The Commons at Falcon Field

Traffic Impact Study

PCD File No. _____

Prepared for:
P.J. Anderson
31 N Tejon, Ste 500
Colorado Springs, CO 80903

JUNE 23, 2023

LSC Transportation Consultants
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LSC #S234220

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June 23, 2023

P.J. Anderson
31 N Tejon, Ste 500
Colorado Springs, CO 80903

RE: The Commons at Falcon Field
Preliminary Plan
El Paso County, CO
Traffic Impact Study
LSC #S234220

Dear Mr. Anderson,

LSC Transportation Consultants, Inc. has prepared this Traffic Impact Study for the Commons at Falcon Field development in the Falcon area of El Paso County, Colorado. Commons at Falcon Field is a proposed development to be located southeast of the intersection of US Highway 24 (US Hwy 24) and Woodmen Road. This report has been prepared to accompany the resubmittal of the Preliminary Plan application to El Paso County and the Colorado Department of Transportation (CDOT). The Preliminary Plan shows a mix of commercial and residential land uses. LSC previously completed traffic reports for the original rezone, the prior Preliminary Plan, and the 2022 Rezone.

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 functional classification, widths, pavement markings, surface conditions, traffic, traffic-control signs, posted speed limits, intersection and access spacing, roadway and intersection alignments, roadway grades, and auxiliary turn lanes;
- Weekday peak-hour turning-movement traffic counts at the following intersections:
    - Woodmen Road/US Highway 24
    - Rio Lane/US Highway 24
    - US Highway 24/ Meridian Road
- Estimated current average weekday traffic (AWT) volumes on the study-area streets including US Highway 24, Meridian Road, McLaughlin Road, and Rio Lane;
- Projections of 20-year background traffic volumes on the study-area streets;
- The proposed site land uses;

- Estimates of average weekday and weekday peak-hour trip generation for the proposed Falcon Field development and the estimated directional distribution of site-generated vehicle trips on the area street and roadway network;
- Projected site-generated and resulting total peak-hour intersection traffic volumes at the study-area intersections;
- Projected total daily (AWT) volumes on the study-area streets;
- Intersection level of service analysis at the study-area intersections;
- Vehicle queuing and sight-distance analysis at the proposed site-access points;
- Recommended street classifications; and
- Findings and recommendations.

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

Prior Falcon Field Traffic Reports for this Site:

- A master TIS report for the original Falcon Field rezone, dated February 24, 2020.
- The TIS report for the previously submitted Preliminary Plan (withdrawn prior to the 2022 rezone), dated November 5, 2020.
- A master TIS report for the 2022 Falcon Field rezone, dated January 21, 2022.

Comparison to the TIS for the initial property rezone dated February 24, 2020 (and the TIS for the Preliminary Plan Report dated November 5, 2020): The site trip generation and site-generated traffic based on the currently-proposed zoning **is significantly lower** than for the strictly commercial zoning that was originally approved. Details are included in the Trip Generation section.

December 2021 Update **[unchanged in this January 2022 version]**: The site-generated traffic for the residential parcels in this report is slightly higher than the prior [August 2021] version. This was in response to [a previous] staff comment regarding the maximum potential number of units within the residential zones. The commercial site-generated traffic was not modified. Offsite intersections were added in response to the comments. New traffic counts were conducted at these added intersections. As a result of those newer counts, further background traffic adjustments were also made. The findings and recommendations remain unchanged.

The most recent versions of the following traffic reports were utilized in preparing this report: *Falcon Marketplace (LSC)*, *Meadowlake Ranch* (LSC), *The Ranch* (LSC), and the School District 49 Transportation Facility study (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.

LAND USE AND ACCESS

Figure 1 shows the site location relative to the adjacent and nearby roadways. The development is planned to have commercial and residential land uses. The site is directly southeast of the intersection of Woodmen Road/US Highway 24 in Parcels 4307000001 and 4307200015.

Land Use

Commons at Falcon Field is planned to include eight regional commercial lots and 169 single-family residential lots. This report assumes the eight regional commercial lots will be developed with up to 84,000 square feet of general retail floor space. Figure 2a shows the current site plan/Preliminary Plan.

Access

As shown on the site plan, the primary access will be a new southeast leg of the Woodmen Road/US Hwy 24 intersection (currently a T-intersection). This new section of Woodmen Road would be extended southeast to a new east/west Urban Non-Residential Collector, Retail Row Street.

Figure 2b shows the proposed internal access points. The proposed spacing of the access points to Retail Row Street northeast of Woodmen Road do not meet the minimum 330-foot spacing required for Urban Non-Residential Collectors when intersecting local roadways shown on Table 2-7 of The El Paso County *Engineering Criteria Manual* (*ECM*). The intersection of Retail Row Street/Merlin Way will require a deviation from these criteria.

A street stubs to the west is shown on the Preliminary Plan, which would allow for a future connection to future adjacent development if ever needed. The areas within Tracts B and G directly southeast of the proposed roundabout have been reserved to accommodate a potential future fourth leg of the roundabout to provide access to what is currently the northwest corner of Arrowhead Estates IF and when redevelopment happens to occur within that area. Currently, these possible future connections are not proposed for use by this project. These are being provided for the benefit of US Hwy 24 access management and adjacent property owners, should future connections to adjacent future developments/redevelopment become feasible.

Sight Distance

Comments on the preliminary plan have been provided regarding the private roads and the proposed cross section. Due to the volume of traffic and lots being accessed from these private road the Sight distance criteria for roadways as opposed to driveways should be used on the easterly access. Please revise the sight distance analysis accordingly. Additionally, recommendations as to the classification & cross section of the private roadway shall be provided.

Figures 3a-3e show the results of sight-distance analysis of the intersections and access points to Retail Row Street.

Figure 3a shows the access entering sight distance analysis at the west commercial access to Retail Row Street (Gryfalcon Road) based on the criteria contained in Table 2-35. The sight-distance requirement to the west was based on a design speed of 40 mph, which is the design speed for

A sight distance easement will be required to keep obstructions outside the line of sight.

Urban Non-Residential Collectors. The sight-distance requirement to the east was based on a design speed of 30 mph, which is the estimated maximum speed for vehicles exiting the Woodmen/Retail Row roundabout. As shown in Figure 3a, the access entering sight-distance criteria for both single-unit and multi-unit trucks can be met to the west if Retail Row Street is continued along the same alignment. The access entering sight-distance criteria for single-unit trucks can be met to the east. However, the sight-distance line for multi-unit trucks crosses through the commercial lot and it may not be reasonable to keep this area free from obstructions that would block the line of sight to the area between the sight line and the curb. For this site-specific situation it is reasonable and sufficient to provide adequate stopping sight distanc entering multi-unit truck. As shown in Figure 3a, the required stopping sight distance on a design speed of 40 mph from Table 2-17 of the *ECM* can be met in both directio

please revise as it was indicated that only the east is analyzed due to the restricted movements.

Figure 3b shows the intersection sight distance analysis at the proposed intersec Row Street/Towhee Court based on the criteria contained in Table 2-21. The requirement to the west was based on a design speed of 40 mph, which is the design speed for Urban Non-Residential Collectors. The sight-distance requirement to the east was based on a design speed of 30 mph, which is the estimated maximum speed for vehicles exiting the Woodmen/Retail Row roundabout. As shown in Figure 3b, the intersection sight-distance criteria can be met in both directions. Figure 3b also shows the required stopping sight distance of 305' based on a design speed of 40 mph from Table 2-17 of the *ECM* can be met in both directions.

Figure 3c shows the access entering sight-distance analysis at the east commercial access to Retail Row Street (Towee Lane) based on the criteria contained in Table 2-35. As this intersection is planned to be restricted to three-quarter movement (left-in/right-in/right-out only), only the sight distance to the east was analyzed. The sight-distance requirement to the east was based on a design speed of 30 mph, which is the estimated maximum speed for vehicles turning left or right onto Retail Row Street from Kite Place. As shown in Figure 3a, the access entering sight-distance criteria for both single-unit and multi-unit trucks can be met to the west of Retail Row Street is continued along the same alignment. The access entering sight-distance criteria for single-unit trucks and multi-unit trucks can be met to the east. Figure 3c also shows the required stopping sight distance of 305' based on a design speed of 40 mph from Table 2-17 of the *ECM* can be met in both directions.

Figure 3d shows the intersection sight-distance analysis at the proposed intersection of Retail Row Street/Merlin Way. As shown in Figure 3d, the required intersection sight-distance requirement from *ECM* Table 2-21 can be met based on design speed of 40 mph, which is the design speed for Urban Non-Residential Collectors. Merlin Way is located about 161 feet west of the termination of Retail Row Street at Kite Place. Retail Row Street is planned to be classified as an Urban Local between Merlin Way and Kite Place. This is less than the 280-foot intersection sight-distance requirement from Table 2-21 based on a design speed of 25 mph. However, the required stopping sight distance of 155' based on a design speed of 25 mph from Table 2-17 of the *ECM* can be met in both directions.

PROPOSED RIO LANE CLOSURE AT US HIGHWAY 24

The intersection of Rio Lane/US Highway 24 is proposed to be closed, as shown in the adopted *US Highway 24 Access Management Plan* and the *US 24 Planning and Environmental Linkages Study, October 2017*. The project will help implement the *US Highway 24 Access Management Plan* by providing an alternative to the Rio Lane/US Hwy 24 intersection.

The site plan shows the proposed internal public streets for site circulation and the new connection to Rio Lane that would allow for the prescribed closure of the US Hwy 24/Rio intersection per CDOT's *US Highway 24 Access Management Plan*.

EXISTING ROADWAY AND TRAFFIC VOLUMES

Area Roadways

The major roadways in the site's vicinity are shown in Figure 1 and are described below.

Woodmen Road is a four-lane east/west Expressway that ends at the intersection with US Highway 24. The intersections of Woodmen Road with Meridian Road, McLaughlin Road, and US Highway 24 are all signalized.

US Highway 24 is a two-lane, category EX - Expressway/Major Bypass (CDOT Classification) adjacent to the site that runs northeast/southwest with a 55-mile-per hour (mph) posted speed limit adjacent to the site. The corridor was studied in-depth in the *US 24 Planning and Environmental Linkages Study*. Two alternatives were carried forward in this study for the segment of US Highway 24 adjacent to the site:

- US Highway 24 as a six-lane corridor
- US Highway 24 as a four-lane corridor with a peak-period shoulder lane in each direction

Because both scenarios result in US Highway 24 operating a six-lane road during peak hours, this has been assumed for the 2043 analysis.

Meridian Road is a four-lane north/south Principal Arterial. Meridian Road (the arterial roadway portion) extends north from Falcon Highway to Hodgen Road. Note: the US Hwy 24/Old Meridian Road intersection was converted to a right-in/right-out intersection.

McLaughlin Road is a two-lane, Non-Residential Collector road that extends north from Rolling Thunder Avenue to Eastonville Road. The roadway provides retail and residential access, both north and south of Woodmen Road.

Rio Lane and Rio Road are two-lane Rural Local roadways that connect US Hwy 24 to Falcon Highway. The roadways are about 24 feet wide. The intersection with US Hwy 24 is stop-sign

controlled. The intersection with US Hwy 24 is planned to be closed and the new internal roads planned as part of this development will serve as the replacement connection to US Hwy 24.

Existing Traffic Volumes

Figure 4a shows the results of recent morning and afternoon peak-hour turning-movement traffic counts at the intersections of Woodmen Road/US Hwy 24, US Hwy 24/ Meridian Road, US Hwy 24/"Old" Meridian Road, Woodmen/McLaughlin, Woodmen/Meridian and Rio Lane/US Hwy 24. The intersection-traffic counts were collected recently in May 2023.

Existing Levels of Service

Level of service (LOS) is a quantitative measure of the level of delay at an intersection. Level of service is indicated on a scale from "A" to "F." LOS A represents control delay of less than 10 seconds for unsignalized and signalized intersections. LOS F represents control delay of more than 50 seconds for unsignalized intersections and more than 80 seconds for signalized intersections. Table 1 shows the level of service delay ranges.

Table 1. Intersection Levels of Service Delay Ranges

Level of Service	Signalized Intersections Average Control Delay (seconds per vehicle)	Unsignalized Intersections 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.

Figure 4b presents the results of the existing intersection level of service analysis. The signalized intersections were analyzed using Synchro, while the unsignalized intersection of US Hwy 24/Rio Lane was analyzed based on the unsignalized method of analysis procedures from the *Highway Capacity Manual, 6th Edition* by the Transportation Research Board. The level of service reports are attached.

Woodmen Road/Meridian Road

The signalized intersection of Woodmen/Meridian is currently operating at an overall LOS C during the morning peak hour and an overall LOS D during the afternoon peak hour. Some of the left-turn movements are currently operating at LOS E during the peak hours.

Woodmen Road/McLaughlin Road

The signalized intersection of Woodmen/McLaughlin is currently operating at an overall LOS B during the morning peak hour and an overall LOS C during the afternoon peak hour.

Woodmen Road/US Highway 24

The signalized intersection of Woodmen/US Hwy 24 is currently operating at an overall LOS C during both the morning and afternoon peak hours.

US Highway 24/Meridian Raod

The signalized intersection of US Hwy 24/Meridian is currently operating at an overall LOS B during the morning peak hour and an overall LOS D during the afternoon peak hour. During the afternoon peak hour, the existing single northeast-bound left-turn lane is operating at LOS F and the southwest-bound through movement is operating at LOS E.

US Highway 24/Rio Lane

The southwest-bound through/left at the stop-sign-controlled intersection of US Highway 24/Rio Lane currently operates at LOS B or better during the peak hours. The shared northwest-bound left-/right-turning movement on Rio Lane operates at LOS F during the peak hours. The levels of service F for this movement are due both to the volume of left-turning vehicles and the high volume of through vehicles on US Highway 24.

TRIP GENERATION

Estimates of the vehicle trips projected to be generated by the proposed development have been made using the nationally-published trip-generation rates from *Trip Generation, 11th Edition, 2021* by the Institute of Transportation Engineers (ITE). Table 2 (attached) presents the estimated trip generation for The Commons at Falcon Field development.

Internal Trips

Internal trips are trips that occur within the site and do not impact the external roadways. Because the site is planned to have multiple retail pads and housing, some of the generated trips will be traveling within the site. Table 2 includes estimates of internal trip capture to account for

trips generated within the site. The internal trips were estimated using the NCHRP 684 Internal Trip Capture Estimation Tool. The results of the tool are attached.

Total External Trip Generation

Approximately 6,817 total external daily trips are projected to enter and exit the site at the access point ("driveway trips") on the average weekday. During the morning peak hour, approximately 118 vehicles would enter and 142 vehicles would exit the site. During the evening peak, approximately 287 vehicles would enter and 254 vehicles would exit.

Pass-by and Diverted Trips

The trips generated by the commercial portions of the site have also been aggregated by trip type to account for the pass-by phenomenon. A pass-by trip is one made by a motorist who would already be on an adjacent road regardless of the proposed development, but who stops in at the site while passing by. The pass-by motorist would then continue on his or her way to a final destination in the original direction. For purposes of this report, pass-by trips are trips by motorists already traveling through the intersection of US Highway 24/Woodmen Road.

Because the site is near the intersections of US Hwy 24/Falcon Hwy and US Hwy 24/Meridian Road, vehicles traveling through these intersections, but not through the intersection of US Hwy 24/Woodmen Road may still stop at the site on the way to their destination. Because these intersections are not directly adjacent to the site, these trips would be considered "diverted trips", based on ITE terminology, and therefore are referred to as such in this report. These trips would result in altered turning movements at the nearby major intersections of US Hwy 24/Falcon Hwy, US Hwy 24/Meridian Road, and Woodmen Road/Meridian Road and new turning movements at the intersection of US Hwy 24/Woodmen Road. In addition, it has been assumed that some of these diverted trips coming to and from Falcon Hwy to the east will use Rio Road and Rio Lane to access the site.

Total External "New" Trip Generation

Estimates of Pass-by and diverted trips are shown in Table 2 and are based on *Trip Generation Handbook - An ITE Proposed Recommended Practice*, 3rd Edition, 2014 by ITE. The table shows the resulting external "new" trip generation, which reflects the subtraction of passby trips. Diverted trips are shown as "new" trips, as diverted trips will result in trips added to the Woodmen/US Hwy 24 intersection. Note that many of the diverted trips would not generally represent "new" trips at some off-site intersections – such as US Hwy 24/Meridian and Woodmen/Meridian - although some turning movements would be altered as part of travel route diversions.

Trip Generation Comparison

Table 2 also includes comparison to the estimate presented in the 2022 property rezone TIS, dated December 15, 2021. About 228 fewer daily external vehicle trips are estimated to be generated, based on the currently-proposed site plan, than were assumed in the previous report.

TRIP DISTRIBUTION

An estimate of the directional distribution of site-generated vehicle trips to the study-area roads and intersections is a necessary component in determining the site-generated traffic volumes. Figure 5 shows the directional-distribution estimate for the primary site-generated trips. The figure shows the percentages of the site-generated vehicle trips (primary trips) projected to be oriented to and from the site's major approaches. Estimates have been based on the following factors: traffic counts conducted at major intersections adjacent to the proposed development, the proposed land uses, the access plan, the area road system serving the site, the site's geographic location, and previously-conducted LSC studies in the vicinity.

The directional-distribution estimates for primary trips are based on the anticipated service area for the retail portion of the development. This commercial center will primarily serve the Falcon area. The higher percentages for Meridian Road north of Woodmen, McLaughlin Road north of Woodmen Road, and US Hwy 24 east of the site reflect the higher current density of "rooftops" and the anticipated growth areas to the north and northeast. The ten-percent split is associated with current residential development and potential future developments to the east (Falcon Highway corridor) and southeast. The five-percent split to/from the southwest on US Hwy 24 (primary trips, like the other directional splits) is intended to account for some future Banning Lewis Ranch connections to US Hwy 24 and potentially some trips from the Cimarron Hills area (likely limited by the longer trip length and availability of retail shops in the Powers Boulevard corridor). The six-percent split to/from west Rolling Thunder Way reflects the residential development in that direction. While the seven-percent split to/from west Woodmen Road accounts for some traffic coming from areas to the west, including northern Colorado Springs, via this route.

Additionally, Figure 5 shows what percentage of overall pass-by and diverted trips have been pulled from each turning movement at the affected intersections to be rerouted as part of the site-generated traffic.

For the residential portion of the development, the directional distribution of the trips is based on residential-oriented destinations during peak hours, such as places of employment, shopping centers, schools, etc. It is anticipated that most trips will travel to/from the west either via Woodmen Road or US Hwy 24, as most retail and employment centers are to the west. Most of the remaining trips are expected to go to/from the north and east via US Hwy 24, McLaughlin Road, and Meridian Road.

Site-Generated Traffic

Site-generated traffic volumes for the development during the weekday morning and evening peak hours are shown in Figure 5 for the following intersections:

- Woodmen Road/US Highway 24
- Woodmen Road/Meridian Road
- Woodmen Road/McLaughlin Road
- US Highway 24/Meridian Road
- US Highway 24/Old Meridian Road
- Internal roundabout
- Internal access points

Site-generated traffic volumes have been calculated by applying the directional-distribution percentages estimated by LSC (from Figure 5) to the trip-generation estimates (from Table 2). The pass-by trips and diverted trips were assigned, based on the magnitude and direction of the peak-hour traffic volumes projected for the major study-area streets/roads.

BACKGROUND TRAFFIC VOLUMES

Background traffic is traffic on the adjacent roadways that is forecast to be present without the proposed development. Short-term and 2043 background traffic scenarios were developed.

Both future forecasts also assume that the intersection of US Hwy 24/Rio Lane has been closed and the associated traffic has been re-routed. Because Rio Lane will no longer directly access US Hwy 24, LSC projects that some of the trips currently using Rio Lane and Rio Road will reroute and use Falcon Hwy or Meridian Road to access US Hwy 24.

Short Term

Figure 7a shows the estimated short-term background traffic volumes at the study-area intersections. The short-term background volumes assume that the US Hwy 24/Rio Lane intersection has been closed and traffic has been rerouted through the new fourth leg of the US Hwy 24/Woodmen Road intersection.

Long Term fix call out

Figure 8s shows the estimated 2043 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. The 2043 background volumes were developed using the US Highway 24 PEL study. Volumes were modified as needed, based on newer count volumes and expected development in the study area. The 2043 background assumes future commercial development on the parcel to the west of the site with access through the proposed The Commons at Falcon Field development and the internal roundabout.

TOTAL TRAFFIC VOLUMES

Site-generated traffic volumes from Figure 6 were added to short-term background traffic volumes from Figure 7a to calculate short-term total traffic volumes provided on Figure 9a. Similarly, 2043 total traffic volumes provided in Figure 10a were calculated by adding the site-generated traffic (Figure 6) with the 2043 background traffic volumes (Figure 8a).

LEVEL OF SERVICE ANALYSIS

Levels of service were calculated for both the short-term background, 2043 background, short-term total traffic, and 2043 total traffic volumes. The results of the analysis are shown in Figures 7b, 8b, 9b, and 10b. Traffic lanes used in the analysis are also provided in these figures.

Woodmen Road/Meridian Road

The signalized intersection of Woodmen/Meridian is projected to at an overall LOS C during the morning peak hour and an overall LOS D during the afternoon peak hour, based on both the short-term background and total traffic volumes. Some of the left-turn movements are projected to operate at LOS E during the peak hours, based on both the short-term background and total traffic volumes. By 2043, some of the through movements are projected to operate at LOS E and some of the left-turn movements are projected to operate at LOS F, based on both the 2043 background and total traffic volumes.

figure 10 long term total indicates D. Revise accordingly.

Woodmen Road/McLaughlin Road

The signalized intersection of Woodmen/McLaughlin is projected to operate at an overall LOS C or better during the morning and afternoon peak hours, based on the short-term background, 2043 background, short-term total, and 2043 total traffic volumes.

US Highway 24/Woodmen Road

In the short-term scenarios, it has been assumed that no baseline capacity improvements (additional northeast-bound/southwest-bound through lanes) will occur on US Hwy 24. The improvements assumed at the intersection of US Hwy 24/Woodmen Road would include:

- The new fourth northwest bound leg of the intersection with a left lane, two through lanes, and right lane;
- Auxiliary turn lanes on US Hwy 24 to serve the trips/vehicle turning movements associated with the new fourth leg - the development, and the "replacement" Rio Lane connection;
- Raised right-turn islands for pedestrian accessibility;
- Any lane alignment and/or median modifications on the Woodmen side of the intersection (to be determined with preliminary design); and
- Signal modifications.

dual lefts are shown in the figure

Please identify the modifications needed as this is the preliminary design stage

and installation (woodmen side)

Overall, the signalized intersection is forecast to operate at LOS C or better during both peak hours in both the short-term background and short-term total scenarios.

By 2043, it has been assumed that US Hwy 24 will be widened to provide three northeast-bound and three southwest-bound through lanes as shown in the *2040 Major Transportation Corridors Plan* (*MTCP)* and the US Highway 24 PEL Study. Overall, the signalized intersection is forecast to operate at LOS D or better during both peak hours in both the 2043 background and 2043 total scenarios.

US Highway 24/Meridian Road

As shown in Figure 4a, the existing northeast-bound left-turn volume at the intersection of US Hwy 24/Meridian is 608 vehicles per hour during the afternoon peak hour. As dual left-turn lanes are typically considered when the left-turn volume exceeds 300 vph, it has been assumed that a second northeast-bound left-turn lane will be constructed in the short term. With the addition of a second turn lane, all movements at this intersection are projected to operate at LOS D or better during the peak hours, based on both the short-term background and short-term total traffic volumes.

By 2043, it has been assumed that US Hwy 24 will be widened to provide three northeast-bound and three southwest-bound through lanes, as shown in the 2040 *MTCP* and the US Highway 24 PEL Study. Overall, the signalized intersection is forecast to operate at LOS D or better during both peak hours in both the 2043 background and 2043 total scenarios.

Woodmen Road/Retail Row Street

The proposed roundabout at the intersection of Woodmen Road/Retail Row Street has been analyzed using Sidra. The roundabout is expected to have all approaches operate at LOS A during both peak hours, based on the projected short-term and 2043 total traffic volumes.

Retail Row Site-Access Points

The access points to the Retail Row Street have been analyzed as stop-sign-controlled (unsignalized) intersections. All yielding turning movements at the proposed access points are anticipated to operate at LOS B or better through 2043.

Rio Lane Access Point

The proposed intersection of Rio Lane/Caracara Place has been analyzed as a stop-sign-controlled (unsignalized) intersection. All approaches are projected to operate at LOS A during the peak hours, based on the short-term total and 2043 total traffic volumes.

QUEUING ANALYSIS

A queuing analysis was performed using Synchro/SimTraffic for the key approach turning movements at the intersection of US Hwy 24/Woodmen Road and the proposed Retail Row Street access points to determine the projected queue lengths, based on the 2043 total traffic volumes. The simulation was run five times. The queuing reports are attached. These queuing results have been used to develop auxiliary turn-lane recommendations. The results of the analysis are shown in Figure 11.

The El Paso County *Engineering Criteria Manual* (*ECM*) standards were followed to develop turn-lane recommendations at the intersections. Figure 12a provides the turn-lane design for the new fourth leg of the intersection of US Hwy 24/Woodmen Road. As shown, it is recommended that the new northwest-bound left turn be 270 feet in length and the new northwest-bound right turn should be at least 275 feet.

figures 12a and 12b have not been provided. please include for review

Figure 12b shows the recommended turn-lane lengths at the proposed access points to Retail Row Street.

Table 3 provides the proposed recommended turn-lane lengths along with the relevant standards and maximum queues. Queueing reports are attached.

Right-In-Only Access Points

The assumption is that the site will be designed such that traffic entering the businesses via the proposed right-in-only access points will have a "free movement" into internal private-access drives, parking bays etc., such that queues will not form and back onto the right-in access points or onto the main entry street. This would likely be accomplished with a sufficient entry "throat" and other site-design elements that would give priority to entering traffic. The on-site/internal design and operation of these right-in access points would need to be verified with the Preliminary Plan and/or Site Development Plan stages of development.

this is the preliminary plan. Provide full analysis at this stage of these access points

DEVIATIONS TO ECM CRITERIA

The following deviations may be required. Deviations are not submitted at this stage of the development review process. These would be submitted with the Preliminary Plan.

- Public street intersection spacing along a Non-Residential Collector for the first intersection back from an arterial roadway – Woodmen Road (proposed) southeast of US Highway 24
- Public street intersection/access spacing along a Non-Residential Collector – Retail Row Street west of Merlin Way
- Public street intersection spacing along an Urban Local street – Retail Row Street east of Merlin Way.

Jackdaw drive per the prelim. plan. please update all the street names as necessary as names of the roadways have changed.

include any deviations that may be needed for the private roadways.

revise text. Deviations shall be submitted at this stage for review.

- Access to an Urban Non-Residential Collector;
- *ECM*-standard auxiliary turn-lane lengths on an Urban Non-Residential Collector.

Per previous studies Rio lane was to be upgraded with pedestrian facilities. Please provide discussion/analysis and recommendations for improvements to Rio Lane.

ROADWAY CLASSIFICATIONS

- The roads proposed for this project would be classified as either Urban Non-Residential Collector or Urban Local streets. Please refer to Figure 13, which presents the recommended classifications for the proposed streets shown on the Preliminary Plan. The figure also shows the classification of the adjacent existing roadways as described in the "Existing Roadways" section.

MTCP-IDENTIFIED FUTURE NEEDED ROADWAY IMPROVEMENT PROJECTS

- The *El Paso County Major Transportation Corridors Plan* (*MTCP*) calls for improvement to US Highway 24 from Garrett Road to Woodmen Road and upgrade to a rural six-lane Principal Arterial.
- Although not in the immediate area, the *MTCP* calls for an upgrade to Falcon Highway to a two-lane, rural Minor Arterial from US Highway 24 to one mile east of Curtis Road. Also, the *MTCP* calls for an upgrade to Eastonville Road from McLaughlin to Latigo Boulevard as a rural road upgrade to a two-lane Rural Minor Arterial.

provide figure

MULTI-MODAL TRANSPORTATION & TRANSPORTATION DEMAND MANAGEMENT OPPORTUNITIES

- The project would include urban street sections with sidewalks.
- Figure 12 shows the recommendation for pedestrian crossing of US Highway 24. LSC recommends pedestrian/bicycle trail connections between the US Highway 24/Woodmen Road intersection to the Rock Island Trail and the existing sidewalks within the existing shopping center areas of Falcon.
- Also, trail connections exist between the Rock Island Trail and the Woodmen Hills neighborhoods to the north of US Highway 24.
- A Park & Ride is planned for a site south of US Highway 24/ Woodmen Road. Future Mountain Metropolitan Transit bus service may be added to/from this Park & Ride location.
- This site is within two miles of Falcon Elementary School. No residential uses are proposed for this development.

revise as half of the site is residential

COUNTY ROAD IMPROVEMENT FEE PROGRAM

- This project is subject to participation in the County Roadway Improvement Fee Program.

please address at this stage

US HIGHWAY ACCESS MANAGEMENT PLAN AND RIO LANE CLOSURE AT US HIGHWAY 24

- This project will implement part of the *US Highway Access Management Plan*. The intersection of Rio Lane/US Highway 24 is proposed to be closed, as shown in the adopted *US Highway 24 Access Management Plan* and the *US 24 Planning and Environmental Linkages Study*, October 2017. The project will help implement the *US Highway 24 Access Management Plan* by providing an alternative to the Rio Lane/US Highway 24 intersection.
- The site plan shows the proposed internal public streets for site circulation and the new connection to Rio Lane that would allow for the prescribed closure of the US Highway 24/Rio intersection, per CDOT's *US Highway 24 Access Management Plan*.
- This will benefit safety and traffic operations on US Highway 24. The existing Rio Lane/US Highway 24 intersection is substandard, as there are no left- and right-turn lanes. The level of service during the peak hour is LOS F (96 seconds of delay per vehicle on average for vehicles wanting to turn onto US Highway 24).
- The project will generate trips using Rio Lane and Rio Road between Falcon Highway and the site, but it is important to note that by closing the direct Rio Lane connection to US Highway 24, the route used by cut-through traffic will be significantly more circuitous and will likely discourage motorists who currently use Rio Lane and Rio Road as a cut-through route to Falcon Highway.
- The recent Meridian Road extension south of Rolling Thunder, across US Highway 24 to Falcon Highway will also improve the roadway connectivity to Falcon Highway (and further discourage cut-through traffic on Rio Lane and Rio Road). This is expected to be a significant improvement to the previous Meridian Road connection across US Highway 24.
- The County has indicated that they will require upgrades to Rio Lane and Rio Road, necessary to accommodate the resulting net traffic volumes on Rio Lane and Rio Road between Falcon Highway and the site. The details of upgrades will be addressed as part of the upcoming Preliminary Plan application. The "net" traffic volumes will be estimated with the Preliminary Plan. The net volumes would be the current volumes plus increases due to site-generated traffic minus reductions in cut-through traffic and redistribution of area resident traffic (due to the closure of the direct connection of Rio Lane to US Highway 24).
- The project will add a signal-controlled connection to US Highway 24 and Woodmen – not only for this development but also for the benefit of the residents in Falcon Ranch Estates and Arrowhead Estates Filing No. 1. This connection will have left- and right-turn lanes on US Highway 24.
- The proposed roundabout is proposed to be constructed as a T-intersection (no south leg). However, a fourth (south) leg could be added in the future if/when adjacent propert(ies) southeast of The Commons at Falcon Field redevelop in the future. The applicant will reserve land southeast of the roundabout as right-of-way preservation for a potential future extension to the adjacent property, if ever needed.

ROUNDABOUT ANALYSIS & DESIGN

and bicyclists

A modern roundabout with a 180-foot inscribed circle diameter is proposed as the traffic control for the intersection of Woodmen Road/ Retail Row Street. Roundabout figures containing roundabout technical analysis are attached, along with a roundabout parameters table.

The horizontal layout, analysis, and roundabout report have been completed using the criteria contained in the Wisconsin Department of Transportation roundabout design manual (as required by El Paso County). The attached roundabout figures and roundabout parameters table contain all the details for the currently proposed roundabout. The inscribed circle diameter is 180 feet and the design vehicle is a WB-50 truck (per the *ECM*). However, the roundabout has also been designed to accommodate a larger WB-67 truck. The roundabout will also accommodate the standard county snowplow vehicle. The design accommodates pedestrians. Please refer to the attached roundabout-parameters table and figures for details. The final roundabout design report will be submitted following the review and County staff acceptance of the horizontal layout shown on attached exhibits.

CDOT ACCESS PERMITTING

CDOT access permits will be required for the street connection to the US Highway 24/Woodmen Road intersection and for the closure of Rio Lane at US Highway 24.

CONCLUSIONS AND RECOMMENDATIONS

values does not match the trip gen table #3. revise.

Trip Generation

- The Commons at Falcon Field is expected to generate about 3,584 new external vehicle trips on the average weekday, with about half entering and half exiting the site during a 24-hour period. During the morning peak hour, about 118 vehicles would enter and 142 vehicles would exit the site. During the afternoon peak hour, approximately 287 vehicles would enter and 254 vehicles would exit the site.

Traffic Operations Analysis

- The signalized intersection of US Highway 24/Woodmen Road is projected to operate at LOS D or better during both peak hours for the short-term and year-2043 scenarios. The El Paso County *Engineering Criteria Manual* (*ECM*) standards were followed to develop turn-lane recommendations at the intersections. Figure 12a provides the turn-lane conceptual design for this intersection. Please refer to the Level of Service and Queuing Analysis sections of this report for additional details and discussion.

Recommended Improvements

revise text

- A list of recommended improvements within the site and in the study area is presented in Table 4.
- The intersection of US Highway 24/Rio Lane is to be closed and the proposed Collector roads within the site will connect Rio Lane to the US Highway 24/Woodmen intersection.

Short-term improvements assumed at the intersection of US 24/Woodmen Road would include:

- The fourth leg of the intersection with a northwest-bound left-lane, two northwest-bound through-lanes, and northwest-bound right-lane;
- Raised right-turn islands for pedestrian accessibility;
- Any lane alignment and/or median modifications on the Woodmen side of the intersection (to be determined with preliminary design);
- Signal modifications; and

signal installation (woodmen side)

- Auxiliary turn lanes on US Highway 24 to serve the trips/vehicle turning movements associated with the new fourth leg of this intersection. This new fourth leg would serve site traffic and background traffic shifted from the closure of the US Highway 24/ Rio Lane connection.

figure 10 per attachments

Based on the 2043 total traffic volumes shown in Figure 10a and the criteria contained in the *State of Colorado Highway Access Code,* the following deceleration and acceleration lanes are required on US Highway 24:

- A northeast-bound right-turn deceleration lane is warranted on US Highway 24 approaching Woodmen Road. Based on a posted speed limit of 55 mph, the prescribed lane length for the deceleration lane is 600 feet plus a 222-foot taper.
- A southwest-bound left-turn deceleration lane is warranted on US Highway 24 approaching Woodmen Road. Based on a posted speed limit of 55 mph, the prescribed lane length for the deceleration lane is 600 feet plus 100 feet of storage and a 222-foot taper.
- A northwest-bound right-turn acceleration lane is warranted on US Highway 24 east of Woodmen Road. Based on a posted speed limit of 55 mph, the prescribed lane length for the acceleration lane is 960 feet plus a 222-foot taper.

9

- Based on the total traffic volumes shown in Figure 9a and the criteria contained in the El Paso County *Engineering Criteria Manual (ECM)*, turn lanes are required on the urban non-residential Collector at the intersection with US Highway 24 and the intersection with Rio Lane. Additional details are provided in Figure 10.

provide an Auxiliary turn lane analysis in the narrative and identify which meet criteria and which do not providing the ECM criteria turn lanes and the proposed turn lane lengths

* * * * *

figure 10 is the 2043 totals. verify and revise the figures throughout the report.

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

Sincerely,

LSC TRANSPORTATION CONSULTANTS, INC.

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

JCH/KDF/JAB:jas

Enclosures: Tables 3-5
Figures 1-13
Roundabout Figures 1-9
Roundabout Design Parameters Table
Traffic Count Reports
Level of Service Reports
Queuing Report
NCHRP Report 684

References:

Trip Generation Handbook - An ITE Proposed Recommended Practice, Third Edition September 2017, Institute of Transportation Engineers
Trip Generation, 10th Edition, 2017, Institute of Transportation Engineers
El Paso County Major Transportation Corridors Plan, 2016
Engineering Criteria Manual, 2016, El Paso County
NCHRP Report 684 Enhancing Internal Trip Capture Estimation for Mixed-Use Developments, 2011, Transportation Research Board
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

Tables

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Table 3: Detailed Trip Generation Estimate

Land Use Code	Land Use Description	Trip Generation Units	Trip Generation Rates [1] Average Weekday Traffic	Morning Peak Hour In	Morning Peak Hour Out	Afternoon Peak Hour In	Afternoon Peak Hour Out	Total Trips Generated Average Weekday Traffic	Morning Peak Hour In	Morning Peak Hour Out	Afternoon Peak Hour In	Afternoon Peak Hour Out	Daily Internal Trip %	Internal Trips Generated Average Weekday Traffic	Morning Peak Hour In	Morning Peak Hour Out	Afternoon Peak Hour In	Afternoon Peak Hour Out	External Trips Generated Average Weekday Traffic	Morning Peak Hour In	Morning Peak Hour Out	Afternoon Peak Hour In	Afternoon Peak Hour Out	Pass-By Trips [2]	Non-Passby External Trips Generated Average Weekday Traffic
	Current Rezone Land Uses																								
821	Shopping Plaza (40-150k)	84 KSF [3]	67.52	1.07	0.65	2.55	2.64	5,672	90	55	214	222	4%	227	6	4	15	16	5,445	84	51	199	206	34%	3,594
210	Single Family Detached Housing	80 DU	10.28	0.20	0.56	0.64	0.38	822	16	45	51	30	12%	102	2	3	8	7	720	14	42	43	23	0%	720
220	Multi Family Housing (Low Rise)	145 DU	6.93	0.11	0.36	0.36	0.21	1,005	16	52	52	31		125	2	3	8	8	880	14	49	44	23	0%	880
	Total Trip Generation Estimate							**7,499**	**122**	**152**	**317**	**283**		**454**	**10**	**10**	**31**	**31**	**7,045**	**112**	**142**	**286**	**252**		**5,194**
	FOR COMPARISON - Trip Generation From November 5, 2020 Preliminary Plan TIS (PCD File No. SP211)																								
820,862	Shopping Center and Home Improvement Supterstore																		**13,544**	**265**	**183**	**590**	**631**		**8,247**
	FOR COMPARISON - Trip Generation From February 24, 2020 Master TIS (PCD File No. CR191)																								
820,862	Shopping Center and Home Improvement Supterstore																		**13,544**	**265**	**183**	**590**	**631**		**8,247**

Notes:
(1) Source: "Trip Generation, 11th Edition, 2021" by the Institute of Transportation Engineers (ITE)
(2) Source: "Trip Generation Handbook - An ITE Proposed Recommended Practice, Third Edition September 2017" by ITE
(3) KSF = one thousand square feet of floor space

Source: LSC Transportation Consultants, Inc. (REV. 12/8/2021 JCH; added prior report trip generation comparison 1/21/22)

Recommend to coordinate with the applicant as to their intent. Currently the preliminary plan indicates 169 single family lots although the letter of intent does not identify the type of development single family attached or detached etc. Revise as needed.

Table 4: Auxiliary Lane Analysis

Intersection	Turning Movement	Recommended Length (feet)	ECM/CDOT Standard (feet)	95th Percentile Queue (feet)
US 24/Woodmen	Northbound Left	270 Decel + Storage 120 Bay Taper	115 Decel 270 Storage 120 Bay Taper	40
	Northbound Through	270 (second through lane)		135
	Northbound Right	320 Decel	115 Decel	60
	Northbound Right (Accel)	960 Accel	225 Taper	N/A
	Eastbound Right	600 Decel 225 Taper	600 Decel 225 Taper	137
	Westbound Left	600 Decel 100 Storage 225 Taper	600 Decel 100 Storage 225 Taper	84
Falcon Fields/West Access	Eastbound Left	135 (Decel + Storage) 160 Bay Taper	155 Decel 50 Storage 160 Bay Taper	25
	Westbound Left	190 (Decel + Storage) 75 Bay Taper	115 Decel 100 Storage 120 Bay Taper	25
Falcon Fields/East Access	Eastbound Left	120 (Decel + Storage) 75 Bay Taper	115 Decel 250 Storage 120 Bay Taper	25
Falcon Fields/Rio Lane	Eastbound Left	130 (Decel + Storage) 75 Bay Taper	155 Decel 100 Storage 160 Bay Taper	25
REV. 1/21/2022	(1) In calculating queue lengths, Synchro does not assume the use of a free or yielding right turn. As a result, these queue lengths represent the worst case scenario. These turns are proposed to be channelized with yielding or free right turn operations, which will result in lower queues.			

Table 5: Recommended Improvements

Item #	Improvement	Timing	Responsibility
Roadway Segment Improvements			
1	Construct an Urban Non-Residential Collector street between the site "entry" street (See Item #10) to existing Rio Lane as per the US Highway 24 Access Management Plan.	With the subdivision (plat)	Applicant
2	Upgrade Rio Lane (Falcon Highway to the site) to Urban Local standards or a County approved alternative; pedestrian facilities would be included in the Urban Local cross section evaluate the roadway for potential traffic calming measures.	Current Traffic Volumes exceed Rural Local Design ADT	Applicant to contribute a proportionate share to an escrow account. Proportionate share shall be finalized with the plat. The plat or site development plan warranting the improvements will be responsible to construct
3	Widen US Highway 24 to provide three through lanes in each direction.	Shown in 2040 MTCP and the US Highway 24 PEL Study	CDOT/per PEL Study
US 24/Woodmen Road Intersection			
4	Construct a 700 foot-long southwestbound left-turn deceleration lane plus transition taper on US 24 (westbound) approaching Woodmen Road. This requires widening of the box culvert under US 24 just west of the US 24/Rio Lane intersection.	With site development, when the peak hour volume for this movement exceeds 10 vph	Applicant
5	Extend the southwestbound left-turn deceleration lane plus transition taper on US 24 (westbound) approaching Woodmen Road to 700 feet.	With site development, when the peak hour volume for this movement exceeds 60 vph. Requires the closure of Rio Lane	Applicant
6	Lengthening/extension of the westbound right turn deceleration lane on US Highway 24 at Woodmen Road to CDOT standards (600 feet plus transition taper) with the necessary widening of the box culvert under US 24. The culvert widening should accommodate an extension of the westbound right turn deceleration lane on US Highway 24 to CDOT standards.	With the culvert widening	The additional cost associated with the culvert widening for the right turn lane, and the lengthening of the right turn lane itself should not be the responsibility of this applicant. CDOT and/or EPC funds should reimburse the applicant for this improvement if completed as part of this project. NOTE: Staff has indicated that the applicant shall pursue any reimbursements with the advisory committee and/or CDOT. There may be potential for credit through the County Fee program.
7	Construct a 600 foot-long northeastbound right-turn deceleration lane plus transition taper on US 24 (eastbound) approaching Woodmen Road	With site development, when the peak hour volume for this movement exceeds 10 vph	Applicant
8	Construct a northwestbound right-turn acceleration lane on US 24 (eastbound) from the Woodmen Road intersection. Rio Lane would be closed with the added southern leg of the woodmen/hwy24 intersection and this will allow for the full-length, CDOT standard acceleration lane.	With site development, when the peak hour volume for this movement exceeds 10 vph	Applicant
9	Construct a 960 foot-long northwestbound right-turn acceleration lane (plus transition taper) on US 24 (eastbound) east of Woodmen Road.	With the closure of Rio Lane	Applicant
10	Construct the southeast leg of the intersection. Lanes need to align across US 24 (within allowable/acceptable lane offset tolerances and considering protected/permissive left turn sight distance and left turning vehicle paths).	With the subdivision (plat)	Applicant
11	Modify the northwest leg (Woodmen Road) **as needed** so lanes align across US 24; The details would be determined with the Preliminary Plan (One option would be to narrow raised median nose to about 6 feet); construct raised/curbed right turn islands for pedestrians and for installing a signal pole on the northeast corner, construct a sidewalk connection to the Rock Island Trail (which connects to the sidewalk along the north side of Woodmen Road adjacent to the Falcon Town Center (Safeway).	With the subdivision (plat)	Applicant
12	Traffic signal system modifications, pedestrian accommodations, signing/striping improvements to convert the existing intersection from a T intersection to a four-leg intersection.	With the subdivision (plat)	Applicant
The Planned On-Site Collector Streets			
13	Construct a modern roundabout (See Figure 10)	With the subdivision (plat)	Applicant
14	Construct access points where shown on Figure 10b and incorporate associated left and right turn bays into the design on the Non-Residential Collector Streets	With the subdivision (plat)	Applicant
US Highway 24 Right-of-Way Dedication & Preservation			
15	CDOT required Right-of-way Dedication & Preservation along US Highway 24	With the subdivision (plat)	Applicant
US 24/Rio Lane Intersection			
16	Close intersection in conjuction with Improvement #1	Short-Term - The closing shall be coordinated with CDOT and EPC.	Applicant
Falcon Highway/Rio Lane Intersection			
17	Construct westbound right turn deceleration lane	Once westbound right turning volume exceeds 50 right turning vehicles per hour.	Applicant

Source: LSC Transportation Consultants, Inc. (REV. 12-15-2021)

Figures

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Figure 1

Vicinity Map

Commons at Falcon Field (LSC# 234220)

N

Approximate Scale 1" = 450'

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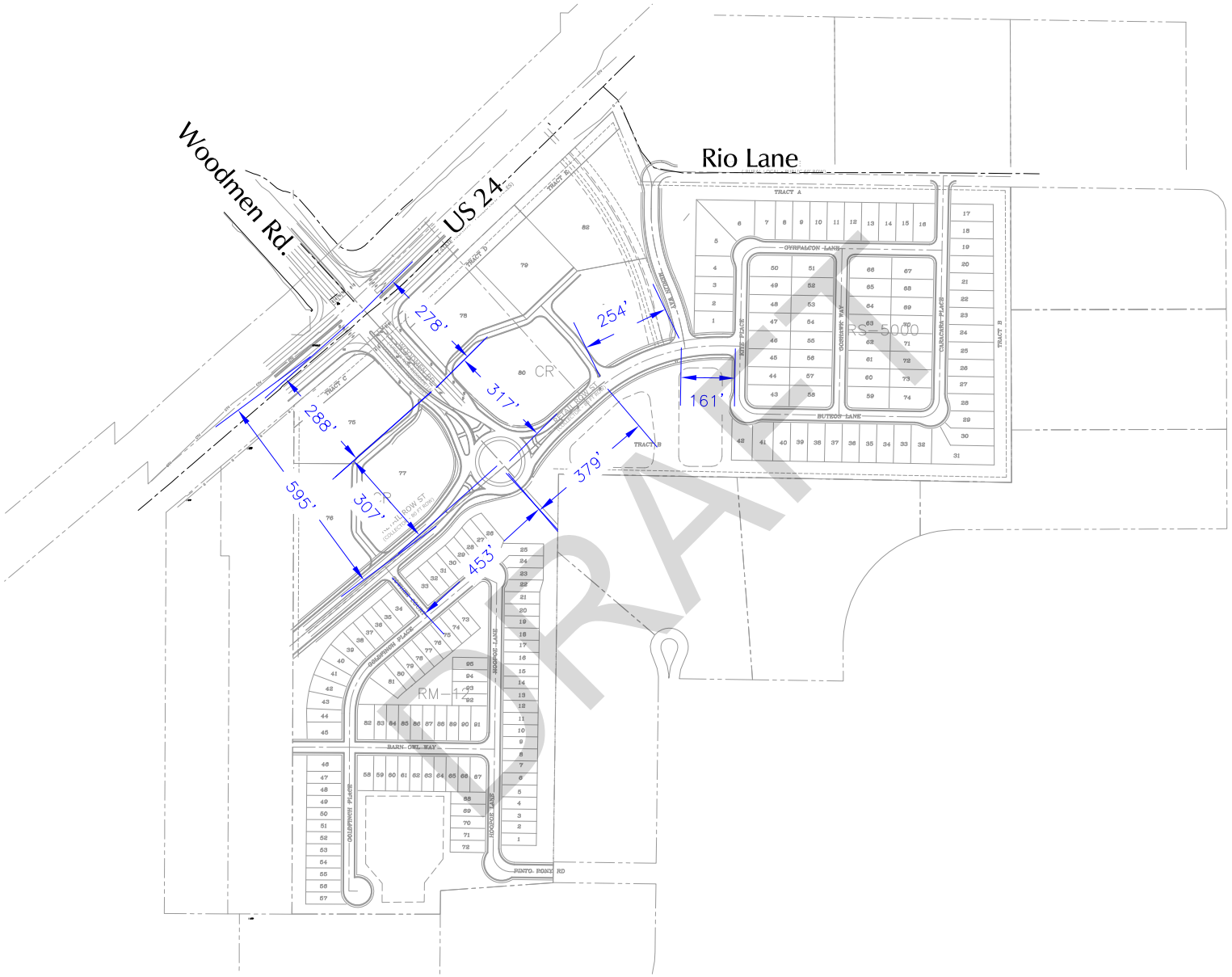
Figure 2a

Conceptual Site Plan

Commons at Falcon Field (LSC# 234220)

revise to preliminary site plan as this would not be conceptual at this stage



Approximate Scale 1" = 450'

Figure 2b

Intersection/Access Centerline Spacing

Commons at Falcon Field (LSC# 234220)

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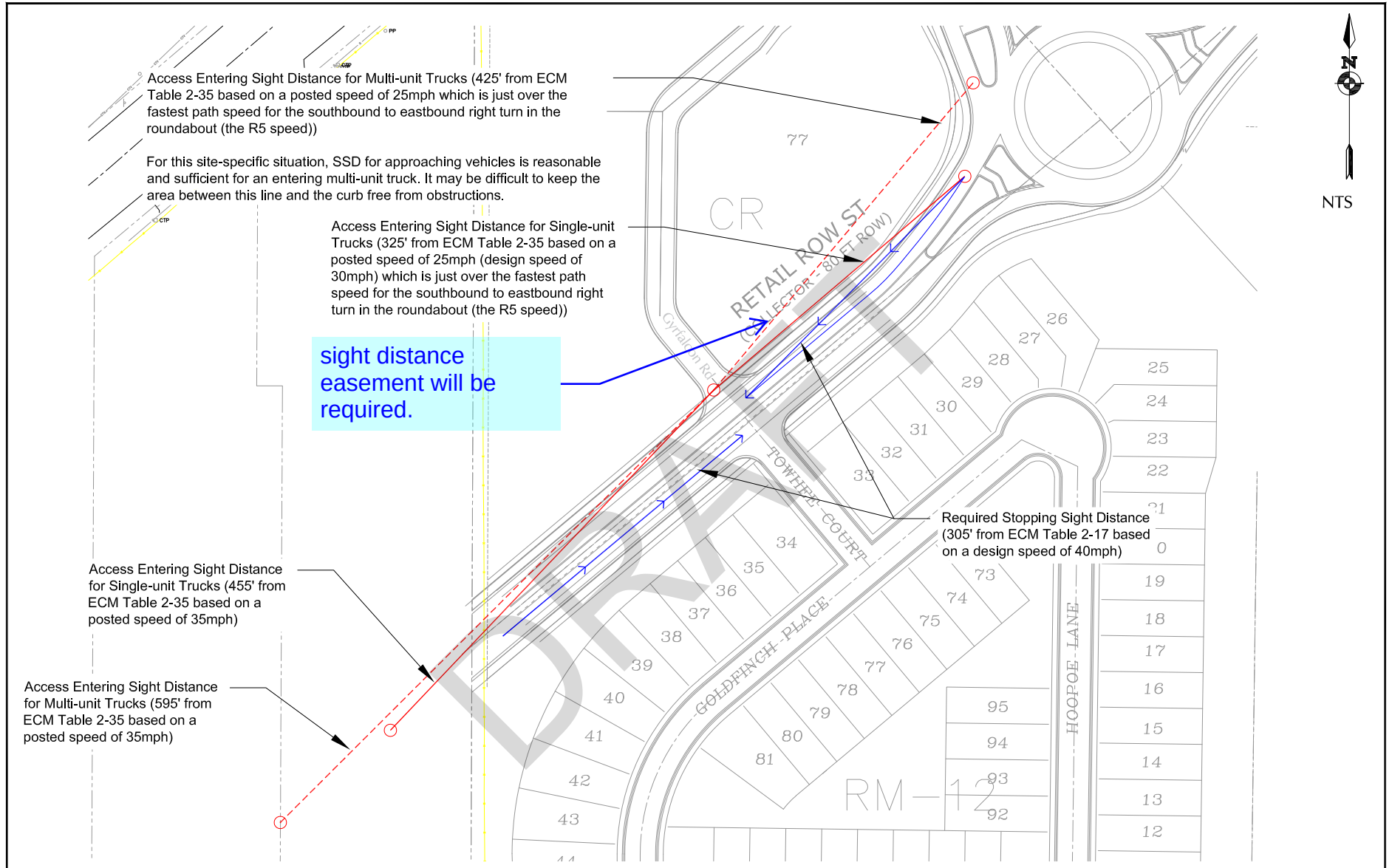

Figure 3a

Sight Distance Analysis Retail Row/Gryfalcon

Commons at Falcon Field (LSC# 234220)

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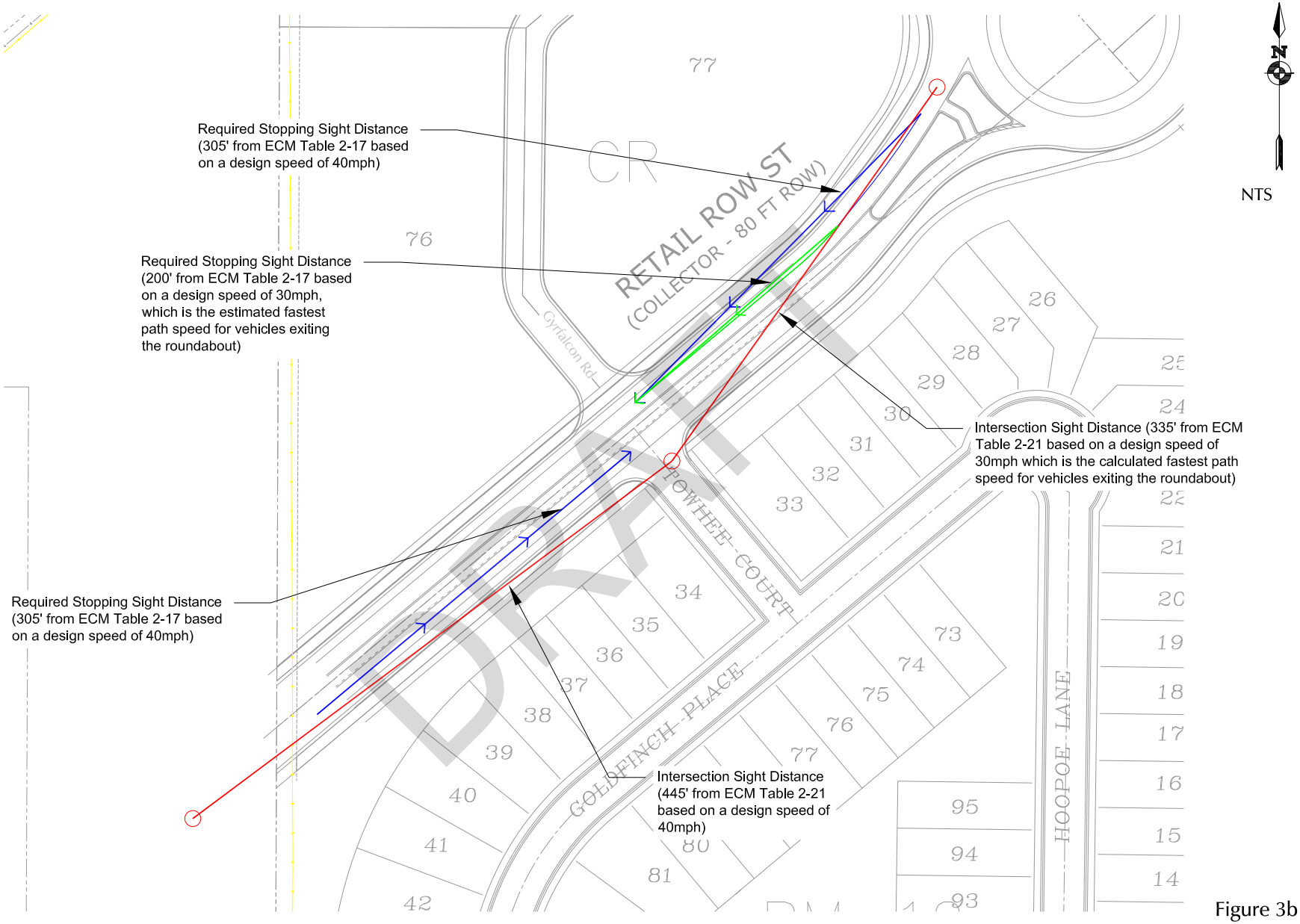

Figure 3b

Sight Distance Analysis Retail Row/Towhee Ct

Commons at Falcon Field (LSC# 234220)

TRANSPORTATION CONSULTANTS, INC.

