%	7.8%	37.8%	37.8%	10.0%	40.0%	40.0%
Maximum Green (s)	23.5	23.5	2.5	14.5	14.5	4.5	2.5	29.5	29.5	4.5	31.5	31.5
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)		-0.5	-0.5		-0.5	-0.5	-0.5	-0.5	-0.5	-0.5	-0.5	-0.5
Total Lost Time (s)		4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag	Lead	Lead	Lead	Lag	Lag	Lead	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	Max	Max	None	Max	Max	None	None	C-Max	C-Max	None	C-Max	C-Max
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)		24.0	27.0		15.0	24.0	33.0	30.0	30.0	37.0	32.0	32.0
Actuated g/C Ratio		0.27	0.30		0.17	0.27	0.37	0.33	0.33	0.41	0.36	0.36
v/c Ratio		0.34	1.00		0.64	0.37	0.66	0.41	0.23	0.46	0.73	0.06
Control Delay		29.0	46.2		46.0	8.0	36.5	26.6	12.2	13.0	25.7	0.4
Queue Delay		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay		29.0	46.2		46.0	8.0	36.5	26.6	12.2	13.0	25.7	0.4
LOS		C	D		D	A	D	C	B	B	C	A
Approach Delay		43.1			26.3			25.3			21.1	
Approach LOS		D			C			C			C	
Queue Length 50th (ft)		77	200		100	11	62	142	31	54	277	0
Queue Length 95th (ft)		133	#398		#172	63	#126	228	95	73	400	m0
Internal Link Dist (ft)		856			1058			954			1759	
Turn Bay Length (ft)			25			50	500		360	570		550
Base Capacity (vph)		496	771		293	551	206	621	621	399	662	644
Starvation Cap Reductn		0	0		0	0	0	0	0	0	0	0
Spillback Cap Reductn		0	0		0	0	0	0	0	0	0	0
Storage Cap Reductn		0	0		0	0	0	0	0	0	0	0
Reduced v/c Ratio		0.34	1.00		0.64	0.37	0.66	0.41	0.23	0.46	0.73	0.06

Intersection Summary

Area Type: Other
 Cycle Length: 90
 Actuated Cycle Length: 90
 Offset: 87 (97%), Referenced to phase 2:NETL and 6:SWTL, Start of Green
 Natural Cycle: 90
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 1.00
 Intersection Signal Delay: 30.8 Intersection LOS: C
 Intersection Capacity Utilization 86.4% ICU Level of Service E
 Analysis Period (min) 15
 # 95th percentile volume exceeds capacity, queue may be longer.

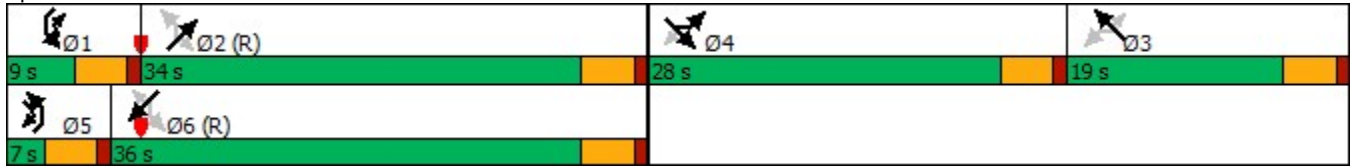
Lanes, Volumes, Timings
 3: US 24 & Old Meridian Road/Old Meridian Rd

Existing
 AM Peak Hour

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 3: US 24 & Old Meridian Road/Old Meridian Rd



HCM 6th TWSC
4: Old Meridian Road & Swingline Rd

Existing
AM Peak Hour

Intersection						
Int Delay, s/veh	1.6					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↘	↗	↑	↗	↘	↑
Traffic Vol, veh/h	0	21	200	20	75	119
Future Vol, veh/h	0	21	200	20	75	119
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	0	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	75	75	59	59	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	28	339	34	82	129

Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	632	339	0	0	373	0
Stage 1	339	-	-	-	-	-
Stage 2	293	-	-	-	-	-
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	444	703	-	-	1185	-
Stage 1	722	-	-	-	-	-
Stage 2	757	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	413	703	-	-	1185	-
Mov Cap-2 Maneuver	413	-	-	-	-	-
Stage 1	722	-	-	-	-	-
Stage 2	705	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	10.3	0	3.2
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1WBLn2	SBL	SBT
Capacity (veh/h)	-	-	703	1185
HCM Lane V/C Ratio	-	-	0.04	0.069
HCM Control Delay (s)	-	-	0	10.3
HCM Lane LOS	-	-	A	B
HCM 95th %tile Q(veh)	-	-	0.1	0.2

HCM 6th TWSC
5: Old Meridian Road & Falcon Highway

Existing
AM Peak Hour

Intersection												
Int Delay, s/veh	10.8											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	7	66	1	10	158	194	1	64	6	202	45	2
Future Vol, veh/h	7	66	1	10	158	194	1	64	6	202	45	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	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	69	69	69	89	89	89	85	85	85	84	84	84
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	10	96	1	11	178	218	1	75	7	240	54	2

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	396	0	0	97	0	0	454	535	97	467	426	287
Stage 1	-	-	-	-	-	-	117	117	-	309	309	-
Stage 2	-	-	-	-	-	-	337	418	-	158	117	-
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	1163	-	-	1496	-	-	516	452	959	506	520	752
Stage 1	-	-	-	-	-	-	888	799	-	701	660	-
Stage 2	-	-	-	-	-	-	677	591	-	844	799	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1163	-	-	1496	-	-	466	443	959	431	510	752
Mov Cap-2 Maneuver	-	-	-	-	-	-	466	443	-	431	510	-
Stage 1	-	-	-	-	-	-	880	792	-	695	653	-
Stage 2	-	-	-	-	-	-	613	585	-	751	792	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.8			0.2			14.5			27.8		
HCM LOS							B			D		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	464	1163	-	-	1496	-	-	445
HCM Lane V/C Ratio	0.18	0.009	-	-	0.008	-	-	0.666
HCM Control Delay (s)	14.5	8.1	0	-	7.4	0	-	27.8
HCM Lane LOS	B	A	A	-	A	A	-	D
HCM 95th %tile Q(veh)	0.7	0	-	-	0	-	-	4.8

HCM 6th TWSC
6: Falcon Highway & Falcon Elementary West Access

Existing
AM Peak Hour

Intersection						
Int Delay, s/veh	1.1					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↔	↔		↔	
Traffic Vol, veh/h	27	69	284	13	1	12
Future Vol, veh/h	27	69	284	13	1	12
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	71	71	71	71	46	46
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	38	97	400	18	2	26

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	418	0	-	0	582 409
Stage 1	-	-	-	-	409 -
Stage 2	-	-	-	-	173 -
Critical Hdwy	4.12	-	-	-	6.42 6.22
Critical Hdwy Stg 1	-	-	-	-	5.42 -
Critical Hdwy Stg 2	-	-	-	-	5.42 -
Follow-up Hdwy	2.218	-	-	-	3.518 3.318
Pot Cap-1 Maneuver	1141	-	-	-	475 642
Stage 1	-	-	-	-	671 -
Stage 2	-	-	-	-	857 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1141	-	-	-	458 642
Mov Cap-2 Maneuver	-	-	-	-	458 -
Stage 1	-	-	-	-	648 -
Stage 2	-	-	-	-	857 -

Approach	EB	WB	SB
HCM Control Delay, s	2.3	0	11.1
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1141	-	-	-	623
HCM Lane V/C Ratio	0.033	-	-	-	0.045
HCM Control Delay (s)	8.3	0	-	-	11.1
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0.1	-	-	-	0.1

HCM 6th TWSC
 8: Falcon Highway & Falcon Elementary East Access

Existing
 AM Peak Hour

Intersection						
Int Delay, s/veh	4.1					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑	↑		↑	↑
Traffic Vol, veh/h	0	70	222	0	25	75
Future Vol, veh/h	0	70	222	0	25	75
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	80	80	71	71	45	45
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	88	313	0	56	167

























Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	-	0	-	0	401 313
Stage 1	-	-	-	-	313 -
Stage 2	-	-	-	-	88 -
Critical Hdwy	-	-	-	-	6.42 6.22
Critical Hdwy Stg 1	-	-	-	-	5.42 -
Critical Hdwy Stg 2	-	-	-	-	5.42 -
Follow-up Hdwy	-	-	-	-	3.518 3.318
Pot Cap-1 Maneuver	0	-	-	0	605 727
Stage 1	0	-	-	0	741 -
Stage 2	0	-	-	0	935 -
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	-	-	605 727
Mov Cap-2 Maneuver	-	-	-	-	605 -
Stage 1	-	-	-	-	741 -
Stage 2	-	-	-	-	935 -

Approach	EB	WB	SB
HCM Control Delay, s	0	0	11.5
HCM LOS			B

Minor Lane/Major Mvmt	EBT	WBT	SBLn1	SBLn2
Capacity (veh/h)	-	-	605	727
HCM Lane V/C Ratio	-	-	0.092	0.229
HCM Control Delay (s)	-	-	11.6	11.4
HCM Lane LOS	-	-	B	B
HCM 95th %tile Q(veh)	-	-	0.3	0.9

Lanes, Volumes, Timings
2: US 24 & Old Meridian Rd

Existing
PM Peak Hour

												
Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (vph)	17	159	165	1	336	85	290	605	1	51	492	3
Future Volume (vph)	17	159	165	1	336	85	290	605	1	51	492	3
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	300		300	300		300	500		500	500		0
Storage Lanes	1		1	1		1	1		1	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	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	3539	1583	1770	3539	1583	1770	1863	1583	1770	1863	1583
Flt Permitted	0.534			0.496			0.950			0.950		
Satd. Flow (perm)	995	3539	1583	924	3539	1583	1770	1863	1583	1770	1863	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			182			182			182			236
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		119			839			1393			1032	
Travel Time (s)		2.7			19.1			31.7			23.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	18	173	179	1	365	92	315	658	1	55	535	3
Shared Lane Traffic (%)												
Lane Group Flow (vph)	18	173	179	1	365	92	315	658	1	55	535	3
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	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	1	6		5	2		7	4		3	8	
Permitted Phases	6		6	2		2			4			8

Lanes, Volumes, Timings
2: US 24 & Old Meridian Rd

Existing
PM Peak Hour



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	25.5	44.5	44.5	15.0	34.0	34.0
Total Split (%)	10.6%	23.3%	23.3%	10.6%	23.3%	23.3%	28.3%	49.4%	49.4%	16.7%	37.8%	37.8%
Maximum Green (s)	5.0	16.5	16.5	5.0	16.5	16.5	21.0	40.0	40.0	10.5	29.5	29.5
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	Lag	Lag	Lag	Lead	Lead	Lead	Lag	Lead	Lead	Lag	Lead	Lead
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	C-Max	C-Max	None	C-Max	C-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)	27.1	27.1	27.1	25.2	25.2	25.2	19.2	37.4	37.4	12.1	28.2	28.2
Actuated g/C Ratio	0.30	0.30	0.30	0.28	0.28	0.28	0.21	0.42	0.42	0.13	0.31	0.31
v/c Ratio	0.05	0.16	0.30	0.00	0.37	0.16	0.83	0.85	0.00	0.23	0.92	0.00
Control Delay	16.1	12.6	3.7	30.0	29.7	0.6	53.3	36.3	0.0	38.7	46.8	0.0
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	12.6	3.7	30.0	29.7	0.6	53.3	36.3	0.0	38.7	46.8	0.0
LOS	B	B	A	C	C	A	D	D	A	D	D	A
Approach Delay		8.5			23.9			41.8			45.8	
Approach LOS		A			C			D			D	
Queue Length 50th (ft)	2	6	0	0	86	0	168	321	0	28	321	0
Queue Length 95th (ft)	m14	63	89	5	146	0	#291	#466	0	m51	#486	m0
Internal Link Dist (ft)		39			759			1313			952	
Turn Bay Length (ft)	300		300	300		300	500		500	500		
Base Capacity (vph)	343	1067	604	307	992	574	413	839	813	257	610	677
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.05	0.16	0.30	0.00	0.37	0.16	0.76	0.78	0.00	0.21	0.88	0.00

Intersection Summary

Area Type: Other
 Cycle Length: 90
 Actuated Cycle Length: 90
 Offset: 16 (18%), Referenced to phase 2:NWTL and 6:SETL, Start of Green
 Natural Cycle: 90
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.92
 Intersection Signal Delay: 34.2 Intersection LOS: C
 Intersection Capacity Utilization 67.3% ICU Level of Service C
 Analysis Period (min) 15
 # 95th percentile volume exceeds capacity, queue may be longer.