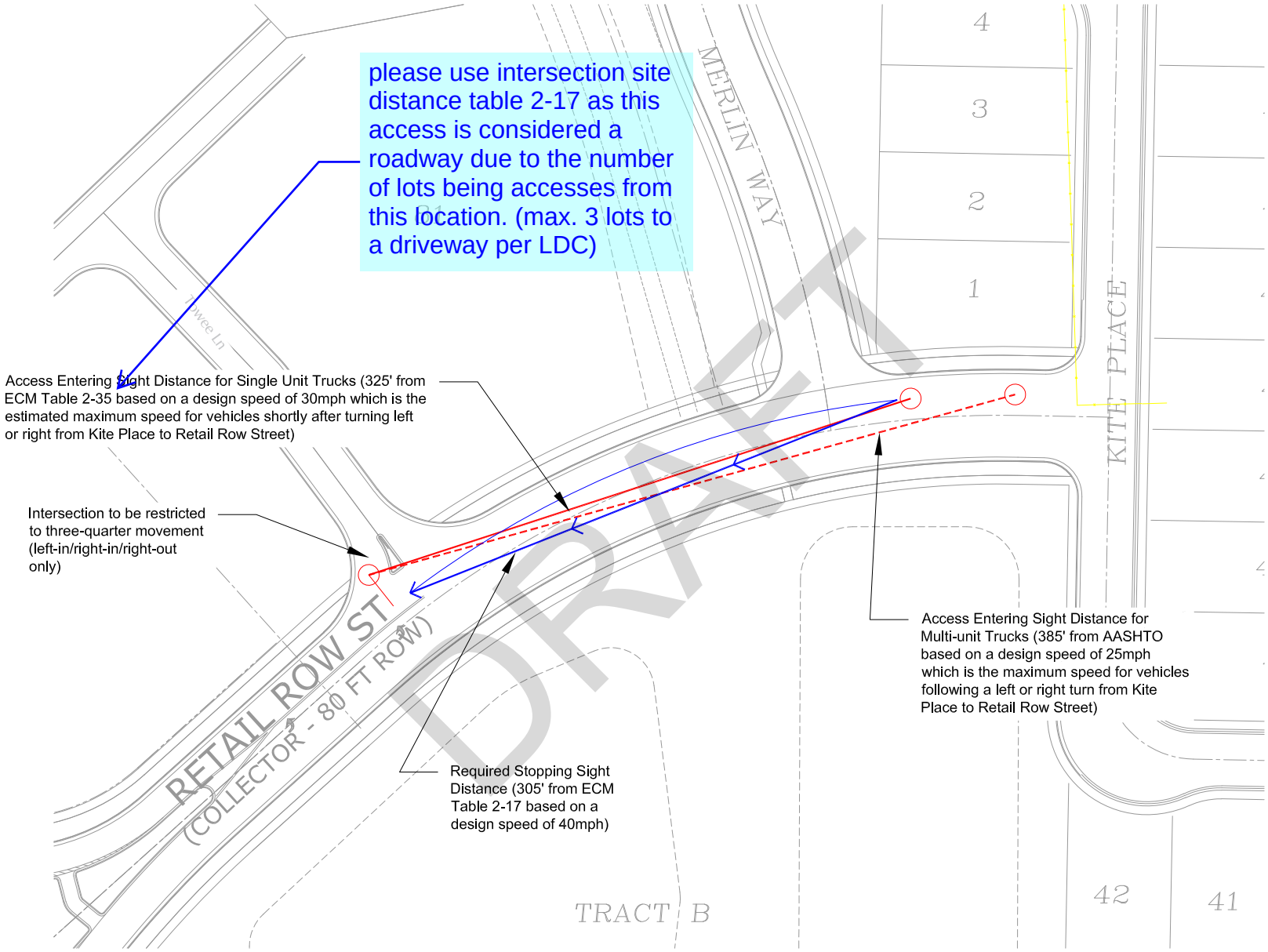

Figure 3c

Sight Distance Analysis Retail Row/Towee Ln

Commons at Falcon Field (LSC# 234220)

LSC TRANSPORTATION CONSULTANTS, INC.

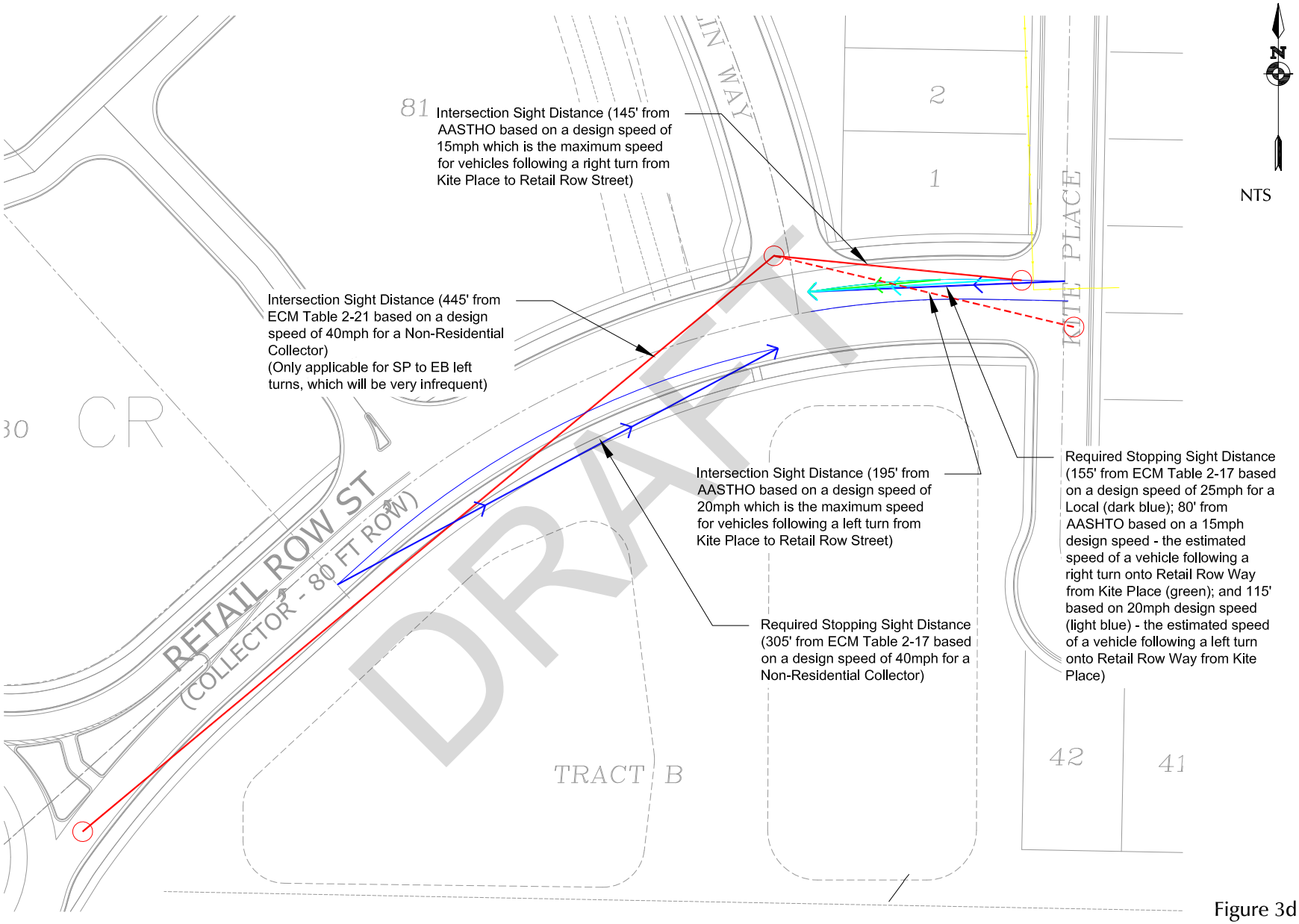

Figure 3d

Sight Distance Analysis Retail Row/Merlin Way

Commons at Falcon Field (LSC# 234220)

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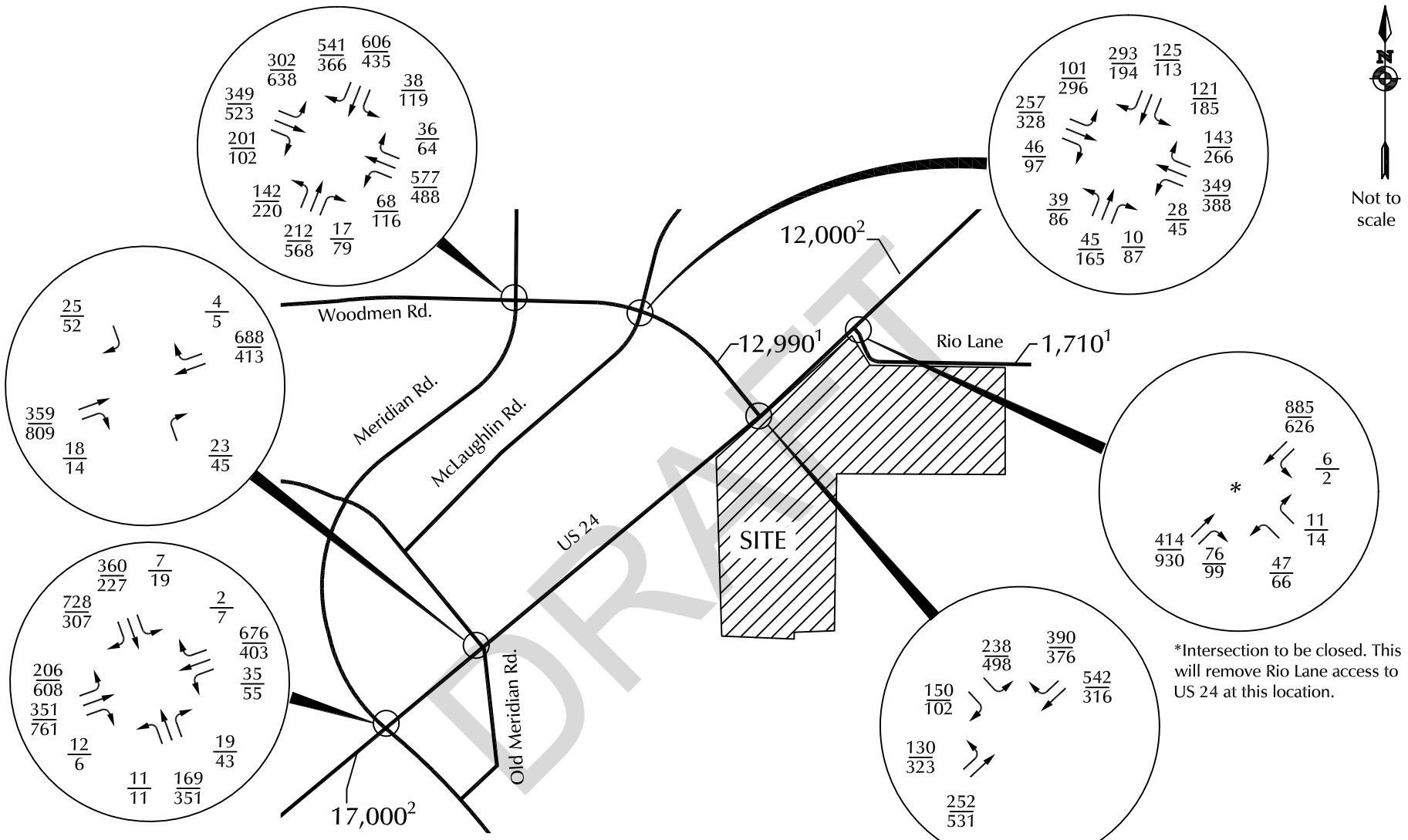

Figure 4a

Existing Traffic

Commons at Falcon Field (LSC# 234220)

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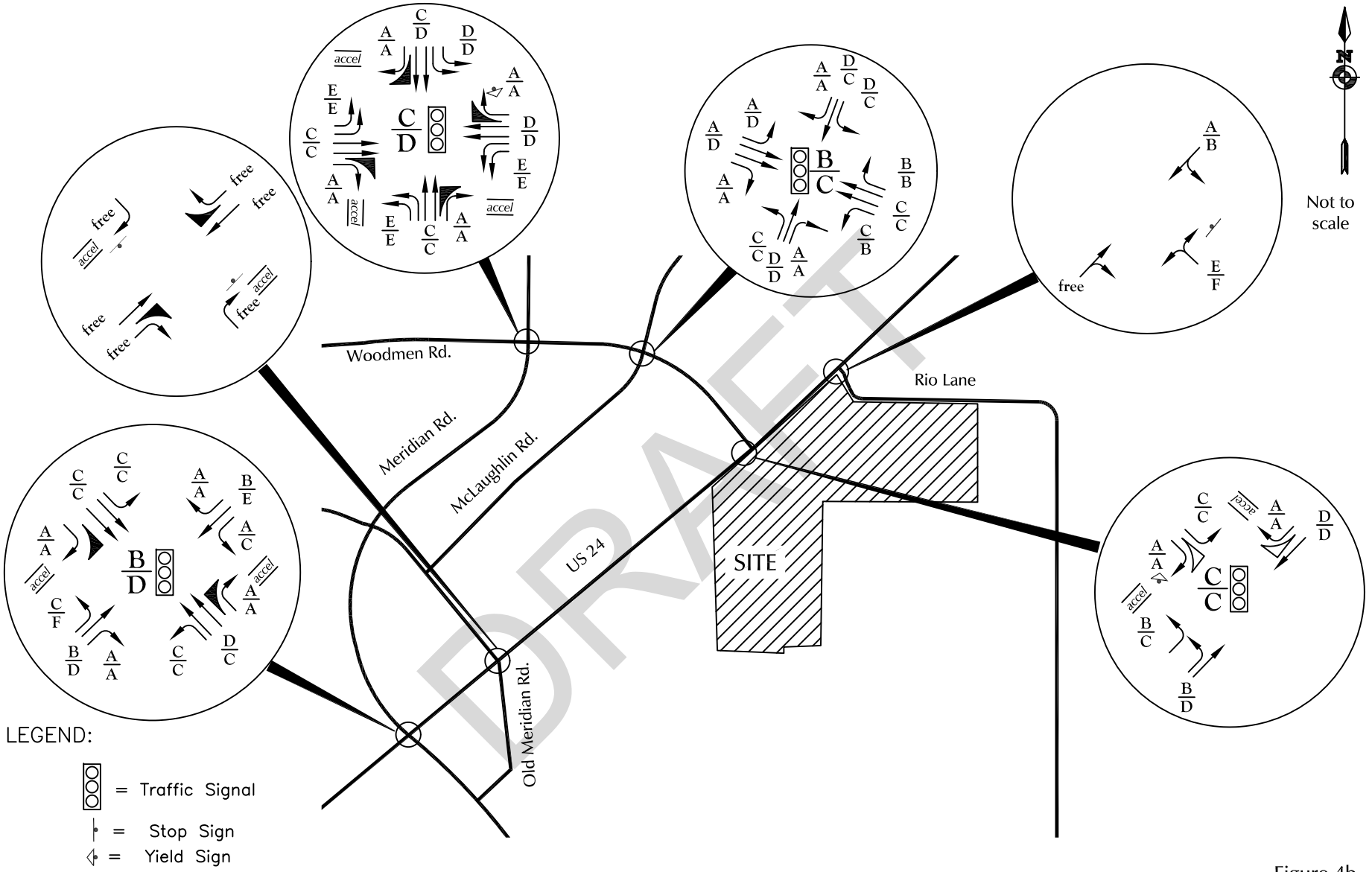

$\frac{A}{B}$ = AM Individual Movement Peak–Hour Level of Service / PM Individual Movement Peak–Hour Level of Service

$\frac{C}{D}$ = AM Entire Intersection Peak–Hour Level of Service / PM Entire Intersection Peak–Hour Level of Service

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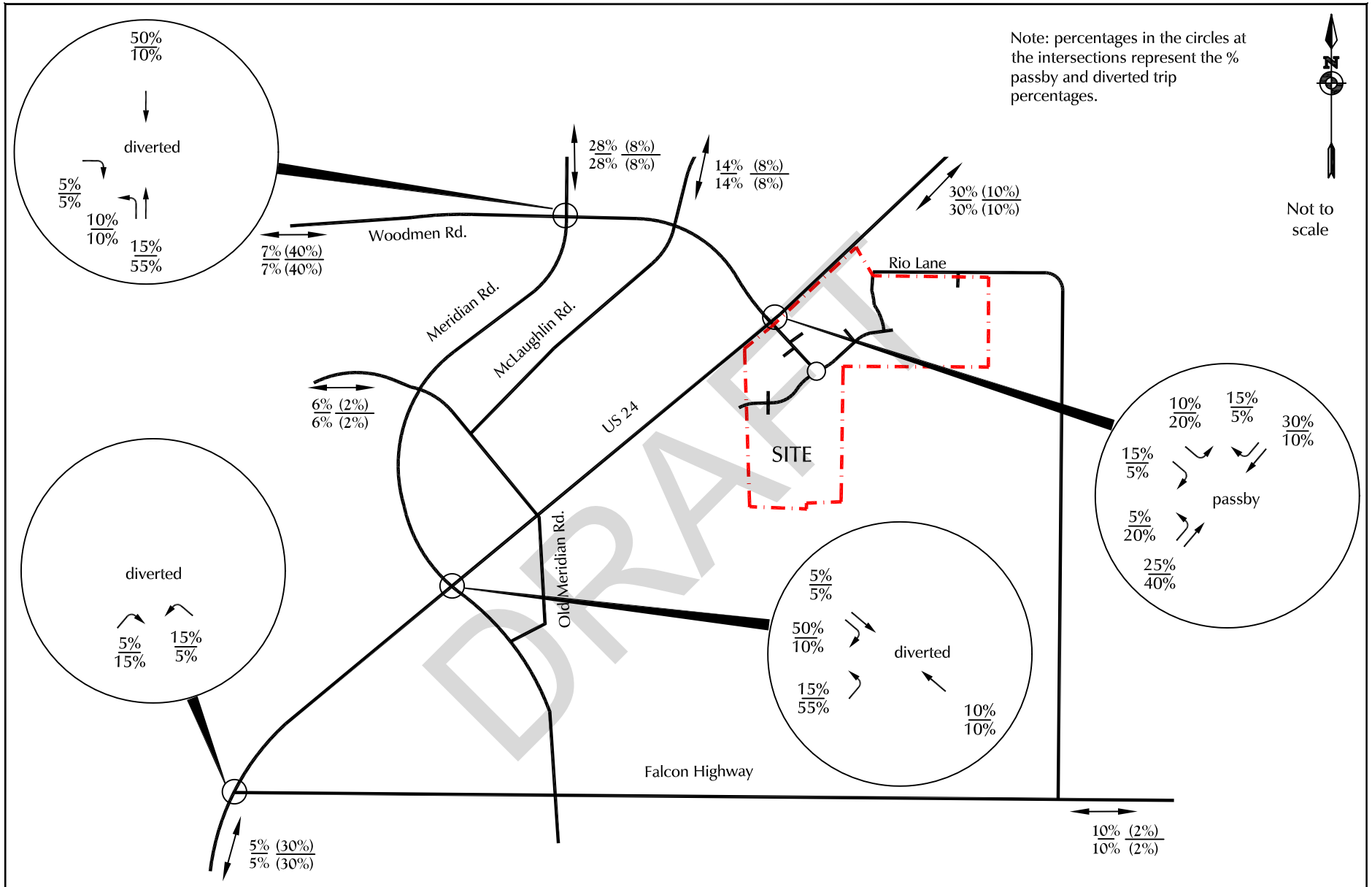
Figure 4b

Existing Lane Geometry, Traffic Control, and Level of Service

Commons at Falcon Field (LSC# 234220)



LEGEND:

$$\frac{\text{xx\% (xx\%)}}{\text{xx\% (xx\%)}} = \frac{\text{AM Percent Commercial (Residential) Directional Distribution}}{\text{PM Percent Commercial (Residential) Directional Distribution}}$$

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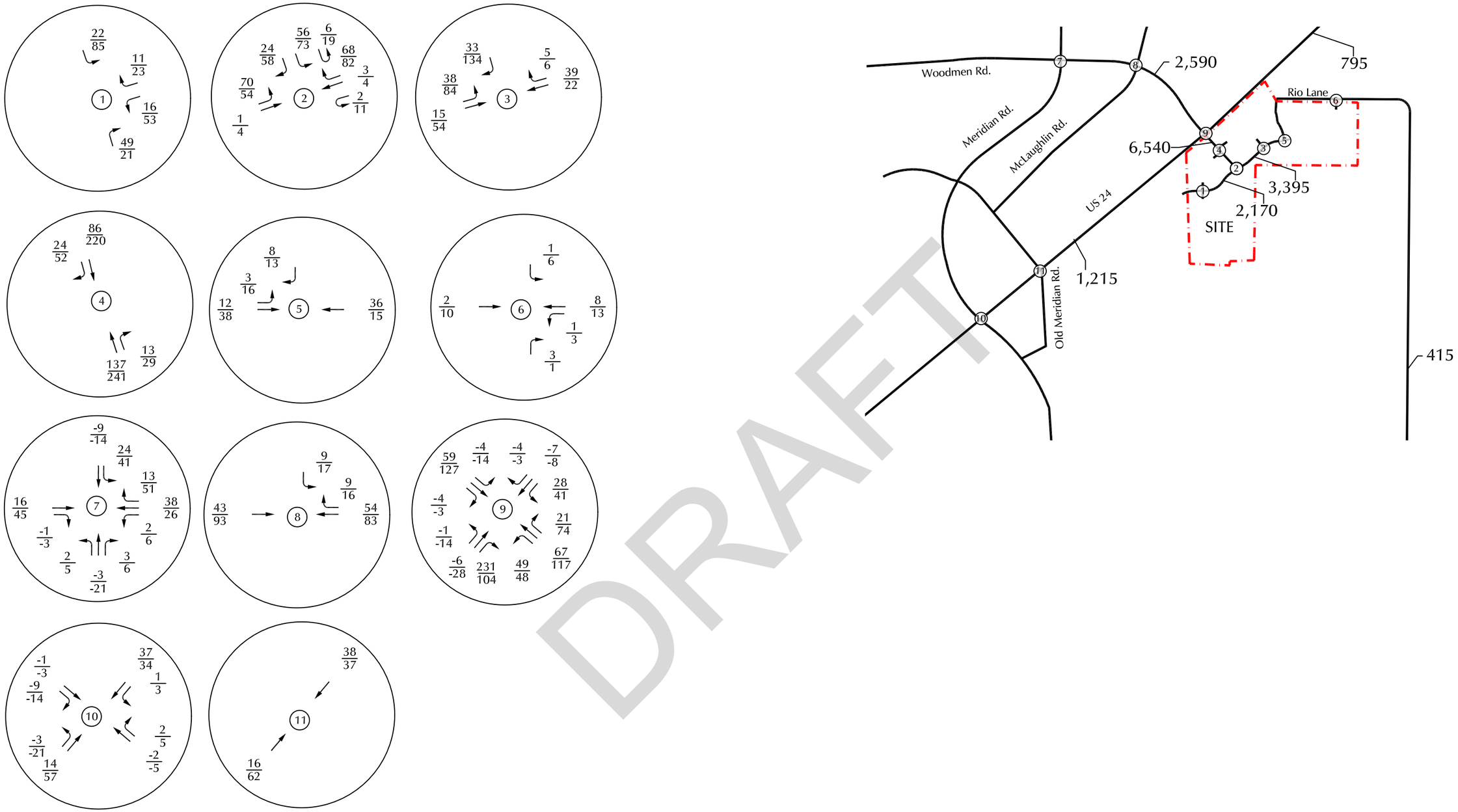
Figure 5

Directional Distribution

Commons at Falcon Field (LSC# 234220)



LEGEND: $\frac{XX}{XX} = \frac{\text{AM Peak-Hour Traffic (veh/hr)}}{\text{PM Peak-Hour Traffic (veh/hr)}}$

XXX = Average Weekday Traffic (vehicles per day)

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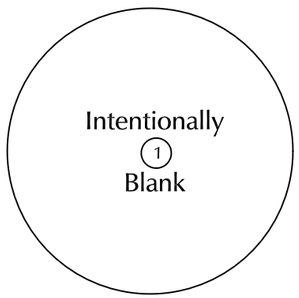
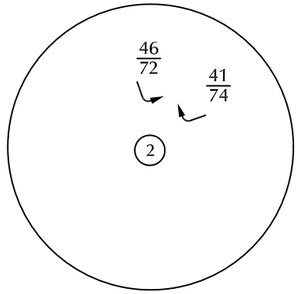
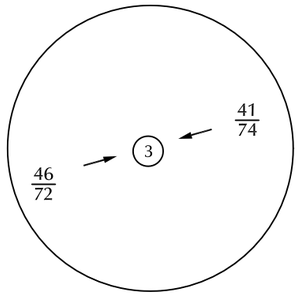
Figure 6

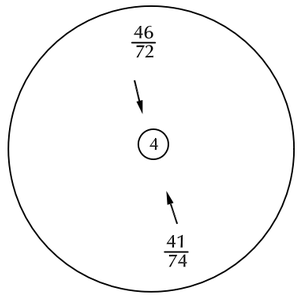
Site-Generated Traffic

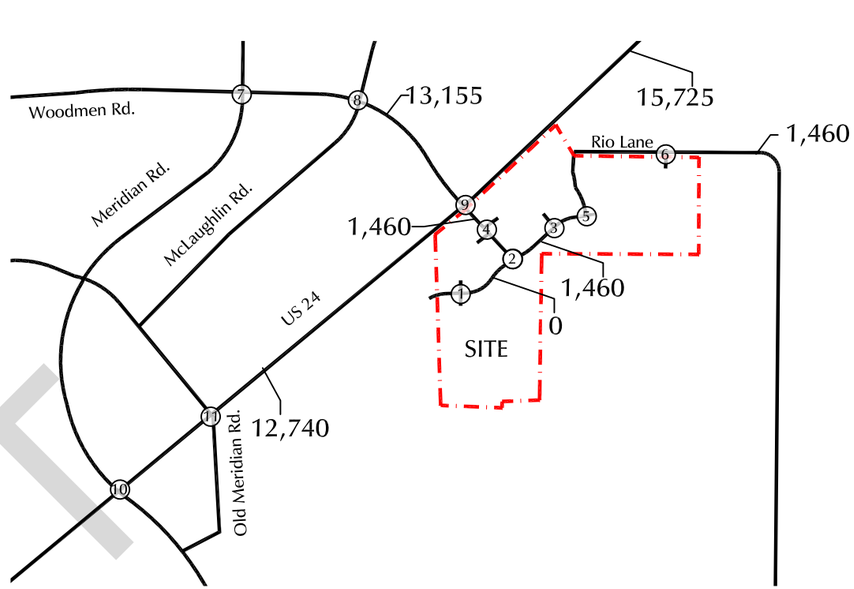
Commons at Falcon Field (LSC# 234220)

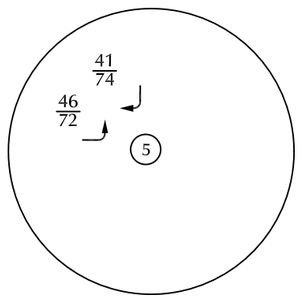


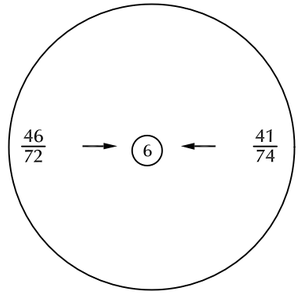


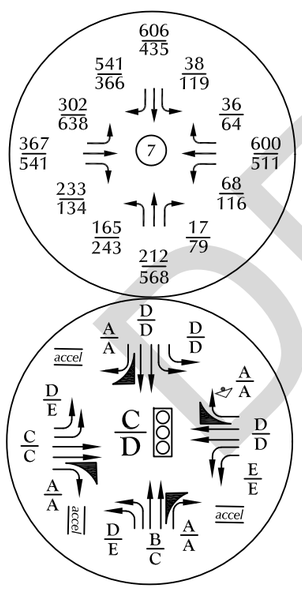


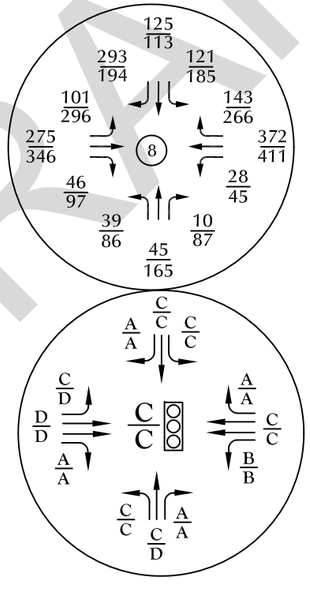


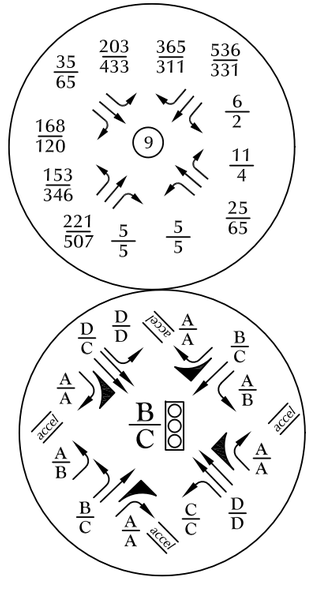


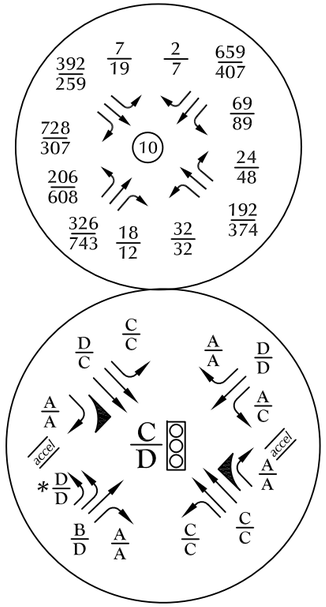


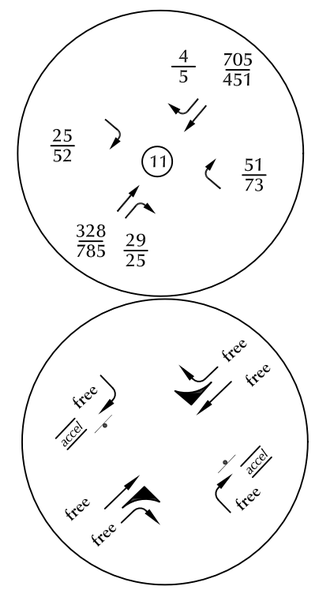












* assuming dual left in the short-term future

= Traffic Signal = Yield Sign

$\frac{A}{B}$ = AM Individual Movement Peak–Hour Level of Service / PM Individual Movement Peak–Hour Level of Service

$\frac{C}{D}$ = AM Entire Intersection Peak–Hour Level of Service / PM Entire Intersection Peak–Hour Level of Service

LEGEND: $\frac{XX}{XX}$ = AM Peak–Hour Traffic (veh/hr) / PM Peak–Hour Traffic (veh/hr)

XXX = Average Weekday Traffic (vehicles per day)

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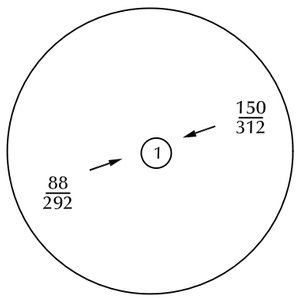
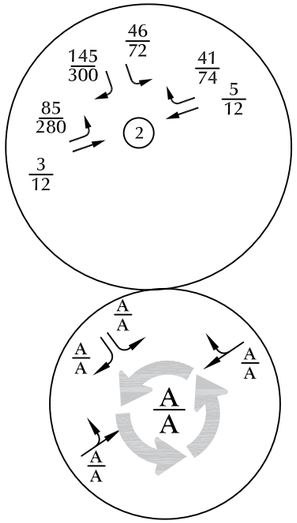
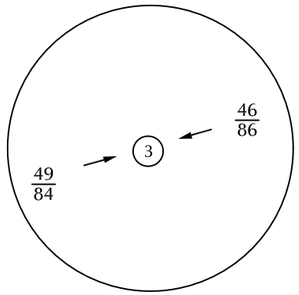
Figure 7

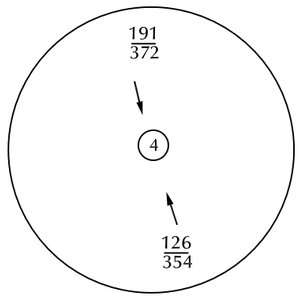
Short-Term Background Conditions

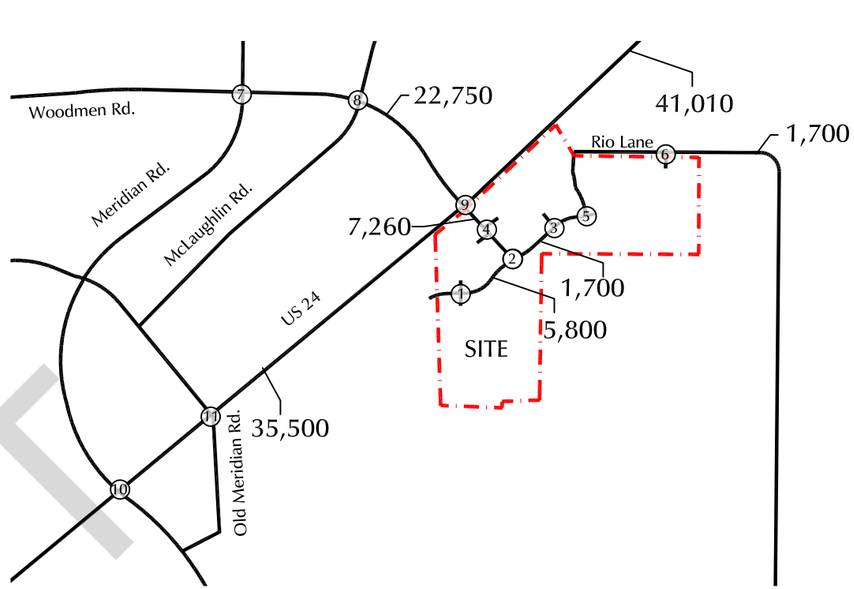
Commons at Falcon Field (LSC# 234220)

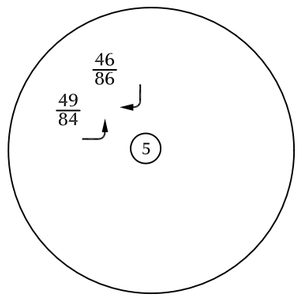


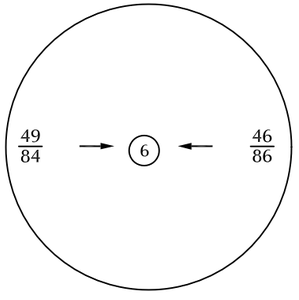


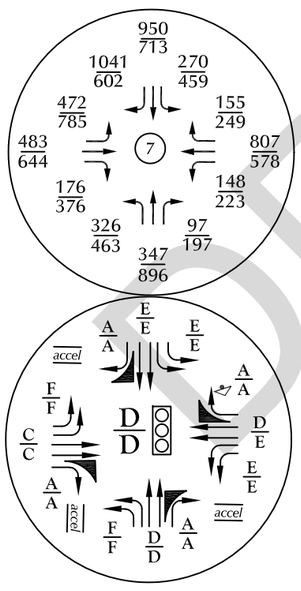


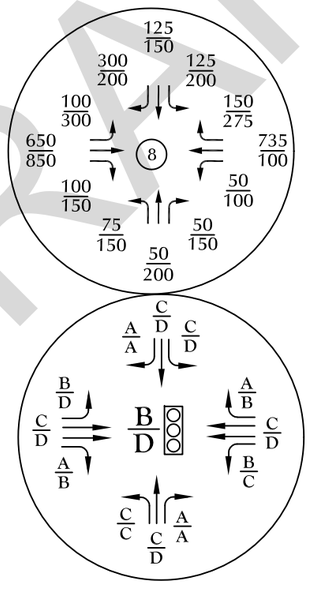


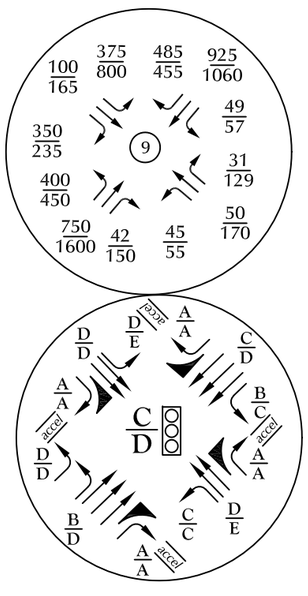


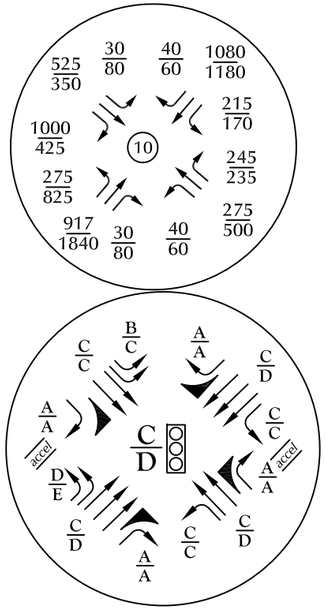


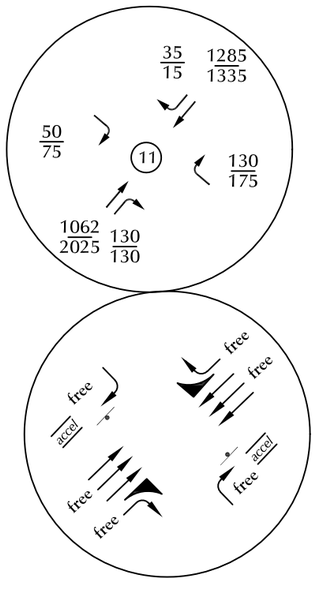












= Traffic Signal = Yield Sign = Modern Roundabout

$\frac{A}{B}$ = AM Individual Movement Peak–Hour Level of Service / PM Individual Movement Peak–Hour Level of Service

$\frac{C}{D}$ = AM Entire Intersection Peak–Hour Level of Service / PM Entire Intersection Peak–Hour Level of Service

LEGEND: $\frac{XX}{XX}$ = AM Peak–Hour Traffic (veh/hr) / PM Peak–Hour Traffic (veh/hr)

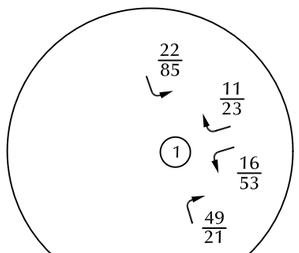
XXX = Average Weekday Traffic (vehicles per day)

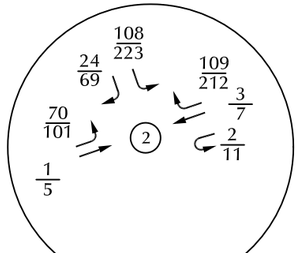
LSC TRANSPORTATION CONSULTANTS, INC.

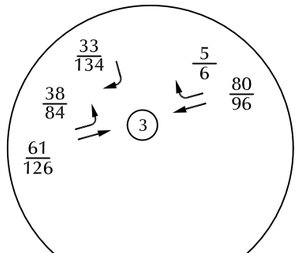
Figure 8

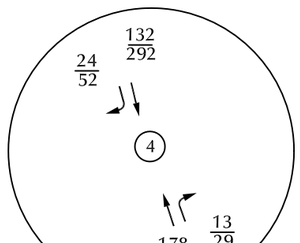
2043 Background Conditions

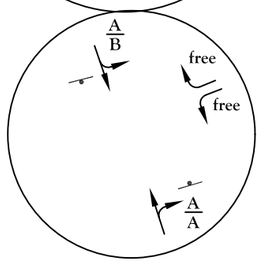
Commons at Falcon Field (LSC# 234220)

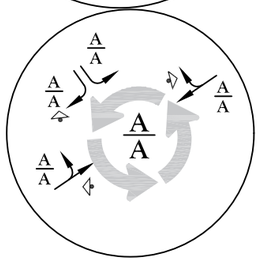


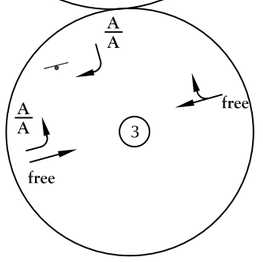


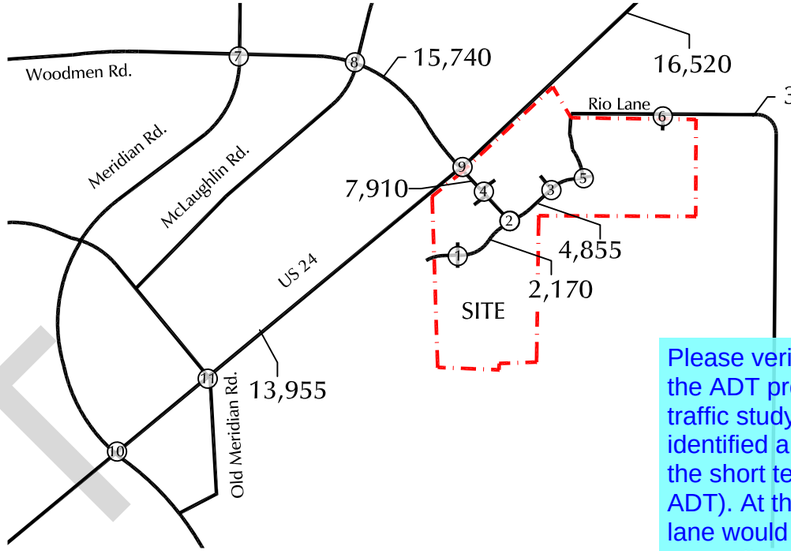




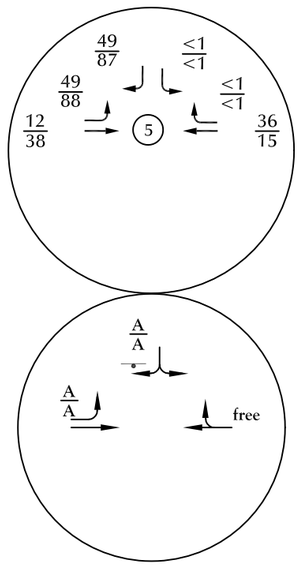


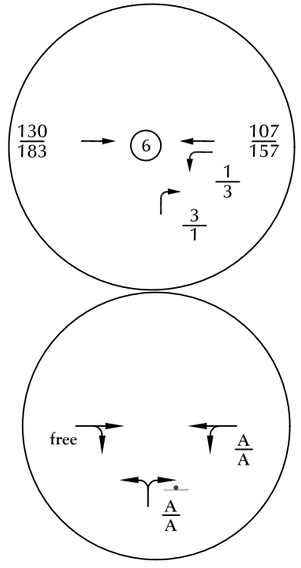


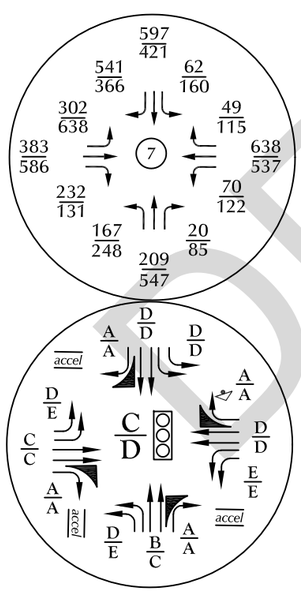


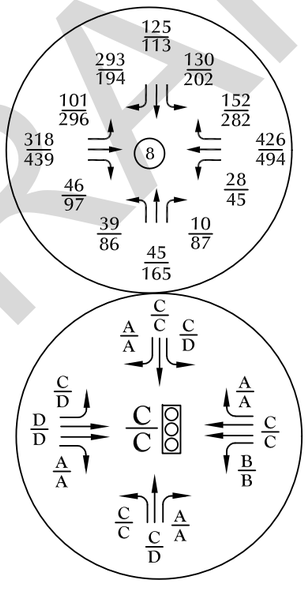


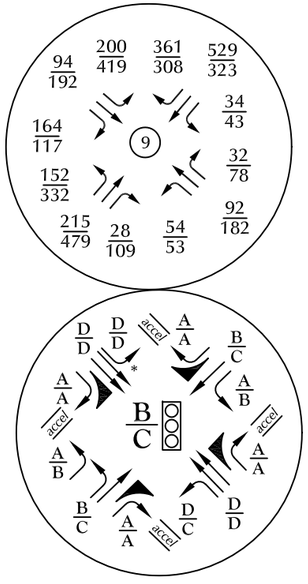
Please verify ADT on Rio lane as the ADT provided on the previos traffic study for the rezone identified a much smaller value at the short term total traffic (1,370 ADT). At the specified ADT, Rio lane would need to be upgraded to a collector roadway. Additionally, Jackdaw drive would need a collector classification.



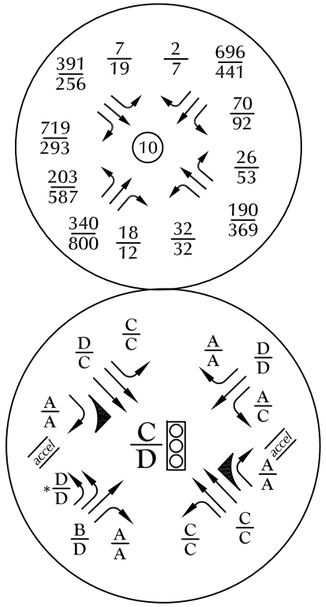




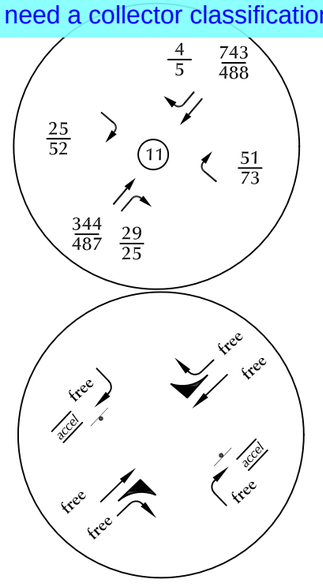




*Maintain single left turn in the short term (one receiving lane on US Highway 24)



**assuming dual left in the short-term future



LEGEND: $\frac{XX}{XX} = \frac{\text{AM Peak-Hour Traffic (veh/hr)}}{\text{PM Peak-Hour Traffic (veh/hr)}}$

XXX = Average Weekday Traffic (vehicles per day)

= Traffic Signal = Yield Sign = Modern Roundabout

$\frac{A}{B}$ = AM Individual Movement Peak-Hour Level of Service / PM Individual Movement Peak-Hour Level of Service

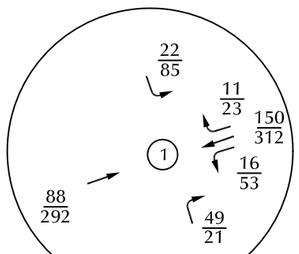
$\frac{C}{D}$ = AM Entire Intersection Peak-Hour Level of Service / PM Entire Intersection Peak-Hour Level of Service

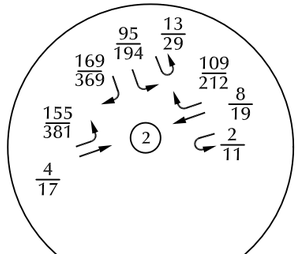
TRANSPORTATION CONSULTANTS, INC.

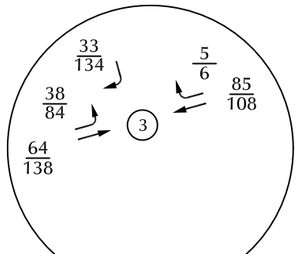
Figure 9

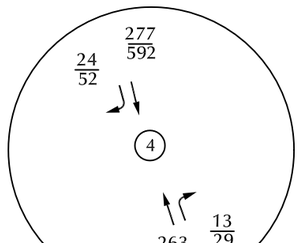
Short-Term Total Conditions

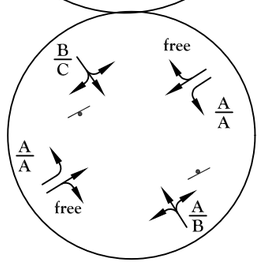
Commons at Falcon Field (LSC# 234220)

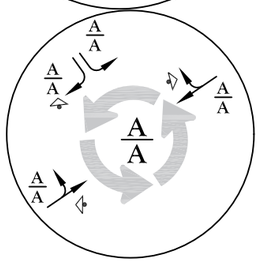


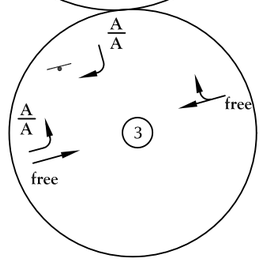


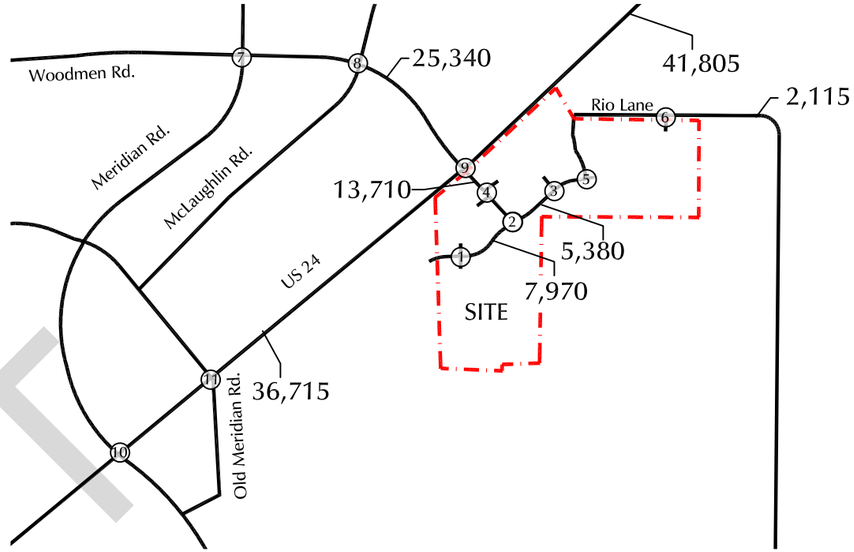


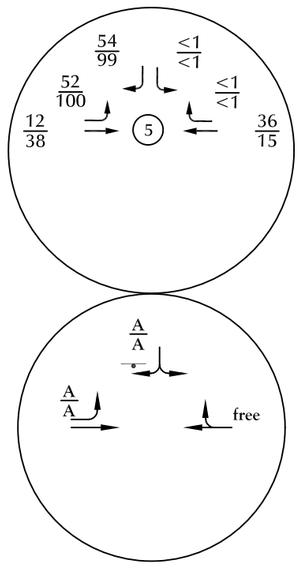


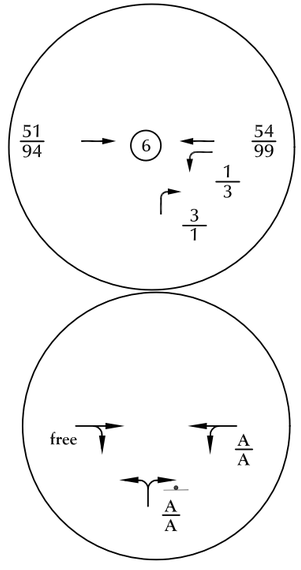


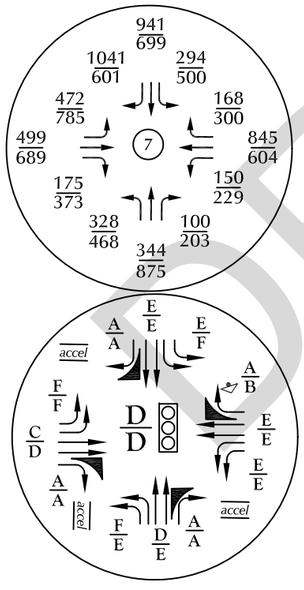


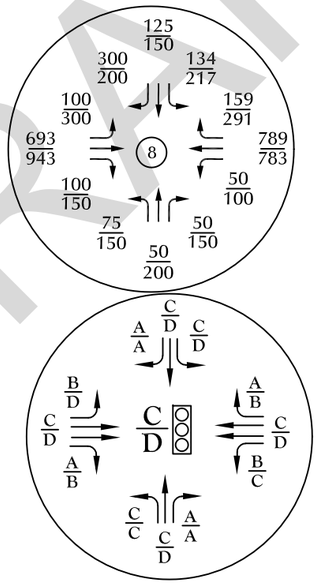


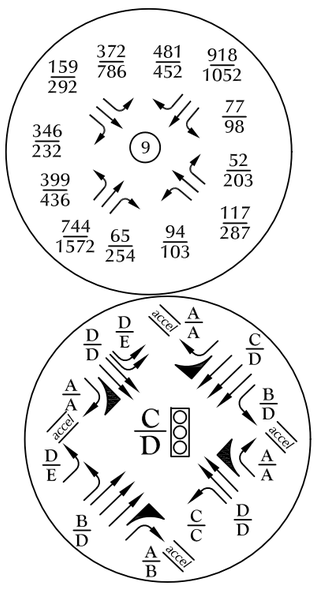


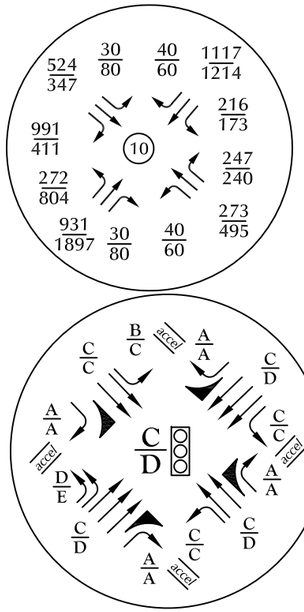


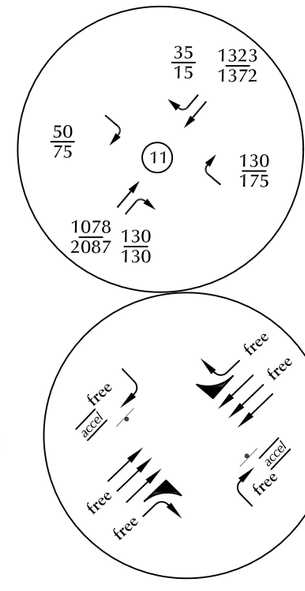


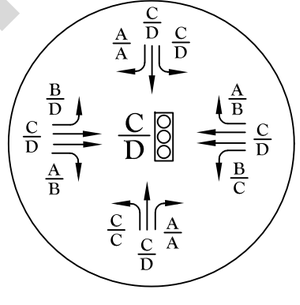


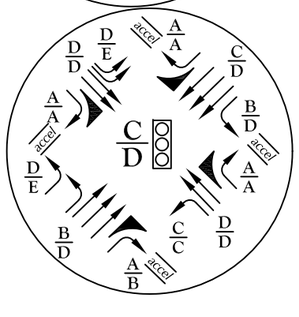


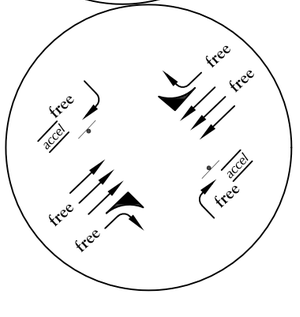












= Traffic Signal = Yield Sign = Modern Roundabout

$\frac{A}{B}$ = AM Individual Movement Peak–Hour Level of Service / PM Individual Movement Peak–Hour Level of Service

$\frac{C}{D}$ = AM Entire Intersection Peak–Hour Level of Service / PM Entire Intersection Peak–Hour Level of Service

LEGEND: $\frac{XX}{XX}$ = AM Peak–Hour Traffic (veh/hr) / PM Peak–Hour Traffic (veh/hr)

XXX = Average Weekday Traffic (vehicles per day)

LSC TRANSPORTATION CONSULTANTS, INC.

Figure 10

2043 Total Conditions

Commons at Falcon Field (LSC# 234220)

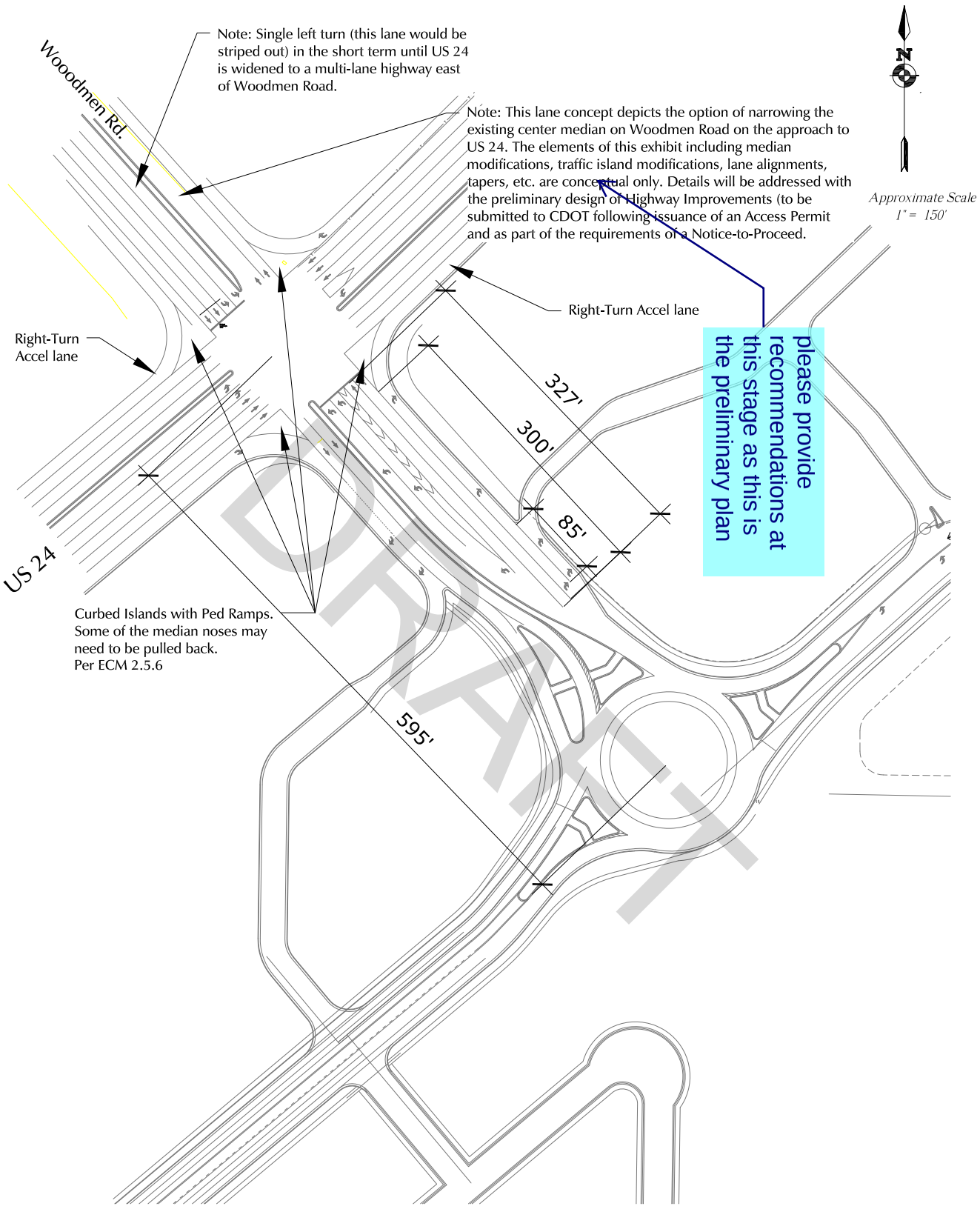


Figure 11a

Preliminary Intersection Lane Concept Plan (2043 - Six Lanes on US 24)

Commons at Falcon Field (LSC# 234220)

LSC TRANSPORTATION CONSULTANTS, INC.

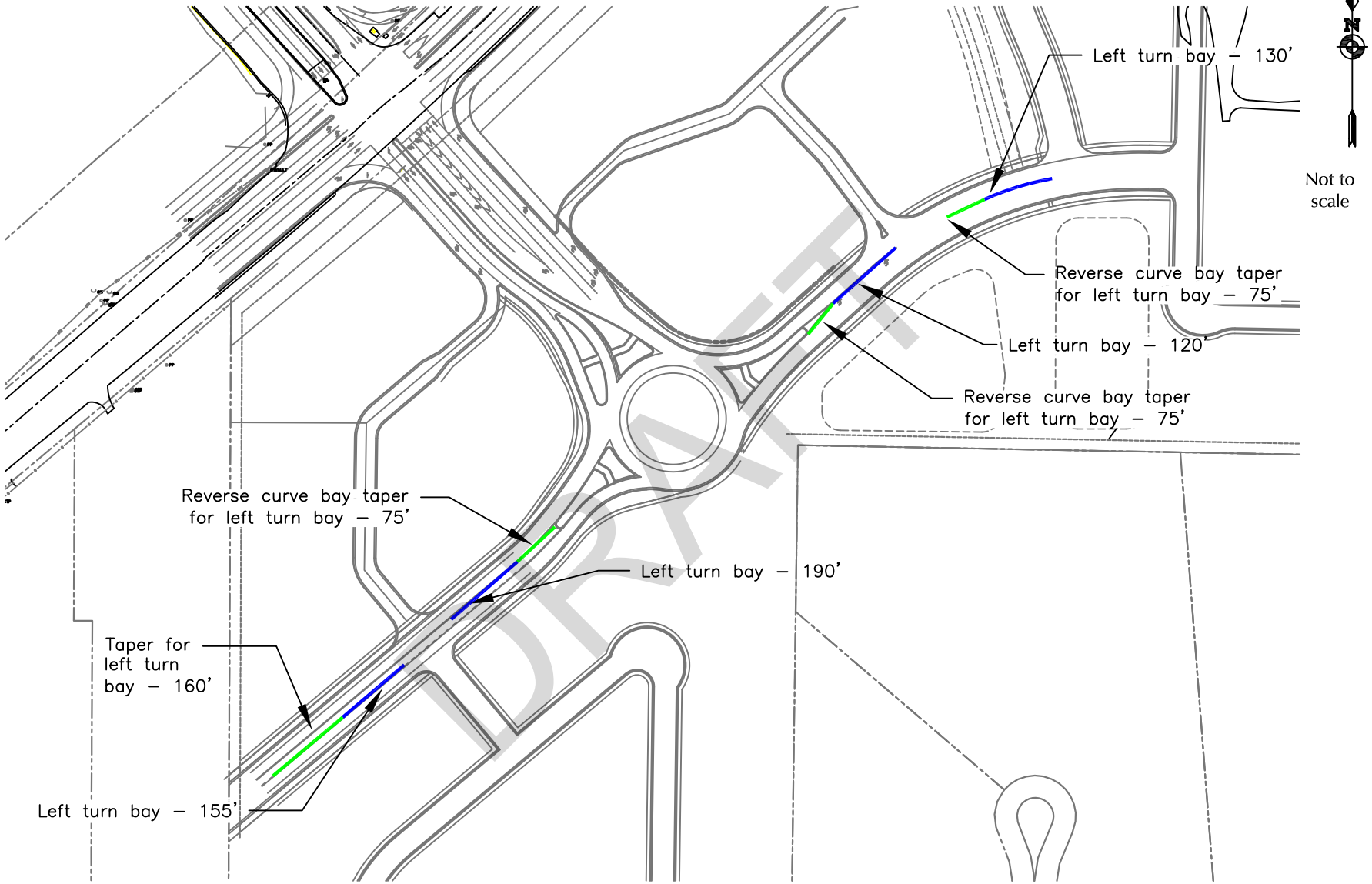


Figure 11b

Recommended Retail Row Street Striping

Commons at Falcon Field (LSC# 234220)

LSC TRANSPORTATION CONSULTANTS, INC.

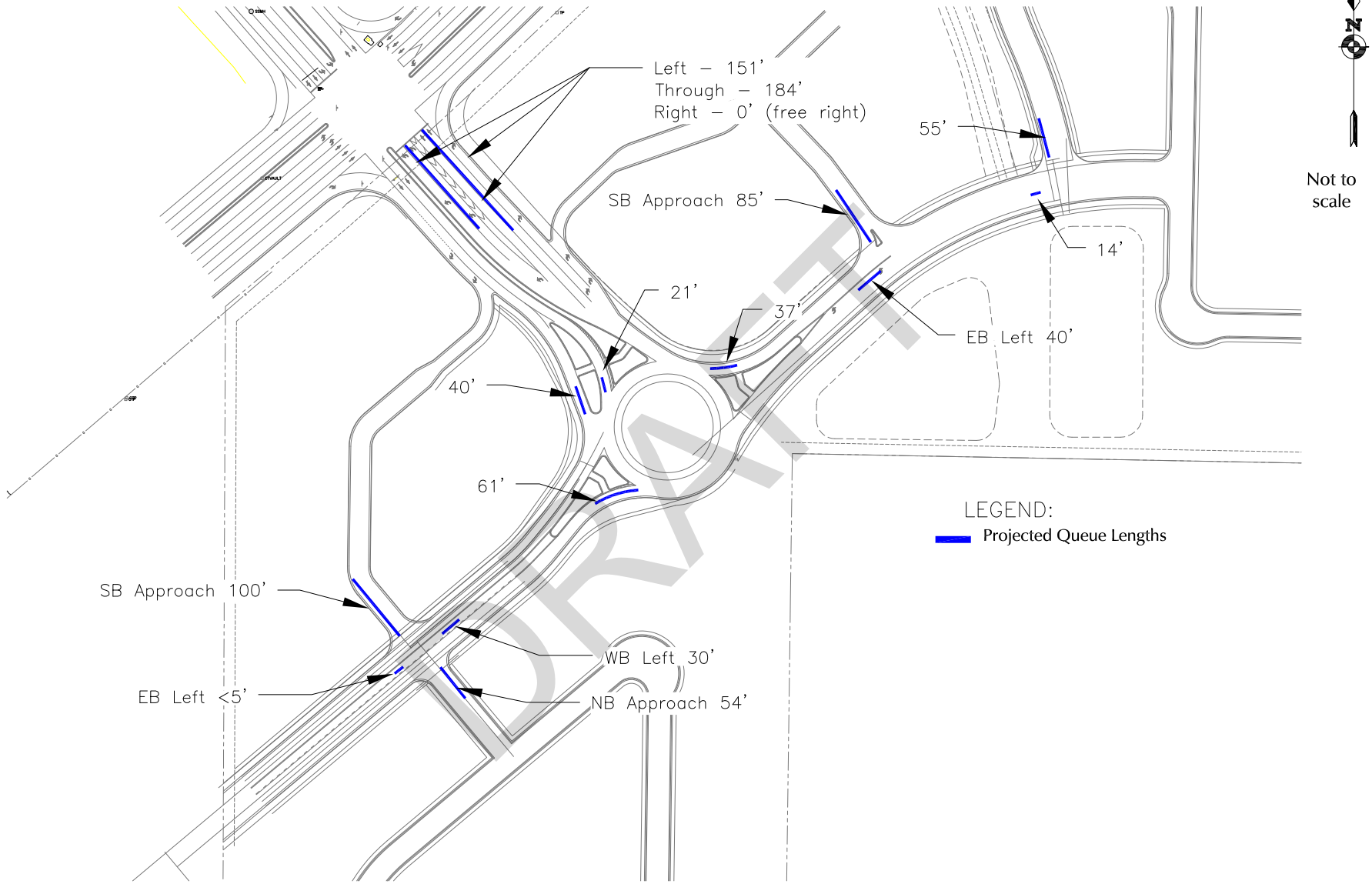
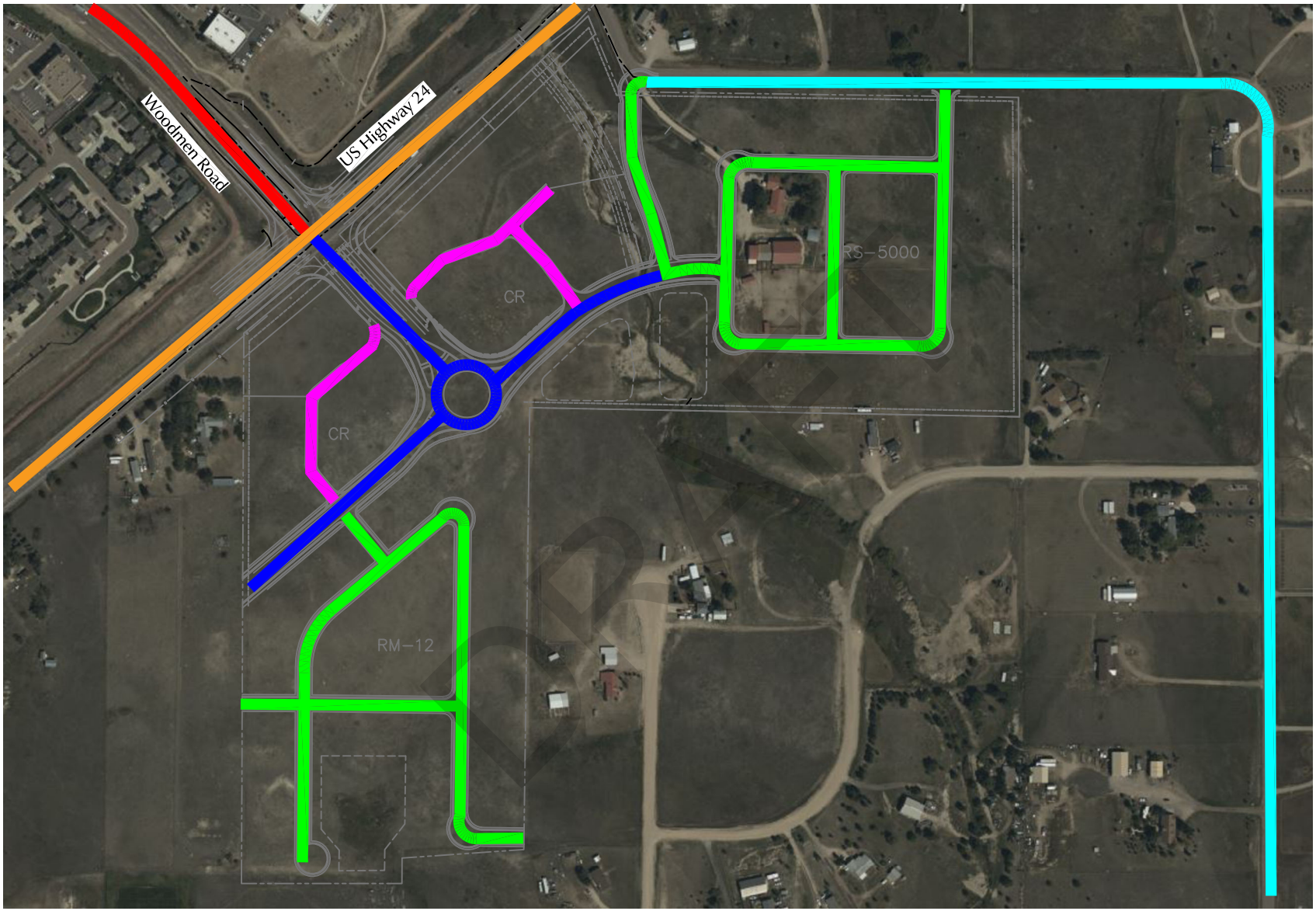


Figure 12

95th Percentile Queue Lengths 2043 Total Traffic

Commons at Falcon Field (LSC# 234220)

LSC TRANSPORTATION CONSULTANTS, INC.



Not to scale

LEGEND:
- Urban Non-Residential Collector
- Urban Local
- Expressway
- Rural Local Roadway
- Private (commercial)
- EX - Expressway/Major Bypass (CDOT)

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Figure 13

Street Classification

Commons at Falcon Field (LSC# 234220)

Roundabout Figures 1-9

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CONSULTANTS, INC.

Figure 1

Vicinity Map

Falcon Field Preliminary Plan 2023 (LSC #234220)

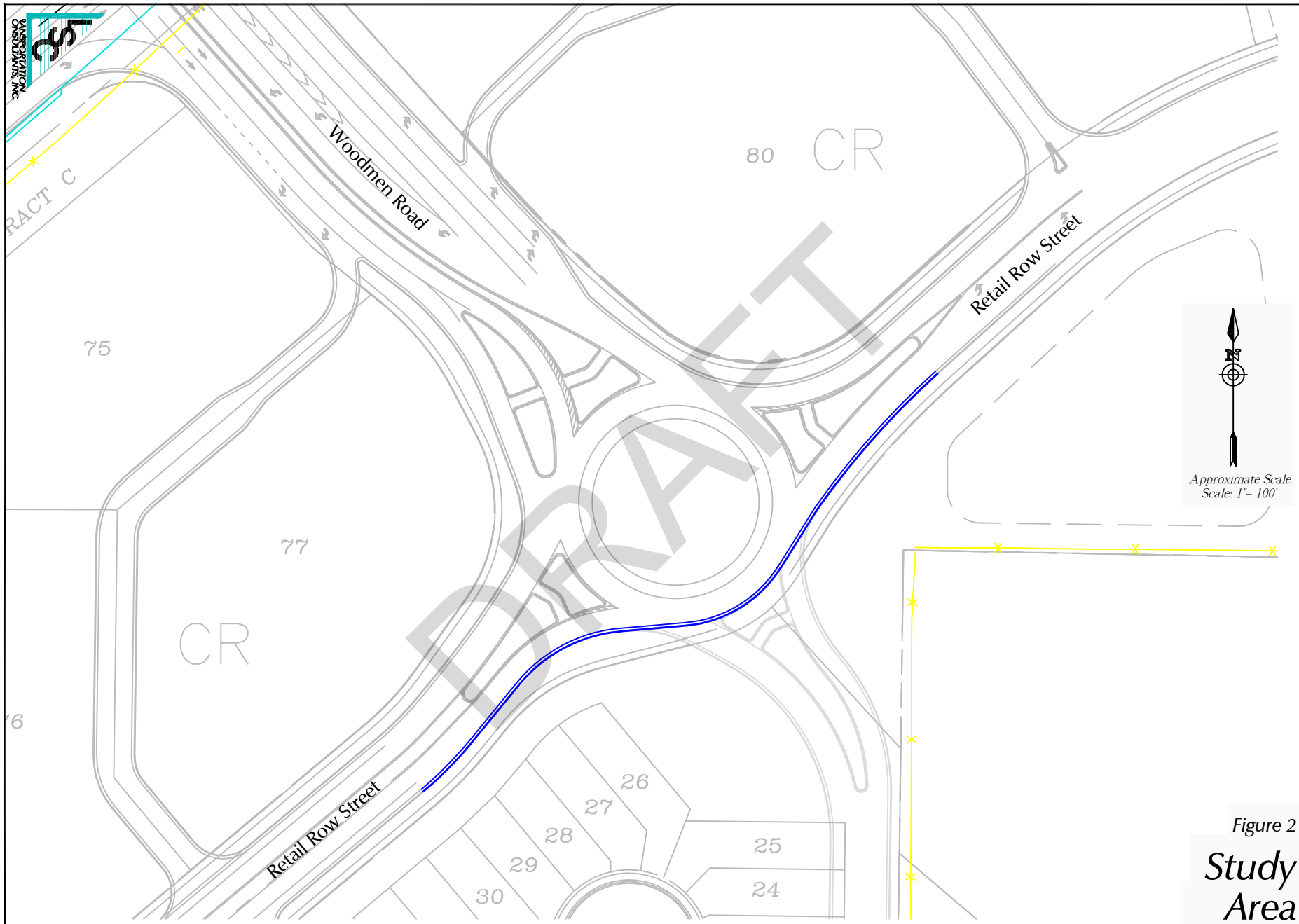


Figure 2

Study Area

Falcon Field Preliminary Plan 2023 (LSC #234220)

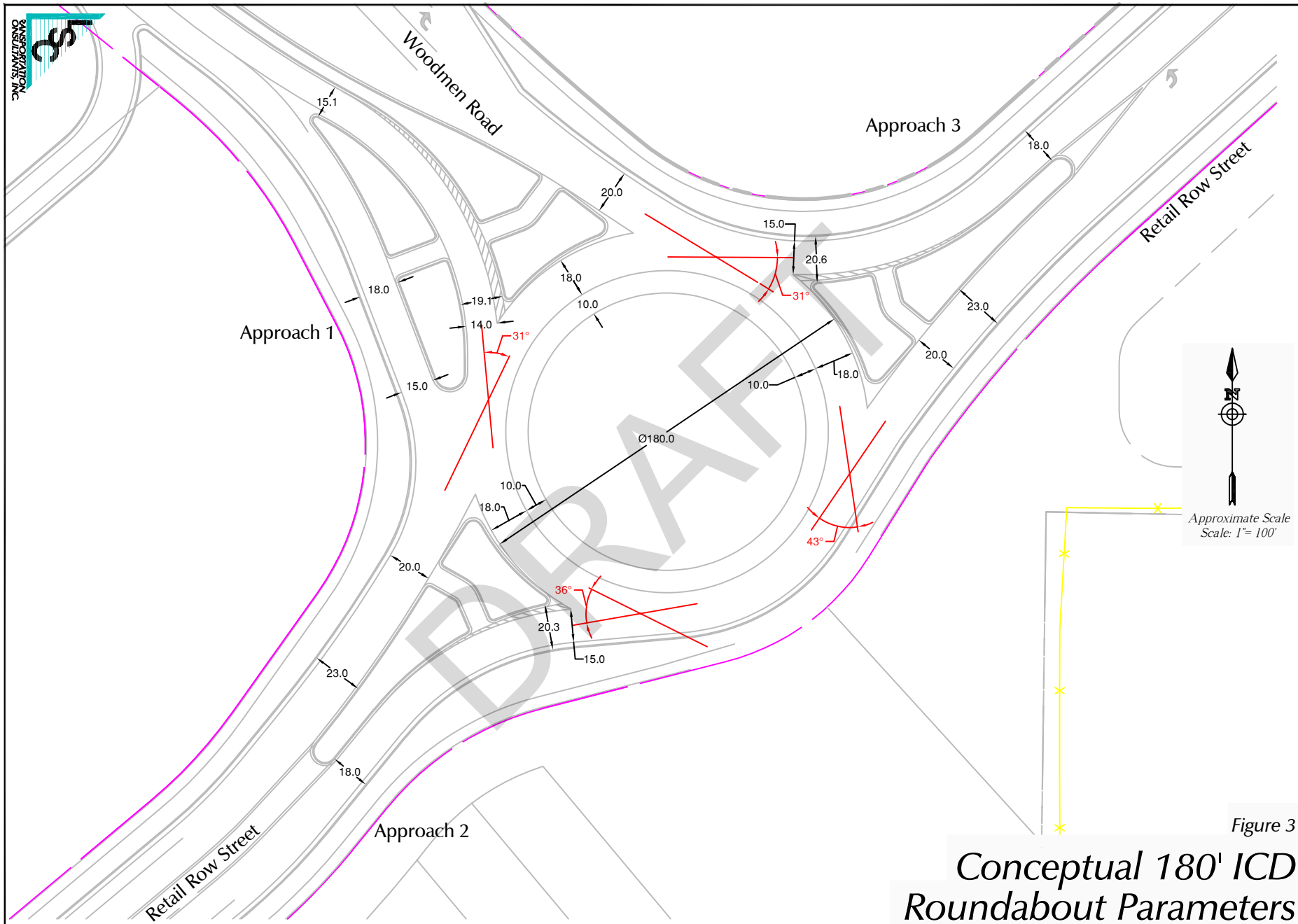


Figure 3

Conceptual 180' ICD Roundabout Parameters

Falcon Field Preliminary Plan 2023 (LSC #234220)

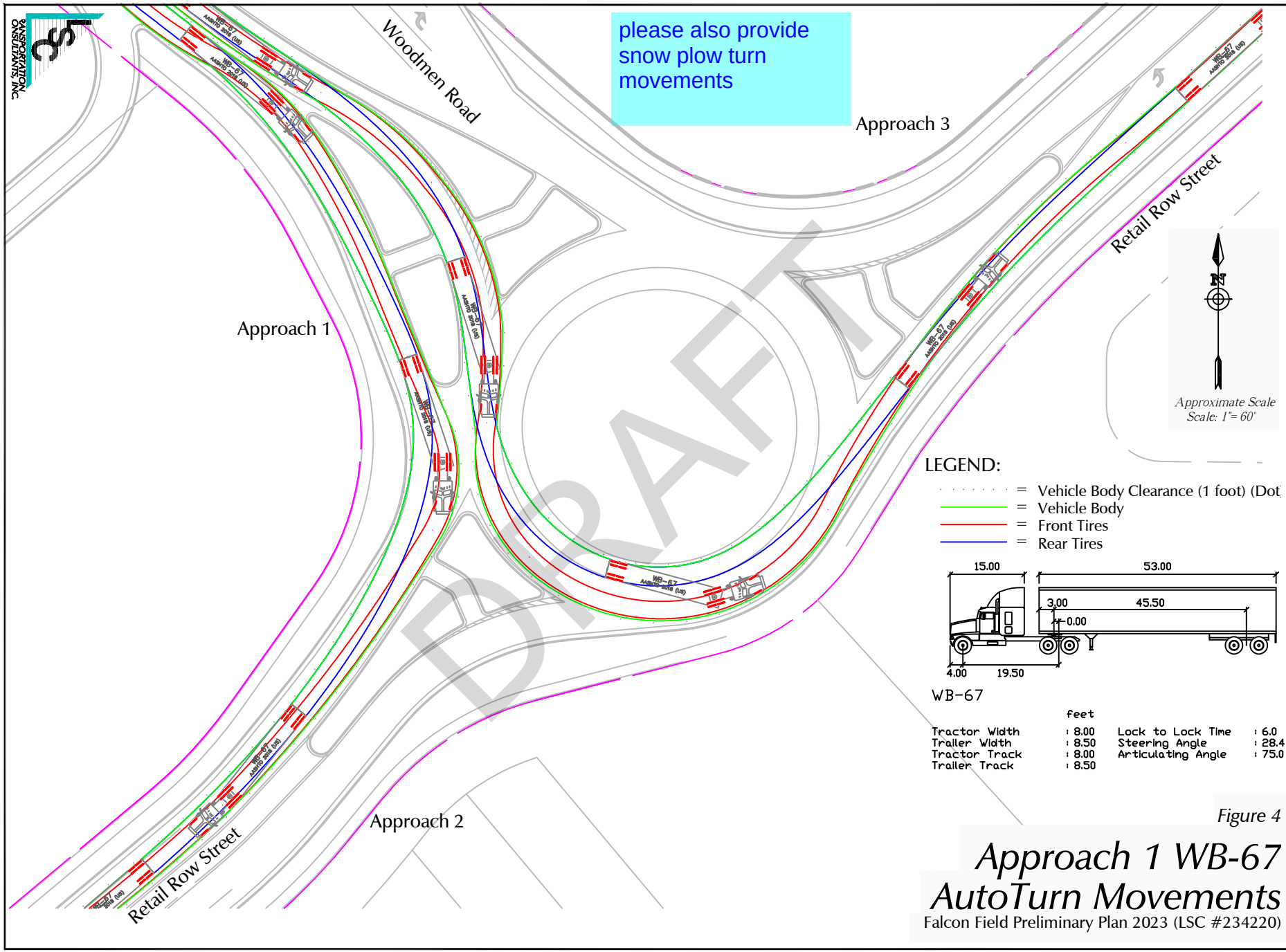


Figure 4

Approach 1 WB-67 AutoTurn Movements

Falcon Field Preliminary Plan 2023 (LSC #234220)

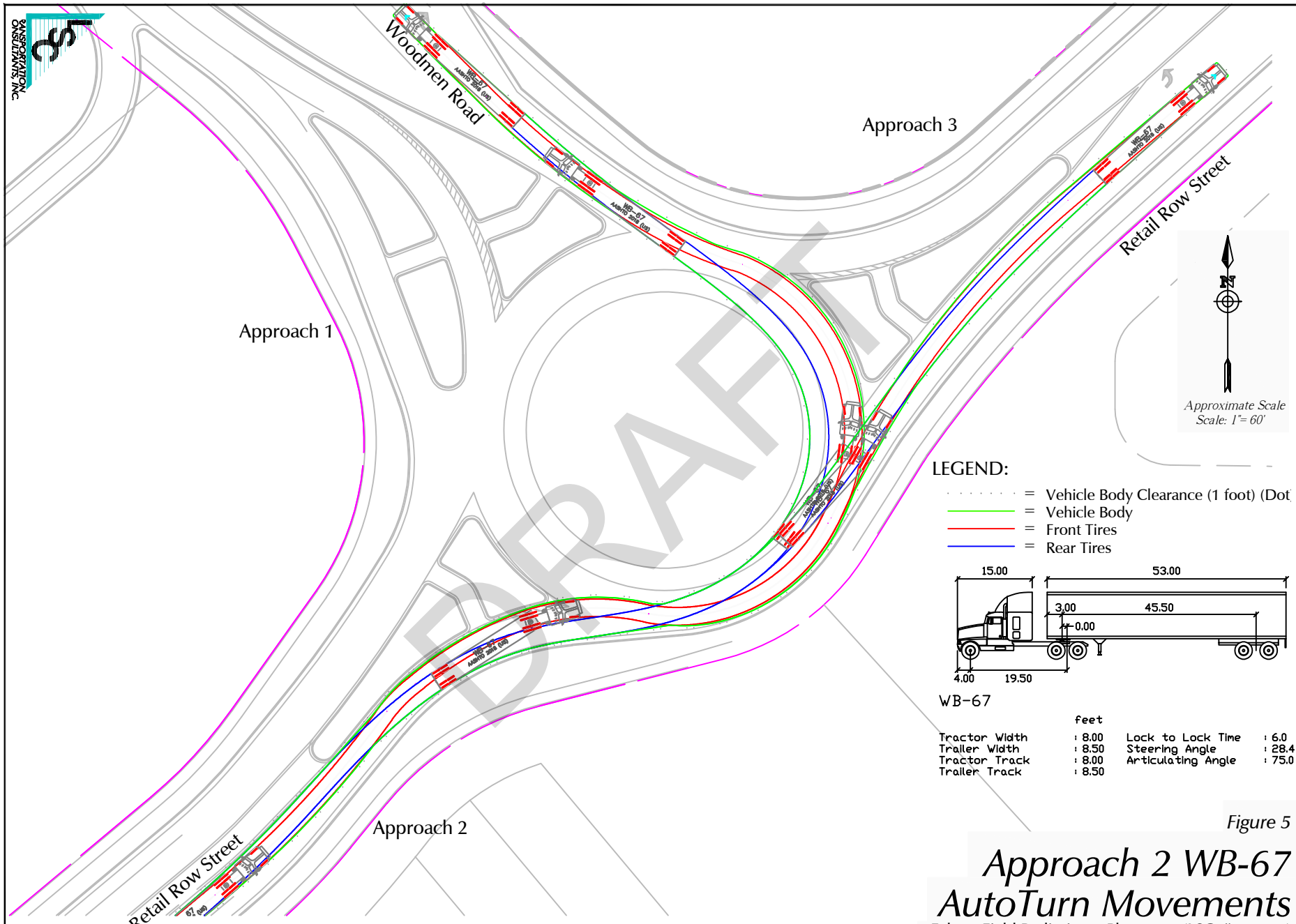


Figure 5

Approach 2 WB-67 AutoTurn Movements

Falcon Field Preliminary Plan 2023 (LSC #234220)

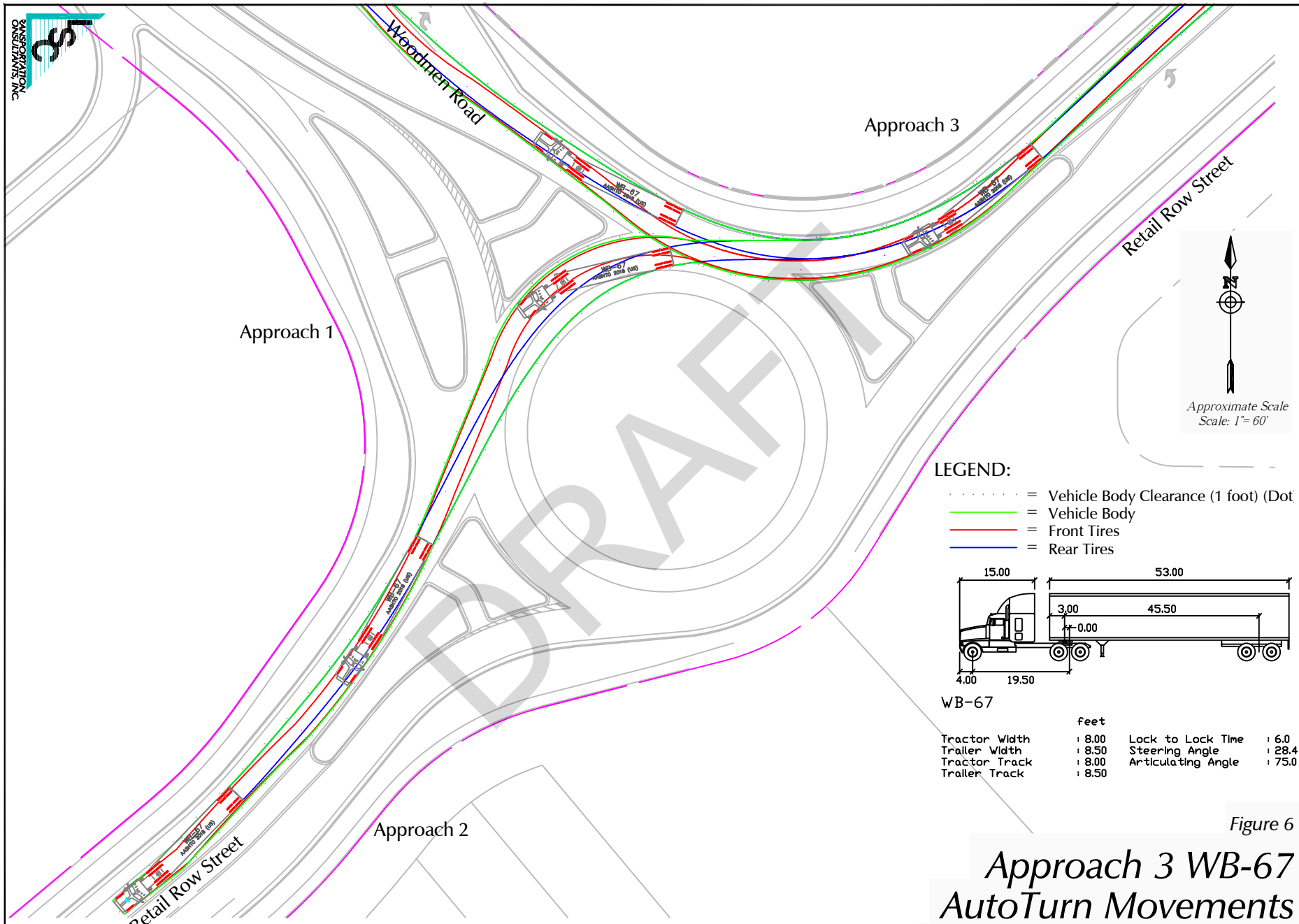


Figure 6

Approach 3 WB-67 AutoTurn Movements

Falcon Field Preliminary Plan 2023 (LSC #234220)