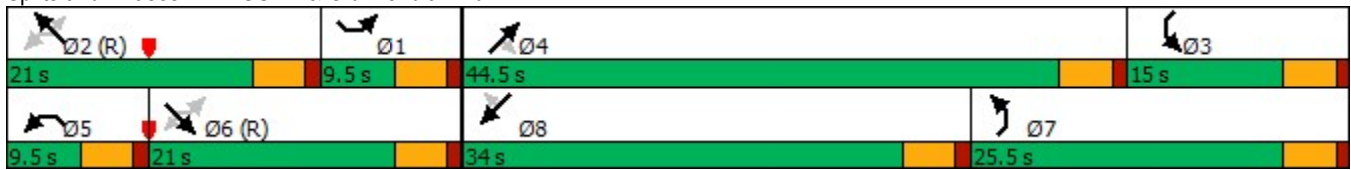
Lanes, Volumes, Timings
 2: US 24 & Old Meridian Rd

Existing
 PM Peak Hour

Queue shown is maximum after two cycles.























m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 2: US 24 & Old Meridian Rd



Lanes, Volumes, Timings
3: US 24 & Old Meridian Road/Old Meridian Rd

Existing
PM Peak Hour

												
Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (vph)	22	215	202	4	165	192	473	614	130	70	268	10
Future Volume (vph)	22	215	202	4	165	192	473	614	130	70	268	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		25	0		50	500		360	570		550
Storage Lanes	0		1	0		1	1		1	1		1
Taper Length (ft)	25			25			25			25		
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		0.995			0.999		0.950			0.950		
Satd. Flow (prot)	0	1853	1583	0	1861	1583	1770	1863	1583	1770	1863	1583
Flt Permitted		0.995			0.574		0.252			0.224		
Satd. Flow (perm)	0	1853	1583	0	1069	1583	469	1863	1583	417	1863	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			119			182			141			182
Link Speed (mph)		30			30			30				30
Link Distance (ft)		936			1136			1032				1839
Travel Time (s)		21.3			25.8			23.5				41.8
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	24	234	220	4	179	209	514	667	141	76	291	11
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	258	220	0	183	209	514	667	141	76	291	11
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)		0			0			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	Split	NA	pm+ov	Perm	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	4	4	5	3	3	3	5	2	2	1	6	6
Permitted Phases			4	3		3	2		2	6		6

Lanes, Volumes, Timings
3: US 24 & Old Meridian Road/Old Meridian Rd

Existing
PM Peak Hour



Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Detector Phase	4	4	5	3	3	3	5	2	2	1	6	6
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)	22.5	22.5	9.5	22.5	22.5	22.5	9.5	22.5	22.5	9.5	22.5	22.5
Total Split (s)	18.0	18.0	25.0	23.0	23.0	23.0	25.0	41.0	41.0	8.0	24.0	24.0
Total Split (%)	20.0%	20.0%	27.8%	25.6%	25.6%	25.6%	27.8%	45.6%	45.6%	8.9%	26.7%	26.7%
Maximum Green (s)	13.5	13.5	20.5	18.5	18.5	18.5	20.5	36.5	36.5	3.5	19.5	19.5
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
Total Lost Time (s)		4.5	4.5		4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lag	Lag	Lead	Lead	Lead	Lead	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	Max	Max	None	Max	Max	Max	None	C-Max	C-Max	None	C-Max	C-Max
Walk Time (s)	7.0	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	11.0
Pedestrian Calls (#/hr)	0	0		0	0	0		0	0		0	0
Act Effct Green (s)		13.5	38.5		18.5	18.5	44.5	38.1	38.1	23.0	19.5	19.5
Actuated g/C Ratio		0.15	0.43		0.21	0.21	0.49	0.42	0.42	0.26	0.22	0.22
v/c Ratio		0.93	0.30		0.84	0.45	0.97	0.85	0.19	0.48	0.72	0.02
Control Delay		79.0	8.9		66.5	10.3	48.2	32.4	2.5	29.6	50.5	0.1
Queue Delay		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay		79.0	8.9		66.5	10.3	48.2	32.4	2.5	29.6	50.5	0.1
LOS		E	A		E	B	D	C	A	C	D	A
Approach Delay		46.7			36.5			35.4			44.8	
Approach LOS		D			D			D			D	
Queue Length 50th (ft)		147	34		101	13	215	389	12	34	170	0
Queue Length 95th (ft)		#292	81		#218	71	m#394	#570	m20	m62	#267	m0
Internal Link Dist (ft)		856			1056			952			1759	
Turn Bay Length (ft)			25			50	500		360	570		550
Base Capacity (vph)		277	745		219	469	528	788	751	159	403	485
Starvation Cap Reductn		0	0		0	0	0	0	0	0	0	0
Spillback Cap Reductn		0	0		0	0	0	0	0	0	0	0
Storage Cap Reductn		0	0		0	0	0	0	0	0	0	0
Reduced v/c Ratio		0.93	0.30		0.84	0.45	0.97	0.85	0.19	0.48	0.72	0.02

Intersection Summary

Area Type: Other
 Cycle Length: 90
 Actuated Cycle Length: 90
 Offset: 6 (7%), Referenced to phase 2:NETL and 6:SWTL, Start of Green
 Natural Cycle: 90
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.97
 Intersection Signal Delay: 39.0 Intersection LOS: D
 Intersection Capacity Utilization 76.7% ICU Level of Service D
 Analysis Period (min) 15
 # 95th percentile volume exceeds capacity, queue may be longer.

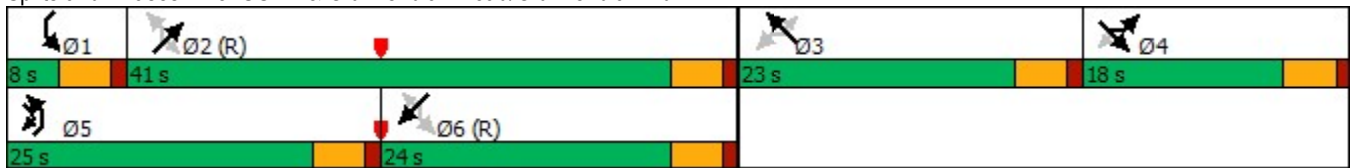
Lanes, Volumes, Timings
 3: US 24 & Old Meridian Road/Old Meridian Rd

Existing
 PM Peak Hour

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 3: US 24 & Old Meridian Road/Old Meridian Rd



HCM 6th TWSC
4: Old Meridian Road & Swingline Rd

Existing
PM Peak Hour

Intersection						
Int Delay, s/veh	0.9					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↘	↗	↑	↗	↘	↑
Traffic Vol, veh/h	0	30	329	2	28	207
Future Vol, veh/h	0	30	329	2	28	207
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	0	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	83	83	80	80	82	82
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	36	411	3	34	252

Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	731	411	0	0	414	0
Stage 1	411	-	-	-	-	-
Stage 2	320	-	-	-	-	-
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	389	641	-	-	1145	-
Stage 1	669	-	-	-	-	-
Stage 2	736	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	377	641	-	-	1145	-
Mov Cap-2 Maneuver	377	-	-	-	-	-
Stage 1	669	-	-	-	-	-
Stage 2	714	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	11	0	1
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	WBLn2	SBL	SBT	
Capacity (veh/h)	-	-	-	641	1145	-
HCM Lane V/C Ratio	-	-	-	0.056	0.03	-
HCM Control Delay (s)	-	-	0	11	8.2	-
HCM Lane LOS	-	-	A	B	A	-
HCM 95th %tile Q(veh)	-	-	-	0.2	0.1	-

HCM 6th TWSC
5: Old Meridian Road & Falcon Highway

Existing
PM Peak Hour

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	4	34	2	2	64	253	3	82	18	176	96	3
Future Vol, veh/h	4	34	2	2	64	253	3	82	18	176	96	3
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	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	71	71	71	91	91	91	86	86	86	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	6	48	3	2	70	278	3	95	21	191	104	3

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	348	0	0	51	0	0	329	414	50	333	276	209
Stage 1	-	-	-	-	-	-	62	62	-	213	213	-
Stage 2	-	-	-	-	-	-	267	352	-	120	63	-
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	1211	-	-	1555	-	-	624	529	1018	620	632	831
Stage 1	-	-	-	-	-	-	949	843	-	789	726	-
Stage 2	-	-	-	-	-	-	738	632	-	884	842	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1211	-	-	1555	-	-	539	525	1018	520	628	831
Mov Cap-2 Maneuver	-	-	-	-	-	-	539	525	-	520	628	-
Stage 1	-	-	-	-	-	-	944	839	-	785	725	-
Stage 2	-	-	-	-	-	-	628	631	-	764	838	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.8			0			12.9			18.7		
HCM LOS							B			C		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	574	1211	-	-	1555	-	-	556
HCM Lane V/C Ratio	0.209	0.005	-	-	0.001	-	-	0.538
HCM Control Delay (s)	12.9	8	0	-	7.3	0	-	18.7
HCM Lane LOS	B	A	A	-	A	A	-	C
HCM 95th %tile Q(veh)	0.8	0	-	-	0	-	-	3.2

HCM 6th TWSC
 6: Falcon Highway & Falcon Elementary West Access

Existing
 PM Peak Hour

Intersection						
Int Delay, s/veh	0					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↶	↷		↶	
Traffic Vol, veh/h	0	0	0	0	0	0
Future Vol, veh/h	0	0	0	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	71	71	71	71	46	46
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	0	0	0	0

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	1	0	-	0	1 1
Stage 1	-	-	-	-	1 -
Stage 2	-	-	-	-	0 -
Critical Hdwy	4.12	-	-	-	6.42 6.22
Critical Hdwy Stg 1	-	-	-	-	5.42 -
Critical Hdwy Stg 2	-	-	-	-	5.42 -
Follow-up Hdwy	2.218	-	-	-	3.518 3.318
Pot Cap-1 Maneuver	1622	-	-	-	1022 1084
Stage 1	-	-	-	-	1022 -
Stage 2	-	-	-	-	- -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1622	-	-	-	1022 1084
Mov Cap-2 Maneuver	-	-	-	-	1022 -
Stage 1	-	-	-	-	1022 -
Stage 2	-	-	-	-	- -

Approach	EB	WB	SB
HCM Control Delay, s	0	0	0
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1622	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-	-
HCM Control Delay (s)	0	-	-	-	0
HCM Lane LOS	A	-	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	-

Lanes, Volumes, Timings
1: US 24 & Falcon Hwy

Short Term Background
PM Peak Hour



Lane Group	WBL	WBR	NET	NER	SWL	SWT
Lane Configurations						
Traffic Volume (vph)	75	5	1055	40	5	660
Future Volume (vph)	75	5	1055	40	5	660
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Fr _t	0.992			0.850		
Fl _t Protected	0.955				0.950	
Satd. Flow (prot)	1765	0	1863	1583	1770	1863
Fl _t Permitted	0.955				0.190	
Satd. Flow (perm)	1765	0	1863	1583	354	1863
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)	2			43		
Link Speed (mph)	30		30			30
Link Distance (ft)	2795		731			2552
Travel Time (s)	63.5		16.6			58.0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	82	5	1147	43	5	717
Shared Lane Traffic (%)						
Lane Group Flow (vph)	87	0	1147	43	5	717
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	12		24			24
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Number of Detectors	1		2	1	1	2
Detector Template	Left		Thru	Right	Left	Thru
Leading Detector (ft)	20		100	20	20	100
Trailing Detector (ft)	0		0	0	0	0
Detector 1 Position(ft)	0		0	0	0	0
Detector 1 Size(ft)	20		6	20	20	6
Detector 1 Type	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
Detector 1 Queue (s)	0.0		0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0		0.0	0.0	0.0	0.0
Detector 2 Position(ft)			94			94
Detector 2 Size(ft)			6			6
Detector 2 Type			Cl+Ex			Cl+Ex
Detector 2 Channel						
Detector 2 Extend (s)			0.0			0.0
Turn Type	Prot		NA	Perm	Perm	NA
Protected Phases	8		2			6
Permitted Phases				2	6	
Detector Phase	8		2	2	6	6
Switch Phase						
Minimum Initial (s)	5.0		5.0	5.0	5.0	5.0

Lanes, Volumes, Timings
1: US 24 & Falcon Hwy

Short Term Background
PM Peak Hour

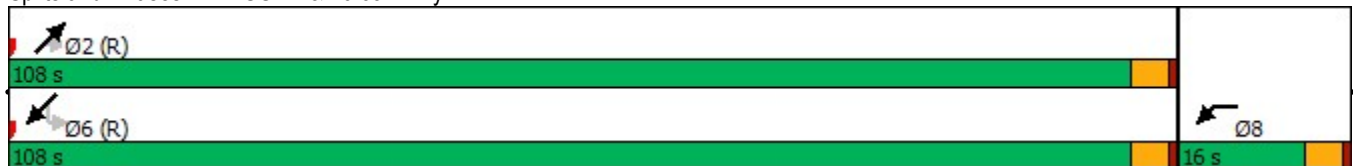


Lane Group	WBL	WBR	NET	NER	SWL	SWT
Minimum Split (s)	22.5		22.5	22.5	22.5	22.5
Total Split (s)	16.0		108.0	108.0	108.0	108.0
Total Split (%)	12.9%		87.1%	87.1%	87.1%	87.1%
Maximum Green (s)	11.5		103.5	103.5	103.5	103.5
Yellow Time (s)	3.5		3.5	3.5	3.5	3.5
All-Red Time (s)	1.0		1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0		0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5		4.5	4.5	4.5	4.5
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)	3.0		3.0	3.0	3.0	3.0
Recall Mode	None		C-Max	C-Max	C-Max	C-Max
Walk Time (s)	7.0		7.0	7.0	7.0	7.0
Flash Dont Walk (s)	11.0		11.0	11.0	11.0	11.0
Pedestrian Calls (#/hr)	0		0	0	0	0
Act Effct Green (s)	10.1		104.9	104.9	104.9	104.9
Actuated g/C Ratio	0.08		0.85	0.85	0.85	0.85
v/c Ratio	0.60		0.73	0.03	0.02	0.46
Control Delay	70.3		7.4	0.6	1.8	3.6
Queue Delay	0.0		0.0	0.0	0.0	0.0
Total Delay	70.3		7.4	0.6	1.8	3.6
LOS	E		A	A	A	A
Approach Delay	70.3		7.2			3.5
Approach LOS	E		A			A
Queue Length 50th (ft)	66		297	0	0	116
Queue Length 95th (ft)	122		437	5	3	161
Internal Link Dist (ft)	2715		651			2472
Turn Bay Length (ft)						
Base Capacity (vph)	165		1575	1345	299	1575
Starvation Cap Reductn	0		0	0	0	0
Spillback Cap Reductn	0		0	0	0	0
Storage Cap Reductn	0		0	0	0	0
Reduced v/c Ratio	0.53		0.73	0.03	0.02	0.46

Intersection Summary

























Area Type: Other
 Cycle Length: 124
 Actuated Cycle Length: 124
 Offset: 0 (0%), Referenced to phase 2:NET and 6:SWTL, Start of Green
 Natural Cycle: 80
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.73
 Intersection Signal Delay: 8.6
 Intersection Capacity Utilization 67.5%
 Analysis Period (min) 15
 Intersection LOS: A
 ICU Level of Service C

Splits and Phases: 1: US 24 & Falcon Hwy















Lanes, Volumes, Timings
2: US 24 & Meridian Rd

Short Term Background
PM Peak Hour

												
Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (vph)	5	340	85	20	210	165	290	765	10	85	495	5
Future Volume (vph)	5	340	85	20	210	165	290	765	10	85	495	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	300		300	300		300	500		500	500		500
Storage Lanes	1		1	1		1	1		1	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	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	3539	1583	1770	3539	1583	1770	1863	1583	1770	1863	1583
Flt Permitted	0.535			0.358			0.950			0.950		
Satd. Flow (perm)	997	3539	1583	667	3539	1583	1770	1863	1583	1770	1863	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			136			179			95			95
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		800			120			2552			1042	
Travel Time (s)		18.2			2.7			58.0			23.7	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	5	370	92	22	228	179	315	832	11	92	538	5
Shared Lane Traffic (%)												
Lane Group Flow (vph)	5	370	92	22	228	179	315	832	11	92	538	5
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	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	5	2		1	6		7	4		3	8	
Permitted Phases	2		2	6		6			4			8

Lanes, Volumes, Timings
2: US 24 & Meridian Rd

Short Term Background
PM Peak Hour

												
Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NET	NER	SWL	SWT	SWR
Detector Phase	5	2	2	1	6	6	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)	12.0	24.0	24.0	12.0	24.0	24.0	48.4	62.0	62.0	22.0	35.6	35.6
Total Split (%)	10.0%	20.0%	20.0%	10.0%	20.0%	20.0%	40.3%	51.7%	51.7%	18.3%	29.7%	29.7%
Maximum Green (s)	7.5	19.5	19.5	7.5	19.5	19.5	43.9	57.5	57.5	17.5	31.1	31.1
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	Lag	Lead	Lead	Lag	Lead	Lead	Lag	Lag	Lag	Lead	Lead	Lead
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	C-Max	C-Max	None	C-Max	C-Max
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)	25.0	19.5	19.5	26.8	23.5	23.5	43.9	69.4	69.4	11.6	37.1	37.1
Actuated g/C Ratio	0.21	0.16	0.16	0.22	0.20	0.20	0.37	0.58	0.58	0.10	0.31	0.31
v/c Ratio	0.02	0.64	0.25	0.11	0.33	0.39	0.49	0.77	0.01	0.54	0.94	0.01
Control Delay	34.8	52.8	3.7	37.5	39.6	19.1	32.5	27.4	0.0	51.3	50.9	0.0
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	34.8	52.8	3.7	37.5	39.6	19.1	32.5	27.4	0.0	51.3	50.9	0.0
LOS	C	D	A	D	D	B	C	C	A	D	D	A
Approach Delay		43.0			30.9			28.5			50.5	
Approach LOS		D			C			C			D	
Queue Length 50th (ft)	3	142	0	17	93	67	187	508	0	48	~462	0
Queue Length 95th (ft)	14	196	16	m29	m128	m112	275	#822	0	m75	#684	m0
Internal Link Dist (ft)		720			40			2472			962	
Turn Bay Length (ft)	300		300	300		300	500		500	500		500
Base Capacity (vph)	272	575	371	229	693	454	647	1077	955	258	575	554
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.02	0.64	0.25	0.10	0.33	0.39	0.49	0.77	0.01	0.36	0.94	0.01

Intersection Summary

Area Type: Other
 Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 95 (79%), Referenced to phase 4:NET and 8:SWT, Start of Green
 Natural Cycle: 90
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.94
 Intersection Signal Delay: 36.6
 Intersection LOS: D
 Intersection Capacity Utilization 72.8%
 ICU Level of Service C
 Analysis Period (min) 15

~ Volume exceeds capacity, queue is theoretically infinite.

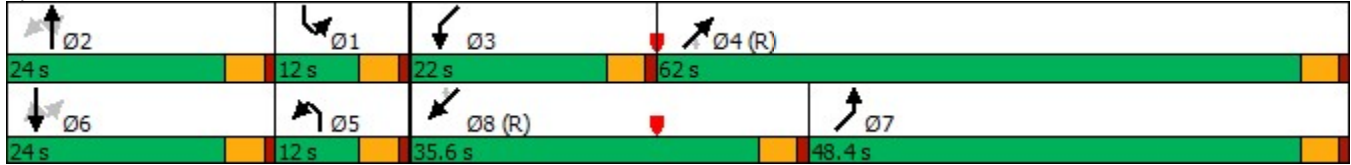
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.



















m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 2: US 24 & Meridian Rd



Lanes, Volumes, Timings
3: US 24 & Old Meridian Rd

Short Term Background
PM Peak Hour

												
Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (vph)	0	0	40	0	0	85	0	770	100	0	515	5
Future Volume (vph)	0	0	40	0	0	85	0	770	100	0	515	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		25	0		0	500		500	570		550
Storage Lanes	0		0	0		1	0		1	0		1
Taper Length (ft)	25			25			25			25		
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			0.865			0.865			0.850			0.850
Flt Protected												
Satd. Flow (prot)	0	0	1611	0	0	1611	0	1863	1583	0	1863	1583
Flt Permitted												
Satd. Flow (perm)	0	0	1611	0	0	1611	0	1863	1583	0	1863	1583
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		936			1141			1042			1839	
Travel Time (s)		21.3			25.9			23.7			41.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	43	0	0	92	0	837	109	0	560	5
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	43	0	0	92	0	837	109	0	560	5
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)		0			0			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
Sign Control		Stop			Stop			Free			Free	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization	52.5%						ICU Level of Service A					
Analysis Period (min)	15											