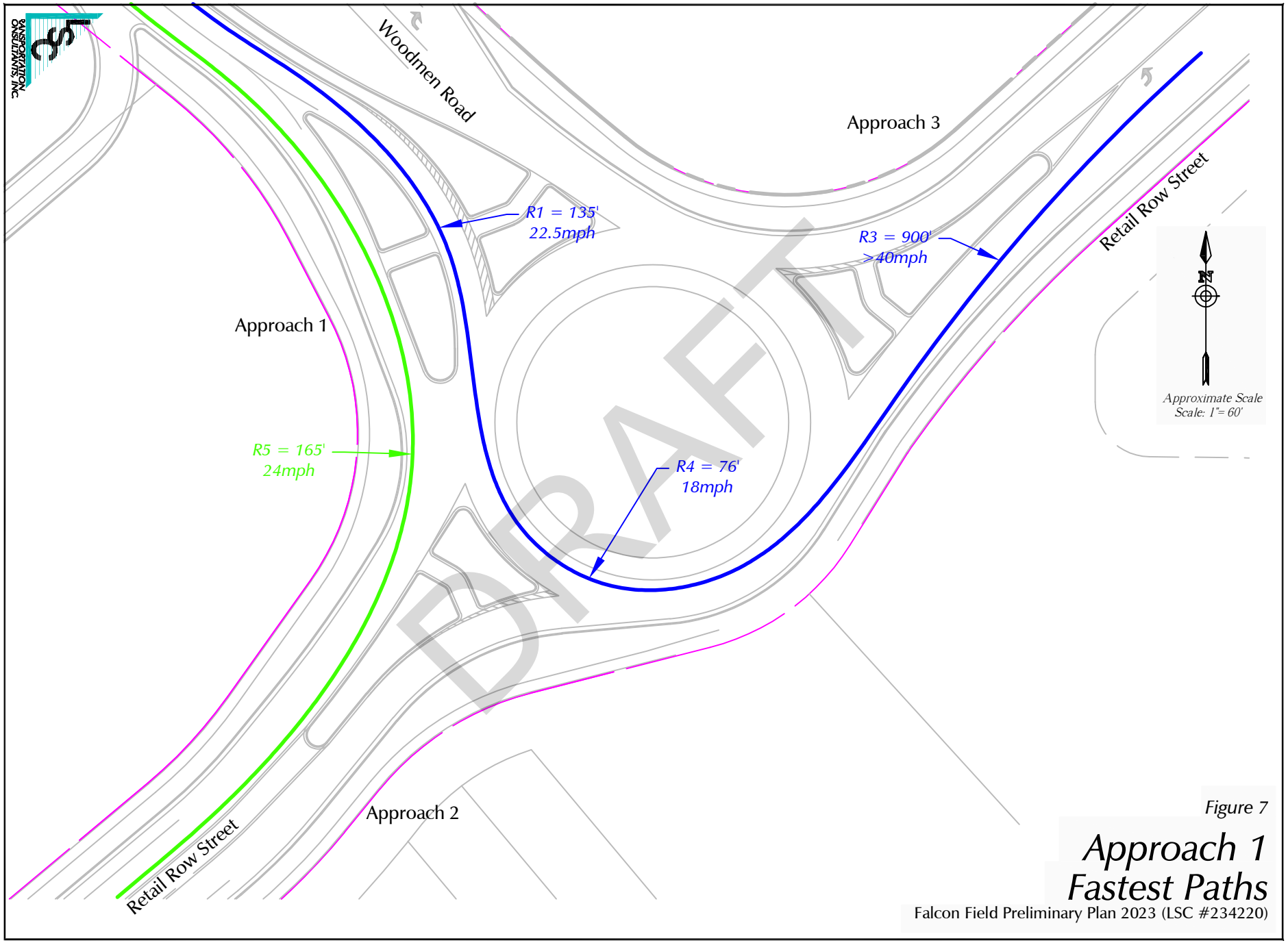


Figure 7

Approach 1 Fastest Paths

Falcon Field Preliminary Plan 2023 (LSC #234220)

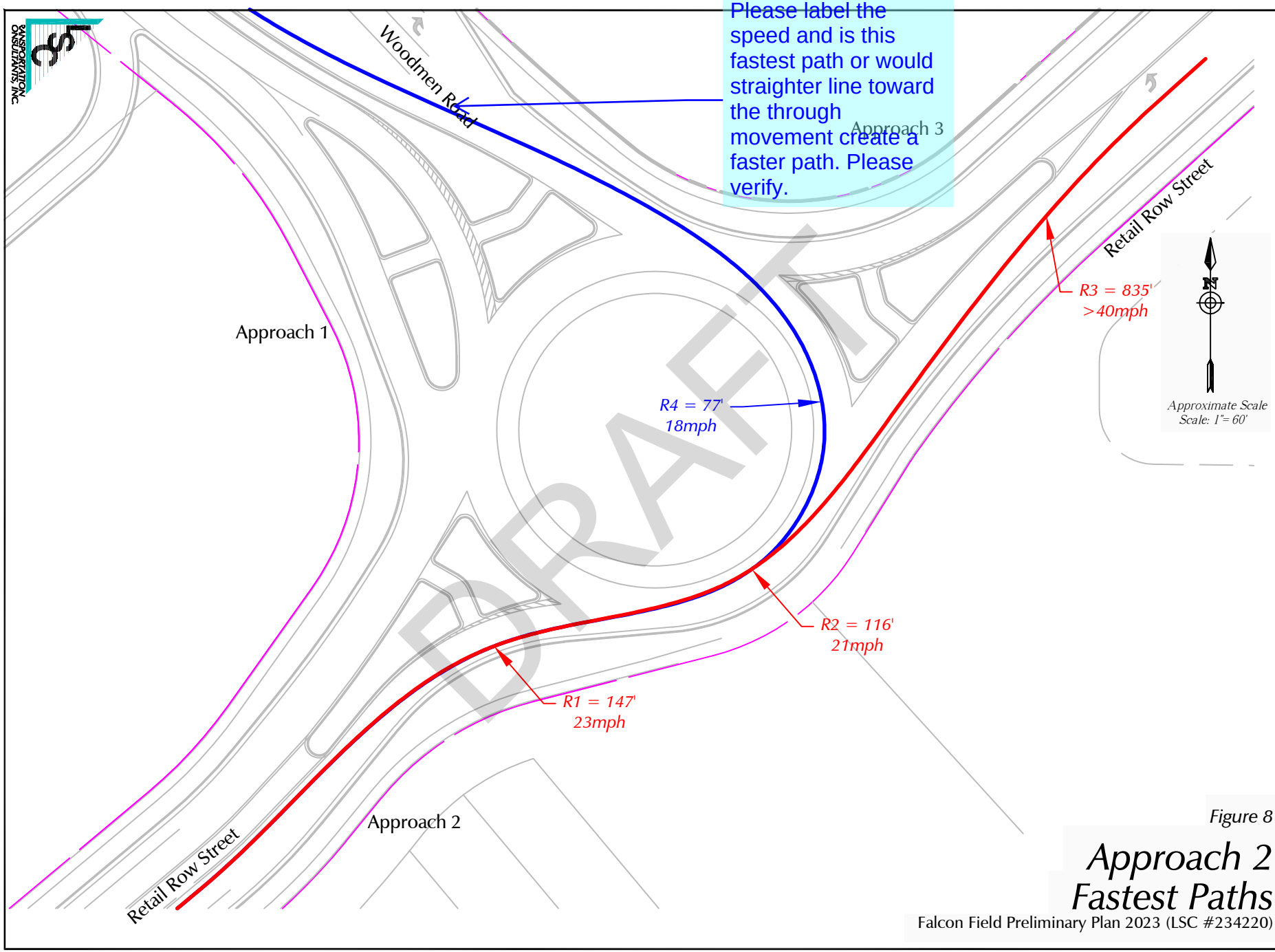


Figure 8

Approach 2 Fastest Paths

Falcon Field Preliminary Plan 2023 (LSC #234220)

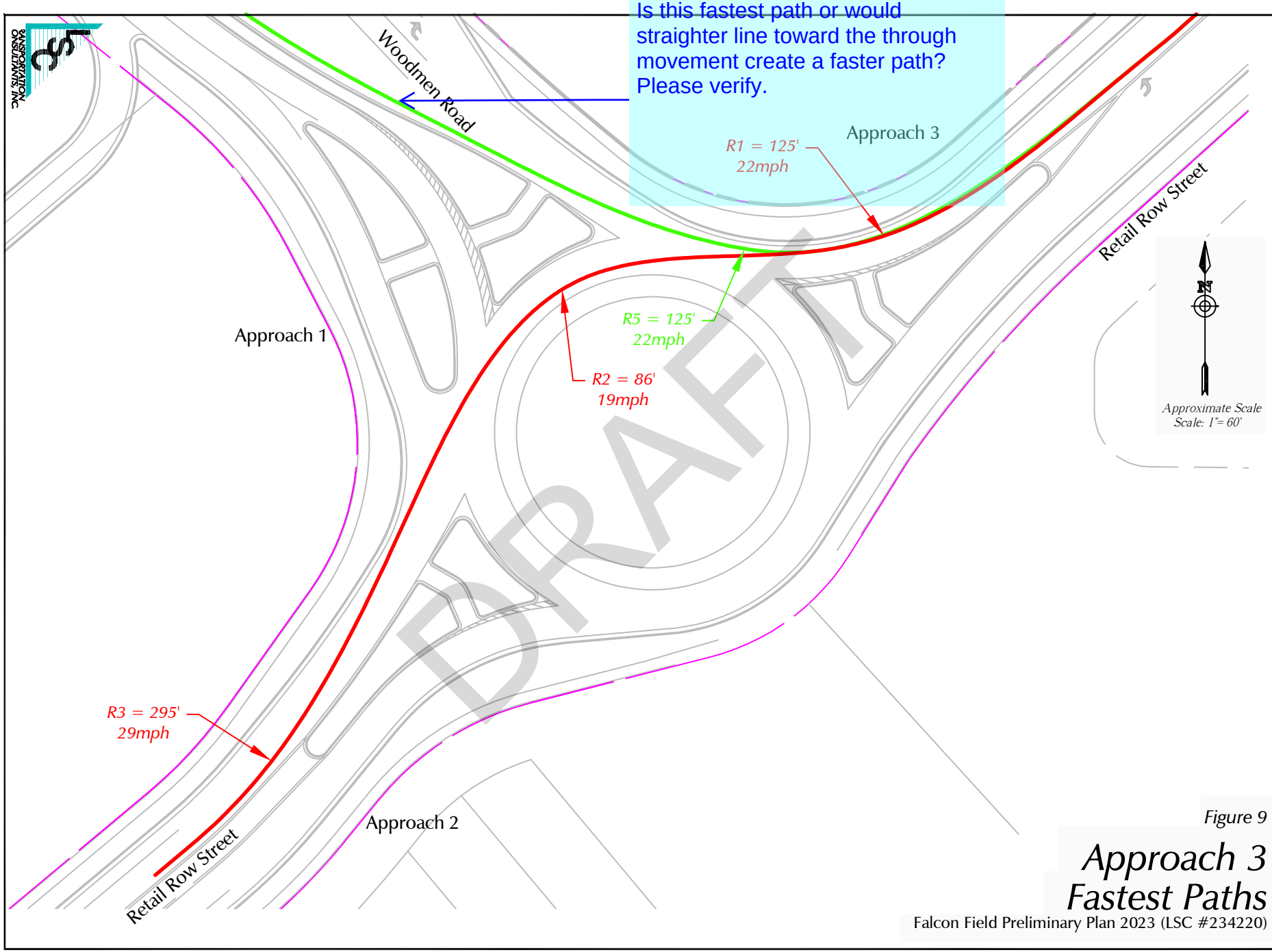


Figure 9

Approach 3 Fastest Paths

Falcon Field Preliminary Plan 2023 (LSC #234220)

Roundabout Design Parameters Table

TRANSPORTATION
CONSULTANTS, INC.

PCD File No. SP232
The Commons at Falcon Field
(LSC#S234220)
Woodmen Road & Retail Row Street
County: El Paso

doesnt match figure which shows 31

should be 20.3 per figure 3

ROUNDABOUT CRITICAL DESIGN PARAMETERS

DESIGN PARAMETERS	LEG 1	LEG 2	LEG 3	LEG 4	LEG 5	LEG 6
Approach Width, FT	15.1	18.0	18.0			
Entry Width, FT	19.1	10.3	20.6			
Entry Angle, PHI Φ, DEG	15.5	36.0	31.0			
Inscribed Circle Diameter, FT	180.0	180.0	180.0			
Exit Width, FT	20.0	20.0	20.0			
Circulating Roadway Width Upstream of Entry, FT	18.0	18.0	18.0			

FASTEST SPEED PATH

R_1, Radius/Speed, FT/MPH	135	23	147	23	125	22						
R_2, Radius/Speed, FT/MPH			116	21	86	19						
R_3, Radius/Speed, FT/MPH	900	>40	835	>40	294	29						
R_4, Radius/Speed, FT/MPH	76	18	77	18								
R_5, Radius/Speed, FT/MPH	165	24			125	22						
Bypass R_5, Radius/Speed, FT/MPH												

MINIMUM SIGHT PARAMETERS

Approach Design Speed, MPH	40.0	40.0	40.0			
Horizontal **S**topping **S**ight **D**istance, FT						
Circulating **I**ntersection **S**ight **D**istance, FT/MPH						
Entering **I**ntersection **S**ight **D**istance, FT/MPH						

Design Vehicle: WB-50, WB-67, EPC snowplow

Truck Apron Width: 10'

per WisDOT criteria truck apron shall be a min. 12 ft. wide

OSOW Accommodations: N/A

Circulating Roadway Cross-Slope: 2% or less

Access Control: N/A

Parking Control: No Parking

Bicycle & Pedestrian Accommodations: Ped ramps and sidewalks

Designer: *Matt Romero*
Reviewer: *Chris McGranahan, P.E., PTOE*

***** Preliminary ********

SIGNATURE: _____ DATE: 6/2/2023

NAME: Christopher S. McGranahan, P.E., PTOE

The reviewer's signature on this document indicates that the design has been reviewed and is in general compliance with good roundabout principals. The critical design elements have been addressed. The project design engineer in responsible charge of final plan development will stamp the plans when applicable.

Traffic Counts

TRANSPORTATION
CONSULTANTS, INC.

LSC Transportation Consultants, Inc.

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

File Name : Meridian Rd - Woodmen Rd AM 4-23
Site Code : S224050
Start Date : 4/13/2023
Page No : 1

Groups Printed- Unshifted

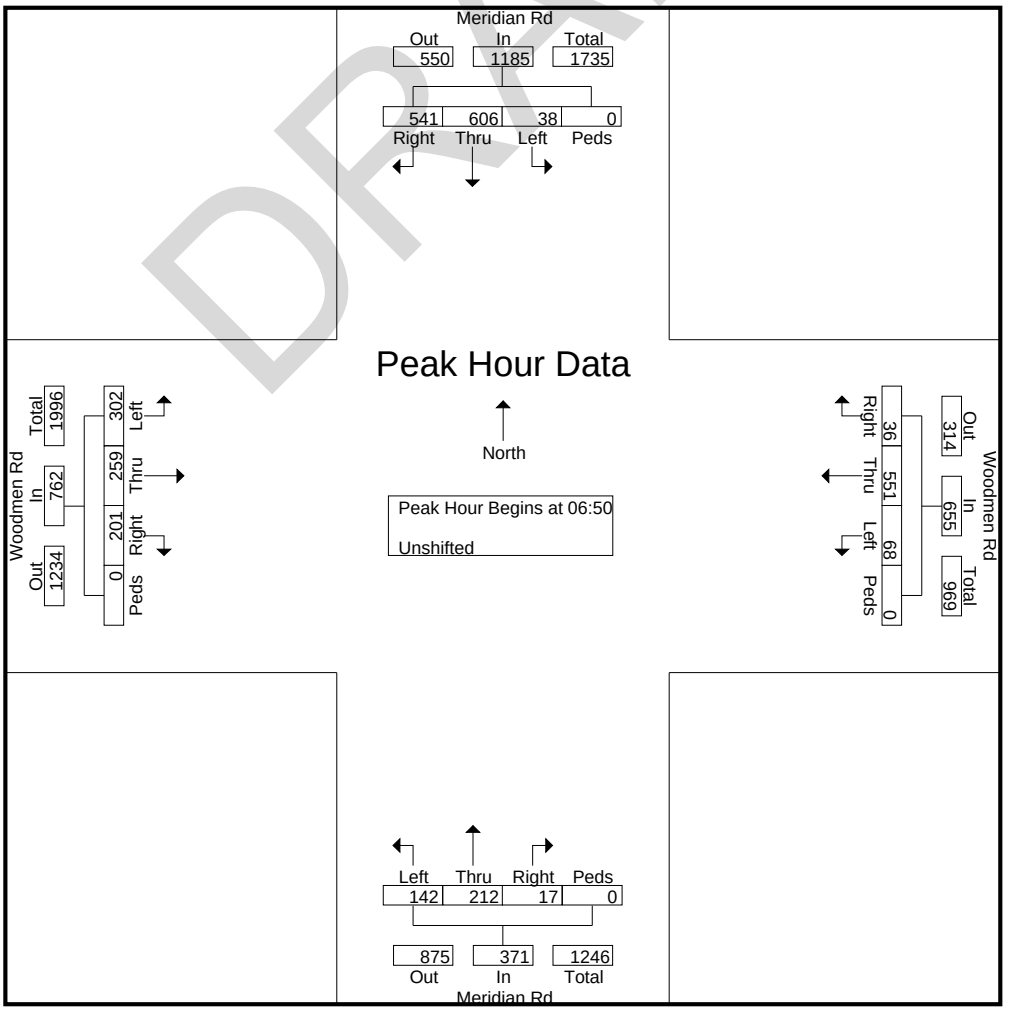
	Meridian Rd Southbound					Woodmen Rd Westbound					Meridian Rd Northbound					Woodmen Rd Eastbound					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
06:30	29	58	2	0	89	1	36	1	0	38	1	8	11	0	20	10	15	13	0	38	185
06:35	34	52	1	0	87	1	48	2	0	51	0	7	10	0	17	9	12	14	1	36	191
06:40	52	79	3	1	135	1	26	1	0	28	1	11	16	0	28	14	17	10	0	41	232
06:45	41	32	1	0	74	3	46	5	0	54	1	8	12	0	21	11	20	27	0	58	207
06:50	47	74	3	0	124	2	33	2	0	37	2	20	9	0	31	20	27	14	0	61	253
06:55	52	52	1	0	105	2	46	9	0	57	0	18	12	0	30	17	22	19	0	58	250
Total	255	347	11	1	614	10	235	20	0	265	5	72	70	0	147	81	113	97	1	292	1318
07:00	44	70	2	0	116	1	24	4	0	29	2	12	17	0	31	14	16	21	0	51	227
07:05	63	39	2	0	104	0	50	4	0	54	2	17	5	0	24	14	20	24	0	58	240
07:10	54	63	6	0	123	4	42	3	0	49	1	20	19	0	40	8	24	27	0	59	271
07:15	43	54	5	0	102	5	44	9	0	58	1	12	11	0	24	22	22	36	0	80	264
07:20	41	51	2	0	94	3	46	4	0	53	2	23	15	0	40	26	22	26	0	74	261
07:25	35	38	2	0	75	5	55	6	0	66	1	27	13	0	41	26	31	32	0	89	271
07:30	37	49	5	0	91	2	47	2	0	51	3	17	14	0	34	17	16	18	0	51	227
07:35	51	41	1	0	93	3	63	7	0	73	0	18	8	0	26	12	18	23	0	53	245
07:40	36	47	3	0	86	3	35	11	0	49	2	16	15	0	33	14	20	35	0	69	237
07:45	38	28	6	0	72	6	66	7	0	79	1	12	4	0	17	11	21	27	0	59	227
07:50	37	37	6	0	80	6	26	11	0	43	1	21	15	0	37	13	19	30	0	62	222
07:55	21	26	2	0	49	5	61	9	0	75	1	23	8	1	33	16	36	36	0	88	245
Total	500	543	42	0	1085	43	559	77	0	679	17	218	144	1	380	193	265	335	0	793	2937
08:00	23	53	6	0	82	2	31	5	0	38	0	19	12	0	31	12	18	24	0	54	205
08:05	23	30	3	0	56	2	47	6	0	55	1	17	13	1	32	10	20	30	0	60	203
08:10	35	42	5	0	82	3	19	6	0	28	0	31	14	0	45	8	30	33	0	71	226
08:15	30	32	6	0	68	5	57	9	0	71	3	20	10	0	33	8	33	20	0	61	233
08:20	31	44	7	0	82	3	41	5	0	49	2	23	19	0	44	7	10	22	0	39	214
08:25	29	32	7	0	68	1	48	14	0	63	3	12	6	0	21	11	24	33	0	68	220
Grand Total	926	1123	87	1	2137	69	1037	142	0	1248	31	412	288	2	733	330	513	594	1	1438	5556
Apprch %	43.3	52.6	4.1	0		5.5	83.1	11.4	0		4.2	56.2	39.3	0.3		22.9	35.7	41.3	0.1		
Total %	16.7	20.2	1.6	0	38.5	1.2	18.7	2.6	0	22.5	0.6	7.4	5.2	0	13.2	5.9	9.2	10.7	0	25.9	

LSC Transportation Consultants, Inc.

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

File Name : Meridian Rd - Woodmen Rd AM 4-23
Site Code : S224050
Start Date : 4/13/2023

	Meridian Rd Southbound					Woodmen Rd Westbound					Meridian Rd Northbound					Woodmen Rd Eastbound					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 06:30 to 08:25 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 06:50																					
06:50	47	**74**	3	0	**124**	2	33	2	0	37	2	20	9	0	31	20	27	14	0	61	253
06:55	52	52	1	0	105	2	46	9	0	57	0	18	12	0	30	17	22	19	0	58	250
07:00	44	70	2	0	116	1	24	4	0	29	2	12	17	0	31	14	16	21	0	51	227
07:05	**63**	39	2	0	104	0	50	4	0	54	2	17	5	0	24	14	20	24	0	58	240
07:10	54	63	**6**	0	123	4	42	3	0	49	1	20	**19**	0	40	8	24	27	0	59	**271**
07:15	43	54	5	0	102	5	44	9	0	58	1	12	11	0	24	22	22	**36**	0	80	264
07:20	41	51	2	0	94	3	46	4	0	53	2	23	15	0	40	**26**	22	26	0	74	261
07:25	35	38	2	0	75	5	55	6	0	66	1	**27**	13	0	**41**	26	**31**	32	0	**89**	271
07:30	37	49	5	0	91	2	47	2	0	51	**3**	17	14	0	34	17	16	18	0	51	227
07:35	51	41	1	0	93	3	63	7	0	73	0	18	8	0	26	12	18	23	0	53	245
07:40	36	47	3	0	86	3	35	**11**	0	49	2	16	15	0	33	14	20	35	0	69	237
07:45	38	28	6	0	72	**6**	**66**	7	0	**79**	1	12	4	0	17	11	21	27	0	59	227
Total Volume	541	606	38	0	1185	36	551	68	0	655	17	212	142	0	371	201	259	302	0	762	2973
% App. Total	45.7	51.1	3.2	0		5.5	84.1	10.4	0		4.6	57.1	38.3	0		26.4	34	39.6	0		
PHF	.716	.682	.528	.000	.796	.500	.696	.515	.000	.691	.472	.654	.623	.000	.754	.644	.696	.699	.000	.713	.914



LSC Transportation Consultants, Inc.

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

File Name : Meridian Rd - Woodmen Rd PM 4-23
Site Code : S224050
Start Date : 4/13/2023
Page No : 1

Groups Printed- Unshifted

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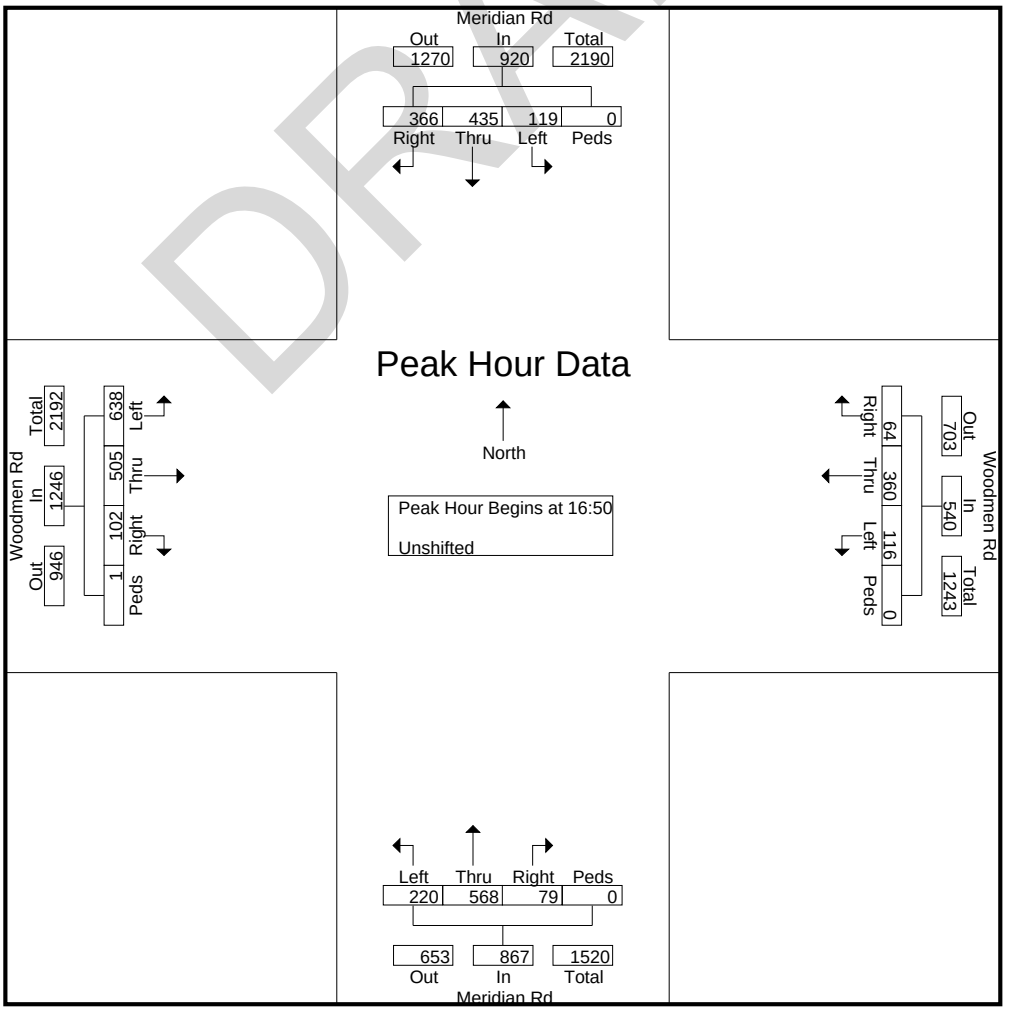
16:05	29	49	5	1	84	3	25	4	0	32	10	55	20	0	85	4	40	40	0	84	285
16:10	15	32	8	0	55	2	38	13	0	53	6	28	14	0	48	8	39	55	0	102	258
16:15	25	61	10	0	96	9	22	12	0	43	11	52	24	0	87	8	28	30	0	66	292
16:20	21	21	1	0	43	10	25	9	0	44	9	40	20	0	69	4	52	65	0	121	277
16:25	32	37	10	0	79	2	27	4	0	33	11	51	34	0	96	7	32	47	0	86	294
16:30	15	30	4	0	49	4	28	17	0	49	10	39	19	0	68	8	50	65	0	123	289
16:35	27	34	15	0	76	6	12	21	1	40	9	57	31	0	97	7	24	44	0	75	288
16:40	27	18	5	0	50	4	30	20	0	54	8	47	18	0	73	15	52	58	0	125	302
16:45	28	33	5	0	66	4	18	12	0	34	6	38	29	0	73	11	31	50	0	92	265
16:50	21	29	8	0	58	6	34	6	0	46	8	30	18	0	56	10	47	64	0	121	281
16:55	30	41	16	0	87	5	30	3	0	38	3	51	22	0	76	9	35	42	0	86	287
Total	292	419	98	1	810	67	324	130	1	522	94	517	259	0	870	97	477	617	0	1191	3393
17:00	16	24	6	0	46	5	33	3	0	41	6	40	12	0	58	14	46	76	1	137	282
17:05	22	43	13	0	78	4	37	3	0	44	5	43	24	0	72	11	34	29	0	74	268
17:10	34	29	8	0	71	7	20	31	0	58	4	40	20	0	64	4	43	65	0	112	305
17:15	36	42	8	0	86	2	39	7	0	48	7	39	33	0	79	4	36	46	0	86	299
17:20	32	36	9	0	77	9	39	12	0	60	6	56	13	0	75	5	52	69	0	126	338
17:25	38	30	13	0	81	4	24	10	0	38	9	59	23	0	91	11	31	41	0	83	293
17:30	37	37	6	0	80	3	34	12	0	49	8	51	13	0	72	8	50	34	0	92	293
17:35	31	36	14	0	81	9	18	13	0	40	10	68	20	0	98	10	37	43	0	90	309
17:40	39	31	8	0	78	5	27	6	0	38	8	39	9	0	56	7	54	83	0	144	316
17:45	30	57	10	0	97	5	25	10	0	40	5	52	13	0	70	9	40	46	0	95	302
17:50	29	23	7	0	59	3	31	11	0	45	8	30	5	1	44	14	46	61	0	121	269
17:55	27	41	15	0	83	2	23	9	0	34	8	65	15	0	88	11	17	45	0	73	278
Total	371	429	117	0	917	58	350	127	0	535	84	582	200	1	867	108	486	638	1	1233	3552
Grand Total	663	848	215	1	1727	125	674	257	1	1057	178	1099	459	1	1737	205	963	1255	1	2424	6945
Apprch %	38.4	49.1	12.4	0.1		11.8	63.8	24.3	0.1		10.2	63.3	26.4	0.1		8.5	39.7	51.8	0		
Total %	9.5	12.2	3.1	0	24.9	1.8	9.7	3.7	0	15.2	2.6	15.8	6.6	0	25	3	13.9	18.1	0	34.9	

LSC Transportation Consultants, Inc.

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

File Name : Meridian Rd - Woodmen Rd PM 4-23
Site Code : S224050
Start Date : 4/13/2023
Page No : 2

	Meridian Rd Southbound					Woodmen Rd Westbound					Meridian Rd Northbound					Woodmen Rd Eastbound					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 16:00 to 17:55 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 16:50																					
16:50	21	29	8	0	58	6	34	6	0	46	8	30	18	0	56	10	47	64	0	121	281
16:55	30	41	**16**	0	87	5	30	3	0	38	3	51	22	0	76	9	35	42	0	86	287
17:00	16	24	6	0	46	5	33	3	0	41	6	40	12	0	58	**14**	46	76	**1**	137	282
17:05	22	43	13	0	78	4	37	3	0	44	5	43	24	0	72	11	34	29	0	74	268
17:10	34	29	8	0	71	7	20	**31**	0	58	4	40	20	0	64	4	43	65	0	112	305
17:15	36	42	8	0	86	2	**39**	7	0	48	7	39	**33**	0	79	4	36	46	0	86	299
17:20	32	36	9	0	77	**9**	39	12	0	**60**	6	56	13	0	75	5	52	69	0	126	**338**
17:25	38	30	13	0	81	4	24	10	0	38	9	59	23	0	91	11	31	41	0	83	293
17:30	37	37	6	0	80	3	34	12	0	49	8	51	13	0	72	8	50	34	0	92	293
17:35	31	36	14	0	81	9	18	13	0	40	**10**	**68**	20	0	**98**	10	37	43	0	90	309
17:40	**39**	31	8	0	78	5	27	6	0	38	8	39	9	0	56	7	**54**	**83**	0	**144**	316
17:45	30	**57**	10	0	**97**	5	25	10	0	40	5	52	13	0	70	9	40	46	0	95	302
Total Volume	366	435	119	0	920	64	360	116	0	540	79	568	220	0	867	102	505	638	1	1246	3573
% App. Total	39.8	47.3	12.9	0		11.9	66.7	21.5	0		9.1	65.5	25.4	0		8.2	40.5	51.2	0.1		
PHF	.782	.636	.620	.000	.790	.593	.769	.312	.000	.750	.658	.696	.556	.000	.737	.607	.779	.641	.083	.721	.881



LSC Transportation Consultants, Inc.

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

File Name : McLaughlin Rd - Woodmen Rd AM 5-23
Site Code : S234220
Start Date : 5/16/2023
Page No : 1

Groups Printed- Unshifted

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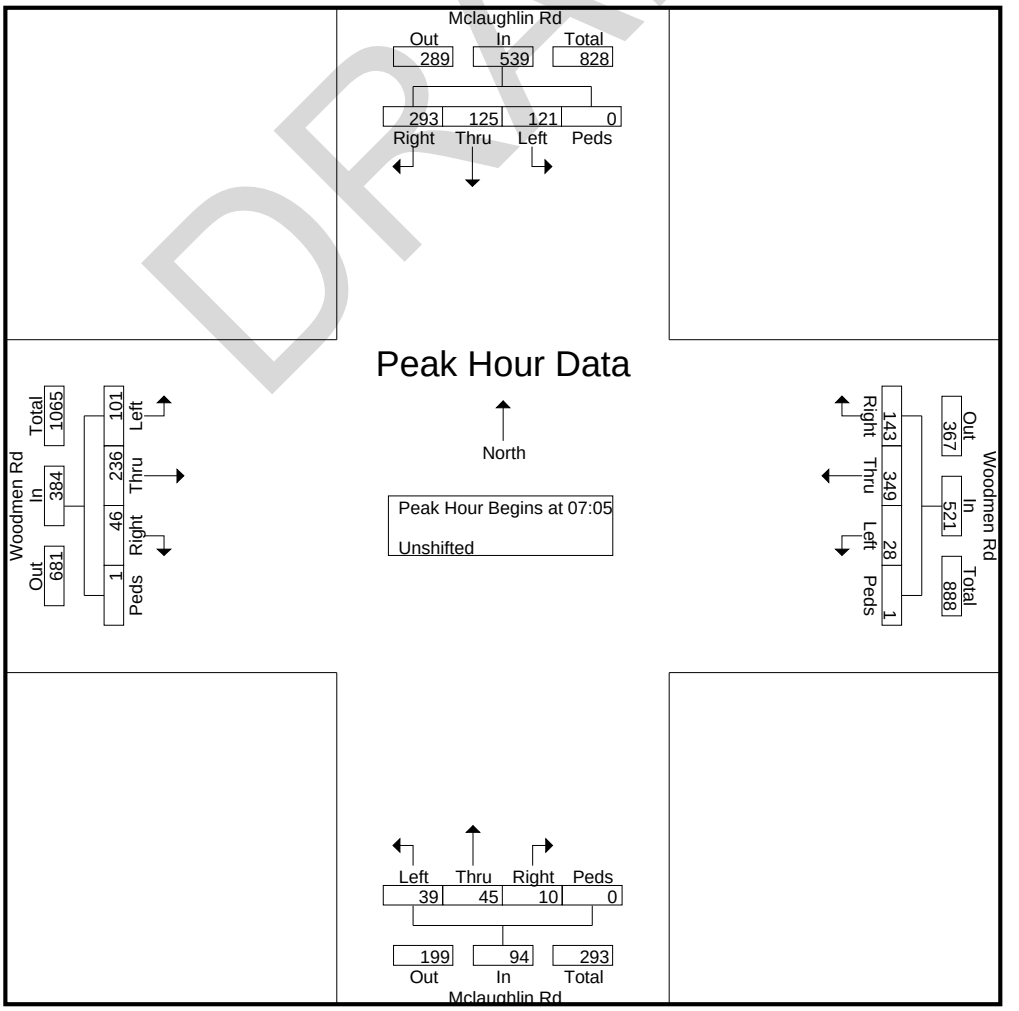
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
06:30	18	1	12	1	32	7	15	1	0	23	1	1	1	0	3	2	15	1	0	18	76
06:35	7	1	12	0	20	5	26	1	0	32	2	0	1	0	3	1	17	3	0	21	76
06:40	20	2	11	0	33	6	32	0	0	38	2	2	1	0	5	0	13	3	0	16	92
06:45	10	0	8	0	18	8	43	2	0	53	1	4	1	0	6	3	24	7	0	34	111
06:50	20	2	18	0	40	5	30	1	0	36	0	3	4	0	7	0	15	4	0	19	102
06:55	19	3	18	0	40	10	32	4	0	46	2	2	2	0	6	0	23	3	0	26	118
Total	94	9	79	1	183	41	178	9	0	228	8	12	10	0	30	6	107	21	0	134	575
07:00	19	6	20	0	45	8	25	2	0	35	1	1	2	0	4	0	24	3	0	27	111
07:05	30	9	13	0	52	15	26	1	0	42	2	3	3	0	8	2	26	2	0	30	132
07:10	27	10	8	0	45	12	36	1	0	49	1	5	2	0	8	1	26	9	0	36	138
07:15	28	6	13	0	47	9	31	0	0	40	0	2	0	0	2	6	16	5	0	27	116
07:20	20	8	6	0	34	14	40	3	0	57	0	3	3	0	6	1	17	3	1	22	119
07:25	30	13	10	0	53	10	28	4	0	42	1	4	2	0	7	4	21	4	0	29	131
07:30	32	15	5	0	52	7	28	4	1	40	2	4	4	0	10	2	15	7	0	24	126
07:35	30	9	9	0	48	11	25	0	0	36	1	3	5	0	9	3	26	6	0	35	128
07:40	25	11	9	0	45	16	43	3	0	62	0	2	1	0	3	1	14	13	0	28	138
07:45	20	14	17	0	51	9	22	3	0	34	1	8	4	0	13	6	12	8	0	26	124
07:50	19	15	7	0	41	17	20	4	0	41	0	3	5	0	8	5	22	21	0	48	138
07:55	18	8	12	0	38	10	29	3	0	42	0	3	4	0	7	11	17	10	0	38	125
Total	298	124	129	0	551	138	353	28	1	520	9	41	35	0	85	42	236	91	1	370	1526
08:00	14	7	12	0	33	13	21	2	0	36	2	5	6	0	13	4	24	13	0	41	123
08:05	16	11	9	0	36	6	25	1	0	32	3	5	1	0	9	10	25	8	0	43	120
08:10	16	3	9	0	28	17	23	0	0	40	5	4	3	0	12	2	7	7	0	16	96
08:15	15	8	14	0	37	17	26	3	0	46	1	4	3	0	8	4	15	13	0	32	123
08:20	15	3	19	0	37	15	29	2	0	46	1	5	4	0	10	4	16	4	0	24	117
08:25	17	6	16	0	39	10	30	1	0	41	0	4	2	0	6	6	17	6	0	29	115
Grand Total	485	171	287	1	944	257	685	46	1	989	29	80	64	0	173	78	447	163	1	689	2795
Apprch %	51.4	18.1	30.4	0.1		26	69.3	4.7	0.1		16.8	46.2	37	0		11.3	64.9	23.7	0.1		
Total %	17.4	6.1	10.3	0	33.8	9.2	24.5	1.6	0	35.4	1	2.9	2.3	0	6.2	2.8	16	5.8	0	24.7	

LSC Transportation Consultants, Inc.

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

File Name : McLaughlin Rd - Woodmen Rd AM 5-23
Site Code : S234220
Start Date : 5/16/2023

	Mclaughlin Rd Southbound					Woodmen Rd Westbound					Mclaughlin Rd Northbound					Woodmen Rd Eastbound					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 06:30 to 08:25 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:05																					
07:05	30	9	13	0	52	15	26	1	0	42	**2**	3	3	0	8	2	**26**	2	0	30	132
07:10	27	10	8	0	45	12	36	1	0	49	1	5	2	0	8	1	26	9	0	36	**138**
07:15	28	6	13	0	47	9	31	0	0	40	0	2	0	0	2	6	16	5	0	27	116
07:20	20	8	6	0	34	14	40	3	0	57	0	3	3	0	6	1	17	3	**1**	22	119
07:25	30	13	10	0	**53**	10	28	**4**	0	42	1	4	2	0	7	4	21	4	0	29	131
07:30	**32**	**15**	5	0	52	7	28	4	**1**	40	2	4	4	0	10	2	15	7	0	24	126
07:35	30	9	9	0	48	11	25	0	0	36	1	3	5	0	9	3	26	6	0	35	128
07:40	25	11	9	0	45	16	**43**	3	0	**62**	0	2	1	0	3	1	14	13	0	28	138
07:45	20	14	**17**	0	51	9	22	3	0	34	1	**8**	4	0	**13**	6	12	8	0	26	124
07:50	19	15	7	0	41	**17**	20	4	0	41	0	3	5	0	8	5	22	**21**	0	**48**	138
07:55	18	8	12	0	38	10	29	3	0	42	0	3	4	0	7	**11**	17	10	0	38	125
08:00	14	7	12	0	33	13	21	2	0	36	2	5	**6**	0	13	4	24	13	0	41	123
Total Volume	293	125	121	0	539	143	349	28	1	521	10	45	39	0	94	46	236	101	1	384	1538
% App. Total	54.4	23.2	22.4	0		27.4	67	5.4	0.2		10.6	47.9	41.5	0		12	61.5	26.3	0.3		
PHF	.763	.694	.593	.000	.847	.701	.676	.583	.083	.700	.417	.469	.542	.000	.603	.348	.756	.401	.083	.667	.929



LSC Transportation Consultants, Inc.

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

File Name : McLaughlin Rd - Woodmen Rd PM 5-23
Site Code : S234220
Start Date : 5/16/2024
Page No : 1

Groups Printed- Unshifted

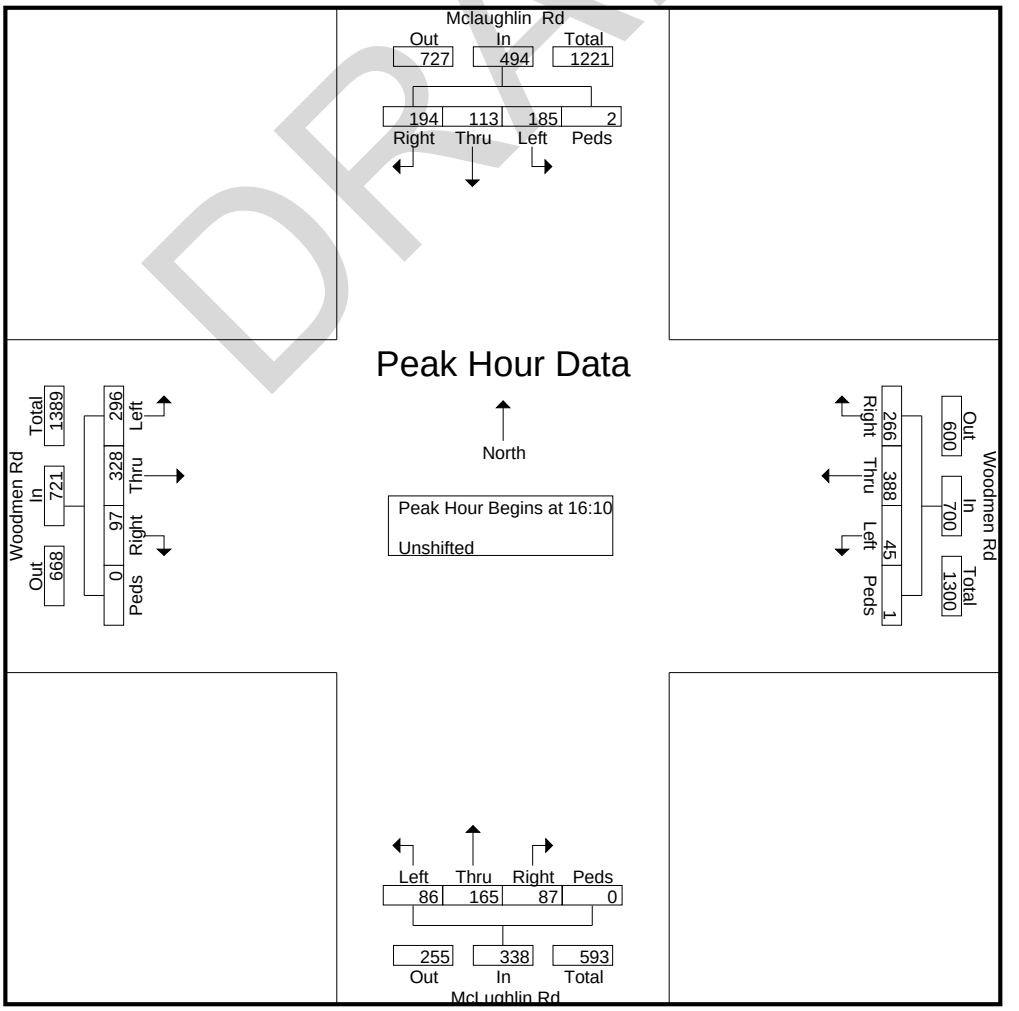
	Mclaughlin Rd Southbound					Woodmen Rd Westbound					McLughlin Rd Northbound					Woodmen Rd Eastbound					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
16:00	9	5	21	0	35	19	26	2	0	47	8	10	6	0	24	12	31	14	0	57	163
16:05	18	13	9	0	40	13	24	3	0	40	6	27	10	0	43	11	24	21	0	56	179
16:10	16	9	15	0	40	28	38	5	0	71	9	10	2	0	21	7	24	37	0	68	200
16:15	17	11	17	0	45	18	26	2	0	46	4	16	7	0	27	8	39	21	0	68	186
16:20	14	11	11	0	36	18	41	7	0	66	11	15	7	0	33	10	24	24	0	58	193
16:25	10	15	22	0	47	28	12	5	0	45	8	14	11	0	33	5	23	24	0	52	177
16:30	24	9	14	2	49	18	33	4	0	55	9	12	6	0	27	8	28	20	0	56	187
16:35	15	8	19	0	42	18	30	4	0	52	11	18	4	0	33	7	42	31	0	80	207
16:40	11	15	20	0	46	25	30	5	0	60	3	12	10	0	25	3	18	19	0	40	171
16:45	7	7	17	0	31	20	38	5	0	63	3	10	5	0	18	8	32	33	0	73	185
16:50	18	8	14	0	40	32	37	2	1	72	8	16	7	0	31	8	28	17	0	53	196
16:55	22	8	10	0	40	21	32	1	0	54	7	14	7	0	28	10	23	24	0	57	179
Total	181	119	189	2	491	258	367	45	1	671	87	174	82	0	343	97	336	285	0	718	2223
17:00	13	4	16	0	33	17	35	2	0	54	9	15	15	0	39	8	16	16	0	40	166
17:05	27	8	10	0	45	23	36	3	0	62	5	13	5	0	23	15	31	30	0	76	206
17:10	26	6	18	0	50	21	18	4	0	43	5	13	16	0	34	6	25	16	1	48	175
17:15	19	9	11	0	39	26	32	4	0	62	1	19	6	0	26	10	34	23	0	67	194
17:20	17	5	14	0	36	17	24	5	0	46	5	6	3	0	14	4	36	20	1	61	157
17:25	19	8	21	0	48	31	37	0	0	68	2	21	7	0	30	11	33	19	0	63	209
17:30	15	6	16	0	37	16	33	2	0	51	10	19	6	0	35	13	37	24	0	74	197
17:35	14	6	19	0	39	17	30	3	0	50	8	19	8	0	35	12	34	24	0	70	194
17:40	12	5	11	0	28	20	21	5	0	46	5	12	9	0	26	7	19	27	0	53	153
17:45	12	7	10	0	29	31	27	4	0	62	2	9	7	0	18	14	40	20	0	74	183
17:50	11	2	12	0	25	18	23	1	0	42	14	12	4	0	30	5	25	19	0	49	146
17:55	12	4	15	0	31	24	27	4	0	55	8	7	4	0	19	13	31	30	0	74	179
Total	197	70	173	0	440	261	343	37	0	641	74	165	90	0	329	118	361	268	2	749	2159
Grand Total	378	189	362	2	931	519	710	82	1	1312	161	339	172	0	672	215	697	553	2	1467	4382
Apprch %	40.6	20.3	38.9	0.2		39.6	54.1	6.2	0.1		24	50.4	25.6	0		14.7	47.5	37.7	0.1		
Total %	8.6	4.3	8.3	0	21.2	11.8	16.2	1.9	0	29.9	3.7	7.7	3.9	0	15.3	4.9	15.9	12.6	0	33.5	

LSC Transportation Consultants, Inc.

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

File Name : McLaughlin Rd - Woodmen Rd PM 5-23
Site Code : S234220
Start Date : 5/16/2024

	Mclaughlin Rd Southbound					Woodmen Rd Westbound					McLughlin Rd Northbound					Woodmen Rd Eastbound					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 16:00 to 17:55 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 16:10																					
16:10	16	9	15	0	40	28	38	5	0	71	9	10	2	0	21	7	24	**37**	0	68	200
16:15	17	11	17	0	45	18	26	2	0	46	4	16	7	0	27	8	39	21	0	68	186
16:20	14	11	11	0	36	18	**41**	**7**	0	66	**11**	15	7	0	33	10	24	24	0	58	193
16:25	10	**15**	**22**	0	47	28	12	5	0	45	8	14	11	0	33	5	23	24	0	52	177
16:30	24	9	14	**2**	**49**	18	33	4	0	55	9	12	6	0	27	8	28	20	0	56	187
16:35	15	8	19	0	42	18	30	4	0	52	11	**18**	4	0	33	7	**42**	31	0	**80**	**207**
16:40	11	15	20	0	46	25	30	5	0	60	3	12	10	0	25	3	18	19	0	40	171
16:45	7	7	17	0	31	20	38	5	0	63	3	10	5	0	18	8	32	33	0	73	185
16:50	18	8	14	0	40	**32**	37	2	**1**	**72**	8	16	7	0	31	8	28	17	0	53	196
16:55	22	8	10	0	40	21	32	1	0	54	7	14	7	0	28	10	23	24	0	57	179
17:00	13	4	16	0	33	17	35	2	0	54	9	15	**15**	0	**39**	8	16	16	0	40	166
17:05	**27**	8	10	0	45	23	36	3	0	62	5	13	5	0	23	**15**	31	30	0	76	206
Total Volume	194	113	185	2	494	266	388	45	1	700	87	165	86	0	338	97	328	296	0	721	2253
% App. Total	39.3	22.9	37.4	0.4		38	55.4	6.4	0.1		25.7	48.8	25.4	0		13.5	45.5	41.1	0		
PHF	.599	.628	.701	.083	.840	.693	.789	.536	.083	.810	.659	.764	.478	.000	.722	.539	.651	.667	.000	.751	.907



LSC Transportation Consultants, Inc.