Intersection						
Int Delay, s/veh	2					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↘	↗	↑↑	↗	↘	↑↑
Traffic Vol, veh/h	10	60	320	15	85	220
Future Vol, veh/h	10	60	320	15	85	220
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	0	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	11	65	348	16	92	239

Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	652	174	0	0	364	0
Stage 1	348	-	-	-	-	-
Stage 2	304	-	-	-	-	-
Critical Hdwy	6.84	6.94	-	-	4.14	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	-	-	2.22	-
Pot Cap-1 Maneuver	401	839	-	-	1191	-
Stage 1	686	-	-	-	-	-
Stage 2	722	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	370	839	-	-	1191	-
Mov Cap-2 Maneuver	370	-	-	-	-	-
Stage 1	686	-	-	-	-	-
Stage 2	666	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	10.5	0	2.3
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	370	839	1191
HCM Lane V/C Ratio	-	-	0.029	0.078	0.078
HCM Control Delay (s)	-	-	15	9.7	8.3
HCM Lane LOS	-	-	C	A	A
HCM 95th %tile Q(veh)	-	-	0.1	0.3	0.3

Intersection												
Int Delay, s/veh	7.8											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	4	35	2	2	65	185	3	85	20	130	100	3
Future Vol, veh/h	4	35	2	2	65	185	3	85	20	130	100	3
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	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	71	71	71	91	91	91	86	86	86	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	6	49	3	2	71	203	3	99	23	141	109	3

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	274	0	0	52	0	0	296	341	51	301	241	173
Stage 1	-	-	-	-	-	-	63	63	-	177	177	-
Stage 2	-	-	-	-	-	-	233	278	-	124	64	-
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	1289	-	-	1554	-	-	656	581	1017	651	660	871
Stage 1	-	-	-	-	-	-	948	842	-	825	753	-
Stage 2	-	-	-	-	-	-	770	680	-	880	842	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1289	-	-	1554	-	-	567	577	1017	549	655	871
Mov Cap-2 Maneuver	-	-	-	-	-	-	567	577	-	549	655	-
Stage 1	-	-	-	-	-	-	943	838	-	821	751	-
Stage 2	-	-	-	-	-	-	655	679	-	755	838	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.8			0.1			12.2			15.5		
HCM LOS							B			C		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	627	1289	-	-	1554	-	-	593
HCM Lane V/C Ratio	0.2	0.004	-	-	0.001	-	-	0.427
HCM Control Delay (s)	12.2	7.8	0	-	7.3	0	-	15.5
HCM Lane LOS	B	A	A	-	A	A	-	C
HCM 95th %tile Q(veh)	0.7	0	-	-	0	-	-	2.1

Intersection						
Int Delay, s/veh	0.3					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↔	↔		↔	↔
Traffic Vol, veh/h	5	165	265	5	2	10
Future Vol, veh/h	5	165	265	5	2	10
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	5	179	288	5	2	11

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	293	0	0	480	291
Stage 1	-	-	-	291	-
Stage 2	-	-	-	189	-
Critical Hdwy	4.12	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	3.518	3.318
Pot Cap-1 Maneuver	1269	-	-	545	748
Stage 1	-	-	-	759	-
Stage 2	-	-	-	843	-
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	1269	-	-	543	748
Mov Cap-2 Maneuver	-	-	-	543	-
Stage 1	-	-	-	756	-
Stage 2	-	-	-	843	-

Approach	EB	WB	SB
HCM Control Delay, s	0.2	0	10.2
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	1269	-	-	-	543	748
HCM Lane V/C Ratio	0.004	-	-	-	0.004	0.015
HCM Control Delay (s)	7.8	0	-	-	11.7	9.9
HCM Lane LOS	A	A	-	-	B	A
HCM 95th %tile Q(veh)	0	-	-	-	0	0

HCM 6th Roundabout
7: Old Meridian Road/Old Meridian Rd & Swingline Rd

Short Term Background
PM Peak Hour

Intersection				
Intersection Delay, s/veh	3.6			
Intersection LOS	A			
Approach	EB	WB	NB	SB
Entry Lanes	1	1	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	108	102	78	121
Demand Flow Rate, veh/h	110	104	79	124
Vehicles Circulating, veh/h	126	81	75	80
Vehicles Exiting, veh/h	78	73	161	105
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	3.8	3.5	3.4	3.7
Approach LOS	A	A	A	A
Lane	Left	Left	Left	Left
Designated Moves	LTR	LTR	LTR	LTR
Assumed Moves	LTR	LTR	LTR	LTR
RT Channelized				
Lane Util	1.000	1.000	1.000	1.000
Follow-Up Headway, s	2.609	2.609	2.609	2.609
Critical Headway, s	4.976	4.976	4.976	4.976
Entry Flow, veh/h	110	104	79	124
Cap Entry Lane, veh/h	1213	1270	1278	1272
Entry HV Adj Factor	0.984	0.985	0.981	0.977
Flow Entry, veh/h	108	102	78	121
Cap Entry, veh/h	1194	1252	1254	1243
V/C Ratio	0.091	0.082	0.062	0.098
Control Delay, s/veh	3.8	3.5	3.4	3.7
LOS	A	A	A	A
95th %tile Queue, veh	0	0	0	0

Lanes, Volumes, Timings
1: US 24 & Falcon Highway

Short Term Total
PM Peak Hour



Lane Group	WBL	WBR	NET	NER	SWL	SWT
Lane Configurations						
Traffic Volume (vph)	96	5	1082	40	5	681
Future Volume (vph)	96	5	1082	40	5	681
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Fr _t	0.994			0.850		
Fl _t Protected	0.954				0.950	
Satd. Flow (prot)	1766	0	1863	1583	1770	1863
Fl _t Permitted	0.954				0.147	
Satd. Flow (perm)	1766	0	1863	1583	274	1863
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)	2			43		
Link Speed (mph)	30		30			30
Link Distance (ft)	2848		977			2578
Travel Time (s)	64.7		22.2			58.6
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	104	5	1176	43	5	740
Shared Lane Traffic (%)						
Lane Group Flow (vph)	109	0	1176	43	5	740
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	12		24			24
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Number of Detectors	1		2	1	1	2
Detector Template	Left		Thru	Right	Left	Thru
Leading Detector (ft)	20		100	20	20	100
Trailing Detector (ft)	0		0	0	0	0
Detector 1 Position(ft)	0		0	0	0	0
Detector 1 Size(ft)	20		6	20	20	6
Detector 1 Type	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
Detector 1 Queue (s)	0.0		0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0		0.0	0.0	0.0	0.0
Detector 2 Position(ft)			94			94
Detector 2 Size(ft)			6			6
Detector 2 Type			Cl+Ex			Cl+Ex
Detector 2 Channel						
Detector 2 Extend (s)			0.0			0.0
Turn Type	Prot		NA	Perm	Perm	NA
Protected Phases	8		2			6
Permitted Phases				2	6	
Detector Phase	8		2	2	6	6
Switch Phase						
Minimum Initial (s)	5.0		5.0	5.0	5.0	5.0

Lanes, Volumes, Timings
 1: US 24 & Falcon Highway

Short Term Total
 PM Peak Hour



Lane Group	WBL	WBR	NET	NER	SWL	SWT
Minimum Split (s)	22.5		22.5	22.5	22.5	22.5
Total Split (s)	22.5		67.5	67.5	67.5	67.5
Total Split (%)	25.0%		75.0%	75.0%	75.0%	75.0%
Maximum Green (s)	18.0		63.0	63.0	63.0	63.0
Yellow Time (s)	3.5		3.5	3.5	3.5	3.5
All-Red Time (s)	1.0		1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0		0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5		4.5	4.5	4.5	4.5
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)	3.0		3.0	3.0	3.0	3.0
Recall Mode	None		C-Max	C-Max	C-Max	C-Max
Walk Time (s)	7.0		7.0	7.0	7.0	7.0
Flash Dont Walk (s)	11.0		11.0	11.0	11.0	11.0
Pedestrian Calls (#/hr)	0		0	0	0	0
Act Effct Green (s)	10.8		73.3	73.3	73.3	73.3
Actuated g/C Ratio	0.12		0.81	0.81	0.81	0.81
v/c Ratio	0.51		0.77	0.03	0.02	0.49
Control Delay	44.2		11.4	1.1	3.2	5.1
Queue Delay	0.0		0.0	0.0	0.0	0.0
Total Delay	44.2		11.4	1.1	3.2	5.1
LOS	D		B	A	A	A
Approach Delay	44.3		11.0			5.1
Approach LOS	D		B			A
Queue Length 50th (ft)	58		307	0	0	118
Queue Length 95th (ft)	105		#695	7	3	228
Internal Link Dist (ft)	2768		897			2498
Turn Bay Length (ft)						
Base Capacity (vph)	354		1518	1298	223	1518
Starvation Cap Reductn	0		0	0	0	0
Spillback Cap Reductn	0		0	0	0	0
Storage Cap Reductn	0		0	0	0	0
Reduced v/c Ratio	0.31		0.77	0.03	0.02	0.49

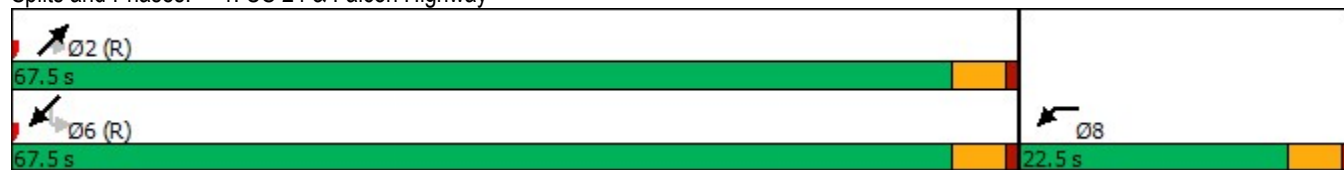
Intersection Summary

Area Type: Other
 Cycle Length: 90
 Actuated Cycle Length: 90
 Offset: 0 (0%), Referenced to phase 2:NET and 6:SWTL, Start of Green
 Natural Cycle: 90
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.77
 Intersection Signal Delay: 10.6
 Intersection LOS: B
 Intersection Capacity Utilization 70.1%
 ICU Level of Service C
 Analysis Period (min) 15
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Lanes, Volumes, Timings
1: US 24 & Falcon Highway



