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

File Name : Hwy 24 - Woodmen Rd AM 5-23
Site Code : S214730
Start Date : 5/2/2023
Page No : 1

Groups Printed- Unshifted

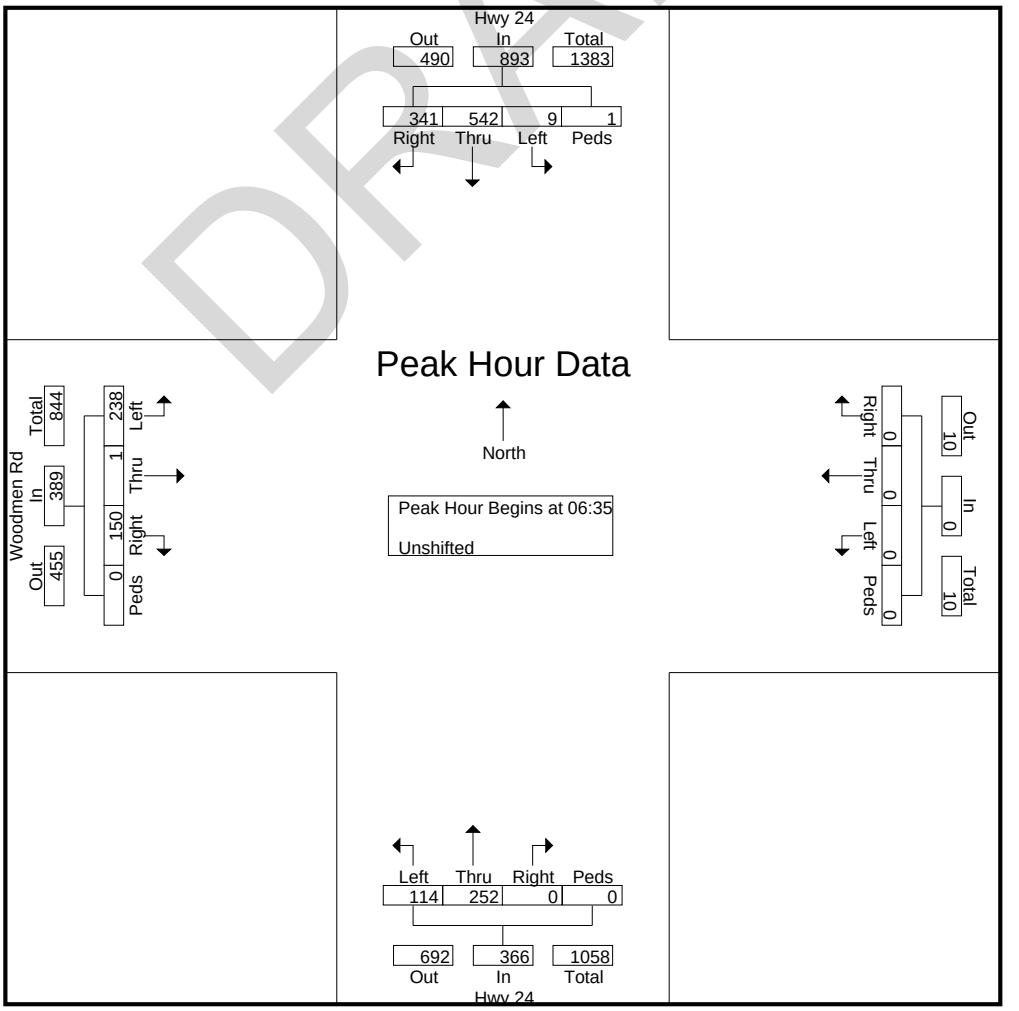
	Hwy 24 Southbound					Westbound					Hwy 24 Northbound					Woodmen Rd Eastbound					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
06:30	36	45	0	0	81	0	0	0	0	0	0	16	15	0	31	14	0	9	0	23	135
06:35	29	50	0	0	79	0	0	0	0	0	0	27	5	0	32	7	0	12	0	19	130
06:40	39	53	0	0	92	0	0	0	0	0	0	24	5	0	29	14	0	15	0	29	150
06:45	36	54	0	0	90	0	0	0	0	0	0	24	12	0	36	12	0	20	0	32	158
06:50	19	46	9	0	74	0	0	0	0	0	0	14	4	0	18	16	0	27	0	43	135
06:55	20	40	0	0	60	0	0	0	0	0	0	17	11	0	28	12	0	21	0	33	121
Total	179	288	9	0	476	0	0	0	0	0	0	122	52	0	174	75	0	104	0	179	829
07:00	27	50	0	0	77	0	0	0	0	0	0	15	6	0	21	18	0	26	0	44	142
07:05	25	42	0	0	67	0	0	0	0	0	0	25	9	0	34	17	0	20	0	37	138
07:10	25	52	0	0	77	0	0	0	0	0	0	23	12	0	35	8	0	26	0	34	146
07:15	34	48	0	0	82	0	0	0	0	0	0	23	10	0	33	15	0	13	0	28	143
07:20	30	39	0	0	69	0	0	0	0	0	0	21	11	0	32	10	1	17	0	28	129
07:25	28	32	0	1	61	0	0	0	0	0	0	19	11	0	30	9	0	19	0	28	119
07:30	29	36	0	0	65	0	0	0	0	0	0	20	18	0	38	12	0	22	0	34	137
07:35	34	29	0	0	63	0	0	0	0	0	0	22	17	0	39	8	0	12	0	20	122
07:40	39	37	0	0	76	0	0	0	0	0	0	16	14	0	30	10	0	20	0	30	136
07:45	29	31	0	0	60	0	0	0	0	0	0	13	10	0	23	13	0	22	0	35	118
07:50	36	40	0	0	76	0	0	0	0	0	0	22	10	0	32	9	0	19	0	28	136
07:55	29	28	0	0	57	0	0	0	0	0	0	14	22	0	36	8	0	19	0	27	120
Total	365	464	0	1	830	0	0	0	0	0	0	233	150	0	383	137	1	235	0	373	1586
08:00	24	29	0	0	53	0	0	0	0	0	0	16	14	0	30	10	0	28	0	38	121
08:05	30	27	0	0	57	0	0	0	0	0	0	15	10	0	25	5	0	18	0	23	105
08:10	27	37	0	0	64	0	0	0	0	0	0	19	10	0	29	11	0	13	0	24	117
08:15	32	40	0	0	72	0	0	0	0	0	0	18	9	0	27	12	0	24	0	36	135
08:20	25	44	0	0	69	0	0	0	0	0	0	17	10	0	27	13	0	24	0	37	133
08:25	29	33	0	0	62	0	0	0	0	0	0	16	12	0	28	13	0	13	0	26	116
Grand Total	711	962	9	1	1683	0	0	0	0	0	0	456	267	0	723	276	1	459	0	736	3142
Apprch %	42.2	57.2	0.5	0.1		0	0	0	0		0	63.1	36.9	0		37.5	0.1	62.4	0		
Total %	22.6	30.6	0.3	0	53.6	0	0	0	0	0	0	14.5	8.5	0	23	8.8	0	14.6	0	23.4	

LSC Transportation Consultants, Inc.

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

File Name : Hwy 24 - Woodmen Rd AM 5-23
Site Code : S214730
Start Date : 5/2/2023
Page No : 2

	Hwy 24 Southbound					Westbound					Hwy 24 Northbound					Woodmen Rd Eastbound					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 06:30 to 08:25 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 06:35																					
06:35	29	50	0	0	79	0	0	0	0	0	0	**27**	5	0	32	7	0	12	0	19	130
06:40	**39**	53	0	0	**92**	0	0	0	0	0	0	24	5	0	29	14	0	15	0	29	150
06:45	36	**54**	0	0	90	0	0	0	0	0	0	24	12	0	36	12	0	20	0	32	**158**
06:50	19	46	**9**	0	74	0	0	0	0	0	0	14	4	0	18	16	0	**27**	0	43	135
06:55	20	40	0	0	60	0	0	0	0	0	0	17	11	0	28	12	0	21	0	33	121
07:00	27	50	0	0	77	0	0	0	0	0	0	15	6	0	21	**18**	0	26	0	**44**	142
07:05	25	42	0	0	67	0	0	0	0	0	0	25	9	0	34	17	0	20	0	37	138
07:10	25	52	0	0	77	0	0	0	0	0	0	23	12	0	35	8	0	26	0	34	146
07:15	34	48	0	0	82	0	0	0	0	0	0	23	10	0	33	15	0	13	0	28	143
07:20	30	39	0	0	69	0	0	0	0	0	0	21	11	0	32	10	**1**	17	0	28	129
07:25	28	32	0	**1**	61	0	0	0	0	0	0	19	11	0	30	9	0	19	0	28	119
07:30	29	36	0	0	65	0	0	0	0	0	0	20	**18**	0	**38**	12	0	22	0	34	137
Total Volume	341	542	9	1	893	0	0	0	0	0	0	252	114	0	366	150	1	238	0	389	1648
% App. Total	38.2	60.7	1	0.1		0	0	0	0		0	68.9	31.1	0		38.6	0.3	61.2	0		
PHF	.729	.836	.083	.083	.809	.000	.000	.000	.000	.000	.000	.778	.528	.000	.803	.694	.083	.735	.000	.737	.869



LSC Transportation Consultants, Inc.

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

File Name : Hwy 24 - Woodmen Rd PM 5-23
Site Code : S214730
Start Date : 5/2/2023
Page No : 1

Groups Printed- Unshifted

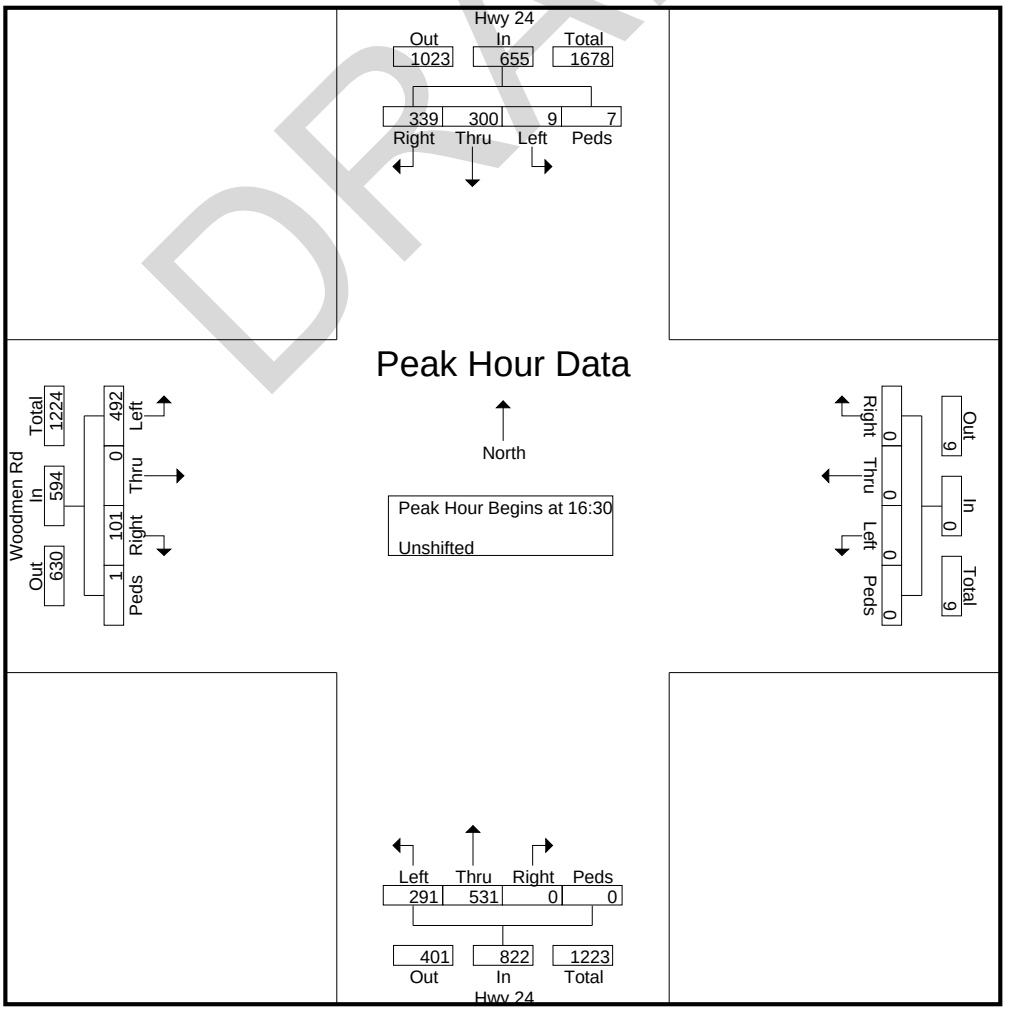
	Hwy 24 Southbound					Westbound					Hwy 24 Northbound					Woodmen Rd Eastbound					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
16:00	26	17	0	0	43	0	0	0	0	0	0	39	33	0	72	4	0	48	0	52	167
16:05	28	28	0	0	56	0	0	0	0	0	0	41	24	0	65	9	0	41	1	51	172
16:10	28	30	0	0	58	0	0	0	0	0	0	37	21	0	58	8	0	14	0	22	138
16:15	31	28	0	0	59	0	0	0	0	0	0	40	29	0	69	9	0	53	0	62	190
16:20	24	19	0	0	43	0	0	0	0	0	0	42	23	0	65	5	0	52	0	57	165
16:25	38	26	0	0	64	0	0	0	0	0	0	41	17	0	58	9	0	43	0	52	174
16:30	20	23	0	0	43	0	0	0	0	0	0	35	21	0	56	11	0	38	0	49	148
16:35	25	19	0	2	46	0	0	0	0	0	0	40	18	0	58	12	0	44	0	56	160
16:40	32	18	0	0	50	0	0	0	0	0	0	41	28	0	69	6	0	38	0	44	163
16:45	33	26	9	0	68	0	0	0	0	0	0	59	19	0	78	9	0	5	0	14	160
16:50	32	25	0	0	57	0	0	0	0	0	0	45	22	0	67	10	0	54	1	65	189
16:55	23	14	0	0	37	0	0	0	0	0	0	35	18	0	53	6	0	50	0	56	146
Total	340	273	9	2	624	0	0	0	0	0	0	495	273	0	768	98	0	480	2	580	1972
17:00	35	23	0	0	58	0	0	0	0	0	0	44	24	0	68	10	0	44	0	54	180
17:05	26	23	0	0	49	0	0	0	0	0	0	27	26	0	53	9	0	45	0	54	156
17:10	23	34	0	0	57	0	0	0	0	0	0	50	28	0	78	4	0	43	0	47	182
17:15	26	37	0	0	63	0	0	0	0	0	0	71	37	0	108	8	0	34	0	42	213
17:20	27	28	0	4	59	0	0	0	0	0	0	42	24	0	66	6	0	46	0	52	177
17:25	37	30	0	1	68	0	0	0	0	0	0	42	26	0	68	10	0	51	0	61	197
17:30	22	13	0	0	35	0	0	0	0	0	0	37	27	0	64	10	0	39	0	49	148
17:35	29	16	0	1	46	0	0	0	0	0	0	24	23	0	47	10	0	53	0	63	156
17:40	21	19	0	1	41	0	0	0	0	0	0	35	18	0	53	7	0	61	0	68	162
17:45	16	19	0	0	35	0	0	0	0	0	0	43	34	0	77	5	0	46	0	51	163
17:50	26	16	0	0	42	0	0	0	0	0	0	44	22	0	66	8	0	25	0	33	141
17:55	23	15	0	1	39	0	0	0	0	0	0	41	26	0	67	6	0	33	0	39	145
Total	311	273	0	8	592	0	0	0	0	0	0	500	315	0	815	93	0	520	0	613	2020
Grand Total	651	546	9	10	1216	0	0	0	0	0	0	995	588	0	1583	191	0	1000	2	1193	3992
Apprch %	53.5	44.9	0.7	0.8		0	0	0	0		0	62.9	37.1	0		16	0	83.8	0.2		
Total %	16.3	13.7	0.2	0.3	30.5	0	0	0	0	0	0	24.9	14.7	0	39.7	4.8	0	25.1	0.1	29.9	

LSC Transportation Consultants, Inc.

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

File Name : Hwy 24 - Woodmen Rd PM 5-23
Site Code : S214730
Start Date : 5/2/2023
Page No : 2

	Hwy 24 Southbound					Westbound					Hwy 24 Northbound					Woodmen Rd Eastbound					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 16:00 to 17:55 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 16:30																					
16:30	20	23	0	0	43	0	0	0	0	0	0	35	21	0	56	11	0	38	0	49	148
16:35	25	19	0	2	46	0	0	0	0	0	0	40	18	0	58	**12**	0	44	0	56	160
16:40	32	18	0	0	50	0	0	0	0	0	0	41	28	0	69	6	0	38	0	44	163
16:45	33	26	**9**	0	**68**	0	0	0	0	0	0	59	19	0	78	9	0	5	0	14	160
16:50	32	25	0	0	57	0	0	0	0	0	0	45	22	0	67	10	0	**54**	**1**	**65**	189
16:55	23	14	0	0	37	0	0	0	0	0	0	35	18	0	53	6	0	50	0	56	146
17:00	35	23	0	0	58	0	0	0	0	0	0	44	24	0	68	10	0	44	0	54	180
17:05	26	23	0	0	49	0	0	0	0	0	0	27	26	0	53	9	0	45	0	54	156
17:10	23	34	0	0	57	0	0	0	0	0	0	50	28	0	78	4	0	43	0	47	182
17:15	26	**37**	0	0	63	0	0	0	0	0	0	**71**	**37**	0	**108**	8	0	34	0	42	**213**
17:20	27	28	0	**4**	59	0	0	0	0	0	0	42	24	0	66	6	0	46	0	52	177
17:25	**37**	30	0	1	68	0	0	0	0	0	0	42	26	0	68	10	0	51	0	61	197
Total Volume	339	300	9	7	655	0	0	0	0	0	0	531	291	0	822	101	0	492	1	594	2071
% App. Total	51.8	45.8	1.4	1.1		0	0	0	0		0	64.6	35.4	0		17	0	82.8	0.2		
PHF	.764	.676	.083	.146	.803	.000	.000	.000	.000	.000	.000	.623	.655	.000	.634	.701	.000	.759	.083	.762	.810



LSC Transportation Consultants, Inc.

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

File Name : Hwy 24 - New Meridian Rd AM 5-23
Site Code : S214730
Start Date : 5/4/2023
Page No : 1

Groups Printed- Unshifted

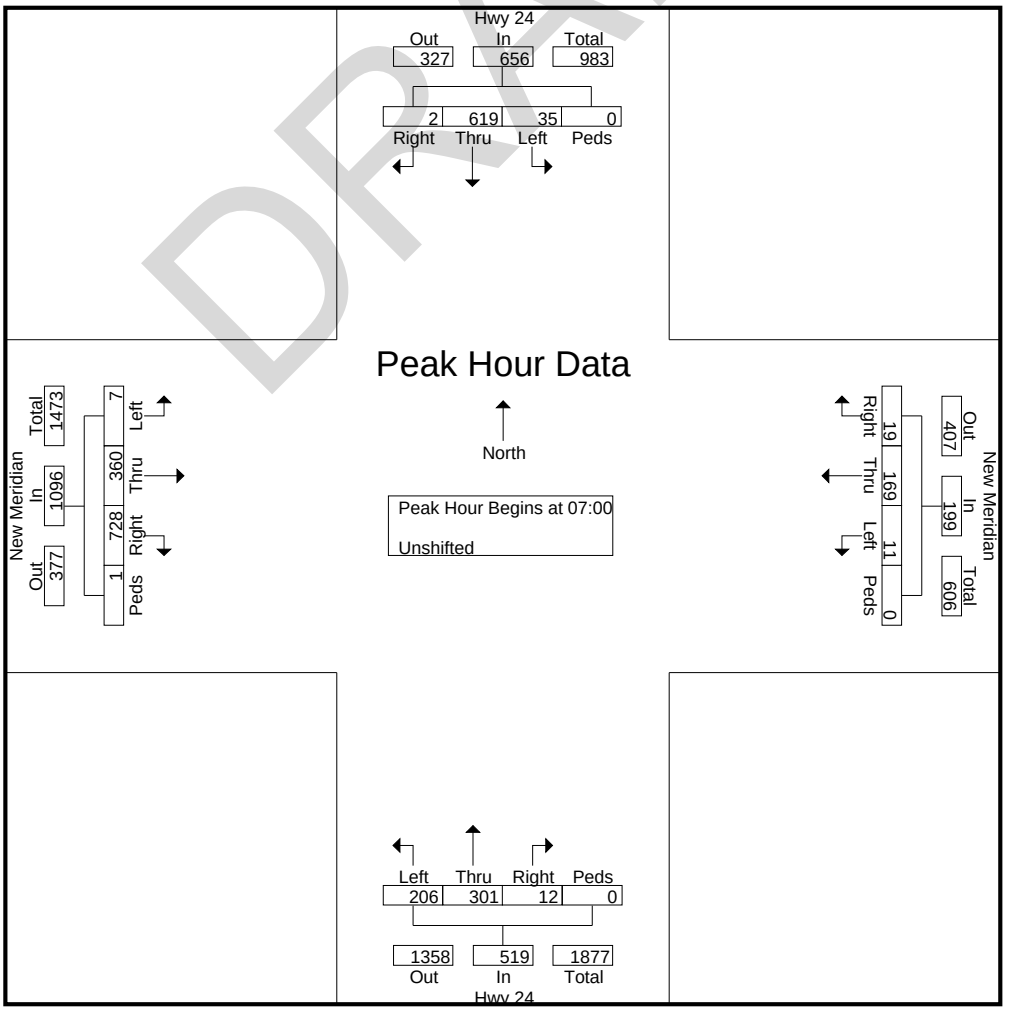
	Hwy 24 Southbound					New Meridian Westbound					Hwy 24 Northbound					New Meridian Eastbound					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
06:30	0	59	4	0	63	1	14	0	0	15	0	20	16	0	36	49	17	0	0	66	180
06:35	1	60	5	0	66	2	13	0	0	15	0	22	15	0	37	52	15	1	0	68	186
06:40	0	58	6	0	64	0	12	0	0	12	1	19	14	0	34	50	18	0	0	68	178
06:45	1	60	7	0	68	2	16	0	0	18	0	33	15	0	48	52	14	0	0	66	200
06:50	2	52	4	0	58	1	16	0	0	17	0	22	17	0	39	54	15	1	0	70	184
06:55	1	70	1	0	72	1	10	1	0	12	0	23	13	0	36	55	22	1	0	78	198
Total	5	359	27	0	391	7	81	1	0	89	1	139	90	0	230	312	101	3	0	416	1126
07:00	0	70	1	0	71	2	5	0	0	7	2	28	21	0	51	69	26	0	0	95	224
07:05	1	49	4	0	54	0	17	0	0	17	2	21	10	0	33	74	29	2	0	105	209
07:10	1	69	3	0	73	2	6	0	0	8	0	24	19	0	43	56	20	0	0	76	200
07:15	0	64	3	0	67	1	0	0	0	1	0	21	27	0	48	69	27	0	0	96	212
07:20	0	40	4	0	44	2	24	0	0	26	0	27	15	0	42	64	27	0	0	91	203
07:25	0	39	3	0	42	5	20	2	0	27	1	25	14	0	40	65	31	2	0	98	207
07:30	0	42	1	0	43	2	24	2	0	28	2	19	11	0	32	71	38	1	0	110	213
07:35	0	44	2	0	46	0	27	4	0	31	0	34	17	0	51	43	48	0	0	91	219
07:40	0	35	5	0	40	0	19	1	0	20	0	22	16	0	38	58	41	1	1	101	199
07:45	0	38	2	0	40	2	18	2	0	22	1	18	17	0	36	55	27	0	0	82	180
07:50	0	59	0	0	59	1	2	0	0	3	2	31	16	0	49	67	19	1	0	87	198
07:55	0	70	7	0	77	2	7	0	0	9	2	31	23	0	56	37	27	0	0	64	206
Total	2	619	35	0	656	19	169	11	0	199	12	301	206	0	519	728	360	7	1	1096	2470
08:00	1	51	5	0	57	2	18	1	0	21	0	33	33	0	66	39	12	1	0	52	196
08:05	0	30	4	0	34	2	16	1	0	19	3	31	28	0	62	31	17	0	0	48	163
08:10	1	52	5	0	58	1	17	1	0	19	1	30	22	0	53	45	17	0	0	62	192
08:15	0	36	2	0	38	4	26	2	0	32	3	13	17	0	33	29	24	3	0	56	159
08:20	0	39	4	0	43	2	24	1	0	27	2	24	20	0	46	41	20	2	0	63	179
08:25	1	39	8	0	48	3	25	0	0	28	0	15	24	0	39	45	17	0	0	62	177
Grand Total	10	1225	90	0	1325	40	376	18	0	434	22	586	440	0	1048	1270	568	16	1	1855	4662
Apprch %	0.8	92.5	6.8	0		9.2	86.6	4.1	0		2.1	55.9	42	0		68.5	30.6	0.9	0.1		
Total %	0.2	26.3	1.9	0	28.4	0.9	8.1	0.4	0	9.3	0.5	12.6	9.4	0	22.5	27.2	12.2	0.3	0	39.8	

LSC Transportation Consultants, Inc.

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

File Name : Hwy 24 - New Meridian Rd AM 5-23
Site Code : S214730
Start Date : 5/4/2023

	Hwy 24 Southbound					New Meridian Westbound					Hwy 24 Northbound					New Meridian Eastbound					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 06:30 to 08:25 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:00																					
07:00	0	**70**	1	0	71	2	5	0	0	7	**2**	28	21	0	51	69	26	0	0	95	**224**
07:05	**1**	49	4	0	54	0	17	0	0	17	2	21	10	0	33	**74**	29	**2**	0	105	209
07:10	1	69	3	0	73	2	6	0	0	8	0	24	19	0	43	56	20	0	0	76	200
07:15	0	64	3	0	67	1	0	0	0	1	0	21	**27**	0	48	69	27	0	0	96	212
07:20	0	40	4	0	44	2	24	0	0	26	0	27	15	0	42	64	27	0	0	91	203
07:25	0	39	3	0	42	**5**	20	2	0	27	1	25	14	0	40	65	31	2	0	98	207
07:30	0	42	1	0	43	2	24	2	0	28	2	19	11	0	32	71	38	1	0	**110**	213
07:35	0	44	2	0	46	0	**27**	**4**	0	**31**	0	**34**	17	0	51	43	**48**	0	0	91	219
07:40	0	35	5	0	40	0	19	1	0	20	0	22	16	0	38	58	41	1	**1**	101	199
07:45	0	38	2	0	40	2	18	2	0	22	1	18	17	0	36	55	27	0	0	82	180
07:50	0	59	0	0	59	1	2	0	0	3	2	31	16	0	49	67	19	1	0	87	198
07:55	0	70	**7**	0	**77**	2	7	0	0	9	2	31	23	0	**56**	37	27	0	0	64	206
Total Volume	2	619	35	0	656	19	169	11	0	199	12	301	206	0	519	728	360	7	1	1096	2470
% App. Total	0.3	94.4	5.3	0		9.5	84.9	5.5	0		2.3	58	39.7	0		66.4	32.8	0.6	0.1		
PHF	.167	.737	.417	.000	.710	.317	.522	.229	.000	.535	.500	.738	.636	.000	.772	.820	.625	.292	.083	.830	.919



LSC Transportation Consultants, Inc.

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

File Name : Hwy 24 - New Meridian PM
Site Code : S214730
Start Date : 5/4/2023
Page No : 1

Groups Printed- Unshifted

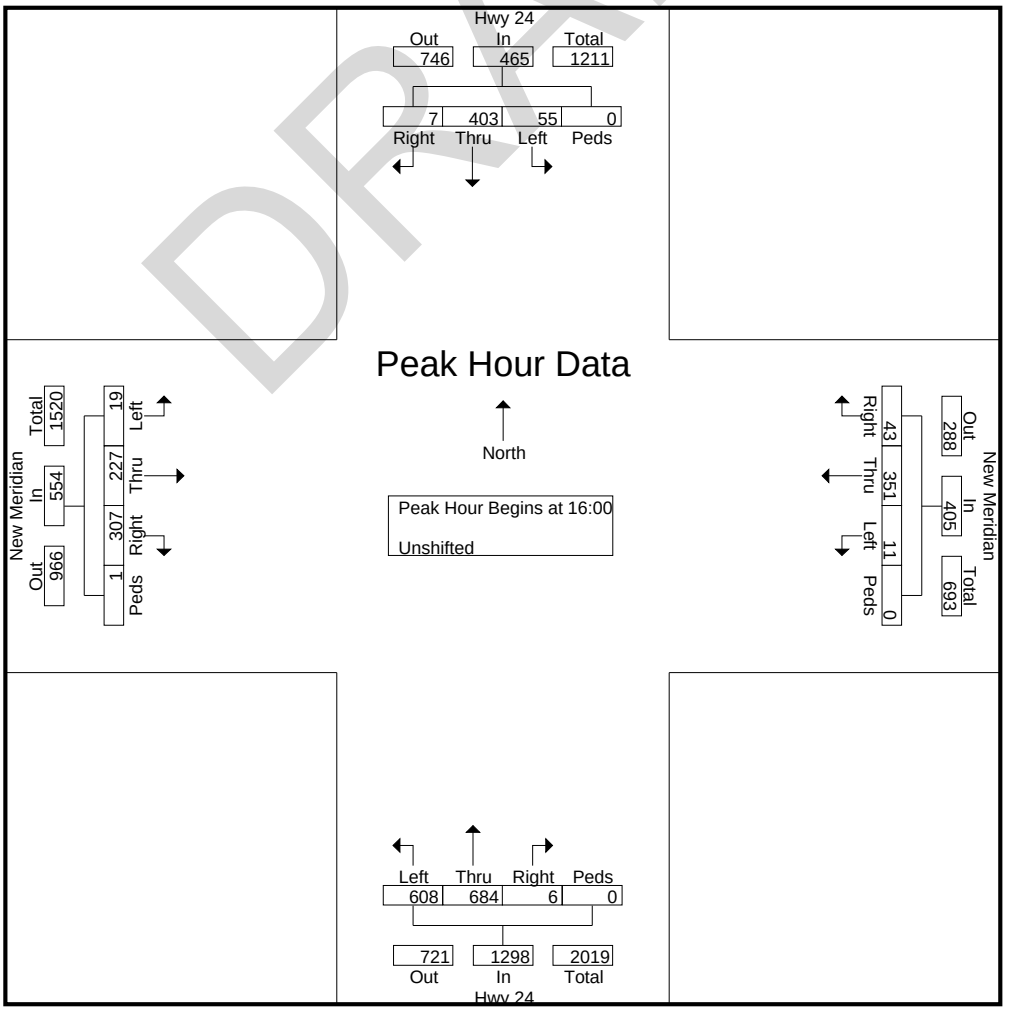
	Hwy 24 Southbound					New Meridian Westbound					Hwy 24 Northbound					New Meridian Eastbound					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
16:00	1	37	4	0	42	1	48	2	0	51	1	47	40	0	88	23	21	2	0	46	227
16:05	0	29	8	0	37	6	28	3	0	37	0	58	41	0	99	31	21	0	0	52	225
16:10	2	35	3	0	40	4	29	0	0	33	0	55	52	0	107	18	11	4	0	33	213
16:15	0	33	5	0	38	6	34	1	0	41	1	63	53	0	117	33	20	0	0	53	249
16:20	0	44	5	0	49	4	23	1	0	28	2	65	53	0	120	30	15	1	0	46	243
16:25	1	50	4	0	55	2	28	1	0	31	0	55	50	0	105	21	17	1	0	39	230
16:30	1	21	4	0	26	4	26	0	0	30	1	51	60	0	112	16	20	2	0	38	206
16:35	0	29	5	0	34	2	37	0	0	39	0	69	54	0	123	17	19	0	1	37	233
16:40	0	29	3	0	32	3	33	1	0	37	0	42	51	0	93	24	22	2	0	48	210
16:45	0	26	5	0	31	4	22	0	0	26	0	73	63	0	136	47	15	4	0	66	259
16:50	0	22	7	0	29	6	21	1	0	28	1	53	48	0	102	25	24	3	0	52	211
16:55	2	48	2	0	52	1	22	1	0	24	0	53	43	0	96	22	22	0	0	44	216
Total	7	403	55	0	465	43	351	11	0	405	6	684	608	0	1298	307	227	19	1	554	2722
17:00	1	33	4	0	38	4	18	0	0	22	0	59	61	0	120	30	14	2	0	46	226
17:05	0	30	8	0	38	2	24	2	0	28	0	46	49	0	95	20	21	2	0	43	204
17:10	1	38	2	0	41	1	33	3	0	37	0	47	45	1	93	27	16	0	0	43	214
17:15	0	31	7	0	38	6	25	1	0	32	0	34	34	0	68	25	33	2	0	60	198
17:20	0	39	6	0	45	1	14	0	0	15	1	72	50	0	123	25	11	0	0	36	219
17:25	1	32	9	0	42	3	20	0	0	23	0	73	42	0	115	25	16	0	0	41	221
17:30	1	19	4	0	24	3	13	0	0	16	0	63	52	0	115	20	18	0	0	38	193
17:35	0	26	1	0	27	1	20	1	0	22	1	55	53	0	109	20	11	3	0	34	192
17:40	0	33	7	0	40	2	10	0	0	12	1	47	42	0	90	25	12	0	0	37	179
17:45	0	26	3	0	29	5	15	0	0	20	0	48	43	0	91	19	26	2	0	47	187
17:50	2	20	5	0	27	3	15	0	0	18	0	49	41	0	90	17	20	2	0	39	174
17:55	0	37	5	0	42	1	11	1	0	13	0	41	38	0	79	14	12	2	0	28	162
Total	6	364	61	0	431	32	218	8	0	258	3	634	550	1	1188	267	210	15	0	492	2369
Grand Total	13	767	116	0	896	75	569	19	0	663	9	1318	1158	1	2486	574	437	34	1	1046	5091
Apprch %	1.5	85.6	12.9	0		11.3	85.8	2.9	0		0.4	53	46.6	0		54.9	41.8	3.3	0.1		
Total %	0.3	15.1	2.3	0	17.6	1.5	11.2	0.4	0	13	0.2	25.9	22.7	0	48.8	11.3	8.6	0.7	0	20.5	

LSC Transportation Consultants, Inc.

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

File Name : Hwy 24 - New Meridian PM
Site Code : S214730
Start Date : 5/4/2023
Page No : 2

	Hwy 24 Southbound					New Meridian Westbound					Hwy 24 Northbound					New Meridian Eastbound					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 16:00 to 17:55 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 16:00																					
16:00	1	37	4	0	42	1	**48**	2	0	**51**	1	47	40	0	88	23	21	2	0	46	227
16:05	0	29	**8**	0	37	**6**	28	**3**	0	37	0	58	41	0	99	31	21	0	0	52	225
16:10	**2**	35	3	0	40	4	29	0	0	33	0	55	52	0	107	18	11	**4**	0	33	213
16:15	0	33	5	0	38	6	34	1	0	41	1	63	53	0	117	33	20	0	0	53	249
16:20	0	44	5	0	49	4	23	1	0	28	**2**	65	53	0	120	30	15	1	0	46	243
16:25	1	**50**	4	0	**55**	2	28	1	0	31	0	55	50	0	105	21	17	1	0	39	230
16:30	1	21	4	0	26	4	26	0	0	30	1	51	60	0	112	16	20	2	0	38	206
16:35	0	29	5	0	34	2	37	0	0	39	0	69	54	0	123	17	19	0	**1**	37	233
16:40	0	29	3	0	32	3	33	1	0	37	0	42	51	0	93	24	22	2	0	48	210
16:45	0	26	5	0	31	4	22	0	0	26	0	**73**	**63**	0	**136**	**47**	15	4	0	**66**	**259**
16:50	0	22	7	0	29	6	21	1	0	28	1	53	48	0	102	25	**24**	3	0	52	211
16:55	2	48	2	0	52	1	22	1	0	24	0	53	43	0	96	22	22	0	0	44	216
Total Volume	7	403	55	0	465	43	351	11	0	405	6	684	608	0	1298	307	227	19	1	554	2722
% App. Total	1.5	86.7	11.8	0		10.6	86.7	2.7	0		0.5	52.7	46.8	0		55.4	41	3.4	0.2		
PHF	.292	.672	.573	.000	.705	.597	.609	.306	.000	.662	.250	.781	.804	.000	.795	.544	.788	.396	.083	.699	.876



LSC Transportation Consultants, Inc.

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

File Name : hwy 24 - rio ln tm am 5-23
Site Code : S214730
Start Date : 5/16/2023
Page No : 1

Groups Printed- Unshifted

	Hwy 24 Southbound					Rio Ln Westbound					Hwy 24 Northbound					Eastbound					
Start Time	**R**	**T**	**L**	**U**	**App. Total**	**R**	**T**	**L**	**U**	**App. Total**	**R**	**T**	**L**	**U**	**App. Total**	**R**	**T**	**L**	**U**	**App. Total**	**Int. Total**
06:30	0	0	0	0	0	0	0	3	0	3	4	0	0	0	4	0	0	0	0	0	7
06:35	0	0	0	0	0	0	0	3	0	3	5	0	0	0	5	0	0	0	0	0	8
06:40	0	0	0	0	0	0	0	8	0	8	4	0	0	0	4	0	0	0	0	0	12
06:45	0	0	1	0	1	0	0	7	0	7	2	0	0	0	2	0	0	0	0	0	10
06:50	0	0	0	0	0	1	0	4	0	5	5	0	0	0	5	0	0	0	0	0	10
06:55	0	0	0	0	0	0	0	4	0	4	5	0	0	0	5	0	0	0	0	0	9
Total	0	0	1	0	1	1	0	29	0	30	25	0	0	0	25	0	0	0	0	0	56
07:00	0	0	0	0	0	0	0	7	0	7	6	0	0	0	6	0	0	0	0	0	13
07:05	0	0	0	0	0	0	0	2	0	2	5	0	0	0	5	0	0	0	0	0	7
07:10	0	0	0	0	0	0	0	3	0	3	3	0	0	0	3	0	0	0	0	0	6
07:15	0	0	0	0	0	2	0	4	0	6	10	0	0	0	10	0	0	0	0	0	16
07:20	0	0	0	0	0	0	0	2	0	2	6	0	0	0	6	0	0	0	0	0	8
07:25	0	0	1	0	1	1	0	3	0	4	6	0	0	0	6	0	0	0	0	0	11
07:30	0	0	1	0	1	1	0	1	0	2	8	0	0	0	8	0	0	0	0	0	11
07:35	0	0	1	0	1	1	0	5	0	6	11	0	0	0	11	0	0	0	0	0	18
07:40	0	0	3	0	3	0	0	4	0	4	8	0	0	0	8	0	0	0	0	0	15
07:45	0	0	0	0	0	1	0	3	0	4	3	0	0	0	3	0	0	0	0	0	7
07:50	0	0	0	0	0	4	0	5	0	9	7	0	0	0	7	0	0	0	0	0	16
07:55	0	0	0	0	0	1	0	8	0	9	3	0	0	0	3	0	0	0	0	0	12
Total	0	0	6	0	6	11	0	47	0	58	76	0	0	0	76	0	0	0	0	0	140
08:00	0	0	0	0	0	0	0	4	0	4	5	0	0	0	5	0	0	0	0	0	9

LSC Transportation Consultants, Inc.

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

File Name : hwy 24 - rio ln tm am 5-23
Site Code : S214730
Start Date : 5/16/2023

Groups Printed- Unshifted

	Hwy 24 Southbound					Rio Ln Westbound					Hwy 24 Northbound					Eastbound					
Start Time	**R**	**T**	**L**	**U**	**App. Total**	**R**	**T**	**L**	**U**	**App. Total**	**R**	**T**	**L**	**U**	**App. Total**	**R**	**T**	**L**	**U**	**App. Total**	**Int. Total**
08:05	0	0	0	0	0	0	0	1	0	1	5	0	0	0	5	0	0	0	0	0	6
08:10	0	0	0	0	0	0	0	2	0	2	2	0	0	0	2	0	0	0	0	0	4
08:15	0	0	0	0	0	1	0	6	0	7	2	0	0	0	2	0	0	0	0	0	9
08:20	0	0	0	0	0	0	0	4	0	4	1	0	0	0	1	0	0	0	0	0	5
08:25	0	0	0	0	0	0	0	3	0	3	2	0	0	0	2	0	0	0	0	0	5
Grand Total	0	0	7	0	7	13	0	96	0	109	118	0	0	0	118	0	0	0	0	0	234
Apprch %	0	0	100	0		11.9	0	88.1	0		100	0	0	0		0	0	0	0		
Total %	0	0	3	0	3	5.6	0	41	0	46.6	50.4	0	0	0	50.4	0	0	0	0	0	

LSC Transportation Consultants, Inc.

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719-633-2868

File Name : hwy 24 - rio ln tm am 5-23
Site Code : S214730
Start Date : 5/16/2023

	Hwy 24 Southbound					Rio Ln Westbound					Hwy 24 Northbound					Eastbound					
Start Time	**R**	**T**	**L**	**U**	**App. Total**	**R**	**T**	**L**	**U**	**App. Total**	**R**	**T**	**L**	**U**	**App. Total**	**R**	**T**	**L**	**U**	**App. Total**	**Int. Total**
Peak Hour Analysis From 06:30 to 08:25 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:00																					
07:00	0	0	0	0	0	0	0	7	0	7	6	0	0	0	6	0	0	0	0	0	13
07:05	0	0	0	0	0	0	0	2	0	2	5	0	0	0	5	0	0	0	0	0	7
07:10	0	0	0	0	0	0	0	3	0	3	3	0	0	0	3	0	0	0	0	0	6
07:15	0	0	0	0	0	2	0	4	0	6	10	0	0	0	10	0	0	0	0	0	16
07:20	0	0	0	0	0	0	0	2	0	2	6	0	0	0	6	0	0	0	0	0	8
07:25	0	0	1	0	1	1	0	3	0	4	6	0	0	0	6	0	0	0	0	0	11
07:30	0	0	1	0	1	1	0	1	0	2	8	0	0	0	8	0	0	0	0	0	11
07:35	0	0	1	0	1	1	0	5	0	6	**11**	0	0	0	**11**	0	0	0	0	0	**18**
07:40	0	0	**3**	0	**3**	0	0	4	0	4	8	0	0	0	8	0	0	0	0	0	15
07:45	0	0	0	0	0	1	0	3	0	4	3	0	0	0	3	0	0	0	0	0	7
07:50	0	0	0	0	0	**4**	0	5	0	**9**	7	0	0	0	7	0	0	0	0	0	16
07:55	0	0	0	0	0	1	0	**8**	0	9	3	0	0	0	3	0	0	0	0	0	12
Total Volume	0	0	6	0	6	11	0	47	0	58	76	0	0	0	76	0	0	0	0	0	140
% App. Total	0	0	100	0		19	0	81	0		100	0	0	0		0	0	0	0		
PHF	.000	.000	.167	.000	.167	.229	.000	.490	.000	.537	.576	.000	.000	.000	.576	.000	.000	.000	.000	.000	.648

LSC Transportation Consultants, Inc.

2504 E. Pikes Peak Ave, Suite 304
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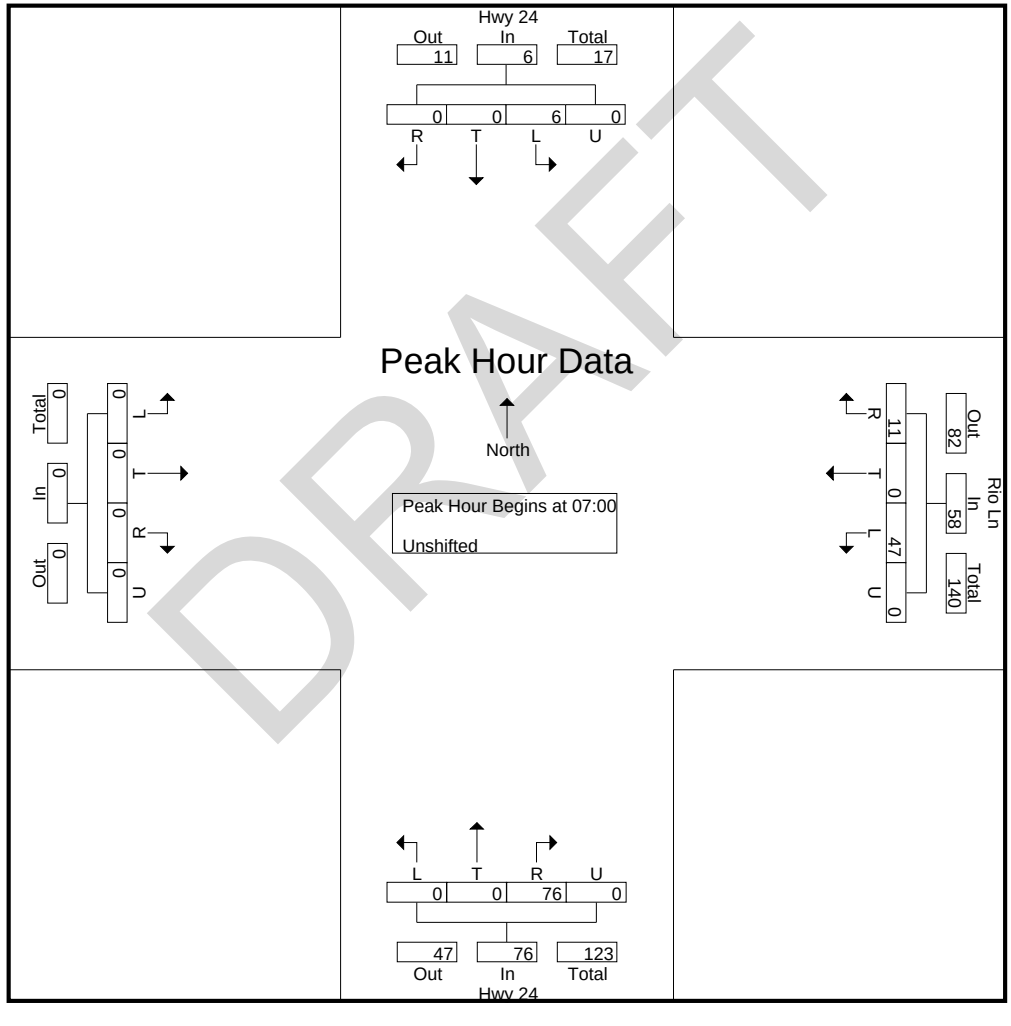
719-633-2868

File Name : hwy 24 - rio ln tm am 5-23
Site Code : S214730
Start Date : 5/16/2023
Page No : 4



LSC Transportation Consultants, Inc.

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

File Name : Hwy 24 - Rio Ln TM PM 5-23
Site Code : S214730
Start Date : 5/16/2023
Page No : 1

Groups Printed- Unshifted

	Hwy 24 Southbound					Rio Ln Westbound					Hwy 24 Northbound					Eastbound					
Start Time	**R**	**T**	**L**	**U**	**App. Total**	**R**	**T**	**L**	**U**	**App. Total**	**R**	**T**	**L**	**U**	**App. Total**	**R**	**T**	**L**	**U**	**App. Total**	**Int. Total**
16:00	0	0	0	0	0	0	0	13	0	13	33	0	0	0	33	0	0	0	0	0	46
16:15	0	0	0	0	0	0	0	16	0	16	15	0	0	0	15	0	0	0	0	0	31
16:30	0	0	0	0	0	2	0	21	0	23	23	0	0	0	23	0	0	0	0	0	46
16:45	0	0	2	0	2	2	0	16	0	18	28	0	0	0	28	0	0	0	0	0	48
Total	0	0	2	0	2	4	0	66	0	70	99	0	0	0	99	0	0	0	0	0	171
17:00	0	0	1	0	1	0	0	5	0	5	28	0	0	0	28	0	0	0	0	0	34
17:15	0	0	1	0	1	1	0	10	0	11	19	0	0	0	19	0	0	0	0	0	31
17:30	0	0	1	0	1	2	0	5	0	7	32	0	0	0	32	0	0	0	0	0	40
17:45	0	0	0	0	0	0	0	12	0	12	21	0	0	0	21	0	0	0	0	0	33
Total	0	0	3	0	3	3	0	32	0	35	100	0	0	0	100	0	0	0	0	0	138
Grand Total	0	0	5	0	5	7	0	98	0	105	199	0	0	0	199	0	0	0	0	0	309
Apprch %	0	0	100	0		6.7	0	93.3	0		100	0	0	0		0	0	0	0		
Total %	0	0	1.6	0	1.6	2.3	0	31.7	0	34	64.4	0	0	0	64.4	0	0	0	0	0	

LSC Transportation Consultants, Inc.

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

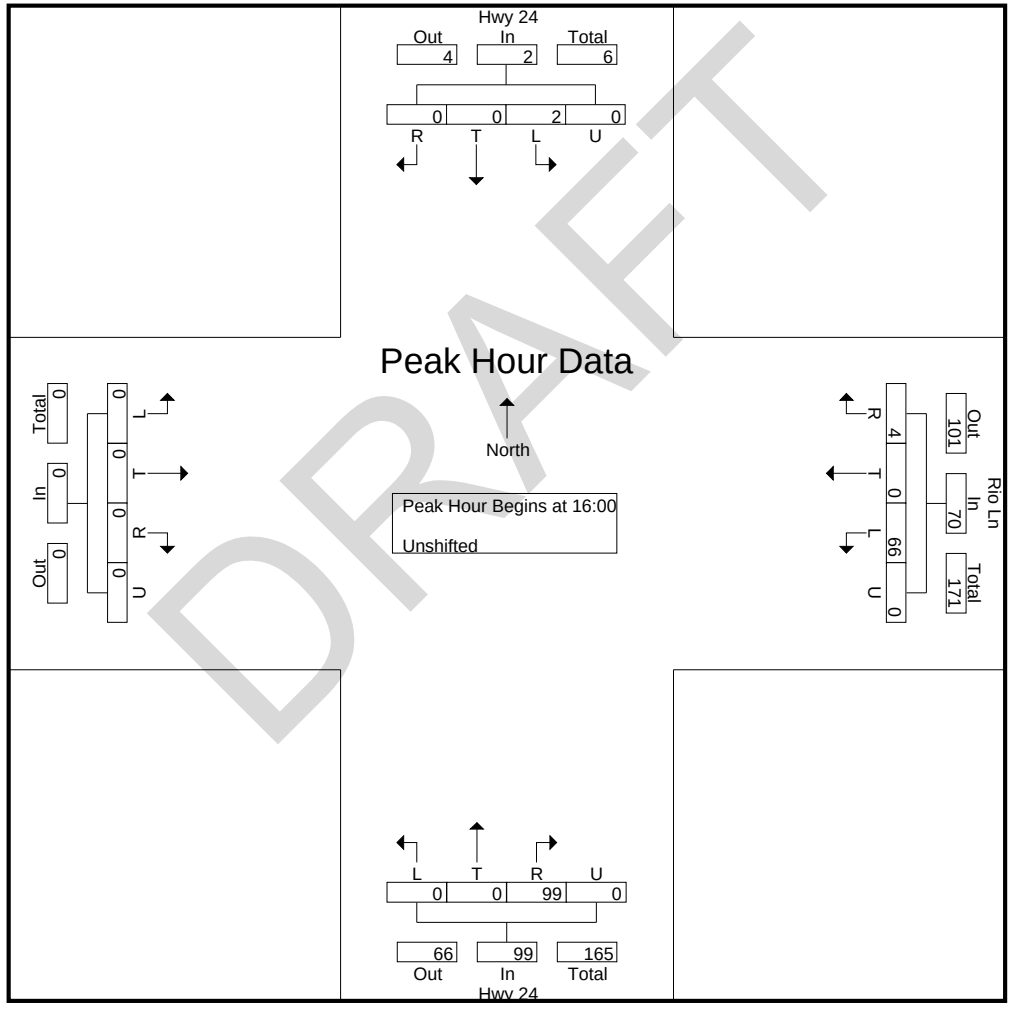
File Name : Hwy 24 - Rio Ln TM PM 5-23
Site Code : S214730
Start Date : 5/16/2023

	Hwy 24 Southbound					Rio Ln Westbound					Hwy 24 Northbound					Eastbound					
Start Time	**R**	**T**	**L**	**U**	**App. Total**	**R**	**T**	**L**	**U**	**App. Total**	**R**	**T**	**L**	**U**	**App. Total**	**R**	**T**	**L**	**U**	**App. Total**	**Int. 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	0	0	0	0	0	0	0	13	0	13	**33**	0	0	0	**33**	0	0	0	0	0	46
4:15:00 PM	0	0	0	0	0	0	0	16	0	16	15	0	0	0	15	0	0	0	0	0	31
4:30:00 PM	0	0	0	0	0	**2**	0	**21**	0	**23**	23	0	0	0	23	0	0	0	0	0	46
4:45:00 PM	0	0	**2**	0	**2**	2	0	16	0	18	28	0	0	0	28	0	0	0	0	0	**48**
Total Volume	0	0	2	0	2	4	0	66	0	70	99	0	0	0	99	0	0	0	0	0	171
% App. Total	0	0	100	0		5.7	0	94.3	0		100	0	0	0		0	0	0	0		
PHF	.000	.000	.250	.000	.250	.500	.000	.786	.000	.761	.750	.000	.000	.000	.750	.000	.000	.000	.000	.000	.891

LSC Transportation Consultants, Inc.