Short Term Total
PM Peak Hour

Splits and Phases: 1: US 24 & Falcon Highway



Lanes, Volumes, Timings
2: US 24 & Meridian Road

Short Term Total
PM Peak Hour

													
Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR	
Lane Configurations													
Traffic Volume (vph)	20	245	165	26	363	90	290	776	16	119	495	5	
Future Volume (vph)	20	245	165	26	363	90	290	776	16	119	495	5	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Storage Length (ft)	300		300	300		300	500		500	500		500	
Storage Lanes	1		2	1		0	1		1	1		0	
Taper Length (ft)	25			25			25			25			
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	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	3112	1583	1770	3539	1583	1770	1863	1114	1327	1863	1583	
Flt Permitted	0.333			0.486			0.950			0.950			
Satd. Flow (perm)	620	3112	1583	905	3539	1583	1770	1863	1114	1327	1863	1583	
Right Turn on Red			Yes			Yes			Yes			Yes	
Satd. Flow (RTOR)			179			136			95			95	
Link Speed (mph)		30			30			30				30	
Link Distance (ft)		120			845			2578				1035	
Travel Time (s)		2.7			19.2			58.6				23.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	
Heavy Vehicles (%)	2%	16%	2%	2%	2%	2%	2%	2%	45%	36%	2%	2%	
Adj. Flow (vph)	22	266	179	28	395	98	315	843	17	129	538	5	
Shared Lane Traffic (%)													
Lane Group Flow (vph)	22	266	179	28	395	98	315	843	17	129	538	5	
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	Prot	NA	Perm	Prot	NA	Perm	
Protected Phases	1	6		5	2		7	4		3		8	

Lanes, Volumes, Timings
2: US 24 & Meridian Road

Short Term Total
PM Peak Hour



Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Permitted Phases	6		6	2		2			4			8
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)	10.5	28.0	28.0	6.5	24.0	24.0	39.5	63.5	63.5	22.0	46.0	46.0
Total Split (%)	8.8%	23.3%	23.3%	5.4%	20.0%	20.0%	32.9%	52.9%	52.9%	18.3%	38.3%	38.3%
Maximum Green (s)	6.0	23.5	23.5	2.0	19.5	19.5	35.0	59.0	59.0	17.5	41.5	41.5
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	Lag	Lead	Lead	Lag	Lead	Lead	Lag	Lag	Lag	Lead	Lead	Lead
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	C-Max	C-Max	None	C-Max	C-Max
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)	29.3	23.5	23.5	23.1	21.1	21.1	35.0	63.8	63.8	15.3	44.1	44.1
Actuated g/C Ratio	0.24	0.20	0.20	0.19	0.18	0.18	0.29	0.53	0.53	0.13	0.37	0.37
v/c Ratio	0.11	0.44	0.40	0.15	0.64	0.25	0.61	0.85	0.03	0.76	0.79	0.01
Control Delay	33.1	37.6	16.7	37.5	51.5	4.3	42.6	35.5	0.1	67.7	33.8	0.0
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	33.1	37.6	16.7	37.5	51.5	4.3	42.6	35.5	0.1	67.7	33.8	0.0
LOS	C	D	B	D	D	A	D	D	A	E	C	A
Approach Delay		29.4			41.9			36.9			40.1	
Approach LOS		C			D			D			D	
Queue Length 50th (ft)	16	111	67	17	153	0	210	585	0	68	399	0
Queue Length 95th (ft)	m26	m149	m116	41	208	21	310	#866	0	m#146	#567	m0
Internal Link Dist (ft)		40			765			2498			955	
Turn Bay Length (ft)	300		300	300		300	500		500	500		500
Base Capacity (vph)	209	609	453	188	622	390	516	989	636	193	684	641
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.11	0.44	0.40	0.15	0.64	0.25	0.61	0.85	0.03	0.67	0.79	0.01

Intersection Summary

Area Type:	Other
Cycle Length:	120
Actuated Cycle Length:	120
Offset:	89 (74%), Referenced to phase 4:NET and 8:SWT, Start of Green
Natural Cycle:	90
Control Type:	Actuated-Coordinated
Maximum v/c Ratio:	0.85
Intersection Signal Delay:	37.3
Intersection LOS:	D
Intersection Capacity Utilization:	76.6%
ICU Level of Service:	D
Analysis Period (min):	15

Lanes, Volumes, Timings
 2: US 24 & Meridian Road

Short Term Total
 PM Peak Hour



















- # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.
- m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 2: US 24 & Meridian Road



Lanes, Volumes, Timings
 3: US 24 & Old Meridian Road/Old Meridian Rd

Short Term Total
 PM Peak Hour

												
Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (vph)	0	0	40	0	0	113	0	775	111	0	549	5
Future Volume (vph)	0	0	40	0	0	113	0	775	111	0	549	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		25	0		50	500		500	570		550
Storage Lanes	0		0	0		0	0		1	0		1
Taper Length (ft)	25			25			25			25		
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			0.865			0.865			0.850			0.850
Flt Protected												
Satd. Flow (prot)	0	0	1611	0	0	1611	0	1863	1583	0	1792	1583
Flt Permitted												
Satd. Flow (perm)	0	0	1611	0	0	1611	0	1863	1583	0	1792	1583
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		936			1137			1035			1121	
Travel Time (s)		21.3			25.8			23.5			25.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	6%	2%
Adj. Flow (vph)	0	0	43	0	0	123	0	842	121	0	597	5
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	43	0	0	123	0	842	121	0	597	5
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)		0			0			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
Sign Control		Stop			Stop			Free			Free	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization	54.5%						ICU Level of Service A					
Analysis Period (min)	15											

HCM 6th TWSC
4: Meridian Road & Swingline Rd

Short Term Total
PM Peak Hour

Intersection						
Int Delay, s/veh	3					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↘	↗	↑↑	↗	↘	↑↑
Traffic Vol, veh/h	11	69	320	17	156	220
Future Vol, veh/h	11	69	320	17	156	220
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	0	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	31	2
Mvmt Flow	12	75	348	18	170	239

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	808	174	0	0	366
Stage 1	348	-	-	-	-
Stage 2	460	-	-	-	-
Critical Hdwy	6.84	6.94	-	-	4.72
Critical Hdwy Stg 1	5.84	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-
Follow-up Hdwy	3.52	3.32	-	-	2.51
Pot Cap-1 Maneuver	319	839	-	-	1006
Stage 1	686	-	-	-	-
Stage 2	602	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	265	839	-	-	1006
Mov Cap-2 Maneuver	265	-	-	-	-
Stage 1	686	-	-	-	-
Stage 2	500	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	11	0	3.9
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	265	839	1006
HCM Lane V/C Ratio	-	-	0.045	0.089	0.169
HCM Control Delay (s)	-	-	19.2	9.7	9.3
HCM Lane LOS	-	-	C	A	A
HCM 95th %tile Q(veh)	-	-	0.1	0.3	0.6

HCM 6th TWSC
5: Meridian Road & Falcon Highway

Short Term Total
PM Peak Hour

Intersection												
Int Delay, s/veh	8.4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	4	35	2	3	86	187	3	85	20	150	101	3
Future Vol, veh/h	4	35	2	3	86	187	3	85	20	150	101	3
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	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	71	71	71	91	91	91	86	86	86	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	6	49	3	3	95	205	3	99	23	163	110	3

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	300	0	0	52	0	0	323	369	51	328	268	198
Stage 1	-	-	-	-	-	-	63	63	-	204	204	-
Stage 2	-	-	-	-	-	-	260	306	-	124	64	-
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	1261	-	-	1554	-	-	630	560	1017	625	638	843
Stage 1	-	-	-	-	-	-	948	842	-	798	733	-
Stage 2	-	-	-	-	-	-	745	662	-	880	842	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1261	-	-	1554	-	-	541	556	1017	524	634	843
Mov Cap-2 Maneuver	-	-	-	-	-	-	541	556	-	524	634	-
Stage 1	-	-	-	-	-	-	943	838	-	794	732	-
Stage 2	-	-	-	-	-	-	630	661	-	755	838	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.8			0.1			12.5			17.3		
HCM LOS							B			C		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	606	1261	-	-	1554	-	-	566
HCM Lane V/C Ratio	0.207	0.004	-	-	0.002	-	-	0.488
HCM Control Delay (s)	12.5	7.9	0	-	7.3	0	-	17.3
HCM Lane LOS	B	A	A	-	A	A	-	C
HCM 95th %tile Q(veh)	0.8	0	-	-	0	-	-	2.7

HCM 6th TWSC
 6: Falcon Highway & Falcon Elementary West Access

Short Term Total
 PM Peak Hour

Intersection						
Int Delay, s/veh	0.8					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕	↕		↕	↕
Traffic Vol, veh/h	5	165	265	5	4	32
Future Vol, veh/h	5	165	265	5	4	32
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	5	179	288	5	4	35

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	293	0	-	0	480 291
Stage 1	-	-	-	-	291 -
Stage 2	-	-	-	-	189 -
Critical Hdwy	4.12	-	-	-	6.42 6.22
Critical Hdwy Stg 1	-	-	-	-	5.42 -
Critical Hdwy Stg 2	-	-	-	-	5.42 -
Follow-up Hdwy	2.218	-	-	-	3.518 3.318
Pot Cap-1 Maneuver	1269	-	-	-	545 748
Stage 1	-	-	-	-	759 -
Stage 2	-	-	-	-	843 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1269	-	-	-	543 748
Mov Cap-2 Maneuver	-	-	-	-	543 -
Stage 1	-	-	-	-	756 -
Stage 2	-	-	-	-	843 -

Approach	EB	WB	SB
HCM Control Delay, s	0.2	0	10.2
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	1269	-	-	-	543	748
HCM Lane V/C Ratio	0.004	-	-	-	0.008	0.047
HCM Control Delay (s)	7.8	0	-	-	11.7	10
HCM Lane LOS	A	A	-	-	B	B
HCM 95th %tile Q(veh)	0	-	-	-	0	0.1

HCM 6th Roundabout
7: Old Meridian Road & Swingline Rd

Short Term Total
PM Peak Hour

Intersection				
Intersection Delay, s/veh	4.8			
Intersection LOS	A			
Approach	EB	WB	NB	SB
Entry Lanes	1	1	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	187	171	78	135
Demand Flow Rate, veh/h	263	174	79	138
Vehicles Circulating, veh/h	140	81	242	115
Vehicles Exiting, veh/h	113	240	161	140
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	6.5	4.0	4.0	3.9
Approach LOS	A	A	A	A
Lane	Left	Left	Left	Left
Designated Moves	LTR	LTR	LTR	LTR
Assumed Moves	LTR	LTR	LTR	LTR
RT Channelized				
Lane Util	1.000	1.000	1.000	1.000
Follow-Up Headway, s	2.609	2.609	2.609	2.609
Critical Headway, s	4.976	4.976	4.976	4.976
Entry Flow, veh/h	263	174	79	138
Cap Entry Lane, veh/h	1196	1270	1078	1227
Entry HV Adj Factor	0.711	0.982	0.981	0.980
Flow Entry, veh/h	187	171	78	135
Cap Entry, veh/h	851	1247	1058	1202
V/C Ratio	0.220	0.137	0.073	0.112
Control Delay, s/veh	6.5	4.0	4.0	3.9
LOS	A	A	A	A
95th %tile Queue, veh	1	0	0	0