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

File Name : Hwy 24 - Rio Ln TM PM 5-23
Site Code : S214730
Start Date : 5/16/2023
Page No : 3



LSC Transportation Consultants, Inc.

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

File Name : Hwy 24 - Old Meridian Rd AM
Site Code : 00000000
Start Date : 11/30/2021
Page No : 1

Groups Printed- Unshifted

	Hwy 24 Southbound					Old Meridian Rd Westbound					Hwy 24 Northbound					Old Meridian Rd Eastbound					
Start Time	**L**	**T**	**R**	**U**	**App. Total**	**L**	**T**	**R**	**U**	**App. Total**	**L**	**T**	**R**	**U**	**App. Total**	**L**	**T**	**R**	**U**	**App. Total**	**Int. Total**
06:30 AM	0	187	0	0	187	0	0	4	0	4	0	76	2	0	78	0	0	7	0	7	276
06:45 AM	0	183	0	0	183	0	0	2	0	2	0	116	5	0	121	0	0	7	0	7	313
Total	0	370	0	0	370	0	0	6	0	6	0	192	7	0	199	0	0	14	0	14	589
07:00 AM	0	182	2	0	184	0	0	7	0	7	0	115	7	0	122	0	0	4	0	4	317
07:15 AM	0	125	1	0	126	0	0	7	0	7	0	92	2	0	94	0	0	6	0	6	233
07:30 AM	0	155	1	0	156	0	0	7	0	7	0	105	4	0	109	0	0	8	0	8	280
07:45 AM	0	167	3	0	170	0	0	11	0	11	0	95	4	0	99	0	0	3	0	3	283
Total	0	629	7	0	636	0	0	32	0	32	0	407	17	0	424	0	0	21	0	21	1113
08:00 AM	0	112	0	0	112	0	0	10	0	10	0	82	5	0	87	0	0	9	0	9	218
08:15 AM	0	144	4	0	148	0	0	6	0	6	0	91	5	0	96	0	1	8	0	9	259
Grand Total	0	1255	11	0	1266	0	0	54	0	54	0	772	34	0	806	0	1	52	0	53	2179
Apprch %	0	99.1	0.9	0		0	0	100	0		0	95.8	4.2	0		0	1.9	98.1	0		
Total %	0	57.6	0.5	0	58.1	0	0	2.5	0	2.5	0	35.4	1.6	0	37	0	0	2.4	0	2.4	

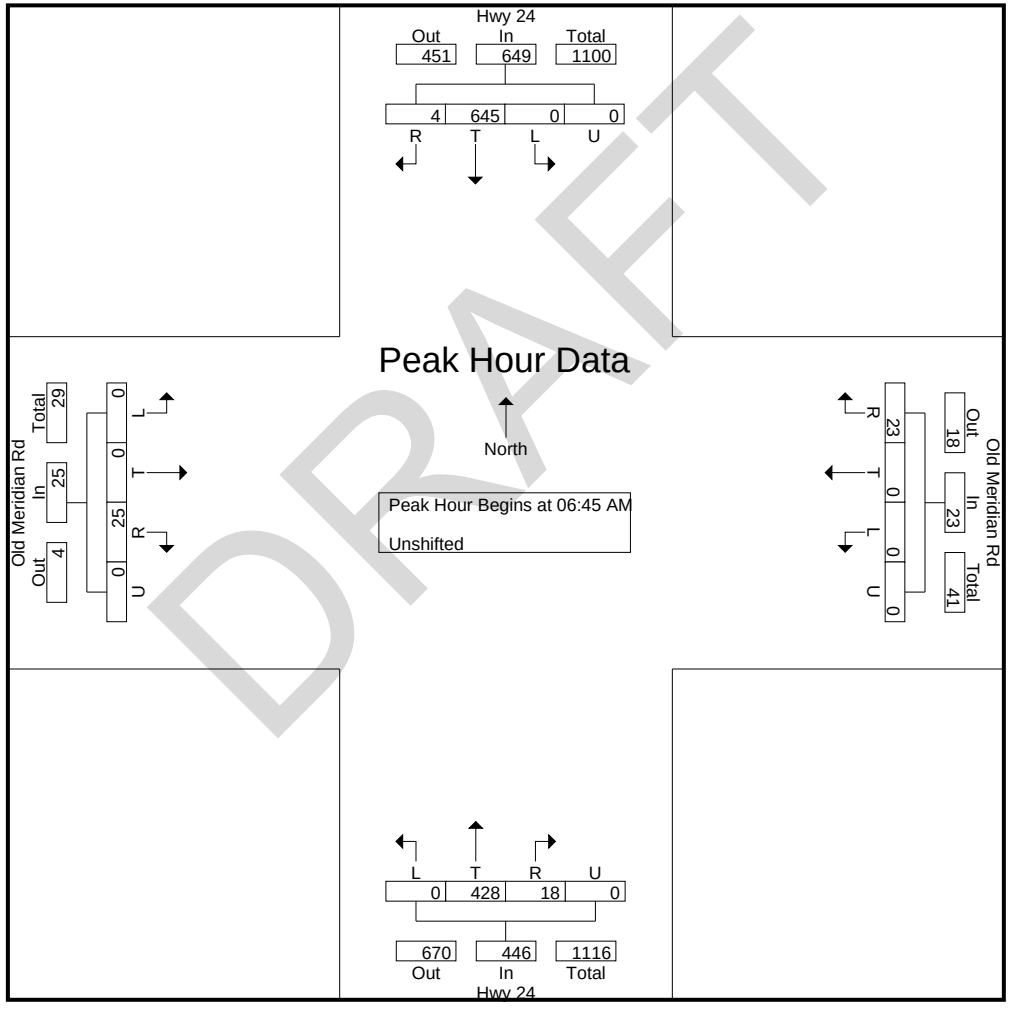
LSC Transportation Consultants, Inc.
545 E Pikes Peak Ave, Suite 210
Colorado Springs, CO 80905
719-633-2868

File Name : Hwy 24 - Old Meridian Rd AM
Site Code : 00000000
Start Date : 11/30/2021

	Hwy 24 Southbound					Old Meridian Rd Westbound					Hwy 24 Northbound					Old Meridian Rd Eastbound					
Start Time	**L**	**T**	**R**	**U**	**App. Total**	**L**	**T**	**R**	**U**	**App. Total**	**L**	**T**	**R**	**U**	**App. Total**	**L**	**T**	**R**	**U**	**App. Total**	**Int. 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	**183**	0	0	183	0	0	2	0	2	0	**116**	5	0	121	0	0	7	0	7	313
7:00:00 AM	0	182	**2**	0	**184**	0	0	**7**	0	**7**	0	115	**7**	0	**122**	0	0	4	0	4	**317**
7:15:00 AM	0	125	1	0	126	0	0	7	0	7	0	92	2	0	94	0	0	6	0	6	233
7:30:00 AM	0	155	1	0	156	0	0	7	0	7	0	105	4	0	109	0	0	**8**	0	**8**	280
Total Volume	0	645	4	0	649	0	0	23	0	23	0	428	18	0	446	0	0	25	0	25	1143
% App. Total	0	99.4	0.6	0		0	0	100	0		0	96	4	0		0	0	100	0		
PHF	.000	.881	.500	.000	.882	.000	.000	.821	.000	.821	.000	.922	.643	.000	.914	.000	.000	.781	.000	.781	.901

LSC Transportation Consultants, Inc.
545 E Pikes Peak Ave, Suite 210
Colorado Springs, CO 80905
719-633-2868

File Name : Hwy 24 - Old Meridian Rd AM
Site Code : 00000000
Start Date : 11/30/2021
Page No : 3



LSC Transportation Consultants, Inc.

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

File Name : Hwy 24 - Old Meridian Rd PM
Site Code : 00000000
Start Date : 12/1/2021
Page No : 1

Groups Printed- Unshifted

	Hwy 24 Southbound					Old Meridian Rd Westbound					Hwy 24 Northbound					Old Meridian Rd Eastbound					
Start Time	**L**	**T**	**R**	**U**	**App. Total**	**L**	**T**	**R**	**U**	**App. Total**	**L**	**T**	**R**	**U**	**App. Total**	**L**	**T**	**R**	**U**	**App. Total**	**Int. Total**
04:00 PM	0	118	3	0	121	0	0	12	0	12	0	152	7	0	159	0	0	19	0	19	311
04:15 PM	0	106	3	0	109	0	0	11	0	11	0	178	1	0	179	0	0	11	0	11	310
04:30 PM	0	109	3	0	112	0	0	12	0	12	0	219	1	0	220	0	0	12	0	12	356
04:45 PM	0	82	1	0	83	0	0	12	0	12	0	191	1	0	192	0	0	15	0	15	302
Total	0	415	10	0	425	0	0	47	0	47	0	740	10	0	750	0	0	57	0	57	1279
05:00 PM	0	119	1	0	120	0	0	8	0	8	0	192	6	0	198	0	0	17	0	17	343
05:15 PM	0	130	0	0	130	0	0	13	0	13	0	195	6	0	201	0	0	8	0	8	352
05:30 PM	0	89	2	0	91	0	0	12	0	12	0	179	5	0	184	0	0	16	0	16	303
05:45 PM	0	100	1	0	101	0	0	6	0	6	0	208	6	0	214	0	0	10	0	10	331
Total	0	438	4	0	442	0	0	39	0	39	0	774	23	0	797	0	0	51	0	51	1329
Grand Total	0	853	14	0	867	0	0	86	0	86	0	1514	33	0	1547	0	0	108	0	108	2608
Apprch %	0	98.4	1.6	0		0	0	100	0		0	97.9	2.1	0		0	0	100	0		
Total %	0	32.7	0.5	0	33.2	0	0	3.3	0	3.3	0	58.1	1.3	0	59.3	0	0	4.1	0	4.1	

LSC Transportation Consultants, Inc.
545 E Pikes Peak Ave, Suite 210
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719-633-2868

File Name : Hwy 24 - Old Meridian Rd PM
Site Code : 00000000
Start Date : 12/1/2021

	Hwy 24 Southbound					Old Meridian Rd Westbound					Hwy 24 Northbound					Old Meridian Rd Eastbound					
Start Time	**L**	**T**	**R**	**U**	**App. Total**	**L**	**T**	**R**	**U**	**App. Total**	**L**	**T**	**R**	**U**	**App. Total**	**L**	**T**	**R**	**U**	**App. Total**	**Int. 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	109	**3**	0	112	0	0	12	0	12	0	**219**	1	0	**220**	0	0	12	0	12	**356**
4:45:00 PM	0	82	1	0	83	0	0	12	0	12	0	191	1	0	192	0	0	15	0	15	302
5:00:00 PM	0	119	1	0	120	0	0	8	0	8	0	192	**6**	0	198	0	0	**17**	0	**17**	343
5:15:00 PM	0	**130**	0	0	**130**	0	0	**13**	0	**13**	0	195	6	0	201	0	0	8	0	8	352
Total Volume	0	440	5	0	445	0	0	45	0	45	0	797	14	0	811	0	0	52	0	52	1353
% App. Total	0	98.9	1.1	0		0	0	100	0		0	98.3	1.7	0		0	0	100	0		
PHF	.000	.846	.417	.000	.856	.000	.000	.865	.000	.865	.000	.910	.583	.000	.922	.000	.000	.765	.000	.765	.950

LSC Transportation Consultants, Inc.
545 E Pikes Peak Ave, Suite 210
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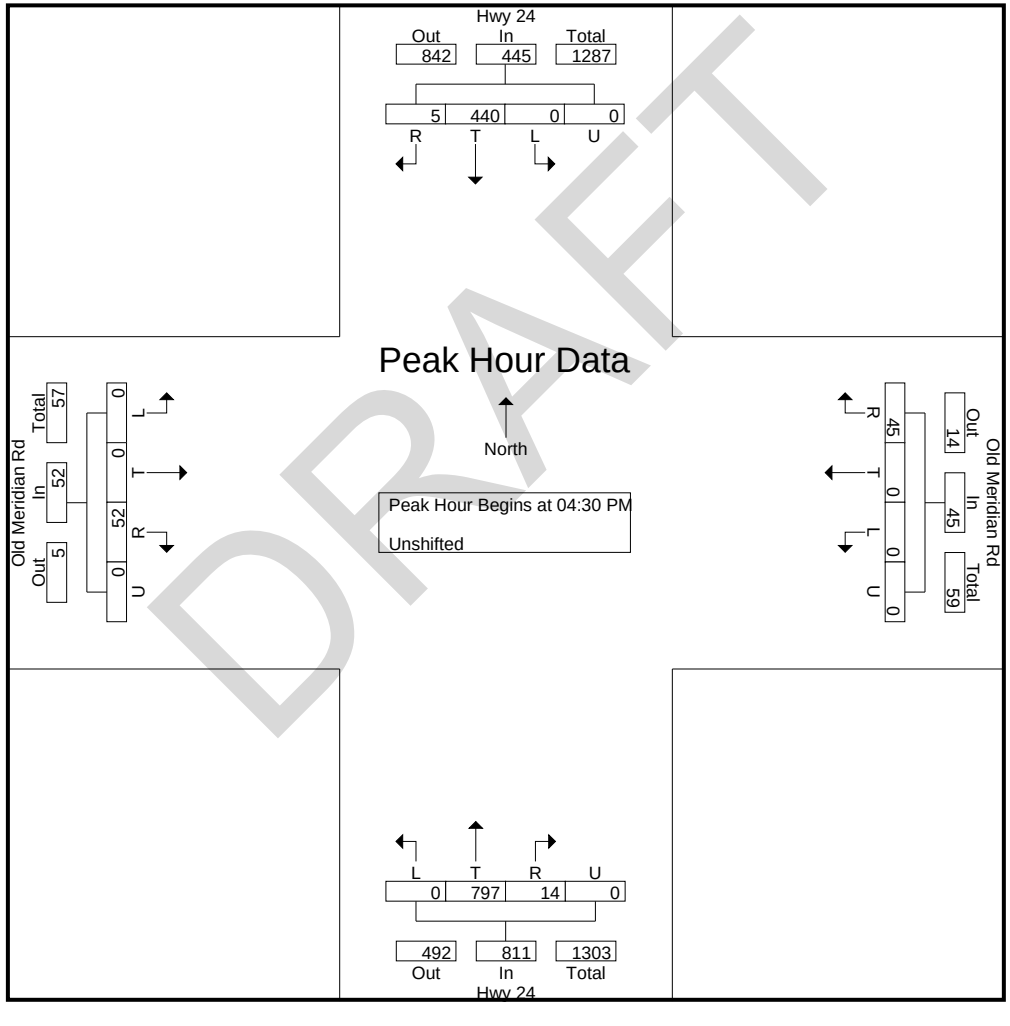
719-633-2868

File Name : Hwy 24 - Old Meridian Rd PM
Site Code : 00000000
Start Date : 12/1/2021
Page No : 3



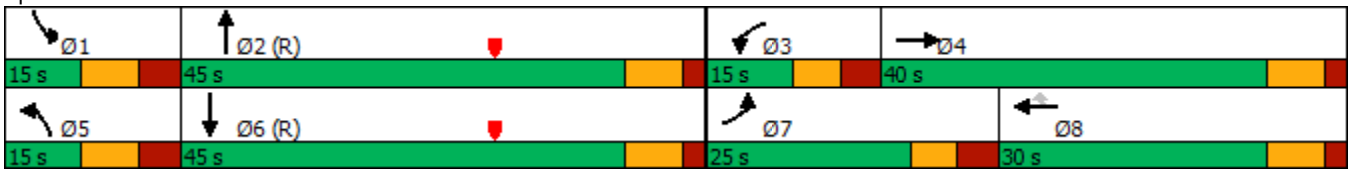
Levels of Service

TRANSPORTATION
CONSULTANTS, INC.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	302	349	201	68	577	36	142	212	17	38	606	541
Future Volume (vph)	302	349	201	68	577	36	142	212	17	38	606	541
Turn Type	Prot	NA	Free	Prot	NA	Perm	Prot	NA	Free	Prot	NA	Free
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			Free			8			Free			Free
Detector Phase	7	4		3	8	8	5	2		1	6	
Switch Phase												
Minimum Initial (s)	5.0	15.0		5.0	15.0	15.0	5.0	15.0		5.0	15.0	
Minimum Split (s)	13.5	25.0		13.5	22.0	22.0	13.5	22.0		13.5	22.0	
Total Split (s)	25.0	40.0		15.0	30.0	30.0	15.0	45.0		15.0	45.0	
Total Split (%)	21.7%	34.8%		13.0%	26.1%	26.1%	13.0%	39.1%		13.0%	39.1%	
Yellow Time (s)	4.0	5.0		4.0	5.0	5.0	5.0	5.0		5.0	5.0	
All-Red Time (s)	3.5	2.0		3.5	2.0	2.0	3.5	2.0		3.5	2.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)	7.5	7.0		7.5	7.0	7.0	8.5	7.0		8.5	7.0	
Lead/Lag	Lead	Lag		Lead	Lag	Lag	Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes	Yes	Yes	Yes		Yes	Yes	
Recall Mode	None	None		None	None	None	None	C-Max		None	C-Max	
Act Effct Green (s)	15.3	33.5	115.0	7.1	22.6	22.6	7.3	46.6	115.0	6.2	39.8	115.0
Actuated g/C Ratio	0.13	0.29	1.00	0.06	0.20	0.20	0.06	0.41	1.00	0.05	0.35	1.00
v/c Ratio	0.69	0.35	0.13	0.34	0.86	0.07	0.68	0.15	0.01	0.22	0.52	0.36
Control Delay	55.8	33.7	0.2	76.7	50.3	0.6	66.8	22.4	0.0	54.8	32.3	0.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	55.8	33.7	0.2	76.7	50.3	0.6	66.8	22.4	0.0	54.8	32.3	0.6
LOS	E	C	A	E	D	A	E	C	A	D	C	A
Approach Delay		33.7			50.2			38.3			18.6	
Approach LOS		C			D			D			B	

Intersection Summary	
Cycle Length: 115	
Actuated Cycle Length: 115	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of FDW or yellow, Master Intersection	
Natural Cycle: 75	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.86	
Intersection Signal Delay: 32.1	Intersection LOS: C
Intersection Capacity Utilization 70.5%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 7: Meridian Rd & Woodmen Rd



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	101	257	46	28	349	143	39	45	10	121	125	293
Future Volume (vph)	101	257	46	28	349	143	39	45	10	121	125	293
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases	2		2	6		6	8		8	4		4
Detector Phase	5	2	2	1	6	6	3	8	8	7	4	4
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)	12.5	25.0	25.0	12.5	25.0	25.0	13.5	25.0	25.0	13.5	25.0	25.0
Total Split (s)	15.0	60.0	60.0	15.0	60.0	60.0	15.0	25.0	25.0	15.0	25.0	25.0
Total Split (%)	13.0%	52.2%	52.2%	13.0%	52.2%	52.2%	13.0%	21.7%	21.7%	13.0%	21.7%	21.7%
Yellow Time (s)	4.0	5.0	5.0	4.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
All-Red Time (s)	3.5	2.0	2.0	3.5	2.0	2.0	3.5	2.0	2.0	3.5	2.0	2.0
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)	7.5	7.0	7.0	7.5	7.0	7.0	8.5	7.0	7.0	8.5	7.0	7.0
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
Recall Mode	None	C-Max	C-Max	None	C-Max	C-Max	None	Max	Max	None	Max	Max
Act Effct Green (s)	63.5	59.5	59.5	59.0	53.2	53.2	22.8	18.0	18.0	26.4	24.0	24.0
Actuated g/C Ratio	0.55	0.52	0.52	0.51	0.46	0.46	0.20	0.16	0.16	0.23	0.21	0.21
v/c Ratio	0.18	0.14	0.05	0.05	0.22	0.18	0.14	0.16	0.02	0.40	0.33	0.53
Control Delay	8.7	9.9	0.2	14.6	25.2	5.1	32.8	43.6	0.1	38.6	44.1	8.7
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	8.7	9.9	0.2	14.6	25.2	5.1	32.8	43.6	0.1	38.6	44.1	8.7
LOS	A	A	A	B	C	A	C	D	A	D	D	A
Approach Delay		8.5			19.1			34.6			23.6	
Approach LOS		A			B			C			C	

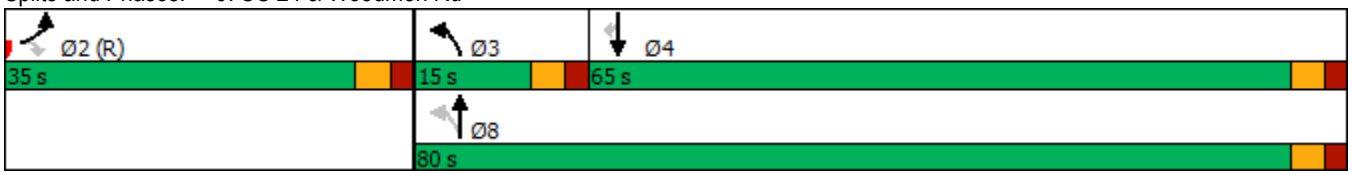
Intersection Summary		
Cycle Length: 115		
Actuated Cycle Length: 115		
Offset: 0 (0%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green		
Natural Cycle: 80		
Control Type: Actuated-Coordinated		
Maximum v/c Ratio: 0.53		
Intersection Signal Delay: 18.9	Intersection LOS: B	
Intersection Capacity Utilization 49.9%	ICU Level of Service A	
Analysis Period (min) 15		

Splits and Phases: 8: McLaughlin Rd & Woodmen Rd

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	238	150	130	252	542	390
Future Volume (vph)	238	150	130	252	542	390
Turn Type	Prot	Perm	pm+pt	NA	NA	Perm
Protected Phases	2		3	8	4	
Permitted Phases		2	8			4
Detector Phase	2	2	3	8	4	4
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	23.5	23.5	10.5	23.5	23.5	23.5
Total Split (s)	35.0	35.0	15.0	80.0	65.0	65.0
Total Split (%)	30.4%	30.4%	13.0%	69.6%	56.5%	56.5%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag			Lead		Lag	Lag
Lead-Lag Optimize?			Yes		Yes	Yes
Recall Mode	C-Max	C-Max	None	None	None	None
Act Effct Green (s)	45.4	45.4	59.6	59.6	46.5	46.5
Actuated g/C Ratio	0.39	0.39	0.52	0.52	0.40	0.40
v/c Ratio	0.37	0.22	0.28	0.28	0.77	0.47
Control Delay	34.9	18.4	15.1	14.5	36.4	3.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	34.9	18.4	15.1	14.5	36.4	3.4
LOS	C	B	B	B	D	A
Approach Delay	28.5			14.7	22.6	
Approach LOS	C			B	C	

Intersection Summary	
Cycle Length: 115	
Actuated Cycle Length: 115	
Offset: 0 (0%), Referenced to phase 2:EBL and 6:, Start of Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.77	
Intersection Signal Delay: 22.2	Intersection LOS: C
Intersection Capacity Utilization 58.4%	ICU Level of Service B
Analysis Period (min) 15	

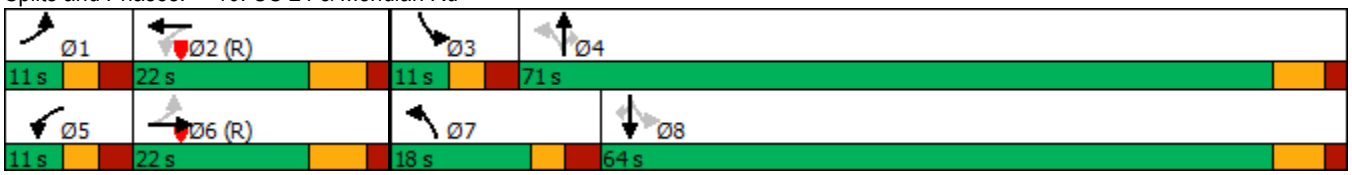
Splits and Phases: 9: US 24 & Woodmen Rd



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	7	360	728	11	169	19	206	351	12	35	676	2
Future Volume (vph)	7	360	728	11	169	19	206	351	12	35	676	2
Turn Type	pm+pt	NA	Free	pm+pt	NA	Free	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	1	6		5	2		7	4		3	8	
Permitted Phases	6		Free	2		Free	4		4	8		8
Detector Phase	1	6		5	2		7	4	4	3	8	8
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		10.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	11.0	20.0		11.0	20.0		16.0	20.0	20.0	11.0	20.0	20.0
Total Split (s)	11.0	22.0		11.0	22.0		18.0	71.0	71.0	11.0	64.0	64.0
Total Split (%)	9.6%	19.1%		9.6%	19.1%		15.7%	61.7%	61.7%	9.6%	55.7%	55.7%
Yellow Time (s)	3.0	5.0		3.0	5.0		3.0	4.5	4.5	3.0	4.5	4.5
All-Red Time (s)	3.0	2.0		3.0	2.0		3.0	2.0	2.0	3.0	2.0	2.0
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)	6.0	7.0		6.0	7.0		6.0	6.5	6.5	6.0	6.5	6.5
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max		None	C-Max		None	None	None	None	None	None
Act Effct Green (s)	33.7	31.7	115.0	33.7	31.7	115.0	68.1	61.0	61.0	55.2	49.7	49.7
Actuated g/C Ratio	0.29	0.28	1.00	0.29	0.28	1.00	0.59	0.53	0.53	0.48	0.43	0.43
v/c Ratio	0.02	0.38	0.47	0.04	0.18	0.01	0.69	0.36	0.01	0.07	0.86	0.00
Control Delay	29.4	34.4	3.0	33.0	35.8	0.0	24.9	16.7	0.0	4.1	22.4	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	29.4	34.4	3.0	33.0	35.8	0.0	24.9	16.7	0.0	4.1	22.4	0.0
LOS	C	C	A	C	D	A	C	B	A	A	C	A
Approach Delay		13.5			32.3			19.3			21.5	
Approach LOS		B			C			B			C	

Intersection Summary	
Cycle Length: 115	
Actuated Cycle Length: 115	
Offset: 103 (90%), Referenced to phase 2:WBTL and 6:EBTL, Start of FDW or yellow	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.86	
Intersection Signal Delay: 18.4	Intersection LOS: B
Intersection Capacity Utilization 73.2%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 10: US 24 & Meridian Rd



Intersection	
Int Delay, s/veh	0

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations			↱			↱		↑	↱		↑	↱
Traffic Vol, veh/h	0	0	25	0	0	23	0	359	18	0	688	4
Future Vol, veh/h	0	0	25	0	0	23	0	359	18	0	688	4
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	Free	-	-	Free	-	-	None	-	-	None
Storage Length	-	-	0	-	-	0	-	-	400	-	-	400
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	91	91	91	91	91	91	91	91	91	91	91	91
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	27	0	0	25	0	395	20	0	756	4

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	-	-	-	-	-	-	-	0	0	-	-	0
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	-	-	-	-	-	-	-
Pot Cap-1 Maneuver	0	0	0	0	0	0	0	-	-	0	-	-
Stage 1	0	0	0	0	0	0	0	-	-	0	-	-
Stage 2	0	0	0	0	0	0	0	-	-	0	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-

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

Minor Lane/Major Mvmt	NBT	NBR	EBLn1	WBLn1	SBT	SBR
Capacity (veh/h)	-	-	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-	-	-
HCM Control Delay (s)	-	-	0	0	-	-
HCM Lane LOS	-	-	A	A	-	-
HCM 95th %tile Q(veh)	-	-	-	-	-	-

Intersection	
Int Delay, s/veh	2

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	47	11	414	76	6	885
Future Vol, veh/h	47	11	414	76	6	885
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	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	88	88	88	88	88	88
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	53	13	470	86	7	1006

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1533	513	0	0	556	0
Stage 1	513	-	-	-	-	-
Stage 2	1020	-	-	-	-	-
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	128	561	-	-	1015	-
Stage 1	601	-	-	-	-	-
Stage 2	348	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	126	561	-	-	1015	-
Mov Cap-2 Maneuver	126	-	-	-	-	-
Stage 1	601	-	-	-	-	-
Stage 2	342	-	-	-	-	-

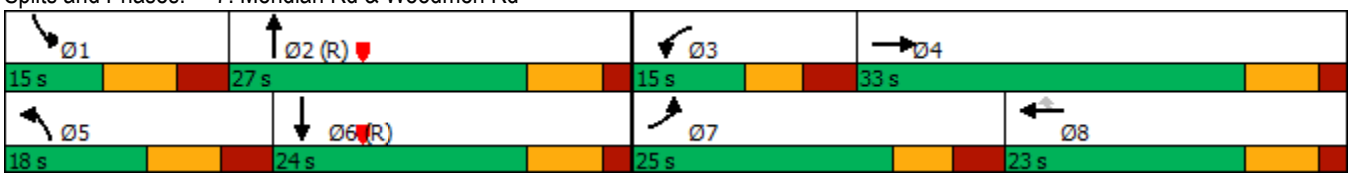
Approach	WB	NB	SB
HCM Control Delay, s	47.5	0	0.1
HCM LOS	E		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	148	1015	-
HCM Lane V/C Ratio	-	-	0.445	0.007	-
HCM Control Delay (s)	-	-	47.5	8.6	0
HCM Lane LOS	-	-	E	A	A
HCM 95th %tile Q(veh)	-	-	2	0	-

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	638	523	102	116	488	64	220	568	79	119	435	366
Future Volume (vph)	638	523	102	116	488	64	220	568	79	119	435	366
Turn Type	Prot	NA	Free	Prot	NA	Perm	Prot	NA	Free	Prot	NA	Free
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			Free			8			Free			Free
Detector Phase	7	4		3	8	8	5	2		1	6	
Switch Phase												
Minimum Initial (s)	5.0	15.0		5.0	15.0	15.0	5.0	15.0		5.0	15.0	
Minimum Split (s)	12.5	22.0		12.5	22.0	22.0	13.5	22.0		13.5	22.0	
Total Split (s)	25.0	33.0		15.0	23.0	23.0	18.0	27.0		15.0	24.0	
Total Split (%)	27.8%	36.7%		16.7%	25.6%	25.6%	20.0%	30.0%		16.7%	26.7%	
Yellow Time (s)	4.0	5.0		4.0	5.0	5.0	5.0	5.0		5.0	5.0	
All-Red Time (s)	3.5	2.0		3.5	2.0	2.0	3.5	2.0		3.5	2.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)	7.5	7.0		7.5	7.0	7.0	8.5	7.0		8.5	7.0	
Lead/Lag	Lead	Lag		Lead	Lag	Lag	Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes	Yes	Yes	Yes		Yes	Yes	
Recall Mode	None	None		None	None	None	None	C-Max		None	C-Max	
Act Effct Green (s)	17.5	26.0	90.0	7.3	15.8	15.8	9.2	20.2	90.0	6.5	17.5	90.0
Actuated g/C Ratio	0.19	0.29	1.00	0.08	0.18	0.18	0.10	0.22	1.00	0.07	0.19	1.00
v/c Ratio	1.00	0.53	0.07	0.44	0.82	0.12	0.65	0.74	0.05	0.50	0.66	0.24
Control Delay	71.9	29.2	0.1	65.4	42.3	1.6	58.4	24.8	0.1	47.8	39.0	0.4
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	71.9	29.2	0.1	65.4	42.3	1.6	58.4	24.8	0.1	47.8	39.0	0.4
LOS	E	C	A	E	D	A	E	C	A	D	D	A
Approach Delay		48.4			42.4			31.1			24.8	
Approach LOS		D			D			C			C	

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of FDW or yellow, Master Intersection	
Natural Cycle: 80	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.00	
Intersection Signal Delay: 37.4	Intersection LOS: D
Intersection Capacity Utilization 76.1%	ICU Level of Service D
Analysis Period (min) 15	

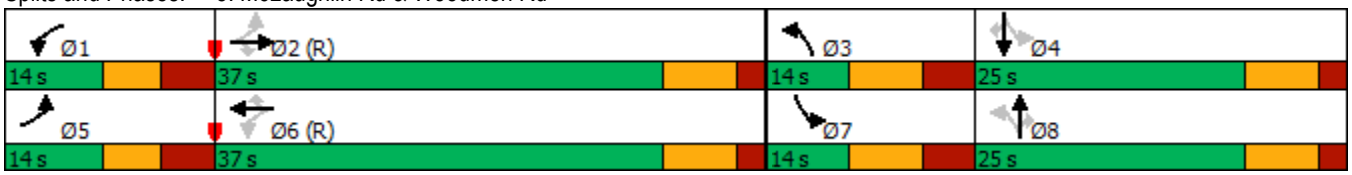
Splits and Phases: 7: Meridian Rd & Woodmen Rd



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	296	328	97	45	388	266	86	165	87	185	113	194
Future Volume (vph)	296	328	97	45	388	266	86	165	87	185	113	194
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases	2		2	6		6	8		8	4		4
Detector Phase	5	2	2	1	6	6	3	8	8	7	4	4
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)	12.5	25.0	25.0	12.5	25.0	25.0	13.5	25.0	25.0	13.5	25.0	25.0
Total Split (s)	14.0	37.0	37.0	14.0	37.0	37.0	14.0	25.0	25.0	14.0	25.0	25.0
Total Split (%)	15.6%	41.1%	41.1%	15.6%	41.1%	41.1%	15.6%	27.8%	27.8%	15.6%	27.8%	27.8%
Yellow Time (s)	4.0	5.0	5.0	4.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
All-Red Time (s)	3.5	2.0	2.0	3.5	2.0	2.0	3.5	2.0	2.0	3.5	2.0	2.0
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)	7.5	7.0	7.0	7.5	7.0	7.0	8.5	7.0	7.0	8.5	7.0	7.0
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
Recall Mode	None	C-Max	C-Max	None	C-Max	C-Max	None	Max	Max	None	Max	Max
Act Effct Green (s)	39.0	35.6	35.6	35.7	30.0	30.0	22.0	18.0	18.0	23.7	20.8	20.8
Actuated g/C Ratio	0.43	0.40	0.40	0.40	0.33	0.33	0.24	0.20	0.20	0.26	0.23	0.23
v/c Ratio	0.71	0.24	0.13	0.10	0.34	0.39	0.26	0.46	0.18	0.57	0.27	0.36
Control Delay	47.4	38.6	8.7	16.5	30.9	14.4	23.6	36.3	0.8	32.6	32.3	4.2
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	47.4	38.6	8.7	16.5	30.9	14.4	23.6	36.3	0.8	32.6	32.3	4.2
LOS	D	D	A	B	C	B	C	D	A	C	C	A
Approach Delay		38.2			23.7			23.9			21.3	
Approach LOS		D			C			C			C	

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green	
Natural Cycle: 80	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.71	
Intersection Signal Delay: 27.8	Intersection LOS: C
Intersection Capacity Utilization 69.4%	ICU Level of Service C
Analysis Period (min) 15	

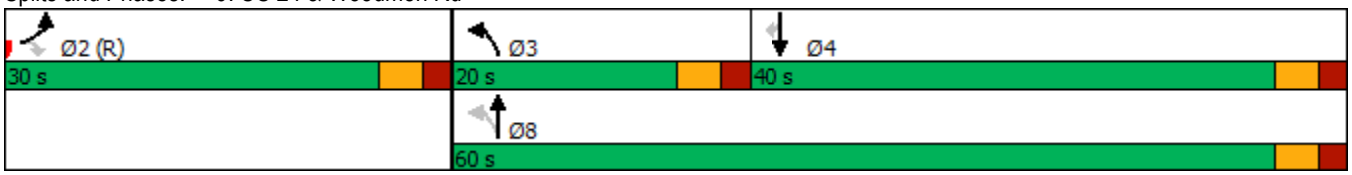
Splits and Phases: 8: McLaughlin Rd & Woodmen Rd



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	498	102	323	531	316	376
Future Volume (vph)	498	102	323	531	316	376
Turn Type	Prot	Perm	pm+pt	NA	NA	Perm
Protected Phases	2		3	8	4	
Permitted Phases		2	8			4
Detector Phase	2	2	3	8	4	4
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	23.5	23.5	10.5	23.5	23.5	23.5
Total Split (s)	30.0	30.0	20.0	60.0	40.0	40.0
Total Split (%)	33.3%	33.3%	22.2%	66.7%	44.4%	44.4%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag			Lead		Lag	Lag
Lead-Lag Optimize?			Yes		Yes	Yes
Recall Mode	C-Max	C-Max	None	None	None	None
Act Effct Green (s)	37.9	37.9	42.1	42.1	25.5	25.5
Actuated g/C Ratio	0.42	0.42	0.47	0.47	0.28	0.28
v/c Ratio	0.70	0.15	0.51	0.72	0.70	0.57
Control Delay	33.1	7.2	26.8	37.5	35.2	5.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	33.1	7.2	26.8	37.5	35.2	5.4
LOS	C	A	C	D	D	A
Approach Delay	28.7			33.4	19.0	
Approach LOS	C			C	B	

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 2:EBL and 6:, Start of Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.72	
Intersection Signal Delay: 27.4	Intersection LOS: C
Intersection Capacity Utilization 65.9%	ICU Level of Service C
Analysis Period (min) 15	

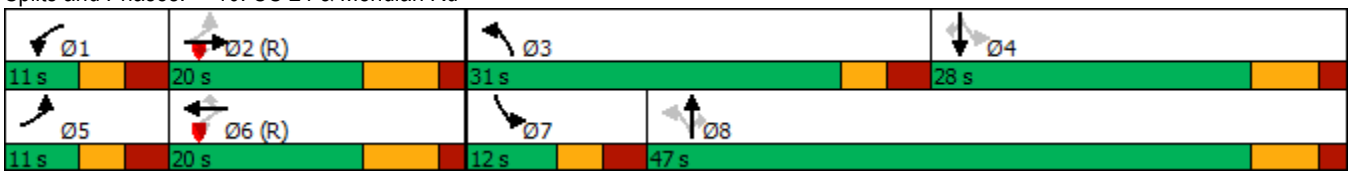
Splits and Phases: 9: US 24 & Woodmen Rd



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	19	227	307	11	351	43	608	761	6	55	403	7
Future Volume (vph)	19	227	307	11	351	43	608	761	6	55	403	7
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases	2		2	6		6	8		8	4		4
Detector Phase	5	2	2	1	6	6	3	8	8	7	4	4
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)	11.0	20.0	20.0	11.0	20.0	20.0	11.0	20.0	20.0	11.0	20.0	20.0
Total Split (s)	11.0	20.0	20.0	11.0	20.0	20.0	31.0	47.0	47.0	12.0	28.0	28.0
Total Split (%)	12.2%	22.2%	22.2%	12.2%	22.2%	22.2%	34.4%	52.2%	52.2%	13.3%	31.1%	31.1%
Yellow Time (s)	3.0	5.0	5.0	3.0	5.0	5.0	3.0	4.5	4.5	3.0	4.5	4.5
All-Red Time (s)	3.0	2.0	2.0	3.0	2.0	2.0	3.0	2.0	2.0	3.0	2.0	2.0
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)	6.0	7.0	7.0	6.0	7.0	7.0	6.0	6.5	6.5	6.0	6.5	6.5
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
Recall Mode	None	C-Max	C-Max	None	C-Max	C-Max	None	None	None	None	None	None
Act Effct Green (s)	23.8	21.8	21.8	22.6	19.6	19.6	53.0	42.9	42.9	27.9	21.5	21.5
Actuated g/C Ratio	0.26	0.24	0.24	0.25	0.22	0.22	0.59	0.48	0.48	0.31	0.24	0.24
v/c Ratio	0.08	0.28	0.52	0.04	0.48	0.08	1.13	0.91	0.01	0.30	0.96	0.01
Control Delay	26.3	29.7	9.2	24.3	34.9	0.3	102.0	39.8	0.0	21.5	73.9	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	26.3	29.7	9.2	24.3	34.9	0.3	102.0	39.8	0.0	21.5	73.9	0.0
LOS	C	C	A	C	C	A	F	D	A	C	E	A
Approach Delay		18.2			30.9			67.1			66.6	
Approach LOS		B			C			E			E	

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 71 (79%), Referenced to phase 2:EBTL and 6:WBTL, Start of FDW or yellow	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.13	
Intersection Signal Delay: 52.1	Intersection LOS: D
Intersection Capacity Utilization 86.9%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 10: US 24 & Meridian Rd



Intersection	
Int Delay, s/veh	0

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations			↱			↱		↑	↱		↑	↱
Traffic Vol, veh/h	0	0	52	0	0	45	0	809	14	0	413	5
Future Vol, veh/h	0	0	52	0	0	45	0	809	14	0	413	5
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	Free	-	-	Free	-	-	None	-	-	None
Storage Length	-	-	0	-	-	0	-	-	400	-	-	400
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	58	0	0	50	0	899	16	0	459	6

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	-	-	-	-	-	-	-	0	0	-	-	0
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	-	-	-	-	-	-	-
Pot Cap-1 Maneuver	0	0	0	0	0	0	0	-	-	0	-	-
Stage 1	0	0	0	0	0	0	0	-	-	0	-	-
Stage 2	0	0	0	0	0	0	0	-	-	0	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-

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

Minor Lane/Major Mvmt	NBT	NBR	EBLn1	WBLn1	SBT	SBR
Capacity (veh/h)	-	-	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-	-	-
HCM Control Delay (s)	-	-	0	0	-	-
HCM Lane LOS	-	-	A	A	-	-
HCM 95th %tile Q(veh)	-	-	-	-	-	-

Intersection	
Int Delay, s/veh	388.2

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	66	4	930	99	2	626
Future Vol, veh/h	66	4	930	99	2	626
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	87	87	87	87	87	87
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	76	5	1069	114	2	720

Major/Minor	Major1		Minor2	
Conflicting Flow All	0	0	1126	1183
Stage 1	-	-	0	0
Stage 2	-	-	1126	1183
Critical Hdwy	-	-	6.42	6.52
Critical Hdwy Stg 1	-	-	-	-
Critical Hdwy Stg 2	-	-	5.42	5.52
Follow-up Hdwy	-	-	3.518	4.018
Pot Cap-1 Maneuver	-	-	227	~ 189
Stage 1	-	-	-	-
Stage 2	-	-	310	~ 263
Platoon blocked, %	-	-		
Mov Cap-1 Maneuver	-	-	227	0
Mov Cap-2 Maneuver	-	-	227	0
Stage 1	-	-	-	0
Stage 2	-	-	310	0

Approach	NB	SB
HCM Control Delay, s	0	$ 1024.4
HCM LOS		F

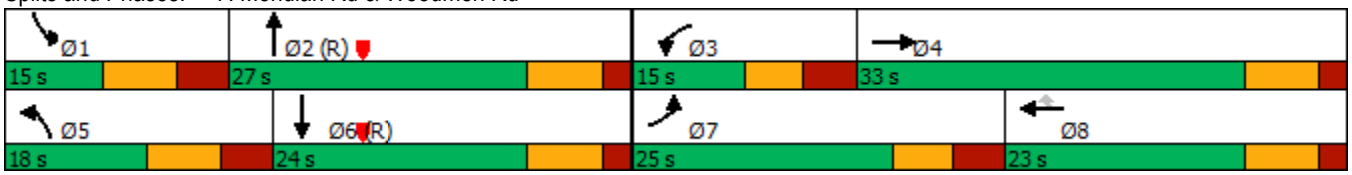
Minor Lane/Major Mvmt	NBT	NBR	SBLn1
Capacity (veh/h)	-	-	227
HCM Lane V/C Ratio	-	-	3.18
HCM Control Delay (s)	-	-	$ 1024.4
HCM Lane LOS	-	-	F
HCM 95th %tile Q(veh)	-	-	66

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

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	302	367	233	68	600	36	165	212	17	38	606	541
Future Volume (vph)	302	367	233	68	600	36	165	212	17	38	606	541
Turn Type	Prot	NA	Free	Prot	NA	Perm	Prot	NA	Free	Prot	NA	Free
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			Free			8			Free			Free
Detector Phase	7	4		3	8	8	5	2		1	6	
Switch Phase												
Minimum Initial (s)	5.0	15.0		5.0	15.0	15.0	5.0	15.0		5.0	15.0	
Minimum Split (s)	12.5	22.0		12.5	22.0	22.0	13.5	22.0		13.5	22.0	
Total Split (s)	25.0	33.0		15.0	23.0	23.0	18.0	27.0		15.0	24.0	
Total Split (%)	27.8%	36.7%		16.7%	25.6%	25.6%	20.0%	30.0%		16.7%	26.7%	
Yellow Time (s)	4.0	5.0		4.0	5.0	5.0	5.0	5.0		5.0	5.0	
All-Red Time (s)	3.5	2.0		3.5	2.0	2.0	3.5	2.0		3.5	2.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)	7.5	7.0		7.5	7.0	7.0	8.5	7.0		8.5	7.0	
Lead/Lag	Lead	Lag		Lead	Lag	Lag	Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes	Yes	Yes	Yes		Yes	Yes	
Recall Mode	None	None		None	None	None	None	C-Max		None	C-Max	
Act Effct Green (s)	13.5	28.6	90.0	6.9	19.4	19.4	8.9	26.6	90.0	6.2	18.3	90.0
Actuated g/C Ratio	0.15	0.32	1.00	0.08	0.22	0.22	0.10	0.30	1.00	0.07	0.20	1.00
v/c Ratio	0.61	0.34	0.15	0.27	0.82	0.06	0.51	0.21	0.01	0.17	0.88	0.36
Control Delay	40.8	25.5	0.2	59.7	38.2	0.2	47.7	14.7	0.0	41.1	50.9	0.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	40.8	25.5	0.2	59.7	38.2	0.2	47.7	14.7	0.0	41.1	50.9	0.6
LOS	D	C	A	E	D	A	D	B	A	D	D	A
Approach Delay		24.1			38.3			27.9			27.6	
Approach LOS		C			D			C			C	

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of FDW or yellow, Master Intersection	
Natural Cycle: 75	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.88	
Intersection Signal Delay: 29.0	Intersection LOS: C
Intersection Capacity Utilization 71.7%	ICU Level of Service C
Analysis Period (min) 15	

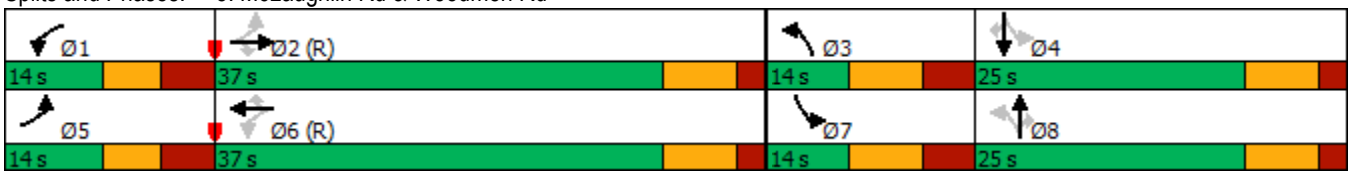
Splits and Phases: 7: Meridian Rd & Woodmen Rd



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	101	275	46	28	372	143	39	45	10	121	125	293
Future Volume (vph)	101	275	46	28	372	143	39	45	10	121	125	293
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases	2		2	6		6	8		8	4		4
Detector Phase	5	2	2	1	6	6	3	8	8	7	4	4
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)	12.5	25.0	25.0	12.5	25.0	25.0	13.5	25.0	25.0	13.5	25.0	25.0
Total Split (s)	14.0	37.0	37.0	14.0	37.0	37.0	14.0	25.0	25.0	14.0	25.0	25.0
Total Split (%)	15.6%	41.1%	41.1%	15.6%	41.1%	41.1%	15.6%	27.8%	27.8%	15.6%	27.8%	27.8%
Yellow Time (s)	4.0	5.0	5.0	4.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
All-Red Time (s)	3.5	2.0	2.0	3.5	2.0	2.0	3.5	2.0	2.0	3.5	2.0	2.0
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)	7.5	7.0	7.0	7.5	7.0	7.0	8.5	7.0	7.0	8.5	7.0	7.0
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
Recall Mode	None	C-Max	C-Max	None	C-Max	C-Max	None	Max	Max	None	Max	Max
Act Effct Green (s)	40.5	38.4	38.4	37.3	32.8	32.8	22.0	18.0	18.0	25.4	23.6	23.6
Actuated g/C Ratio	0.45	0.43	0.43	0.41	0.36	0.36	0.24	0.20	0.20	0.28	0.26	0.26
v/c Ratio	0.23	0.19	0.06	0.06	0.29	0.20	0.12	0.12	0.02	0.32	0.26	0.47
Control Delay	34.1	38.8	4.8	12.9	22.2	0.7	21.6	30.7	0.1	25.1	30.7	6.7
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	34.1	38.8	4.8	12.9	22.2	0.7	21.6	30.7	0.1	25.1	30.7	6.7
LOS	C	D	A	B	C	A	C	C	A	C	C	A
Approach Delay		34.0			16.0			23.7			16.4	
Approach LOS		C			B			C			B	

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green	
Natural Cycle: 80	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.47	
Intersection Signal Delay: 21.4	Intersection LOS: C
Intersection Capacity Utilization 50.5%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 8: McLaughlin Rd & Woodmen Rd



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	203	35	168	5	25	11	153	221	5	6	536	365
Future Volume (vph)	203	35	168	5	25	11	153	221	5	6	536	365
Turn Type	pm+pt	NA	Free	pm+pt	NA	Free	pm+pt	NA	Free	pm+pt	NA	Free
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4		Free	8		Free	2		Free	6		Free
Detector Phase	7	4		3	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	5.0	15.0		5.0	15.0		5.0	15.0		5.0	15.0	
Minimum Split (s)	10.0	23.0		10.0	23.0		10.0	23.0		10.0	23.0	
Total Split (s)	20.0	35.0		10.0	25.0		10.0	65.0		10.0	65.0	
Total Split (%)	16.7%	29.2%		8.3%	20.8%		8.3%	54.2%		8.3%	54.2%	
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Recall Mode	None	None		None	None		None	C-Max		None	C-Max	
Act Effct Green (s)	27.0	25.0	120.0	14.0	15.0	120.0	82.6	80.8	120.0	76.2	70.5	120.0
Actuated g/C Ratio	0.22	0.21	1.00	0.12	0.12	1.00	0.69	0.67	1.00	0.64	0.59	1.00
v/c Ratio	0.69	0.10	0.11	0.03	0.06	0.01	0.19	0.19	0.00	0.01	0.53	0.25
Control Delay	51.4	36.5	0.1	31.6	46.8	0.0	7.9	10.1	0.0	8.8	19.3	0.4
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	51.4	36.5	0.1	31.6	46.8	0.0	7.9	10.1	0.0	8.8	19.3	0.4
LOS	D	D	A	C	D	A	A	B	A	A	B	A
Approach Delay		28.9			32.3			9.1			11.6	
Approach LOS		C			C			A			B	

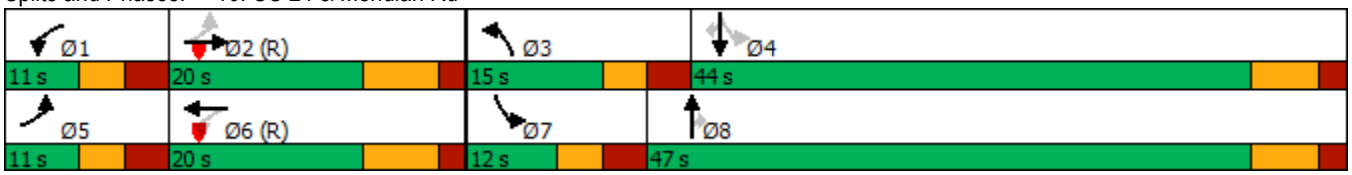
Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 63 (53%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green	
Natural Cycle: 70	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.69	
Intersection Signal Delay: 15.6	Intersection LOS: B
Intersection Capacity Utilization 63.0%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 9: US 24 & Woodmen Rd

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	7	392	728	32	192	24	206	326	18	69	659	2
Future Volume (vph)	7	392	728	32	192	24	206	326	18	69	659	2
Turn Type	pm+pt	NA	Free	pm+pt	NA	Free	Prot	NA	Perm	pm+pt	NA	Perm
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases	2		Free	6		Free			8	4		4
Detector Phase	5	2		1	6		3	8	8	7	4	4
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
Minimum Split (s)	11.0	20.0		11.0	20.0		11.0	20.0	20.0	11.0	20.0	20.0
Total Split (s)	11.0	20.0		11.0	20.0		15.0	47.0	47.0	12.0	44.0	44.0
Total Split (%)	12.2%	22.2%		12.2%	22.2%		16.7%	52.2%	52.2%	13.3%	48.9%	48.9%
Yellow Time (s)	3.0	5.0		3.0	5.0		3.0	4.5	4.5	3.0	4.5	4.5
All-Red Time (s)	3.0	2.0		3.0	2.0		3.0	2.0	2.0	3.0	2.0	2.0
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)	6.0	7.0		6.0	7.0		6.0	6.5	6.5	6.0	6.5	6.5
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max		None	C-Max		None	None	None	None	None	None
Act Effct Green (s)	23.8	19.8	90.0	26.2	24.2	90.0	8.8	40.5	40.5	41.8	35.4	35.4
Actuated g/C Ratio	0.26	0.22	1.00	0.29	0.27	1.00	0.10	0.45	0.45	0.46	0.39	0.39
v/c Ratio	0.02	0.51	0.47	0.12	0.21	0.02	0.63	0.40	0.02	0.13	0.92	0.00
Control Delay	26.4	35.6	2.0	25.1	28.5	0.0	48.0	18.5	0.1	9.2	45.0	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	26.4	35.6	2.0	25.1	28.5	0.0	48.0	18.5	0.1	9.2	45.0	0.0
LOS	C	D	A	C	C	A	D	B	A	A	D	A
Approach Delay		13.8			25.4			28.9			41.5	
Approach LOS		B			C			C			D	

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 71 (79%), Referenced to phase 2:EBTL and 6:WBTL, Start of FDW or yellow	
Natural Cycle: 80	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.92	
Intersection Signal Delay: 25.6	Intersection LOS: C
Intersection Capacity Utilization 76.8%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 10: US 24 & Meridian Rd



Intersection	
Int Delay, s/veh	0

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations			↱			↱		↑	↱		↑	↱
Traffic Vol, veh/h	0	0	25	0	0	51	0	328	29	0	705	4
Future Vol, veh/h	0	0	25	0	0	51	0	328	29	0	705	4
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	Free	-	-	Free	-	-	None	-	-	None
Storage Length	-	-	0	-	-	0	-	-	400	-	-	400
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	91	91	91	91	91	91	91	91	91	91	91	91
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	27	0	0	56	0	360	32	0	775	4

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	-	-	-	-	-	-	-	0	0	-	-	0
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	-	-	-	-	-	-	-
Pot Cap-1 Maneuver	0	0	0	0	0	0	0	-	-	0	-	-
Stage 1	0	0	0	0	0	0	0	-	-	0	-	-
Stage 2	0	0	0	0	0	0	0	-	-	0	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-

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

Minor Lane/Major Mvmt	NBT	NBR	EBLn1	WBLn1	SBT	SBR
Capacity (veh/h)	-	-	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-	-	-
HCM Control Delay (s)	-	-	0	0	-	-
HCM Lane LOS	-	-	A	A	-	-
HCM 95th %tile Q(veh)	-	-	-	-	-	-

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	300	850	150	100	700	275	150	200	150	200	150	200
Future Volume (vph)	300	850	150	100	700	275	150	200	150	200	150	200
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases	2		2	6		6	8		8	4		4
Detector Phase	5	2	2	1	6	6	3	8	8	7	4	4
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)	12.5	25.0	25.0	12.5	25.0	25.0	13.5	25.0	25.0	13.5	25.0	25.0
Total Split (s)	22.0	55.0	55.0	15.0	48.0	48.0	15.0	30.0	30.0	20.0	35.0	35.0
Total Split (%)	18.3%	45.8%	45.8%	12.5%	40.0%	40.0%	12.5%	25.0%	25.0%	16.7%	29.2%	29.2%
Yellow Time (s)	4.0	5.0	5.0	4.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
All-Red Time (s)	3.5	2.0	2.0	3.5	2.0	2.0	3.5	2.0	2.0	3.5	2.0	2.0
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)	7.5	7.0	7.0	7.5	7.0	7.0	8.5	7.0	7.0	8.5	7.0	7.0
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
Recall Mode	None	C-Max	C-Max	None	C-Max	C-Max	None	Max	Max	None	Max	Max
Act Effct Green (s)	62.0	48.2	48.2	48.0	41.2	41.2	28.2	23.2	23.2	37.8	28.0	28.0
Actuated g/C Ratio	0.52	0.40	0.40	0.40	0.34	0.34	0.24	0.19	0.19	0.32	0.23	0.23
v/c Ratio	0.84	0.62	0.21	0.40	0.59	0.39	0.49	0.57	0.34	0.62	0.36	0.39
Control Delay	53.3	51.6	16.2	29.3	45.4	16.0	37.7	51.1	5.7	39.1	41.3	7.3
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	53.3	51.6	16.2	29.3	45.4	16.0	37.7	51.1	5.7	39.1	41.3	7.3
LOS	D	D	B	C	D	B	D	D	A	D	D	A
Approach Delay		47.9			36.4			33.4			28.2	
Approach LOS		D			D			C			C	

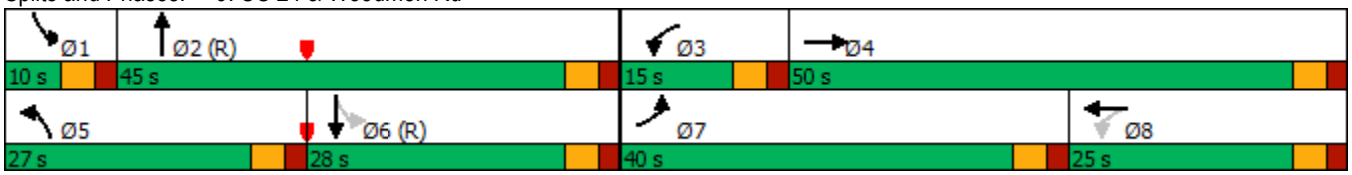
Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 0 (0%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.84	
Intersection Signal Delay: 39.0	Intersection LOS: D
Intersection Capacity Utilization 81.3%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 8: McLaughlin Rd & Woodmen Rd

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	800	165	235	55	170	129	450	1600	150	57	1060	455
Future Volume (vph)	800	165	235	55	170	129	450	1600	150	57	1060	455
Turn Type	Prot	NA	Free	pm+pt	NA	Free	Prot	NA	Free	pm+pt	NA	Free
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			Free	8		Free			Free	6		Free
Detector Phase	7	4		3	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	15.0		5.0	15.0	
Minimum Split (s)	10.0	23.0		10.0	23.0		25.0	23.0		10.0	23.0	
Total Split (s)	40.0	50.0		15.0	25.0		27.0	45.0		10.0	28.0	
Total Split (%)	33.3%	41.7%		12.5%	20.8%		22.5%	37.5%		8.3%	23.3%	
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Recall Mode	None	None		None	None		None	C-Max		None	C-Max	
Act Effct Green (s)	32.8	38.7	120.0	19.5	11.6	120.0	23.5	50.0	120.0	39.8	32.0	120.0
Actuated g/C Ratio	0.27	0.32	1.00	0.16	0.10	1.00	0.20	0.42	1.00	0.33	0.27	1.00
v/c Ratio	0.89	0.16	0.15	0.26	0.54	0.09	0.79	0.89	0.10	0.35	0.91	0.33
Control Delay	74.3	42.9	0.2	26.9	57.3	0.1	54.6	40.4	0.1	25.6	54.2	0.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	74.3	42.9	0.2	26.9	57.3	0.1	54.6	40.4	0.1	25.6	54.2	0.6
LOS	E	D	A	C	E	A	D	D	A	C	D	A
Approach Delay		55.4			31.8			40.8			37.7	
Approach LOS		E			C			D			D	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 63 (53%), Referenced to phase 2:NBT and 6:SBTL, Start of Green	
Natural Cycle: 105	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.91	
Intersection Signal Delay: 42.3	Intersection LOS: D
Intersection Capacity Utilization 79.3%	ICU Level of Service D
Analysis Period (min) 15	

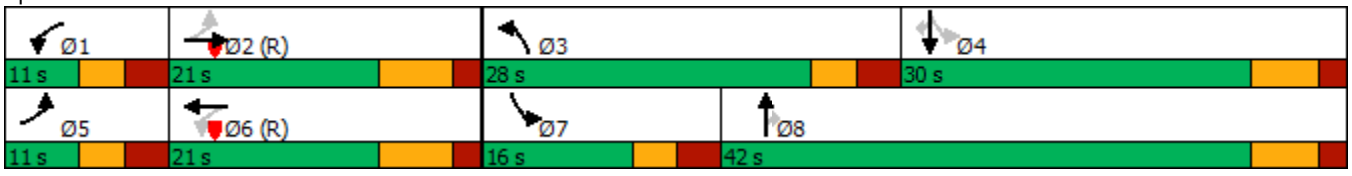
Splits and Phases: 9: US 24 & Woodmen Rd



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	80	350	425	60	500	235	825	1840	80	170	1180	60
Future Volume (vph)	80	350	425	60	500	235	825	1840	80	170	1180	60
Turn Type	pm+pt	NA	Free	pm+pt	NA	Free	Prot	NA	Perm	pm+pt	NA	Perm
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases	2		Free	6		Free			8	4		4
Detector Phase	5	2		1	6		3	8	8	7	4	4
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
Minimum Split (s)	11.0	20.0		11.0	20.0		11.0	20.0	20.0	11.0	20.0	20.0
Total Split (s)	11.0	21.0		11.0	21.0		28.0	42.0	42.0	16.0	30.0	30.0
Total Split (%)	12.2%	23.3%		12.2%	23.3%		31.1%	46.7%	46.7%	17.8%	33.3%	33.3%
Yellow Time (s)	3.0	5.0		3.0	5.0		3.0	4.5	4.5	3.0	4.5	4.5
All-Red Time (s)	3.0	2.0		3.0	2.0		3.0	2.0	2.0	3.0	2.0	2.0
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)	6.0	7.0		6.0	7.0		6.0	6.5	6.5	6.0	6.5	6.5
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max		None	C-Max		None	None	None	None	None	None
Act Effct Green (s)	21.2	16.2	90.0	21.2	16.2	90.0	22.0	36.3	36.3	33.2	23.5	23.5
Actuated g/C Ratio	0.24	0.18	1.00	0.24	0.18	1.00	0.24	0.40	0.40	0.37	0.26	0.26
v/c Ratio	0.45	0.58	0.29	0.26	0.84	0.16	1.05	0.95	0.11	0.68	0.95	0.10
Control Delay	28.2	32.9	0.8	26.7	50.4	0.2	78.5	38.7	0.3	31.3	48.2	0.3
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	28.2	32.9	0.8	26.7	50.4	0.2	78.5	38.7	0.3	31.3	48.2	0.3
LOS	C	C	A	C	D	A	E	D	A	C	D	A
Approach Delay		16.5			33.8			49.6			44.1	
Approach LOS		B			C			D			D	

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 71 (79%), Referenced to phase 2:EBTL and 6:WBTL, Start of FDW or yellow	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.05	
Intersection Signal Delay: 41.2	Intersection LOS: D
Intersection Capacity Utilization 85.8%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 10: US 24 & Meridian Rd



Intersection	
Int Delay, s/veh	0

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations			↱			↱		↑↑↑	↱		↑↑↑	↱
Traffic Vol, veh/h	0	0	75	0	0	175	0	2025	130	0	1335	15
Future Vol, veh/h	0	0	75	0	0	175	0	2025	130	0	1335	15
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	Free	-	-	Free	-	-	None	-	-	None
Storage Length	-	-	0	-	-	0	-	-	400	-	-	400
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	83	0	0	194	0	2250	144	0	1483	17

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	-	-	-	-	-	-	-	0	0	-	-	0
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	-	-	-	-	-	-	-
Pot Cap-1 Maneuver	0	0	0	0	0	0	0	-	-	0	-	-
Stage 1	0	0	0	0	0	0	0	-	-	0	-	-
Stage 2	0	0	0	0	0	0	0	-	-	0	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-

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

Minor Lane/Major Mvmt	NBT	NBR	EBLn1	WBLn1	SBT	SBR
Capacity (veh/h)	-	-	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-	-	-
HCM Control Delay (s)	-	-	0	0	-	-
HCM Lane LOS	-	-	A	A	-	-
HCM 95th %tile Q(veh)	-	-	-	-	-	-

Intersection	
Int Delay, s/veh	7.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	0	16	0	11	0	0	49	22	0	0
Future Vol, veh/h	0	0	0	16	0	11	0	0	49	22	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	135	-	-	190	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	17	0	12	0	0	53	24	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	12	0	0	1	0	0	41	47	1	68	41	6
Stage 1	-	-	-	-	-	-	1	1	-	40	40	-
Stage 2	-	-	-	-	-	-	40	46	-	28	1	-
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	1607	-	-	1622	-	-	963	845	1084	925	851	1077
Stage 1	-	-	-	-	-	-	1022	895	-	975	862	-
Stage 2	-	-	-	-	-	-	975	857	-	989	895	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1607	-	-	1622	-	-	955	837	1084	872	842	1077
Mov Cap-2 Maneuver	-	-	-	-	-	-	955	837	-	872	842	-
Stage 1	-	-	-	-	-	-	1022	895	-	975	853	-
Stage 2	-	-	-	-	-	-	965	848	-	940	895	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	4.3	8.5	9.2
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	1084	1607	-	-	1622	-	-	872
HCM Lane V/C Ratio	0.049	-	-	-	0.011	-	-	0.027
HCM Control Delay (s)	8.5	0	-	-	7.2	-	-	9.2
HCM Lane LOS	A	A	-	-	A	-	-	A
HCM 95th %tile Q(veh)	0.2	0	-	-	0	-	-	0.1

MOVEMENT SUMMARY

Site: 2 [2028 Total AM (Site Folder: General)]

Woodmen/Retail Row
Site Category: 2028 Total AM
Roundabout

Vehicle Movement Performance

Mov ID	Turn	INPUT VOLUMES [Total veh/h	HV] %	DEMAND FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] ft	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed mph
NorthEast: Retail Row ST														
1ux	U	2	2.0	2	2.0	0.101	3.8	LOS A	0.4	11.4	0.23	0.10	0.23	39.8
6x	T1	3	2.0	3	2.0	0.101	3.8	LOS A	0.4	11.4	0.23	0.10	0.23	37.5
16x	R2	109	2.0	118	2.0	0.101	3.8	LOS A	0.4	11.4	0.23	0.10	0.23	35.8
Approach		114	2.0	124	2.0	0.101	3.8	LOS A	0.4	11.4	0.23	0.10	0.23	35.9
NorthWest: Woodmen Rd														
7ux	U	13	2.0	14	2.0	0.085	3.3	LOS A	0.3	8.9	0.04	0.01	0.04	35.7
7x	L2	95	2.0	103	2.0	0.085	3.3	LOS A	0.3	8.9	0.04	0.01	0.04	34.6
14x	R2	24	2.0	26	2.0	0.019	2.7	LOS A	0.1	1.8	0.04	0.00	0.04	36.4
Approach		132	2.0	143	2.0	0.085	3.2	LOS A	0.3	8.9	0.04	0.01	0.04	35.0
SouthWest: Retail Row St														
5x	L2	70	2.0	76	2.0	0.065	3.5	LOS A	0.3	7.0	0.26	0.13	0.26	34.7
2x	T1	1	2.0	1	2.0	0.065	3.5	LOS A	0.3	7.0	0.26	0.13	0.26	34.1
Approach		71	2.0	77	2.0	0.065	3.5	LOS A	0.3	7.0	0.26	0.13	0.26	34.7
All Vehicles		317	2.0	345	2.0	0.101	3.5	LOS A	0.4	11.4	0.16	0.07	0.16	35.3

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Roundabout LOS Method: Same as Sign Control.
Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.
LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).
Roundabout Capacity Model: US HCM 6.
Delay Model: HCM Delay Formula (Geometric Delay is not included).
Queue Model: HCM Queue Formula.
Gap-Acceptance Capacity: Traditional M1.
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Intersection	
Int Delay, s/veh	2.7

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	38	61	80	5	0	33
Future Vol, veh/h	38	61	80	5	0	33
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	120	-	-	-	-	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	41	66	87	5	0	36

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	92	0	-	0	-	90
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	4.12	-	-	-	-	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	2.218	-	-	-	-	3.318
Pot Cap-1 Maneuver	1503	-	-	-	0	968
Stage 1	-	-	-	-	0	-
Stage 2	-	-	-	-	0	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1503	-	-	-	-	968
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	2.9	0	8.9
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1503	-	-	-	968
HCM Lane V/C Ratio	0.027	-	-	-	0.037
HCM Control Delay (s)	7.5	-	-	-	8.9
HCM Lane LOS	A	-	-	-	A
HCM 95th %tile Q(veh)	0.1	-	-	-	0.1

Intersection	
Int Delay, s/veh	5.4

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	49	12	36	0	0	49
Future Vol, veh/h	49	12	36	0	0	49
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	100	-	-	-	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	53	13	39	0	0	53

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	39	0	-	0	158	39
Stage 1	-	-	-	-	39	-
Stage 2	-	-	-	-	119	-
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	1571	-	-	-	833	1033
Stage 1	-	-	-	-	983	-
Stage 2	-	-	-	-	906	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1571	-	-	-	805	1033
Mov Cap-2 Maneuver	-	-	-	-	805	-
Stage 1	-	-	-	-	950	-
Stage 2	-	-	-	-	906	-

Approach	EB	WB	SB
HCM Control Delay, s	5.9	0	8.7
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1571	-	-	-	1033
HCM Lane V/C Ratio	0.034	-	-	-	0.052
HCM Control Delay (s)	7.4	-	-	-	8.7
HCM Lane LOS	A	-	-	-	A
HCM 95th %tile Q(veh)	0.1	-	-	-	0.2

Intersection	
Int Delay, s/veh	0.2

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	130	0	1	107	0	3
Future Vol, veh/h	130	0	1	107	0	3
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	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	141	0	1	116	0	3

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	141	0	259	141
Stage 1	-	-	-	-	141	-
Stage 2	-	-	-	-	118	-
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	-	-	1442	-	730	907
Stage 1	-	-	-	-	886	-
Stage 2	-	-	-	-	907	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1442	-	729	907
Mov Cap-2 Maneuver	-	-	-	-	729	-
Stage 1	-	-	-	-	886	-
Stage 2	-	-	-	-	906	-

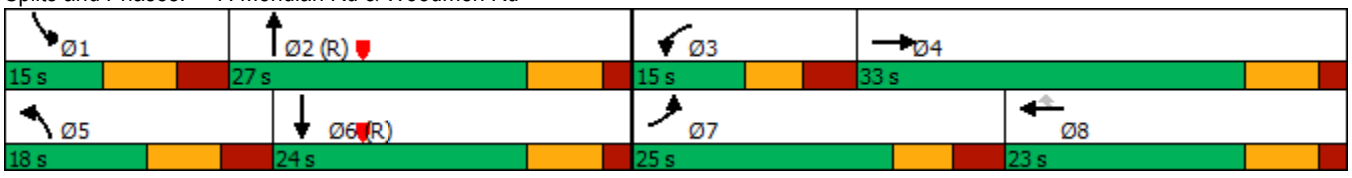
Approach	EB	WB	NB
HCM Control Delay, s	0	0.1	9
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	907	-	-	1442	-
HCM Lane V/C Ratio	0.004	-	-	0.001	-
HCM Control Delay (s)	9	-	-	7.5	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0	-	-	0	-

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	302	383	232	70	638	49	167	209	20	62	597	541
Future Volume (vph)	302	383	232	70	638	49	167	209	20	62	597	541
Turn Type	Prot	NA	Free	Prot	NA	Perm	Prot	NA	Free	Prot	NA	Free
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			Free			8			Free			Free
Detector Phase	7	4		3	8	8	5	2		1	6	
Switch Phase												
Minimum Initial (s)	5.0	15.0		5.0	15.0	15.0	5.0	15.0		5.0	15.0	
Minimum Split (s)	12.5	22.0		12.5	22.0	22.0	13.5	22.0		13.5	22.0	
Total Split (s)	25.0	33.0		15.0	23.0	23.0	18.0	27.0		15.0	24.0	
Total Split (%)	27.8%	36.7%		16.7%	25.6%	25.6%	20.0%	30.0%		16.7%	26.7%	
Yellow Time (s)	4.0	5.0		4.0	5.0	5.0	5.0	5.0		5.0	5.0	
All-Red Time (s)	3.5	2.0		3.5	2.0	2.0	3.5	2.0		3.5	2.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)	7.5	7.0		7.5	7.0	7.0	8.5	7.0		8.5	7.0	
Lead/Lag	Lead	Lag		Lead	Lag	Lag	Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes	Yes	Yes	Yes		Yes	Yes	
Recall Mode	None	None		None	None	None	None	C-Max		None	C-Max	
Act Effct Green (s)	13.5	29.2	90.0	6.9	20.0	20.0	8.9	23.0	90.0	6.3	17.6	90.0
Actuated g/C Ratio	0.15	0.32	1.00	0.08	0.22	0.22	0.10	0.26	1.00	0.07	0.20	1.00
v/c Ratio	0.61	0.35	0.15	0.28	0.84	0.08	0.52	0.24	0.01	0.27	0.90	0.36
Control Delay	40.8	25.4	0.2	60.6	39.0	0.4	48.0	16.5	0.0	42.6	53.4	0.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	40.8	25.4	0.2	60.6	39.0	0.4	48.0	16.5	0.0	42.6	53.4	0.6
LOS	D	C	A	E	D	A	D	B	A	D	D	A
Approach Delay		24.1			38.5			28.9			29.1	
Approach LOS		C			D			C			C	

Intersection Summary		
Cycle Length: 90		
Actuated Cycle Length: 90		
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of FDW or yellow, Master Intersection		
Natural Cycle: 80		
Control Type: Actuated-Coordinated		
Maximum v/c Ratio: 0.90		
Intersection Signal Delay: 29.8	Intersection LOS: C	
Intersection Capacity Utilization 72.5%	ICU Level of Service C	
Analysis Period (min) 15		

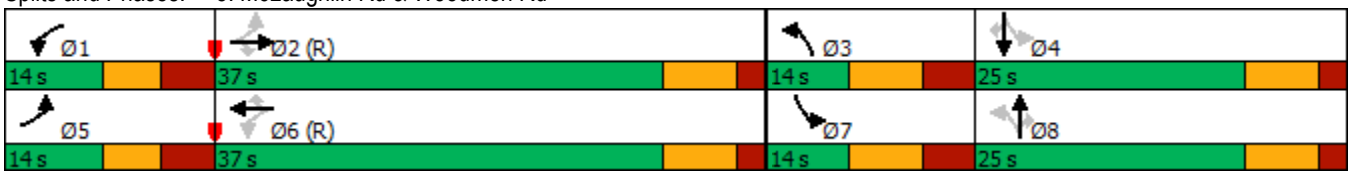
Splits and Phases: 7: Meridian Rd & Woodmen Rd



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	101	318	46	28	426	152	39	45	10	130	125	293
Future Volume (vph)	101	318	46	28	426	152	39	45	10	130	125	293
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases	2		2	6		6	8		8	4		4
Detector Phase	5	2	2	1	6	6	3	8	8	7	4	4
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)	12.5	25.0	25.0	12.5	25.0	25.0	13.5	25.0	25.0	13.5	25.0	25.0
Total Split (s)	14.0	37.0	37.0	14.0	37.0	37.0	14.0	25.0	25.0	14.0	25.0	25.0
Total Split (%)	15.6%	41.1%	41.1%	15.6%	41.1%	41.1%	15.6%	27.8%	27.8%	15.6%	27.8%	27.8%
Yellow Time (s)	4.0	5.0	5.0	4.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
All-Red Time (s)	3.5	2.0	2.0	3.5	2.0	2.0	3.5	2.0	2.0	3.5	2.0	2.0
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)	7.5	7.0	7.0	7.5	7.0	7.0	8.5	7.0	7.0	8.5	7.0	7.0
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
Recall Mode	None	C-Max	C-Max	None	C-Max	C-Max	None	Max	Max	None	Max	Max
Act Effct Green (s)	40.5	38.4	38.4	37.3	32.8	32.8	22.0	18.0	18.0	25.4	23.6	23.6
Actuated g/C Ratio	0.45	0.43	0.43	0.41	0.36	0.36	0.24	0.20	0.20	0.28	0.26	0.26
v/c Ratio	0.24	0.21	0.06	0.06	0.34	0.21	0.12	0.12	0.02	0.35	0.26	0.47
Control Delay	33.0	38.0	4.0	13.0	22.7	1.0	21.6	30.7	0.1	25.8	30.7	6.7
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	33.0	38.0	4.0	13.0	22.7	1.0	21.6	30.7	0.1	25.8	30.7	6.7
LOS	C	D	A	B	C	A	C	C	A	C	C	A
Approach Delay		33.5			16.8			23.7			16.7	
Approach LOS		C			B			C			B	

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green	
Natural Cycle: 80	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.47	
Intersection Signal Delay: 21.7	Intersection LOS: C
Intersection Capacity Utilization 52.5%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 8: McLaughlin Rd & Woodmen Rd



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	200	94	164	54	92	32	152	215	28	34	529	361
Future Volume (vph)	200	94	164	54	92	32	152	215	28	34	529	361
Turn Type	pm+pt	NA	Free	pm+pt	NA	Free	pm+pt	NA	Free	pm+pt	NA	Free
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4		Free	8		Free	2		Free	6		Free
Detector Phase	7	4		3	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	5.0	15.0		5.0	15.0		5.0	15.0		5.0	15.0	
Minimum Split (s)	10.0	23.0		10.0	23.0		10.0	23.0		10.0	23.0	
Total Split (s)	15.0	25.0		15.0	25.0		10.0	70.0		10.0	70.0	
Total Split (%)	12.5%	20.8%		12.5%	20.8%		8.3%	58.3%		8.3%	58.3%	
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Recall Mode	None	None		None	None		None	C-Max		None	C-Max	
Act Effct Green (s)	27.1	19.1	120.0	23.6	15.3	120.0	77.4	72.6	120.0	73.6	67.3	120.0
Actuated g/C Ratio	0.23	0.16	1.00	0.20	0.13	1.00	0.64	0.60	1.00	0.61	0.56	1.00
v/c Ratio	0.71	0.34	0.11	0.21	0.22	0.02	0.19	0.20	0.02	0.05	0.55	0.25
Control Delay	53.7	50.6	0.1	36.7	48.3	0.0	7.8	12.3	0.0	7.4	19.4	0.4
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	53.7	50.6	0.1	36.7	48.3	0.0	7.8	12.3	0.0	7.4	19.4	0.4
LOS	D	D	A	D	D	A	A	B	A	A	B	A
Approach Delay		33.9			36.1			9.7			11.5	
Approach LOS		C			D			A			B	

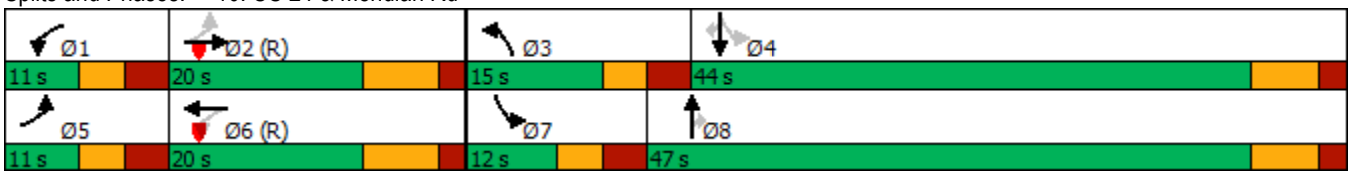
Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 63 (53%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green	
Natural Cycle: 70	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.71	
Intersection Signal Delay: 18.7	Intersection LOS: B
Intersection Capacity Utilization 62.4%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 9: US 24 & Woodmen Rd

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	7	391	719	32	190	26	203	340	18	70	696	2
Future Volume (vph)	7	391	719	32	190	26	203	340	18	70	696	2
Turn Type	pm+pt	NA	Free	pm+pt	NA	Free	Prot	NA	Perm	pm+pt	NA	Perm
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases	2		Free	6		Free			8	4		4
Detector Phase	5	2		1	6		3	8	8	7	4	4
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
Minimum Split (s)	11.0	20.0		11.0	20.0		11.0	20.0	20.0	11.0	20.0	20.0
Total Split (s)	11.0	20.0		11.0	20.0		15.0	47.0	47.0	12.0	44.0	44.0
Total Split (%)	12.2%	22.2%		12.2%	22.2%		16.7%	52.2%	52.2%	13.3%	48.9%	48.9%
Yellow Time (s)	3.0	5.0		3.0	5.0		3.0	4.5	4.5	3.0	4.5	4.5
All-Red Time (s)	3.0	2.0		3.0	2.0		3.0	2.0	2.0	3.0	2.0	2.0
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)	6.0	7.0		6.0	7.0		6.0	6.5	6.5	6.0	6.5	6.5
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max		None	C-Max		None	None	None	None	None	None
Act Effct Green (s)	22.7	18.7	90.0	25.1	23.1	90.0	8.7	41.6	41.6	42.8	36.4	36.4
Actuated g/C Ratio	0.25	0.21	1.00	0.28	0.26	1.00	0.10	0.46	0.46	0.48	0.40	0.40
v/c Ratio	0.02	0.54	0.46	0.13	0.21	0.02	0.62	0.40	0.02	0.14	0.94	0.00
Control Delay	26.6	36.5	1.9	25.4	29.0	0.0	47.7	18.2	0.1	9.1	48.2	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	26.6	36.5	1.9	25.4	29.0	0.0	47.7	18.2	0.1	9.1	48.2	0.0
LOS	C	D	A	C	C	A	D	B	A	A	D	A
Approach Delay		14.2			25.5			28.3			44.6	
Approach LOS		B			C			C			D	

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 71 (79%), Referenced to phase 2:EBTL and 6:WBTL, Start of FDW or yellow	
Natural Cycle: 80	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.94	
Intersection Signal Delay: 26.8	Intersection LOS: C
Intersection Capacity Utilization 78.6%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 10: US 24 & Meridian Rd



Intersection	
Int Delay, s/veh	0

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations			↱			↱		↑	↱		↑	↱
Traffic Vol, veh/h	0	0	25	0	0	51	0	344	29	0	743	4
Future Vol, veh/h	0	0	25	0	0	51	0	344	29	0	743	4
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	Free	-	-	Free	-	-	None	-	-	None
Storage Length	-	-	0	-	-	0	-	-	400	-	-	400
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	91	91	91	91	91	91	91	91	91	91	91	91
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	27	0	0	56	0	378	32	0	816	4

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	-	-	-	-	-	-	-	0	0	-	-	0
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	-	-	-	-	-	-	-
Pot Cap-1 Maneuver	0	0	0	0	0	0	0	-	-	0	-	-
Stage 1	0	0	0	0	0	0	0	-	-	0	-	-
Stage 2	0	0	0	0	0	0	0	-	-	0	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-

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

Minor Lane/Major Mvmt	NBT	NBR	EBLn1	WBLn1	SBT	SBR
Capacity (veh/h)	-	-	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-	-	-
HCM Control Delay (s)	-	-	0	0	-	-
HCM Lane LOS	-	-	A	A	-	-
HCM 95th %tile Q(veh)	-	-	-	-	-	-

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	0	0	0	53	0	23	0	0	21	85	0	0
Future Vol, veh/h	0	0	0	53	0	23	0	0	21	85	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	135	-	-	190	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	58	0	25	0	0	23	92	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	25	0	0	1	0	0	130	142	1	142	130	13
Stage 1	-	-	-	-	-	-	1	1	-	129	129	-
Stage 2	-	-	-	-	-	-	129	141	-	13	1	-
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	1589	-	-	1622	-	-	843	749	1084	828	761	1067
Stage 1	-	-	-	-	-	-	1022	895	-	875	789	-
Stage 2	-	-	-	-	-	-	875	780	-	1007	895	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1589	-	-	1622	-	-	820	722	1084	788	734	1067
Mov Cap-2 Maneuver	-	-	-	-	-	-	820	722	-	788	734	-
Stage 1	-	-	-	-	-	-	1022	895	-	875	761	-
Stage 2	-	-	-	-	-	-	844	752	-	986	895	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	5.1	8.4	10.2
HCM LOS			A	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	1084	1589	-	-	1622	-	-	788
HCM Lane V/C Ratio	0.021	-	-	-	0.036	-	-	0.117
HCM Control Delay (s)	8.4	0	-	-	7.3	-	-	10.2
HCM Lane LOS	A	A	-	-	A	-	-	B
HCM 95th %tile Q(veh)	0.1	0	-	-	0.1	-	-	0.4

MOVEMENT SUMMARY

Site: 2 [2028 Total PM (Site Folder: General)]

Woodmen/Retail Row

Site Category: 2028 Total PM
Roundabout

Vehicle Movement Performance

Mov ID	Turn	INPUT VOLUMES [Total veh/h	HV] %	DEMAND FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] ft	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed mph
NorthEast: Retail Row ST														
1ux	U	11	2.0	12	2.0	0.214	5.0	LOS A	1.1	26.7	0.33	0.19	0.33	38.8
6x	T1	7	2.0	8	2.0	0.214	5.0	LOS A	1.1	26.7	0.33	0.19	0.33	36.6
16x	R2	212	2.0	230	2.0	0.214	5.0	LOS A	1.1	26.7	0.33	0.19	0.33	35.0
Approach		230	2.0	250	2.0	0.214	5.0	LOS A	1.1	26.7	0.33	0.19	0.33	35.2
NorthWest: Woodmen Rd														
7ux	U	29	2.0	32	2.0	0.177	4.1	LOS A	0.8	20.5	0.09	0.02	0.09	35.3
7x	L2	194	2.0	211	2.0	0.177	4.1	LOS A	0.8	20.5	0.09	0.02	0.09	34.2
14x	R2	69	2.0	75	2.0	0.055	3.1	LOS A	0.2	5.5	0.08	0.02	0.08	36.2
Approach		292	2.0	317	2.0	0.177	3.8	LOS A	0.8	20.5	0.09	0.02	0.09	34.7
SouthWest: Retail Row St														
5x	L2	101	2.0	110	2.0	0.111	4.5	LOS A	0.5	12.2	0.40	0.27	0.40	34.4
2x	T1	5	2.0	5	2.0	0.111	4.5	LOS A	0.5	12.2	0.40	0.27	0.40	33.8
Approach		106	2.0	115	2.0	0.111	4.5	LOS A	0.5	12.2	0.40	0.27	0.40	34.3
All Vehicles		628	2.0	683	2.0	0.214	4.4	LOS A	1.1	26.7	0.23	0.13	0.23	34.8

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Roundabout LOS Method: Same as Sign Control.
Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.
LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).
Roundabout Capacity Model: US HCM 6.
Delay Model: HCM Delay Formula (Geometric Delay is not included).
Queue Model: HCM Queue Formula.
Gap-Acceptance Capacity: Traditional M1.
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Intersection	
Int Delay, s/veh	4.3

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	84	126	96	6	0	134
Future Vol, veh/h	84	126	96	6	0	134
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	120	-	-	-	-	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	91	137	104	7	0	146

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	111	0	-	0	-	108
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	4.12	-	-	-	-	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	2.218	-	-	-	-	3.318
Pot Cap-1 Maneuver	1479	-	-	-	0	946
Stage 1	-	-	-	-	0	-
Stage 2	-	-	-	-	0	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1479	-	-	-	-	946
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	3	0	9.5
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1479	-	-	-	946
HCM Lane V/C Ratio	0.062	-	-	-	0.154
HCM Control Delay (s)	7.6	-	-	-	9.5
HCM Lane LOS	A	-	-	-	A
HCM 95th %tile Q(veh)	0.2	-	-	-	0.5

Intersection	
Int Delay, s/veh	6.2

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	88	38	15	0	0	87
Future Vol, veh/h	88	38	15	0	0	87
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	100	-	-	-	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	96	41	16	0	0	95

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	16	0	-	0	249	16
Stage 1	-	-	-	-	16	-
Stage 2	-	-	-	-	233	-
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	1602	-	-	-	739	1063
Stage 1	-	-	-	-	1007	-
Stage 2	-	-	-	-	806	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1602	-	-	-	695	1063
Mov Cap-2 Maneuver	-	-	-	-	695	-
Stage 1	-	-	-	-	947	-
Stage 2	-	-	-	-	806	-

Approach	EB	WB	SB
HCM Control Delay, s	5.2	0	8.7
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1602	-	-	-	1063
HCM Lane V/C Ratio	0.06	-	-	-	0.089
HCM Control Delay (s)	7.4	-	-	-	8.7
HCM Lane LOS	A	-	-	-	A
HCM 95th %tile Q(veh)	0.2	-	-	-	0.3

Intersection	
Int Delay, s/veh	0.1

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	183	0	3	157	0	1
Future Vol, veh/h	183	0	3	157	0	1
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	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	199	0	3	171	0	1

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	199	0	376	199
Stage 1	-	-	-	-	199	-
Stage 2	-	-	-	-	177	-
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	-	-	1373	-	625	842
Stage 1	-	-	-	-	835	-
Stage 2	-	-	-	-	854	-
Platoon blocked, %	-	-			-	
Mov Cap-1 Maneuver	-	-	1373	-	624	842
Mov Cap-2 Maneuver	-	-	-	-	624	-
Stage 1	-	-	-	-	835	-
Stage 2	-	-	-	-	852	-

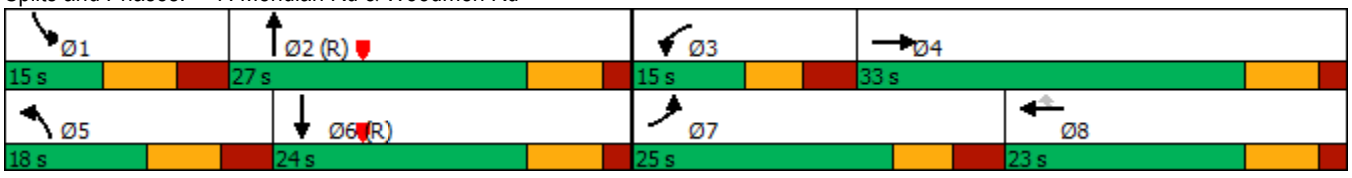
Approach	EB	WB	NB
HCM Control Delay, s	0	0.1	9.3
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	842	-	-	1373	-
HCM Lane V/C Ratio	0.001	-	-	0.002	-
HCM Control Delay (s)	9.3	-	-	7.6	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0	-	-	0	-

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	638	586	131	122	537	115	248	547	85	160	421	366
Future Volume (vph)	638	586	131	122	537	115	248	547	85	160	421	366
Turn Type	Prot	NA	Free	Prot	NA	Perm	Prot	NA	Free	Prot	NA	Free
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			Free			8			Free			Free
Detector Phase	7	4		3	8	8	5	2		1	6	
Switch Phase												
Minimum Initial (s)	5.0	15.0		5.0	15.0	15.0	5.0	15.0		5.0	15.0	
Minimum Split (s)	12.5	22.0		12.5	22.0	22.0	13.5	22.0		13.5	22.0	
Total Split (s)	25.0	33.0		15.0	23.0	23.0	18.0	27.0		15.0	24.0	
Total Split (%)	27.8%	36.7%		16.7%	25.6%	25.6%	20.0%	30.0%		16.7%	26.7%	
Yellow Time (s)	4.0	5.0		4.0	5.0	5.0	5.0	5.0		5.0	5.0	
All-Red Time (s)	3.5	2.0		3.5	2.0	2.0	3.5	2.0		3.5	2.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)	7.5	7.0		7.5	7.0	7.0	8.5	7.0		8.5	7.0	
Lead/Lag	Lead	Lag		Lead	Lag	Lag	Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes	Yes	Yes	Yes		Yes	Yes	
Recall Mode	None	None		None	None	None	None	C-Max		None	C-Max	
Act Effct Green (s)	17.5	26.1	90.0	7.3	15.9	15.9	9.4	20.0	90.0	6.6	17.2	90.0
Actuated g/C Ratio	0.19	0.29	1.00	0.08	0.18	0.18	0.10	0.22	1.00	0.07	0.19	1.00
v/c Ratio	1.00	0.59	0.09	0.46	0.89	0.22	0.72	0.73	0.06	0.67	0.65	0.24
Control Delay	71.9	30.3	0.1	66.6	46.1	3.4	63.5	20.5	0.1	54.8	38.8	0.4
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	71.9	30.3	0.1	66.6	46.1	3.4	63.5	20.5	0.1	54.8	38.8	0.4
LOS	E	C	A	E	D	A	E	C	A	D	D	A
Approach Delay		47.0			43.0			30.6			26.7	
Approach LOS		D			D			C			C	

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of FDW or yellow, Master Intersection	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.00	
Intersection Signal Delay: 37.7	Intersection LOS: D
Intersection Capacity Utilization 77.3%	ICU Level of Service D
Analysis Period (min) 15	

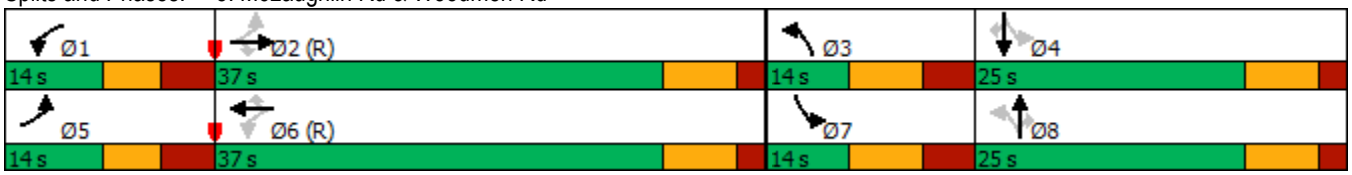
Splits and Phases: 7: Meridian Rd & Woodmen Rd



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	296	439	97	45	494	282	86	165	87	202	113	194
Future Volume (vph)	296	439	97	45	494	282	86	165	87	202	113	194
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases	2		2	6		6	8		8	4		4
Detector Phase	5	2	2	1	6	6	3	8	8	7	4	4
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)	12.5	25.0	25.0	12.5	25.0	25.0	13.5	25.0	25.0	13.5	25.0	25.0
Total Split (s)	14.0	37.0	37.0	14.0	37.0	37.0	14.0	25.0	25.0	14.0	25.0	25.0
Total Split (%)	15.6%	41.1%	41.1%	15.6%	41.1%	41.1%	15.6%	27.8%	27.8%	15.6%	27.8%	27.8%
Yellow Time (s)	4.0	5.0	5.0	4.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
All-Red Time (s)	3.5	2.0	2.0	3.5	2.0	2.0	3.5	2.0	2.0	3.5	2.0	2.0
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)	7.5	7.0	7.0	7.5	7.0	7.0	8.5	7.0	7.0	8.5	7.0	7.0
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
Recall Mode	None	C-Max	C-Max	None	C-Max	C-Max	None	Max	Max	None	Max	Max
Act Effct Green (s)	39.0	35.6	35.6	35.7	30.0	30.0	22.0	18.0	18.0	23.7	20.8	20.8
Actuated g/C Ratio	0.43	0.40	0.40	0.40	0.33	0.33	0.24	0.20	0.20	0.26	0.23	0.23
v/c Ratio	0.81	0.32	0.13	0.11	0.43	0.40	0.26	0.46	0.18	0.62	0.27	0.36
Control Delay	53.9	38.9	7.7	13.4	24.8	4.6	23.6	36.3	0.8	35.1	32.3	4.2
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	53.9	38.9	7.7	13.4	24.8	4.6	23.6	36.3	0.8	35.1	32.3	4.2
LOS	D	D	A	B	C	A	C	D	A	D	C	A
Approach Delay		40.6			17.2			23.9			22.7	
Approach LOS		D			B			C			C	

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green	
Natural Cycle: 80	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.81	
Intersection Signal Delay: 27.0	Intersection LOS: C
Intersection Capacity Utilization 73.3%	ICU Level of Service D
Analysis Period (min) 15	

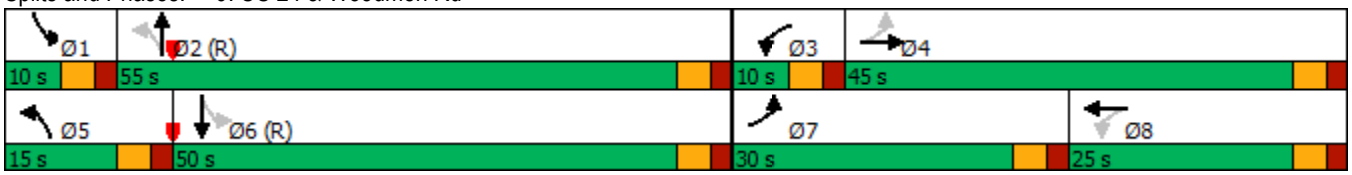
Splits and Phases: 8: McLaughlin Rd & Woodmen Rd



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	419	192	117	53	182	78	332	479	109	43	323	308
Future Volume (vph)	419	192	117	53	182	78	332	479	109	43	323	308
Turn Type	pm+pt	NA	Free	pm+pt	NA	Free	pm+pt	NA	Free	pm+pt	NA	Free
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4		Free	8		Free	2		Free	6		Free
Detector Phase	7	4		3	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	5.0	15.0		5.0	15.0		5.0	15.0		5.0	15.0	
Minimum Split (s)	10.0	23.0		10.0	23.0		10.0	23.0		10.0	23.0	
Total Split (s)	30.0	45.0		10.0	25.0		15.0	55.0		10.0	50.0	
Total Split (%)	25.0%	37.5%		8.3%	20.8%		12.5%	45.8%		8.3%	41.7%	
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Recall Mode	None	None		None	None		None	C-Max		None	C-Max	
Act Effct Green (s)	45.1	37.1	120.0	20.1	15.1	120.0	64.9	55.0	120.0	54.5	47.5	120.0
Actuated g/C Ratio	0.38	0.31	1.00	0.17	0.13	1.00	0.54	0.46	1.00	0.45	0.40	1.00
v/c Ratio	0.87	0.36	0.08	0.26	0.45	0.05	0.44	0.66	0.07	0.16	0.51	0.23
Control Delay	50.1	35.4	0.1	30.2	52.1	0.1	16.0	30.9	0.1	14.9	30.9	0.3
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	50.1	35.4	0.1	30.2	52.1	0.1	16.0	30.9	0.1	14.9	30.9	0.3
LOS	D	D	A	C	D	A	B	C	A	B	C	A
Approach Delay		38.1			35.4			22.1			15.9	
Approach LOS		D			D			C			B	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 63 (53%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green	
Natural Cycle: 80	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.87	
Intersection Signal Delay: 26.1	Intersection LOS: C
Intersection Capacity Utilization 81.8%	ICU Level of Service D
Analysis Period (min) 15	