Lanes, Volumes, Timings
1: US 24 & Falcon Highway

Long Term Background
PM Peak Hour



Lane Group	WBL	WBR	NET	NER	SWL	SWT
Lane Configurations	↑↓		↑↑	↑	↑	↑↑
Traffic Volume (vph)	90	5	2420	50	5	1490
Future Volume (vph)	90	5	2420	50	5	1490
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	0.95	1.00	1.00	0.95
Fr _t	0.993			0.850		
Fl _t Protected	0.955				0.950	
Satd. Flow (prot)	1766	0	3539	1583	1770	3539
Fl _t Permitted	0.955				0.056	
Satd. Flow (perm)	1766	0	3539	1583	104	3539
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)	3			54		
Link Speed (mph)	30		30			30
Link Distance (ft)	2858		1113			2626
Travel Time (s)	65.0		25.3			59.7
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	98	5	2630	54	5	1620
Shared Lane Traffic (%)						
Lane Group Flow (vph)	103	0	2630	54	5	1620
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	12		36			36
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Number of Detectors	1		2	1	1	2
Detector Template	Left		Thru	Right	Left	Thru
Leading Detector (ft)	20		100	20	20	100
Trailing Detector (ft)	0		0	0	0	0
Detector 1 Position(ft)	0		0	0	0	0
Detector 1 Size(ft)	20		6	20	20	6
Detector 1 Type	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
Detector 1 Queue (s)	0.0		0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0		0.0	0.0	0.0	0.0
Detector 2 Position(ft)			94			94
Detector 2 Size(ft)			6			6
Detector 2 Type			Cl+Ex			Cl+Ex
Detector 2 Channel						
Detector 2 Extend (s)			0.0			0.0
Turn Type	Prot		NA	Perm	Perm	NA
Protected Phases	8		2			6
Permitted Phases				2	6	
Detector Phase	8		2	2	6	6
Switch Phase						
Minimum Initial (s)	5.0		5.0	5.0	5.0	5.0

Lanes, Volumes, Timings
 1: US 24 & Falcon Highway

Long Term Background
 PM Peak Hour

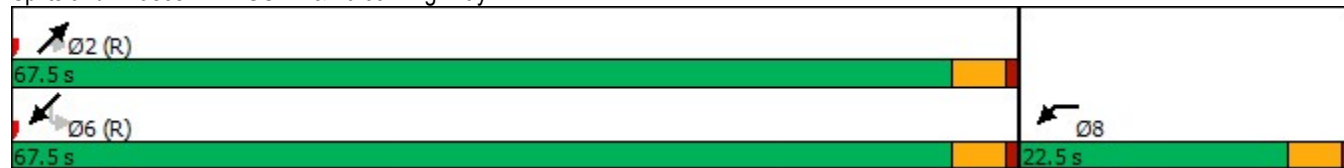


Lane Group	WBL	WBR	NET	NER	SWL	SWT
Minimum Split (s)	22.5		22.5	22.5	22.5	22.5
Total Split (s)	22.5		67.5	67.5	67.5	67.5
Total Split (%)	25.0%		75.0%	75.0%	75.0%	75.0%
Maximum Green (s)	18.0		63.0	63.0	63.0	63.0
Yellow Time (s)	3.5		3.5	3.5	3.5	3.5
All-Red Time (s)	1.0		1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0		0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5		4.5	4.5	4.5	4.5
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)	3.0		3.0	3.0	3.0	3.0
Recall Mode	None		C-Max	C-Max	C-Max	C-Max
Walk Time (s)	7.0		7.0	7.0	7.0	7.0
Flash Dont Walk (s)	11.0		11.0	11.0	11.0	11.0
Pedestrian Calls (#/hr)	0		0	0	0	0
Act Effct Green (s)	10.4		73.7	73.7	73.7	73.7
Actuated g/C Ratio	0.12		0.82	0.82	0.82	0.82
v/c Ratio	0.50		0.91	0.04	0.06	0.56
Control Delay	43.8		15.0	1.0	4.6	4.8
Queue Delay	0.0		0.0	0.0	0.0	0.0
Total Delay	43.8		15.0	1.0	4.6	4.8
LOS	D		B	A	A	A
Approach Delay	43.8		14.7			4.8
Approach LOS	D		B			A
Queue Length 50th (ft)	54		503	0	0	146
Queue Length 95th (ft)	100		#968	8	4	244
Internal Link Dist (ft)	2778		1033			2546
Turn Bay Length (ft)						
Base Capacity (vph)	355		2896	1305	85	2896
Starvation Cap Reductn	0		0	0	0	0
Spillback Cap Reductn	0		0	0	0	0
Storage Cap Reductn	0		0	0	0	0
Reduced v/c Ratio	0.29		0.91	0.04	0.06	0.56

Intersection Summary

Area Type: Other
 Cycle Length: 90
 Actuated Cycle Length: 90
 Offset: 0 (0%), Referenced to phase 2:NET and 6:SWTL, Start of Green
 Natural Cycle: 100
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.91
 Intersection Signal Delay: 11.8 Intersection LOS: B
 Intersection Capacity Utilization 79.7% ICU Level of Service D
 Analysis Period (min) 15
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 1: US 24 & Falcon Highway















Lanes, Volumes, Timings
2: US 24 & Meridian Rd

Long Term Background
PM Peak Hour

Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (vph)	60	400	235	80	375	280	410	1935	80	170	1155	60
Future Volume (vph)	60	400	235	80	375	280	410	1935	80	170	1155	60
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	300		300	300		300	500		500	500		500
Storage Lanes	1		1	1		1	2		1	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	0.97	0.91	1.00	1.00	0.91	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	3539	1583	1770	3539	1583	3433	5085	1583	1770	5085	1583
Flt Permitted	0.512			0.205			0.950			0.950		
Satd. Flow (perm)	954	3539	1583	382	3539	1583	3433	5085	1583	1770	5085	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			255			304			136			136
Link Speed (mph)		30			30			30				30
Link Distance (ft)		800			120			2626				1042
Travel Time (s)		18.2			2.7			59.7				23.7
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	65	435	255	87	408	304	446	2103	87	185	1255	65
Shared Lane Traffic (%)												
Lane Group Flow (vph)	65	435	255	87	408	304	446	2103	87	185	1255	65
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			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	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	5	2		1	6		7	4		3		8
Permitted Phases	2		2	6		6			4			8

Lanes, Volumes, Timings
2: US 24 & Meridian Rd

Long Term Background
PM Peak Hour

												
Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NET	NER	SWL	SWT	SWR
Detector Phase	5	2	2	1	6	6	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	26.6	26.6	13.4	30.5	30.5	31.9	59.0	59.0	21.0	48.1	48.1
Total Split (%)	7.9%	22.2%	22.2%	11.2%	25.4%	25.4%	26.6%	49.2%	49.2%	17.5%	40.1%	40.1%
Maximum Green (s)	5.0	22.1	22.1	8.9	26.0	26.0	27.4	54.5	54.5	16.5	43.6	43.6
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	Lag	Lag	Lag	Lead	Lead	Lead	Lag	Lag	Lag	Lead	Lead	Lead
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	C-Max	C-Max	None	C-Max	C-Max
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)	22.6	22.6	22.6	27.9	27.9	27.9	27.4	55.5	55.5	15.5	43.6	43.6
Actuated g/C Ratio	0.19	0.19	0.19	0.23	0.23	0.23	0.23	0.46	0.46	0.13	0.36	0.36
v/c Ratio	0.31	0.65	0.50	0.47	0.50	0.51	0.57	0.89	0.11	0.81	0.68	0.10
Control Delay	47.6	50.5	8.9	42.0	40.2	19.3	44.4	35.8	0.9	54.4	22.5	1.0
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	47.6	50.5	8.9	42.0	40.2	19.3	44.4	35.8	0.9	54.4	22.5	1.0
LOS	D	D	A	D	D	B	D	D	A	D	C	A
Approach Delay		36.2			32.5			36.1			25.5	
Approach LOS		D			C			D			C	
Queue Length 50th (ft)	43	166	0	68	171	119	158	542	0	111	337	3
Queue Length 95th (ft)	85	224	72	m99	m219	m154	212	617	8	m#226	392	m5
Internal Link Dist (ft)		720			40			2546			962	
Turn Bay Length (ft)	300		300	300		300	500		500	500		500
Base Capacity (vph)	213	666	505	191	822	601	783	2353	805	243	1847	661
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.31	0.65	0.50	0.46	0.50	0.51	0.57	0.89	0.11	0.76	0.68	0.10

Intersection Summary

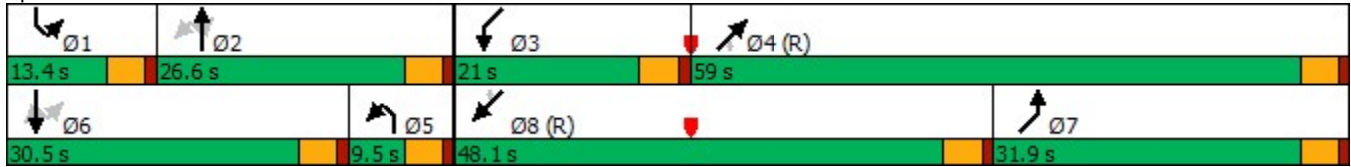
Area Type: Other
 Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 95 (79%), Referenced to phase 4:NET and 8:SWT, Start of Green
 Natural Cycle: 90
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.89
 Intersection Signal Delay: 32.8
 Intersection LOS: C
 Intersection Capacity Utilization 77.3%
 ICU Level of Service D
 Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.























m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 2: US 24 & Meridian Rd



Lanes, Volumes, Timings
3: US 24 & Meridian Rd/Old Meridian Rd

Long Term Background
PM Peak Hour

												
Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations								  			  	
Traffic Volume (vph)	0	0	50	0	0	175	0	2120	130	0	1335	15
Future Volume (vph)	0	0	50	0	0	175	0	2120	130	0	1335	15
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		25	0		0	500		500	570		550
Storage Lanes	0		0	0		1	0		1	0		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.91	1.00	1.00	0.91	1.00
Frt			0.865			0.865			0.850			0.850
Flt Protected												
Satd. Flow (prot)	0	0	1611	0	0	1611	0	5085	1583	0	5085	1583
Flt Permitted												
Satd. Flow (perm)	0	0	1611	0	0	1611	0	5085	1583	0	5085	1583
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		936			1141			1042			1839	
Travel Time (s)		21.3			25.9			23.7			41.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	54	0	0	190	0	2304	141	0	1451	16
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	54	0	0	190	0	2304	141	0	1451	16
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)		0			0			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
Sign Control		Stop			Stop			Free			Free	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization	58.5%						ICU Level of Service B					
Analysis Period (min)	15											

Intersection						
Int Delay, s/veh	2.8					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↘	↗	↑↑	↗	↘	↑↑
Traffic Vol, veh/h	10	80	615	15	225	400
Future Vol, veh/h	10	80	615	15	225	400
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	0	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	11	87	668	16	245	435

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	1376	334	0	0	684
Stage 1	668	-	-	-	-
Stage 2	708	-	-	-	-
Critical Hdwy	6.84	6.94	-	-	4.14
Critical Hdwy Stg 1	5.84	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-
Follow-up Hdwy	3.52	3.32	-	-	2.22
Pot Cap-1 Maneuver	136	662	-	-	905
Stage 1	471	-	-	-	-
Stage 2	449	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	99	662	-	-	905
Mov Cap-2 Maneuver	99	-	-	-	-
Stage 1	471	-	-	-	-
Stage 2	327	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	15.1	0	3.8
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	99	662	905
HCM Lane V/C Ratio	-	-	0.11	0.131	0.27
HCM Control Delay (s)	-	-	45.8	11.3	10.4
HCM Lane LOS	-	-	E	B	B
HCM 95th %tile Q(veh)	-	-	0.4	0.5	1.1

Intersection												
Int Delay, s/veh	9											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕	↕		↕		↕	↕	
Traffic Vol, veh/h	5	45	5	5	80	300	5	115	25	250	150	10
Future Vol, veh/h	5	45	5	5	80	300	5	115	25	250	150	10
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	-	-	-	-	-	0	-	-	-	0	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	71	71	71	91	91	91	86	86	86	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	7	63	7	5	88	330	6	134	29	272	163	11

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	418	0	0	70	0	0	431	509	67	260	182	88
Stage 1	-	-	-	-	-	-	81	81	-	98	98	-
Stage 2	-	-	-	-	-	-	350	428	-	162	84	-
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	1141	-	-	1531	-	-	535	467	997	693	712	970
Stage 1	-	-	-	-	-	-	927	828	-	908	814	-
Stage 2	-	-	-	-	-	-	666	585	-	840	825	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1141	-	-	1531	-	-	432	462	997	518	705	970
Mov Cap-2 Maneuver	-	-	-	-	-	-	432	462	-	518	705	-
Stage 1	-	-	-	-	-	-	921	823	-	903	811	-
Stage 2	-	-	-	-	-	-	524	583	-	679	820	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.7			0.1			15.6			16.4		
HCM LOS							C			C		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	508	1141	-	-	1531	-	-	518	717
HCM Lane V/C Ratio	0.332	0.006	-	-	0.004	-	-	0.525	0.243
HCM Control Delay (s)	15.6	8.2	0	-	7.4	0	-	19.4	11.6
HCM Lane LOS	C	A	A	-	A	A	-	C	B
HCM 95th %tile Q(veh)	1.4	0	-	-	0	-	-	3	0.9

Intersection						
Int Delay, s/veh	0.2					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↶	↷		↶	↷
Traffic Vol, veh/h	5	350	375	5	2	10
Future Vol, veh/h	5	350	375	5	2	10
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	5	380	408	5	2	11

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	413	0	-	0	801 411
Stage 1	-	-	-	-	411 -
Stage 2	-	-	-	-	390 -
Critical Hdwy	4.12	-	-	-	6.42 6.22
Critical Hdwy Stg 1	-	-	-	-	5.42 -
Critical Hdwy Stg 2	-	-	-	-	5.42 -
Follow-up Hdwy	2.218	-	-	-	3.518 3.318
Pot Cap-1 Maneuver	1146	-	-	-	354 641
Stage 1	-	-	-	-	669 -
Stage 2	-	-	-	-	684 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1146	-	-	-	352 641
Mov Cap-2 Maneuver	-	-	-	-	352 -
Stage 1	-	-	-	-	665 -
Stage 2	-	-	-	-	684 -

Approach	EB	WB	SB
HCM Control Delay, s	0.1	0	11.5
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	1146	-	-	-	352	641
HCM Lane V/C Ratio	0.005	-	-	-	0.006	0.017
HCM Control Delay (s)	8.2	0	-	-	15.3	10.7
HCM Lane LOS	A	A	-	-	C	B
HCM 95th %tile Q(veh)	0	-	-	-	0	0.1

HCM 6th Roundabout
 7: Old Meridian Road/Meridian Rd & Swingline Rd

Long Term Background
 PM Peak Hour

Intersection				
Intersection Delay, s/veh	4.5			
Intersection LOS	A			
Approach	EB	WB	NB	SB
Entry Lanes	1	1	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	260	102	191	158
Demand Flow Rate, veh/h	265	104	195	162
Vehicles Circulating, veh/h	164	197	75	80
Vehicles Exiting, veh/h	78	73	354	221
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	5.2	4.0	4.2	4.0
Approach LOS	A	A	A	A
Lane	Left	Left	Left	Left
Designated Moves	LTR	LTR	LTR	LTR
Assumed Moves	LTR	LTR	LTR	LTR
RT Channelized				
Lane Util	1.000	1.000	1.000	1.000
Follow-Up Headway, s	2.609	2.609	2.609	2.609
Critical Headway, s	4.976	4.976	4.976	4.976
Entry Flow, veh/h	265	104	195	162
Cap Entry Lane, veh/h	1167	1129	1278	1272
Entry HV Adj Factor	0.982	0.985	0.981	0.978
Flow Entry, veh/h	260	102	191	158
Cap Entry, veh/h	1146	1112	1254	1244
V/C Ratio	0.227	0.092	0.153	0.127
Control Delay, s/veh	5.2	4.0	4.2	4.0
LOS	A	A	A	A
95th %tile Queue, veh	1	0	1	0

Lanes, Volumes, Timings
1: US 24 & Falcon Highway

Long Term Total
PM Peak Hour



Lane Group	WBL	WBR	NET	NER	SWL	SWT
Lane Configurations						
Traffic Volume (vph)	137	5	2455	50	5	1537
Future Volume (vph)	137	5	2455	50	5	1537
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	0.95	1.00	1.00	0.95
Fr _t	0.996			0.850		
Fl _t Protected	0.954				0.950	
Satd. Flow (prot)	1770	0	3539	1583	1770	3539
Fl _t Permitted	0.954				0.059	
Satd. Flow (perm)	1770	0	3539	1583	110	3539
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)	2			54		
Link Speed (mph)	30		30			30
Link Distance (ft)	2808		1352			2588
Travel Time (s)	63.8		30.7			58.8
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	149	5	2668	54	5	1671
Shared Lane Traffic (%)						
Lane Group Flow (vph)	154	0	2668	54	5	1671
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	12		36			36
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Number of Detectors	1		2	1	1	2
Detector Template	Left		Thru	Right	Left	Thru
Leading Detector (ft)	20		100	20	20	100
Trailing Detector (ft)	0		0	0	0	0
Detector 1 Position(ft)	0		0	0	0	0
Detector 1 Size(ft)	20		6	20	20	6
Detector 1 Type	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
Detector 1 Queue (s)	0.0		0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0		0.0	0.0	0.0	0.0
Detector 2 Position(ft)			94			94
Detector 2 Size(ft)			6			6
Detector 2 Type			Cl+Ex			Cl+Ex
Detector 2 Channel						
Detector 2 Extend (s)			0.0			0.0
Turn Type	Prot		NA	Perm	Perm	NA
Protected Phases	8		2			6
Permitted Phases				2	6	
Detector Phase	8		2	2	6	6
Switch Phase						
Minimum Initial (s)	5.0		5.0	5.0	5.0	5.0

Lanes, Volumes, Timings
1: US 24 & Falcon Highway

Long Term Total
PM Peak Hour



Lane Group	WBL	WBR	NET	NER	SWL	SWT
Minimum Split (s)	22.5		22.5	22.5	22.5	22.5
Total Split (s)	22.5		67.5	67.5	67.5	67.5
Total Split (%)	25.0%		75.0%	75.0%	75.0%	75.0%
Maximum Green (s)	18.0		63.0	63.0	63.0	63.0
Yellow Time (s)	3.5		3.5	3.5	3.5	3.5
All-Red Time (s)	1.0		1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0		0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5		4.5	4.5	4.5	4.5
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)	3.0		3.0	3.0	3.0	3.0
Recall Mode	None		C-Max	C-Max	C-Max	C-Max
Walk Time (s)	7.0		7.0	7.0	7.0	7.0
Flash Dont Walk (s)	11.0		11.0	11.0	11.0	11.0
Pedestrian Calls (#/hr)	0		0	0	0	0
Act Effect Green (s)	13.0		68.0	68.0	68.0	68.0
Actuated g/C Ratio	0.14		0.76	0.76	0.76	0.76
v/c Ratio	0.60		1.00	0.04	0.06	0.62
Control Delay	44.9		29.8	1.3	5.8	6.9
Queue Delay	0.0		0.0	0.0	0.0	0.0
Total Delay	44.9		29.8	1.3	5.8	6.9
LOS	D		C	A	A	A
Approach Delay	44.9		29.2			6.9
Approach LOS	D		C			A
Queue Length 50th (ft)	82		636	0	1	185
Queue Length 95th (ft)	136		#1034	10	5	308
Internal Link Dist (ft)	2728		1272			2508
Turn Bay Length (ft)						
Base Capacity (vph)	355		2675	1209	83	2675
Starvation Cap Reductn	0		0	0	0	0
Spillback Cap Reductn	0		0	0	0	0
Storage Cap Reductn	0		0	0	0	0
Reduced v/c Ratio	0.43		1.00	0.04	0.06	0.62

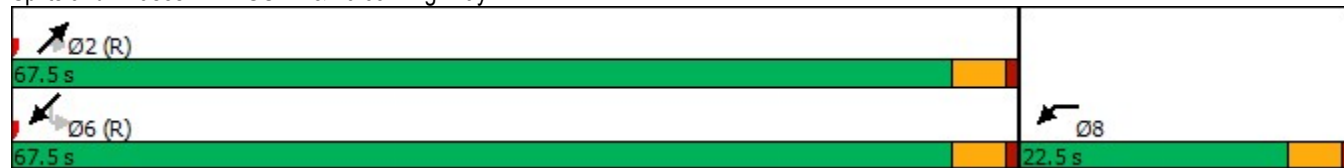
Intersection Summary

Area Type: Other
 Cycle Length: 90
 Actuated Cycle Length: 90
 Offset: 0 (0%), Referenced to phase 2:NET and 6:SWTL, Start of Green
 Natural Cycle: 110
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 1.00
 Intersection Signal Delay: 21.5 Intersection LOS: C
 Intersection Capacity Utilization 83.3% ICU Level of Service E
 Analysis Period (min) 15
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Lanes, Volumes, Timings
1: US 24 & Falcon Highway

Long Term Total
PM Peak Hour

Splits and Phases: 1: US 24 & Falcon Highway















Lanes, Volumes, Timings
2: US 24 & Meridian Rd

Long Term Total
PM Peak Hour

Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (vph)	107	451	246	80	442	280	410	1956	92	242	1155	60
Future Volume (vph)	107	451	246	80	442	280	410	1956	92	242	1155	60
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	300		300	300		300	500		500	500		500
Storage Lanes	1		0	1		0	2		1	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	0.97	0.91	1.00	1.00	0.91	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	3539	1583	1770	3139	1583	3433	5085	1442	1399	5085	1583
Flt Permitted	0.385			0.276			0.950			0.950		
Satd. Flow (perm)	717	3539	1583	514	3139	1583	3433	5085	1442	1399	5085	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			267			304			136			136
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		836			120			2588			1035	
Travel Time (s)		19.0			2.7			58.8			23.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	2%	2%	2%	2%	15%	2%	2%	2%	12%	29%	2%	2%
Adj. Flow (vph)	116	490	267	87	480	304	446	2126	100	263	1255	65
Shared Lane Traffic (%)												
Lane Group Flow (vph)	116	490	267	87	480	304	446	2126	100	263	1255	65
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			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	1	1	1	1	1	1	1	1	1	1	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	100	20	20	100	20	20	100	20	20	100	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
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	5	2		1	6		7	4		3	8	
Permitted Phases	2		2	6		6			4			8
Detector Phase	5	2	2	1	6	6	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

Lanes, Volumes, Timings
2: US 24 & Meridian Rd

Long Term Total
PM Peak Hour

												
Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NET	NER	SWL	SWT	SWR
Total Split (s)	13.5	28.0	28.0	9.5	24.0	24.0	27.1	53.5	53.5	29.0	55.4	55.4
Total Split (%)	11.3%	23.3%	23.3%	7.9%	20.0%	20.0%	22.6%	44.6%	44.6%	24.2%	46.2%	46.2%
Maximum Green (s)	9.0	23.5	23.5	5.0	19.5	19.5	22.6	49.0	49.0	24.5	50.9	50.9
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)	-0.5	-0.5	-0.5	-0.5	-0.5	-0.5	-0.5	-0.5	-0.5	-0.5	-0.5	-0.5
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag	Lag	Lag	Lag	Lead	Lead	Lead	Lag	Lag	Lag	Lead	Lead	Lead
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	C-Max	C-Max	None	C-Max	C-Max
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)	24.0	24.0	24.0	20.0	20.0	20.0	23.1	50.1	50.1	24.4	51.4	51.4
Actuated g/C Ratio	0.20	0.20	0.20	0.17	0.17	0.17	0.19	0.42	0.42	0.20	0.43	0.43
v/c Ratio	0.51	0.69	0.50	0.61	0.92	0.59	0.68	1.00	0.15	0.93	0.58	0.09
Control Delay	54.7	50.5	8.4	43.5	54.5	15.7	50.8	54.9	1.9	68.0	15.5	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	54.7	50.5	8.4	43.5	54.5	15.7	50.8	54.9	1.9	68.0	15.5	0.2
LOS	D	D	A	D	D	B	D	D	A	E	B	A
Approach Delay		38.2			39.9			52.3			23.6	
Approach LOS		D			D			D			C	
Queue Length 50th (ft)	78	186	0	58	206	123	167	~613	0	93	102	0
Queue Length 95th (ft)	135	247	72	m89	#303	m163	223	#731	16	#341	115	m0
Internal Link Dist (ft)		756			40			2508			955	
Turn Bay Length (ft)	300		300	300		300	500		500	500		500
Base Capacity (vph)	226	707	530	143	523	517	660	2124	681	291	2178	755
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.51	0.69	0.50	0.61	0.92	0.59	0.68	1.00	0.15	0.90	0.58	0.09

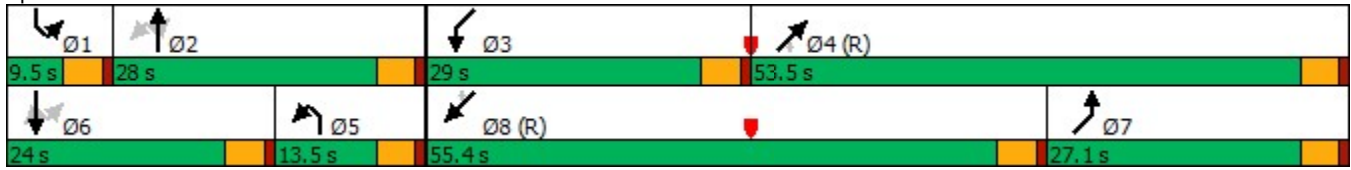
Intersection Summary

Area Type: Other
 Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 89 (74%), Referenced to phase 4:NET and 8:SWT, Start of Green
 Natural Cycle: 100
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 1.00
 Intersection Signal Delay: 40.8
 Intersection LOS: D
 Intersection Capacity Utilization 82.7%
 ICU Level of Service E
 Analysis Period (min) 15
 ~ Volume exceeds capacity, queue is theoretically infinite.
 Queue shown is maximum after two cycles.
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.
 m Volume for 95th percentile queue is metered by upstream signal.

Lanes, Volumes, Timings
 2: US 24 & Meridian Rd























Long Term Total
 PM Peak Hour

Splits and Phases: 2: US 24 & Meridian Rd



Lanes, Volumes, Timings
 3: US 24 & Old Meridian Road/Old Meridian Rd

Long Term Total
 PM Peak Hour

												
Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations								  			  	
Traffic Volume (vph)	0	0	50	0	0	237	0	2131	153	0	1407	15
Future Volume (vph)	0	0	50	0	0	237	0	2131	153	0	1407	15
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		25	0		50	500		500	570		550
Storage Lanes	0		0	0		0	0		1	0		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.91	1.00	1.00	0.91	1.00
Frt			0.865			0.865			0.850			0.850
Flt Protected												
Satd. Flow (prot)	0	0	1611	0	0	1611	0	5085	1583	0	4940	1583
Flt Permitted												
Satd. Flow (perm)	0	0	1611	0	0	1611	0	5085	1583	0	4940	1583
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		936			1137			1035			1121	
Travel Time (s)		21.3			25.8			23.5			25.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	5%	2%
Adj. Flow (vph)	0	0	54	0	0	258	0	2316	166	0	1529	16
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	54	0	0	258	0	2316	166	0	1529	16
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)		0			0			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
Sign Control		Stop			Stop			Free			Free	
Intersection Summary												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization	62.5%						ICU Level of Service B					
Analysis Period (min)	15											

HCM 6th TWSC
4: Meridian Rd & Swingline Rd

Long Term Total
PM Peak Hour

Intersection						
Int Delay, s/veh	6.7					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↘	↗	↑↑	↗	↘	↑↑
Traffic Vol, veh/h	11	189	615	21	376	400
Future Vol, veh/h	11	189	615	21	376	400
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	0	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	40	2
Mvmt Flow	12	205	668	23	409	435

Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	1704	334	0	0	691	0
Stage 1	668	-	-	-	-	-
Stage 2	1036	-	-	-	-	-
Critical Hdwy	6.84	6.94	-	-	4.9	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	-	-	2.6	-
Pot Cap-1 Maneuver	82	662	-	-	687	-
Stage 1	471	-	-	-	-	-
Stage 2	303	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	33	662	-	-	687	-
Mov Cap-2 Maneuver	33	-	-	-	-	-
Stage 1	471	-	-	-	-	-
Stage 2	123	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	21.3	0	8.5
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	33	662	687
HCM Lane V/C Ratio	-	-	0.362	0.31	0.595
HCM Control Delay (s)	-	-	166.5	12.9	17.6
HCM Lane LOS	-	-	F	B	C
HCM 95th %tile Q(veh)	-	-	1.2	1.3	4

HCM 6th TWSC
5: Meridian Rd & Falcon Highway

Long Term Total
PM Peak Hour

Intersection												
Int Delay, s/veh	9.8											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕	↕		↕		↕	↕	
Traffic Vol, veh/h	5	45	5	6	127	304	5	117	25	250	151	10
Future Vol, veh/h	5	45	5	6	127	304	5	117	25	250	151	10
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	-	-	-	-	-	0	-	-	-	0	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	71	71	71	91	91	91	86	86	86	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	7	63	7	7	140	334	6	136	29	272	164	11

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	474	0	0	70	0	0	490	569	67	317	238	140
Stage 1	-	-	-	-	-	-	81	81	-	154	154	-
Stage 2	-	-	-	-	-	-	409	488	-	163	84	-
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	1088	-	-	1531	-	-	489	432	997	636	663	908
Stage 1	-	-	-	-	-	-	927	828	-	848	770	-
Stage 2	-	-	-	-	-	-	619	550	-	839	825	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1088	-	-	1531	-	-	386	426	997	460	654	908
Mov Cap-2 Maneuver	-	-	-	-	-	-	386	426	-	460	654	-
Stage 1	-	-	-	-	-	-	921	822	-	842	765	-
Stage 2	-	-	-	-	-	-	477	546	-	675	819	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.8			0.1			17			19.1		
HCM LOS							C			C		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	470	1088	-	-	1531	-	-	460	666
HCM Lane V/C Ratio	0.364	0.006	-	-	0.004	-	-	0.591	0.263
HCM Control Delay (s)	17	8.3	0	-	7.4	0	-	23.5	12.3
HCM Lane LOS	C	A	A	-	A	A	-	C	B
HCM 95th %tile Q(veh)	1.6	0	-	-	0	-	-	3.7	1.1

HCM 6th TWSC
 6: Falcon Highway & Falcon Elementary West Access

Long Term Total
 PM Peak Hour

Intersection						
Int Delay, s/veh	1					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕	↕		↕	↕
Traffic Vol, veh/h	5	350	375	5	7	58
Future Vol, veh/h	5	350	375	5	7	58
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	5	380	408	5	8	63

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	413	0	-	0	801 411
Stage 1	-	-	-	-	411 -
Stage 2	-	-	-	-	390 -
Critical Hdwy	4.12	-	-	-	6.42 6.22
Critical Hdwy Stg 1	-	-	-	-	5.42 -
Critical Hdwy Stg 2	-	-	-	-	5.42 -
Follow-up Hdwy	2.218	-	-	-	3.518 3.318
Pot Cap-1 Maneuver	1146	-	-	-	354 641
Stage 1	-	-	-	-	669 -
Stage 2	-	-	-	-	684 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1146	-	-	-	352 641
Mov Cap-2 Maneuver	-	-	-	-	352 -
Stage 1	-	-	-	-	665 -
Stage 2	-	-	-	-	684 -

Approach	EB	WB	SB
HCM Control Delay, s	0.1	0	11.7
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	1146	-	-	-	352	641
HCM Lane V/C Ratio	0.005	-	-	-	0.022	0.098
HCM Control Delay (s)	8.2	0	-	-	15.5	11.2
HCM Lane LOS	A	A	-	-	C	B
HCM 95th %tile Q(veh)	0	-	-	-	0.1	0.3

HCM 6th Roundabout
7: Old Meridian Road & Swingline Rd

Long Term Total
PM Peak Hour

Intersection				
Intersection Delay, s/veh	8.1			
Intersection LOS	A			
Approach	EB	WB	NB	SB
Entry Lanes	1	1	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	431	297	191	187
Demand Flow Rate, veh/h	600	303	195	191
Vehicles Circulating, veh/h	193	197	439	202
Vehicles Exiting, veh/h	200	437	354	298
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	11.9	5.8	6.4	4.8
Approach LOS	B	A	A	A
Lane	Left	Left	Left	Left
Designated Moves	LTR	LTR	LTR	LTR
Assumed Moves	LTR	LTR	LTR	LTR
RT Channelized				
Lane Util	1.000	1.000	1.000	1.000
Follow-Up Headway, s	2.609	2.609	2.609	2.609
Critical Headway, s	4.976	4.976	4.976	4.976
Entry Flow, veh/h	600	303	195	191
Cap Entry Lane, veh/h	1133	1129	882	1123
Entry HV Adj Factor	0.718	0.980	0.981	0.981
Flow Entry, veh/h	431	297	191	187
Cap Entry, veh/h	814	1107	865	1102
V/C Ratio	0.529	0.268	0.221	0.170
Control Delay, s/veh	11.9	5.8	6.4	4.8
LOS	B	A	A	A
95th %tile Queue, veh	3	1	1	1