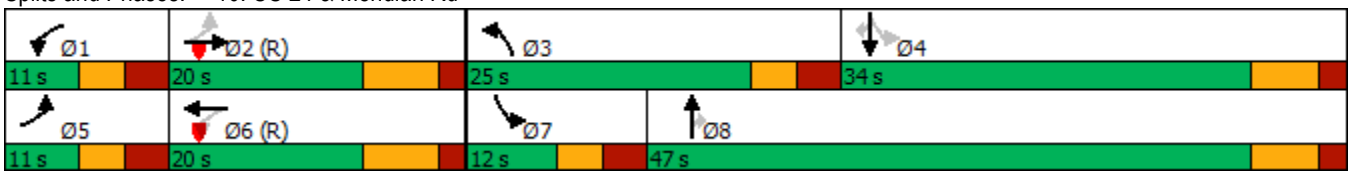
Splits and Phases: 9: US 24 & Woodmen Rd



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	19	256	293	32	369	53	587	800	12	92	441	7
Future Volume (vph)	19	256	293	32	369	53	587	800	12	92	441	7
Turn Type	pm+pt	NA	Free	pm+pt	NA	Free	Prot	NA	Perm	pm+pt	NA	Perm
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases	2		Free	6		Free			8	4		4
Detector Phase	5	2		1	6		3	8	8	7	4	4
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
Minimum Split (s)	11.0	20.0		11.0	20.0		11.0	20.0	20.0	11.0	20.0	20.0
Total Split (s)	11.0	20.0		11.0	20.0		25.0	47.0	47.0	12.0	34.0	34.0
Total Split (%)	12.2%	22.2%		12.2%	22.2%		27.8%	52.2%	52.2%	13.3%	37.8%	37.8%
Yellow Time (s)	3.0	5.0		3.0	5.0		3.0	4.5	4.5	3.0	4.5	4.5
All-Red Time (s)	3.0	2.0		3.0	2.0		3.0	2.0	2.0	3.0	2.0	2.0
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)	6.0	7.0		6.0	7.0		6.0	6.5	6.5	6.0	6.5	6.5
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max		None	C-Max		None	None	None	None	None	None
Act Effct Green (s)	22.5	18.5	90.0	23.7	20.7	90.0	18.6	41.8	41.8	33.3	26.8	26.8
Actuated g/C Ratio	0.25	0.21	1.00	0.26	0.23	1.00	0.21	0.46	0.46	0.37	0.30	0.30
v/c Ratio	0.07	0.37	0.20	0.11	0.48	0.04	0.88	0.98	0.02	0.49	0.85	0.01
Control Delay	25.7	32.4	0.3	25.1	34.6	0.0	50.2	53.2	0.0	22.0	45.3	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	25.7	32.4	0.3	25.1	34.6	0.0	50.2	53.2	0.0	22.0	45.3	0.0
LOS	C	C	A	C	C	A	D	D	A	C	D	A
Approach Delay		15.6			29.9			51.5			40.8	
Approach LOS		B			C			D			D	

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 71 (79%), Referenced to phase 2:EBTL and 6:WBTL, Start of FDW or yellow	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.98	
Intersection Signal Delay: 39.3	Intersection LOS: D
Intersection Capacity Utilization 82.8%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 10: US 24 & Meridian Rd



Intersection	
Int Delay, s/veh	0

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations			↱			↱		↑	↱		↑	↱
Traffic Vol, veh/h	0	0	52	0	0	73	0	847	25	0	488	5
Future Vol, veh/h	0	0	52	0	0	73	0	847	25	0	488	5
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	Free	-	-	Free	-	-	None	-	-	None
Storage Length	-	-	0	-	-	0	-	-	400	-	-	400
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	58	0	0	81	0	941	28	0	542	6

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	-	-	-	-	-	-	-	0	0	-	-	0
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	-	-	-	-	-	-	-
Pot Cap-1 Maneuver	0	0	0	0	0	0	0	-	-	0	-	-
Stage 1	0	0	0	0	0	0	0	-	-	0	-	-
Stage 2	0	0	0	0	0	0	0	-	-	0	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-

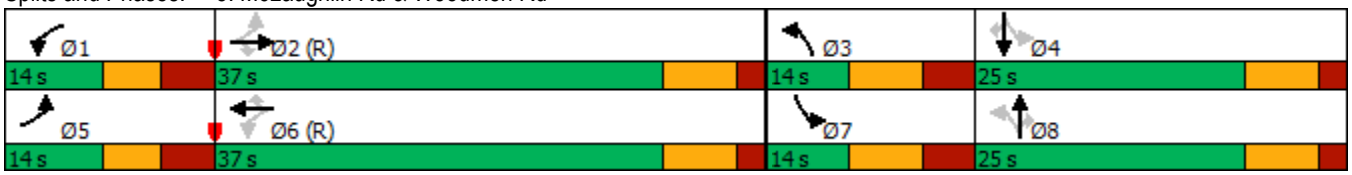
Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0	0	0
HCM LOS	A	A		

Minor Lane/Major Mvmt	NBT	NBR	EBLn1	WBLn1	SBT	SBR
Capacity (veh/h)	-	-	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-	-	-
HCM Control Delay (s)	-	-	0	0	-	-
HCM Lane LOS	-	-	A	A	-	-
HCM 95th %tile Q(veh)	-	-	-	-	-	-

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	100	650	100	50	735	150	75	50	50	125	125	300
Future Volume (vph)	100	650	100	50	735	150	75	50	50	125	125	300
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases	2		2	6		6	8		8	4		4
Detector Phase	5	2	2	1	6	6	3	8	8	7	4	4
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)	12.5	25.0	25.0	12.5	25.0	25.0	13.5	25.0	25.0	13.5	25.0	25.0
Total Split (s)	14.0	37.0	37.0	14.0	37.0	37.0	14.0	25.0	25.0	14.0	25.0	25.0
Total Split (%)	15.6%	41.1%	41.1%	15.6%	41.1%	41.1%	15.6%	27.8%	27.8%	15.6%	27.8%	27.8%
Yellow Time (s)	4.0	5.0	5.0	4.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
All-Red Time (s)	3.5	2.0	2.0	3.5	2.0	2.0	3.5	2.0	2.0	3.5	2.0	2.0
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)	7.5	7.0	7.0	7.5	7.0	7.0	8.5	7.0	7.0	8.5	7.0	7.0
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
Recall Mode	None	C-Max	C-Max	None	C-Max	C-Max	None	Max	Max	None	Max	Max
Act Effct Green (s)	39.0	35.6	35.6	37.4	32.8	32.8	22.0	18.0	18.0	23.7	20.8	20.8
Actuated g/C Ratio	0.43	0.40	0.40	0.42	0.36	0.36	0.24	0.20	0.20	0.26	0.23	0.23
v/c Ratio	0.36	0.47	0.13	0.16	0.58	0.21	0.23	0.14	0.10	0.35	0.30	0.52
Control Delay	16.9	23.1	0.3	13.9	26.3	0.9	22.9	30.8	0.4	25.7	32.7	8.3
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	16.9	23.1	0.3	13.9	26.3	0.9	22.9	30.8	0.4	25.7	32.7	8.3
LOS	B	C	A	B	C	A	C	C	A	C	C	A
Approach Delay		19.7			21.6			18.8			17.8	
Approach LOS		B			C			B			B	

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green	
Natural Cycle: 80	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.58	
Intersection Signal Delay: 19.9	Intersection LOS: B
Intersection Capacity Utilization 60.7%	ICU Level of Service B
Analysis Period (min) 15	

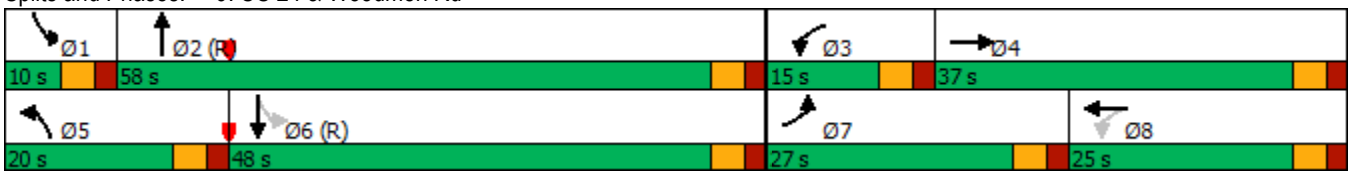
Splits and Phases: 8: McLaughlin Rd & Woodmen Rd



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	375	100	350	45	50	31	400	750	42	49	925	485
Future Volume (vph)	375	100	350	45	50	31	400	750	42	49	925	485
Turn Type	Prot	NA	Free	pm+pt	NA	Free	Prot	NA	Free	pm+pt	NA	Free
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			Free	8		Free			Free	6		Free
Detector Phase	7	4		3	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	20.0	15.0		5.0	15.0		5.0	15.0		5.0	15.0	
Minimum Split (s)	25.0	23.0		10.0	23.0		10.0	23.0		10.0	23.0	
Total Split (s)	27.0	37.0		15.0	25.0		20.0	58.0		10.0	48.0	
Total Split (%)	22.5%	30.8%		12.5%	20.8%		16.7%	48.3%		8.3%	40.0%	
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Recall Mode	None	None		None	None		None	C-Max		None	C-Max	
Act Effct Green (s)	20.6	26.0	120.0	19.7	15.0	120.0	21.0	63.4	120.0	54.5	47.4	120.0
Actuated g/C Ratio	0.17	0.22	1.00	0.16	0.12	1.00	0.18	0.53	1.00	0.45	0.40	1.00
v/c Ratio	0.68	0.14	0.24	0.20	0.12	0.02	0.72	0.30	0.03	0.15	0.50	0.33
Control Delay	53.1	37.9	0.4	30.2	47.5	0.0	54.4	18.1	0.0	13.8	29.6	0.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	53.1	37.9	0.4	30.2	47.5	0.0	54.4	18.1	0.0	13.8	29.6	0.6
LOS	D	D	A	C	D	A	D	B	A	B	C	A
Approach Delay		28.9			29.5			29.7			19.4	
Approach LOS		C			C			C			B	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Green	
Natural Cycle: 85	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.72	
Intersection Signal Delay: 25.3	Intersection LOS: C
Intersection Capacity Utilization 59.1%	ICU Level of Service B
Analysis Period (min) 15	

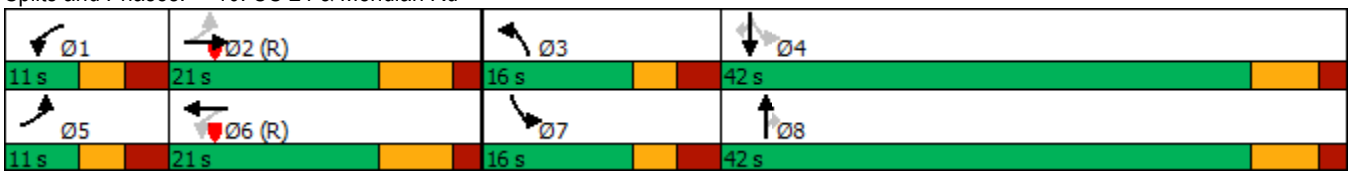
Splits and Phases: 9: US 24 & Woodmen Rd



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	30	525	1000	40	275	245	275	917	30	215	1080	40
Future Volume (vph)	30	525	1000	40	275	245	275	917	30	215	1080	40
Turn Type	pm+pt	NA	Free	pm+pt	NA	Free	Prot	NA	Perm	pm+pt	NA	Perm
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases	2		Free	6		Free			8	4		4
Detector Phase	5	2		1	6		3	8	8	7	4	4
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
Minimum Split (s)	11.0	20.0		11.0	20.0		11.0	20.0	20.0	11.0	20.0	20.0
Total Split (s)	11.0	21.0		11.0	21.0		16.0	42.0	42.0	16.0	42.0	42.0
Total Split (%)	12.2%	23.3%		12.2%	23.3%		17.8%	46.7%	46.7%	17.8%	46.7%	46.7%
Yellow Time (s)	3.0	5.0		3.0	5.0		3.0	4.5	4.5	3.0	4.5	4.5
All-Red Time (s)	3.0	2.0		3.0	2.0		3.0	2.0	2.0	3.0	2.0	2.0
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)	6.0	7.0		6.0	7.0		6.0	6.5	6.5	6.0	6.5	6.5
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max		None	C-Max		None	None	None	None	None	None
Act Effct Green (s)	30.2	25.1	90.0	30.6	25.3	90.0	9.9	27.8	27.8	37.8	27.6	27.6
Actuated g/C Ratio	0.34	0.28	1.00	0.34	0.28	1.00	0.11	0.31	0.31	0.42	0.31	0.31
v/c Ratio	0.08	0.54	0.64	0.14	0.28	0.16	0.75	0.60	0.05	0.70	0.71	0.07
Control Delay	18.1	29.8	4.4	21.4	29.4	0.2	52.2	27.6	0.2	26.2	29.9	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	18.1	29.8	4.4	21.4	29.4	0.2	52.2	27.6	0.2	26.2	29.9	0.2
LOS	B	C	A	C	C	A	D	C	A	C	C	A
Approach Delay		13.2			16.1			32.5			28.4	
Approach LOS		B			B			C			C	

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 71 (79%), Referenced to phase 2:EBTL and 6:WBTL, Start of FDW or yellow	
Natural Cycle: 65	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.75	
Intersection Signal Delay: 22.9	Intersection LOS: C
Intersection Capacity Utilization 69.6%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 10: US 24 & Meridian Rd



Intersection	
Int Delay, s/veh	0

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations			↱			↱		↑↑↑	↱		↑↑↑	↱
Traffic Vol, veh/h	0	0	50	0	0	130	0	1062	130	0	1285	35
Future Vol, veh/h	0	0	50	0	0	130	0	1062	130	0	1285	35
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	Free	-	-	Free	-	-	None	-	-	None
Storage Length	-	-	0	-	-	0	-	-	400	-	-	400
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	91	91	91	91	91	91	91	91	91	91	91	91
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	55	0	0	143	0	1167	143	0	1412	38

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	-	-	-	-	-	-	-	0	0	-	-	0
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	-	-	-	-	-	-	-
Pot Cap-1 Maneuver	0	0	0	0	0	0	0	-	-	0	-	-
Stage 1	0	0	0	0	0	0	0	-	-	0	-	-
Stage 2	0	0	0	0	0	0	0	-	-	0	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-

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

Minor Lane/Major Mvmt	NBT	NBR	EBLn1	WBLn1	SBT	SBR
Capacity (veh/h)	-	-	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-	-	-
HCM Control Delay (s)	-	-	0	0	-	-
HCM Lane LOS	-	-	A	A	-	-
HCM 95th %tile Q(veh)	-	-	-	-	-	-

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	300	850	150	100	700	275	150	200	150	200	150	200
Future Volume (vph)	300	850	150	100	700	275	150	200	150	200	150	200
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases	2		2	6		6	8		8	4		4
Detector Phase	5	2	2	1	6	6	3	8	8	7	4	4
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)	12.5	25.0	25.0	12.5	25.0	25.0	13.5	25.0	25.0	13.5	25.0	25.0
Total Split (s)	22.0	55.0	55.0	15.0	48.0	48.0	15.0	30.0	30.0	20.0	35.0	35.0
Total Split (%)	18.3%	45.8%	45.8%	12.5%	40.0%	40.0%	12.5%	25.0%	25.0%	16.7%	29.2%	29.2%
Yellow Time (s)	4.0	5.0	5.0	4.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
All-Red Time (s)	3.5	2.0	2.0	3.5	2.0	2.0	3.5	2.0	2.0	3.5	2.0	2.0
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)	7.5	7.0	7.0	7.5	7.0	7.0	8.5	7.0	7.0	8.5	7.0	7.0
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
Recall Mode	None	C-Max	C-Max	None	C-Max	C-Max	None	Max	Max	None	Max	Max
Act Effct Green (s)	62.0	48.2	48.2	48.0	41.2	41.2	28.2	23.2	23.2	37.8	28.0	28.0
Actuated g/C Ratio	0.52	0.40	0.40	0.40	0.34	0.34	0.24	0.19	0.19	0.32	0.23	0.23
v/c Ratio	0.84	0.62	0.21	0.40	0.59	0.39	0.49	0.57	0.34	0.62	0.36	0.39
Control Delay	53.3	51.6	16.2	29.3	45.4	16.0	37.7	51.1	5.7	39.1	41.3	7.3
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	53.3	51.6	16.2	29.3	45.4	16.0	37.7	51.1	5.7	39.1	41.3	7.3
LOS	D	D	B	C	D	B	D	D	A	D	D	A
Approach Delay		47.9			36.4			33.4			28.2	
Approach LOS		D			D			C			C	

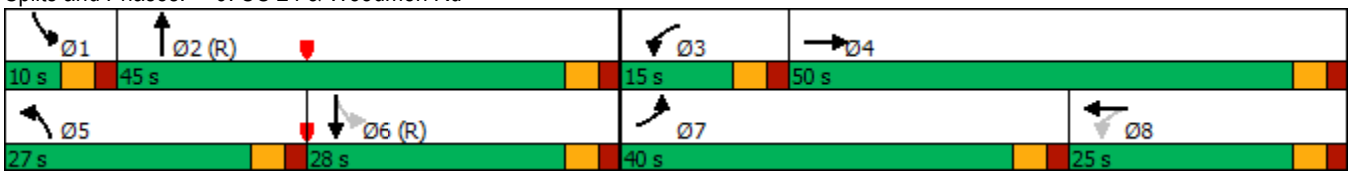
Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 0 (0%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.84	
Intersection Signal Delay: 39.0	Intersection LOS: D
Intersection Capacity Utilization 81.3%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 8: McLaughlin Rd & Woodmen Rd

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	800	165	235	55	170	129	450	1600	150	57	1060	455
Future Volume (vph)	800	165	235	55	170	129	450	1600	150	57	1060	455
Turn Type	Prot	NA	Free	pm+pt	NA	Free	Prot	NA	Free	pm+pt	NA	Free
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			Free	8		Free			Free	6		Free
Detector Phase	7	4		3	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	15.0		5.0	15.0	
Minimum Split (s)	10.0	23.0		10.0	23.0		25.0	23.0		10.0	23.0	
Total Split (s)	40.0	50.0		15.0	25.0		27.0	45.0		10.0	28.0	
Total Split (%)	33.3%	41.7%		12.5%	20.8%		22.5%	37.5%		8.3%	23.3%	
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Recall Mode	None	None		None	None		None	C-Max		None	C-Max	
Act Effct Green (s)	32.8	38.7	120.0	19.5	11.6	120.0	23.5	50.0	120.0	39.8	32.0	120.0
Actuated g/C Ratio	0.27	0.32	1.00	0.16	0.10	1.00	0.20	0.42	1.00	0.33	0.27	1.00
v/c Ratio	0.89	0.16	0.15	0.26	0.54	0.09	0.79	0.89	0.10	0.35	0.91	0.33
Control Delay	74.3	42.9	0.2	26.9	57.3	0.1	54.6	40.4	0.1	25.6	54.2	0.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	74.3	42.9	0.2	26.9	57.3	0.1	54.6	40.4	0.1	25.6	54.2	0.6
LOS	E	D	A	C	E	A	D	D	A	C	D	A
Approach Delay		55.4			31.8			40.8			37.7	
Approach LOS		E			C			D			D	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 63 (53%), Referenced to phase 2:NBT and 6:SBTL, Start of Green	
Natural Cycle: 105	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.91	
Intersection Signal Delay: 42.3	Intersection LOS: D
Intersection Capacity Utilization 79.3%	ICU Level of Service D
Analysis Period (min) 15	

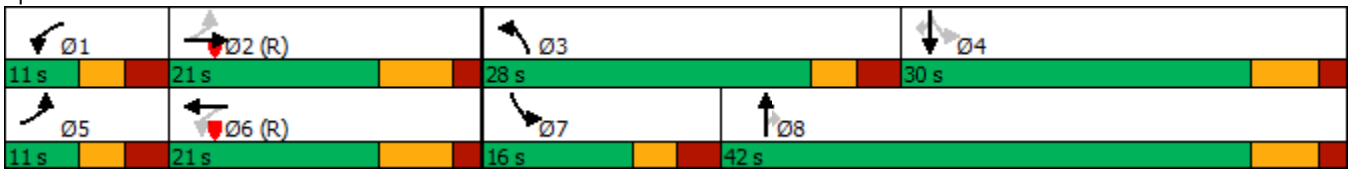
Splits and Phases: 9: US 24 & Woodmen Rd



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	80	350	425	60	500	235	825	1840	80	170	1180	60
Future Volume (vph)	80	350	425	60	500	235	825	1840	80	170	1180	60
Turn Type	pm+pt	NA	Free	pm+pt	NA	Free	Prot	NA	Perm	pm+pt	NA	Perm
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases	2		Free	6		Free			8	4		4
Detector Phase	5	2		1	6		3	8	8	7	4	4
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
Minimum Split (s)	11.0	20.0		11.0	20.0		11.0	20.0	20.0	11.0	20.0	20.0
Total Split (s)	11.0	21.0		11.0	21.0		28.0	42.0	42.0	16.0	30.0	30.0
Total Split (%)	12.2%	23.3%		12.2%	23.3%		31.1%	46.7%	46.7%	17.8%	33.3%	33.3%
Yellow Time (s)	3.0	5.0		3.0	5.0		3.0	4.5	4.5	3.0	4.5	4.5
All-Red Time (s)	3.0	2.0		3.0	2.0		3.0	2.0	2.0	3.0	2.0	2.0
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)	6.0	7.0		6.0	7.0		6.0	6.5	6.5	6.0	6.5	6.5
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max		None	C-Max		None	None	None	None	None	None
Act Effct Green (s)	21.2	16.2	90.0	21.2	16.2	90.0	22.0	36.3	36.3	33.2	23.5	23.5
Actuated g/C Ratio	0.24	0.18	1.00	0.24	0.18	1.00	0.24	0.40	0.40	0.37	0.26	0.26
v/c Ratio	0.45	0.58	0.29	0.26	0.84	0.16	1.05	0.95	0.11	0.68	0.95	0.10
Control Delay	28.2	32.9	0.8	26.7	50.4	0.2	78.5	38.7	0.3	31.3	48.2	0.3
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	28.2	32.9	0.8	26.7	50.4	0.2	78.5	38.7	0.3	31.3	48.2	0.3
LOS	C	C	A	C	D	A	E	D	A	C	D	A
Approach Delay		16.5			33.8			49.6			44.1	
Approach LOS		B			C			D			D	

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 71 (79%), Referenced to phase 2:EBTL and 6:WBTL, Start of FDW or yellow	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.05	
Intersection Signal Delay: 41.2	Intersection LOS: D
Intersection Capacity Utilization 85.8%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 10: US 24 & Meridian Rd



Intersection	
Int Delay, s/veh	0

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations			↱			↱		↑↑↑	↱		↑↑↑	↱
Traffic Vol, veh/h	0	0	75	0	0	175	0	2025	130	0	1335	15
Future Vol, veh/h	0	0	75	0	0	175	0	2025	130	0	1335	15
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	Free	-	-	Free	-	-	None	-	-	None
Storage Length	-	-	0	-	-	0	-	-	400	-	-	400
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	83	0	0	194	0	2250	144	0	1483	17

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	-	-	-	-	-	-	-	0	0	-	-	0
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	-	-	-	-	-	-	-
Pot Cap-1 Maneuver	0	0	0	0	0	0	0	-	-	0	-	-
Stage 1	0	0	0	0	0	0	0	-	-	0	-	-
Stage 2	0	0	0	0	0	0	0	-	-	0	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-

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

Minor Lane/Major Mvmt	NBT	NBR	EBLn1	WBLn1	SBT	SBR
Capacity (veh/h)	-	-	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-	-	-
HCM Control Delay (s)	-	-	0	0	-	-
HCM Lane LOS	-	-	A	A	-	-
HCM 95th %tile Q(veh)	-	-	-	-	-	-

Intersection	
Int Delay, s/veh	2.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	88	0	16	150	11	0	0	49	22	0	0
Future Vol, veh/h	0	88	0	16	150	11	0	0	49	22	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	135	-	-	190	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	96	0	17	163	12	0	0	53	24	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	175	0	0	96	0	0	299	305	96	326	299	169
Stage 1	-	-	-	-	-	-	96	96	-	203	203	-
Stage 2	-	-	-	-	-	-	203	209	-	123	96	-
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	1401	-	-	1498	-	-	653	608	960	627	613	875
Stage 1	-	-	-	-	-	-	911	815	-	799	733	-
Stage 2	-	-	-	-	-	-	799	729	-	881	815	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1401	-	-	1498	-	-	647	601	960	587	606	875
Mov Cap-2 Maneuver	-	-	-	-	-	-	647	601	-	587	606	-
Stage 1	-	-	-	-	-	-	911	815	-	799	725	-
Stage 2	-	-	-	-	-	-	790	721	-	832	815	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0.7	9	11.4
HCM LOS			A	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	960	1401	-	-	1498	-	-	587
HCM Lane V/C Ratio	0.055	-	-	-	0.012	-	-	0.041
HCM Control Delay (s)	9	0	-	-	7.4	-	-	11.4
HCM Lane LOS	A	A	-	-	A	-	-	B
HCM 95th %tile Q(veh)	0.2	0	-	-	0	-	-	0.1

MOVEMENT SUMMARY

Site: 2 [2043 Total AM (Site Folder: General)]

Woodmen/Retail Row
Site Category: 2043 Total AM
Roundabout

Vehicle Movement Performance

Mov ID	Turn	INPUT VOLUMES [Total veh/h	HV] %	DEMAND FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] ft	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed mph
NorthEast: Retail Row ST														
1ux	U	2	2.0	2	2.0	0.116	4.2	LOS A	0.5	13.0	0.34	0.21	0.34	39.5
6x	T1	8	2.0	9	2.0	0.116	4.2	LOS A	0.5	13.0	0.34	0.21	0.34	37.3
16x	R2	109	2.0	118	2.0	0.116	4.2	LOS A	0.5	13.0	0.34	0.21	0.34	35.6
Approach		119	2.0	129	2.0	0.116	4.2	LOS A	0.5	13.0	0.34	0.21	0.34	35.8
NorthWest: Woodmen Rd														
7ux	U	13	2.0	14	2.0	0.085	3.3	LOS A	0.4	8.9	0.06	0.01	0.06	35.7
7x	L2	95	2.0	103	2.0	0.085	3.3	LOS A	0.4	8.9	0.06	0.01	0.06	34.6
14x	R2	169	2.0	184	2.0	0.133	3.7	LOS A	0.6	14.7	0.06	0.01	0.06	35.8
Approach		277	2.0	301	2.0	0.133	3.5	LOS A	0.6	14.7	0.06	0.01	0.06	35.4
SouthWest: Retail Row St														
5x	L2	155	2.0	168	2.0	0.145	4.2	LOS A	0.7	17.0	0.28	0.15	0.28	34.4
2x	T1	4	2.0	4	2.0	0.145	4.2	LOS A	0.7	17.0	0.28	0.15	0.28	33.8
Approach		159	2.0	173	2.0	0.145	4.2	LOS A	0.7	17.0	0.28	0.15	0.28	34.4
All Vehicles		555	2.0	603	2.0	0.145	3.9	LOS A	0.7	17.0	0.18	0.09	0.18	35.1

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Roundabout LOS Method: Same as Sign Control.
Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.
LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).
Roundabout Capacity Model: US HCM 6.
Delay Model: HCM Delay Formula (Geometric Delay is not included).
Queue Model: HCM Queue Formula.
Gap-Acceptance Capacity: Traditional M1.
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Intersection	
Int Delay, s/veh	2.6

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	38	64	85	5	0	33
Future Vol, veh/h	38	64	85	5	0	33
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	120	-	-	-	-	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	41	70	92	5	0	36

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	97	0	-	0	-	95
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	4.12	-	-	-	-	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	2.218	-	-	-	-	3.318
Pot Cap-1 Maneuver	1496	-	-	-	0	962
Stage 1	-	-	-	-	0	-
Stage 2	-	-	-	-	0	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1496	-	-	-	-	962
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	2.8	0	8.9
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1496	-	-	-	962
HCM Lane V/C Ratio	0.028	-	-	-	0.037
HCM Control Delay (s)	7.5	-	-	-	8.9
HCM Lane LOS	A	-	-	-	A
HCM 95th %tile Q(veh)	0.1	-	-	-	0.1

Intersection	
Int Delay, s/veh	5.5

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	52	12	36	0	0	54
Future Vol, veh/h	52	12	36	0	0	54
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	100	-	-	-	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	57	13	39	0	0	59

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	39	0	-	0	166	39
Stage 1	-	-	-	-	39	-
Stage 2	-	-	-	-	127	-
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	1571	-	-	-	824	1033
Stage 1	-	-	-	-	983	-
Stage 2	-	-	-	-	899	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1571	-	-	-	794	1033
Mov Cap-2 Maneuver	-	-	-	-	794	-
Stage 1	-	-	-	-	948	-
Stage 2	-	-	-	-	899	-

Approach	EB	WB	SB
HCM Control Delay, s	6	0	8.7
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1571	-	-	-	1033
HCM Lane V/C Ratio	0.036	-	-	-	0.057
HCM Control Delay (s)	7.4	-	-	-	8.7
HCM Lane LOS	A	-	-	-	A
HCM 95th %tile Q(veh)	0.1	-	-	-	0.2

Intersection	
Int Delay, s/veh	0.3

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	51	0	1	54	0	3
Future Vol, veh/h	51	0	1	54	0	3
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	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	55	0	1	59	0	3

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	55	0	116	55
Stage 1	-	-	-	-	55	-
Stage 2	-	-	-	-	61	-
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	-	-	1550	-	880	1012
Stage 1	-	-	-	-	968	-
Stage 2	-	-	-	-	962	-
Platoon blocked, %	-	-				
Mov Cap-1 Maneuver	-	-	1550	-	879	1012
Mov Cap-2 Maneuver	-	-	-	-	879	-
Stage 1	-	-	-	-	968	-
Stage 2	-	-	-	-	961	-

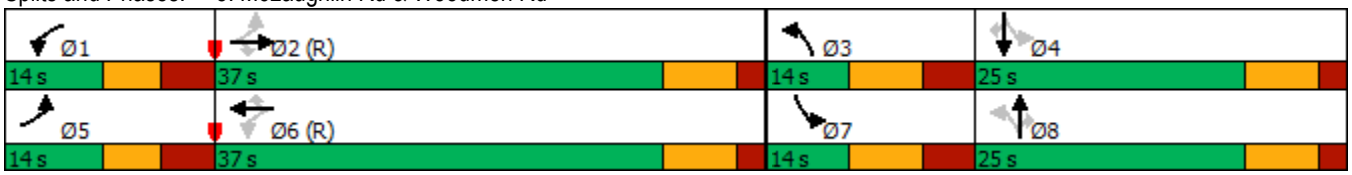
Approach	EB	WB	NB
HCM Control Delay, s	0	0.1	8.6
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	1012	-	-	1550	-
HCM Lane V/C Ratio	0.003	-	-	0.001	-
HCM Control Delay (s)	8.6	-	-	7.3	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0	-	-	0	-

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	100	693	100	50	789	159	75	50	50	134	125	300
Future Volume (vph)	100	693	100	50	789	159	75	50	50	134	125	300
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases	2		2	6		6	8		8	4		4
Detector Phase	5	2	2	1	6	6	3	8	8	7	4	4
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)	12.5	25.0	25.0	12.5	25.0	25.0	13.5	25.0	25.0	13.5	25.0	25.0
Total Split (s)	14.0	37.0	37.0	14.0	37.0	37.0	14.0	25.0	25.0	14.0	25.0	25.0
Total Split (%)	15.6%	41.1%	41.1%	15.6%	41.1%	41.1%	15.6%	27.8%	27.8%	15.6%	27.8%	27.8%
Yellow Time (s)	4.0	5.0	5.0	4.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
All-Red Time (s)	3.5	2.0	2.0	3.5	2.0	2.0	3.5	2.0	2.0	3.5	2.0	2.0
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)	7.5	7.0	7.0	7.5	7.0	7.0	8.5	7.0	7.0	8.5	7.0	7.0
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
Recall Mode	None	C-Max	C-Max	None	C-Max	C-Max	None	Max	Max	None	Max	Max
Act Effct Green (s)	39.0	35.6	35.6	37.4	32.8	32.8	22.0	18.0	18.0	23.7	20.8	20.8
Actuated g/C Ratio	0.43	0.40	0.40	0.42	0.36	0.36	0.24	0.20	0.20	0.26	0.23	0.23
v/c Ratio	0.39	0.51	0.13	0.16	0.62	0.22	0.23	0.14	0.10	0.37	0.30	0.52
Control Delay	17.7	23.5	0.3	14.1	27.1	1.3	22.9	30.8	0.4	26.3	32.7	8.9
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	17.7	23.5	0.3	14.1	27.1	1.3	22.9	30.8	0.4	26.3	32.7	8.9
LOS	B	C	A	B	C	A	C	C	A	C	C	A
Approach Delay		20.3			22.4			18.8			18.4	
Approach LOS		C			C			B			B	

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green	
Natural Cycle: 80	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.62	
Intersection Signal Delay: 20.6	Intersection LOS: C
Intersection Capacity Utilization 62.7%	ICU Level of Service B
Analysis Period (min) 15	

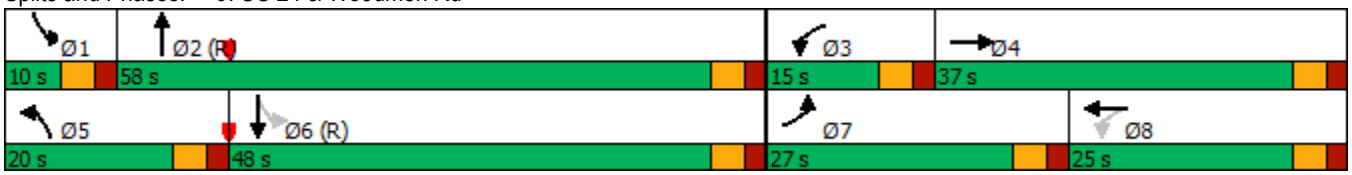
Splits and Phases: 8: McLaughlin Rd & Woodmen Rd



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	372	159	346	94	117	52	399	744	65	77	918	481
Future Volume (vph)	372	159	346	94	117	52	399	744	65	77	918	481
Turn Type	Prot	NA	Free	pm+pt	NA	Free	Prot	NA	Free	pm+pt	NA	Free
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			Free	8		Free			Free	6		Free
Detector Phase	7	4		3	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	20.0	15.0		5.0	15.0		5.0	15.0		5.0	15.0	
Minimum Split (s)	25.0	23.0		10.0	23.0		10.0	23.0		10.0	23.0	
Total Split (s)	27.0	37.0		15.0	25.0		20.0	58.0		10.0	48.0	
Total Split (%)	22.5%	30.8%		12.5%	20.8%		16.7%	48.3%		8.3%	40.0%	
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Recall Mode	None	None		None	None		None	C-Max		None	C-Max	
Act Effct Green (s)	20.6	26.5	120.0	24.1	15.0	120.0	20.7	58.7	120.0	51.7	43.7	120.0
Actuated g/C Ratio	0.17	0.22	1.00	0.20	0.12	1.00	0.17	0.49	1.00	0.43	0.36	1.00
v/c Ratio	0.67	0.22	0.23	0.35	0.28	0.03	0.72	0.32	0.04	0.23	0.53	0.32
Control Delay	52.8	39.3	0.3	32.6	49.5	0.0	54.5	19.8	0.0	14.5	31.4	0.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	52.8	39.3	0.3	32.6	49.5	0.0	54.5	19.8	0.0	14.5	31.4	0.5
LOS	D	D	A	C	D	A	D	B	A	B	C	A
Approach Delay		29.7			33.7			30.2			20.5	
Approach LOS		C			C			C			C	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Green	
Natural Cycle: 85	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.72	
Intersection Signal Delay: 26.6	Intersection LOS: C
Intersection Capacity Utilization 70.8%	ICU Level of Service C
Analysis Period (min) 15	

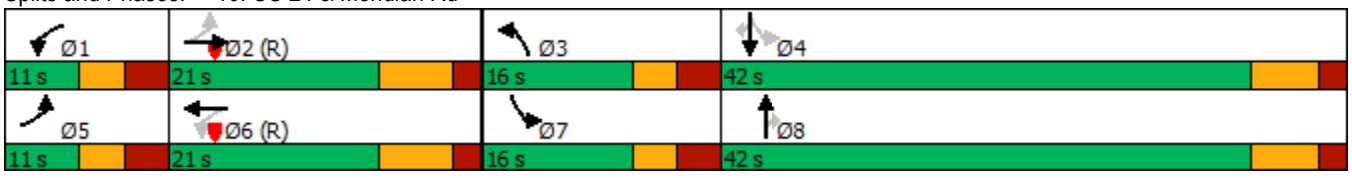
Splits and Phases: 9: US 24 & Woodmen Rd



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	30	524	991	40	273	247	272	931	30	216	1117	40
Future Volume (vph)	30	524	991	40	273	247	272	931	30	216	1117	40
Turn Type	pm+pt	NA	Free	pm+pt	NA	Free	Prot	NA	Perm	pm+pt	NA	Perm
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases	2		Free	6		Free			8	4		4
Detector Phase	5	2		1	6		3	8	8	7	4	4
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
Minimum Split (s)	11.0	20.0		11.0	20.0		11.0	20.0	20.0	11.0	20.0	20.0
Total Split (s)	11.0	21.0		11.0	21.0		16.0	42.0	42.0	16.0	42.0	42.0
Total Split (%)	12.2%	23.3%		12.2%	23.3%		17.8%	46.7%	46.7%	17.8%	46.7%	46.7%
Yellow Time (s)	3.0	5.0		3.0	5.0		3.0	4.5	4.5	3.0	4.5	4.5
All-Red Time (s)	3.0	2.0		3.0	2.0		3.0	2.0	2.0	3.0	2.0	2.0
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)	6.0	7.0		6.0	7.0		6.0	6.5	6.5	6.0	6.5	6.5
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max		None	C-Max		None	None	None	None	None	None
Act Effct Green (s)	29.2	24.4	90.0	29.5	24.5	90.0	9.9	28.8	28.8	38.9	28.7	28.7
Actuated g/C Ratio	0.32	0.27	1.00	0.33	0.27	1.00	0.11	0.32	0.32	0.43	0.32	0.32
v/c Ratio	0.08	0.56	0.64	0.14	0.29	0.16	0.74	0.58	0.05	0.70	0.70	0.06
Control Delay	18.9	30.6	4.3	22.3	30.1	0.2	51.8	26.7	0.1	25.1	29.1	0.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	18.9	30.6	4.3	22.3	30.1	0.2	51.8	26.7	0.1	25.1	29.1	0.2
LOS	B	C	A	C	C	A	D	C	A	C	C	A
Approach Delay		13.5			16.4			31.6			27.7	
Approach LOS		B			B			C			C	

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 71 (79%), Referenced to phase 2:EBTL and 6:WBTL, Start of FDW or yellow	
Natural Cycle: 65	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.74	
Intersection Signal Delay: 22.7	Intersection LOS: C
Intersection Capacity Utilization 69.9%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 10: US 24 & Meridian Rd



Intersection	
Int Delay, s/veh	0

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations			↱			↱		↑↑↑	↱		↑↑↑	↱
Traffic Vol, veh/h	0	0	50	0	0	130	0	1078	130	0	1323	35
Future Vol, veh/h	0	0	50	0	0	130	0	1078	130	0	1323	35
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	Free	-	-	Free	-	-	None	-	-	None
Storage Length	-	-	0	-	-	0	-	-	400	-	-	400
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	94	94	94	94	94	94	94	94	94	94	94	94
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	53	0	0	138	0	1147	138	0	1407	37

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	-	-	-	-	-	-	-	0	0	-	-	0
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	-	-	-	-	-	-	-
Pot Cap-1 Maneuver	0	0	0	0	0	0	0	-	-	0	-	-
Stage 1	0	0	0	0	0	0	0	-	-	0	-	-
Stage 2	0	0	0	0	0	0	0	-	-	0	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-

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

Minor Lane/Major Mvmt	NBT	NBR	EBLn1	WBLn1	SBT	SBR
Capacity (veh/h)	-	-	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-	-	-
HCM Control Delay (s)	-	-	0	0	-	-
HCM Lane LOS	-	-	A	A	-	-
HCM 95th %tile Q(veh)	-	-	-	-	-	-

Intersection	
Int Delay, s/veh	3.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	292	0	53	312	23	0	0	21	85	0	0
Future Vol, veh/h	0	292	0	53	312	23	0	0	21	85	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	135	-	-	190	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	317	0	58	339	25	0	0	23	92	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	364	0	0	317	0	0	785	797	317	797	785	352
Stage 1	-	-	-	-	-	-	317	317	-	468	468	-
Stage 2	-	-	-	-	-	-	468	480	-	329	317	-
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	1195	-	-	1243	-	-	310	319	724	305	325	692
Stage 1	-	-	-	-	-	-	694	654	-	575	561	-
Stage 2	-	-	-	-	-	-	575	554	-	684	654	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1195	-	-	1243	-	-	299	304	724	285	310	692
Mov Cap-2 Maneuver	-	-	-	-	-	-	299	304	-	285	310	-
Stage 1	-	-	-	-	-	-	694	654	-	575	535	-
Stage 2	-	-	-	-	-	-	548	528	-	662	654	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	1.1	10.1	23.6
HCM LOS			B	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	724	1195	-	-	1243	-	-	285
HCM Lane V/C Ratio	0.032	-	-	-	0.046	-	-	0.324
HCM Control Delay (s)	10.1	0	-	-	8	-	-	23.6
HCM Lane LOS	B	A	-	-	A	-	-	C
HCM 95th %tile Q(veh)	0.1	0	-	-	0.1	-	-	1.4

MOVEMENT SUMMARY

Site: 2 [2043 Total PM (Site Folder: General)]

Woodmen/Retail Row

Site Category: 2043 Total PM
Roundabout

Vehicle Movement Performance

Mov ID	Turn	INPUT VOLUMES [Total veh/h	HV] %	DEMAND FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] ft	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed mph
NorthEast: Retail Row ST														
1ux	U	11	2.0	12	2.0	0.309	7.7	LOS A	1.5	37.2	0.59	0.55	0.59	37.1
6x	T1	19	2.0	21	2.0	0.309	7.7	LOS A	1.5	37.2	0.59	0.55	0.59	35.1
16x	R2	212	2.0	230	2.0	0.309	7.7	LOS A	1.5	37.2	0.59	0.55	0.59	33.6
Approach		242	2.0	263	2.0	0.309	7.7	LOS A	1.5	37.2	0.59	0.55	0.59	33.9
NorthWest: Woodmen Rd														
7ux	U	29	2.0	32	2.0	0.179	4.1	LOS A	0.8	20.7	0.13	0.04	0.13	35.3
7x	L2	194	2.0	211	2.0	0.179	4.1	LOS A	0.8	20.7	0.13	0.04	0.13	34.2
14x	R2	369	2.0	401	2.0	0.297	5.3	LOS A	1.6	39.6	0.15	0.05	0.15	34.9
Approach		592	2.0	643	2.0	0.297	4.8	LOS A	1.6	39.6	0.14	0.05	0.14	34.7
SouthWest: Retail Row St														
5x	L2	381	2.0	414	2.0	0.417	8.0	LOS A	2.4	61.0	0.53	0.42	0.53	32.7
2x	T1	17	2.0	18	2.0	0.417	8.0	LOS A	2.4	61.0	0.53	0.42	0.53	32.2
Approach		398	2.0	433	2.0	0.417	8.0	LOS A	2.4	61.0	0.53	0.42	0.53	32.7
All Vehicles		1232	2.0	1339	2.0	0.417	6.4	LOS A	2.4	61.0	0.36	0.26	0.36	33.8

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Roundabout LOS Method: Same as Sign Control.
Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.
LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).
Roundabout Capacity Model: US HCM 6.
Delay Model: HCM Delay Formula (Geometric Delay is not included).
Queue Model: HCM Queue Formula.
Gap-Acceptance Capacity: Traditional M1.
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Intersection	
Int Delay, s/veh	4.1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	84	138	108	6	0	134
Future Vol, veh/h	84	138	108	6	0	134
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	120	-	-	-	-	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	91	150	117	7	0	146

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	124	0	-	0	-	121
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	4.12	-	-	-	-	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	2.218	-	-	-	-	3.318
Pot Cap-1 Maneuver	1463	-	-	-	0	930
Stage 1	-	-	-	-	0	-
Stage 2	-	-	-	-	0	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1463	-	-	-	-	930
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	2.9	0	9.6
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1463	-	-	-	930
HCM Lane V/C Ratio	0.062	-	-	-	0.157
HCM Control Delay (s)	7.6	-	-	-	9.6
HCM Lane LOS	A	-	-	-	A
HCM 95th %tile Q(veh)	0.2	-	-	-	0.6

Intersection	
Int Delay, s/veh	6.4

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	100	38	15	0	0	99
Future Vol, veh/h	100	38	15	0	0	99
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	100	-	-	-	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	109	41	16	0	0	108

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	16	0	-	0	275	16
Stage 1	-	-	-	-	16	-
Stage 2	-	-	-	-	259	-
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	1602	-	-	-	715	1063
Stage 1	-	-	-	-	1007	-
Stage 2	-	-	-	-	784	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1602	-	-	-	666	1063
Mov Cap-2 Maneuver	-	-	-	-	666	-
Stage 1	-	-	-	-	939	-
Stage 2	-	-	-	-	784	-

Approach	EB	WB	SB
HCM Control Delay, s	5.4	0	8.8
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1602	-	-	-	1063
HCM Lane V/C Ratio	0.068	-	-	-	0.101
HCM Control Delay (s)	7.4	-	-	-	8.8
HCM Lane LOS	A	-	-	-	A
HCM 95th %tile Q(veh)	0.2	-	-	-	0.3

Intersection	
Int Delay, s/veh	0.1

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	94	0	3	99	0	1
Future Vol, veh/h	94	0	3	99	0	1
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	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	102	0	3	108	0	1

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	102	0	216	102
Stage 1	-	-	-	-	102	-
Stage 2	-	-	-	-	114	-
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	-	-	1490	-	772	953
Stage 1	-	-	-	-	922	-
Stage 2	-	-	-	-	911	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1490	-	770	953
Mov Cap-2 Maneuver	-	-	-	-	770	-
Stage 1	-	-	-	-	922	-
Stage 2	-	-	-	-	909	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.2	8.8
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	953	-	-	1490	-
HCM Lane V/C Ratio	0.001	-	-	0.002	-
HCM Control Delay (s)	8.8	-	-	7.4	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0	-	-	0	-

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	300	943	150	100	783	291	150	200	150	217	150	200
Future Volume (vph)	300	943	150	100	783	291	150	200	150	217	150	200
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases	2		2	6		6	8		8	4		4
Detector Phase	5	2	2	1	6	6	3	8	8	7	4	4
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)	12.5	25.0	25.0	12.5	25.0	25.0	13.5	25.0	25.0	13.5	25.0	25.0
Total Split (s)	23.0	57.0	57.0	15.0	49.0	49.0	15.0	29.0	29.0	19.0	33.0	33.0
Total Split (%)	19.2%	47.5%	47.5%	12.5%	40.8%	40.8%	12.5%	24.2%	24.2%	15.8%	27.5%	27.5%
Yellow Time (s)	4.0	5.0	5.0	4.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
All-Red Time (s)	3.5	2.0	2.0	3.5	2.0	2.0	3.5	2.0	2.0	3.5	2.0	2.0
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)	7.5	7.0	7.0	7.5	7.0	7.0	8.5	7.0	7.0	8.5	7.0	7.0
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
Recall Mode	None	C-Max	C-Max	None	C-Max	C-Max	None	Max	Max	None	Max	Max
Act Effct Green (s)	64.4	50.2	50.2	49.2	42.4	42.4	27.0	22.0	22.0	35.0	26.0	26.0
Actuated g/C Ratio	0.54	0.42	0.42	0.41	0.35	0.35	0.22	0.18	0.18	0.29	0.22	0.22
v/c Ratio	0.86	0.66	0.20	0.43	0.65	0.40	0.51	0.60	0.31	0.73	0.38	0.38
Control Delay	50.9	49.9	15.1	27.0	41.3	12.5	39.7	53.4	1.7	48.2	43.5	4.2
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	50.9	49.9	15.1	27.0	41.3	12.5	39.7	53.4	1.7	48.2	43.5	4.2
LOS	D	D	B	C	D	B	D	D	A	D	D	A
Approach Delay		46.4			32.9			33.7			31.4	
Approach LOS		D			C			C			C	

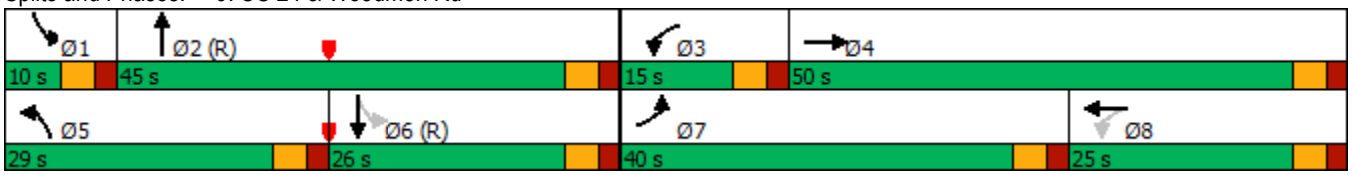
Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 0 (0%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.86	
Intersection Signal Delay: 38.0	Intersection LOS: D
Intersection Capacity Utilization 84.6%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 8: McLaughlin Rd & Woodmen Rd

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	786	292	232	103	287	203	436	1572	254	98	1052	452
Future Volume (vph)	786	292	232	103	287	203	436	1572	254	98	1052	452
Turn Type	Prot	NA	Free	pm+pt	NA	Free	Prot	NA	Free	pm+pt	NA	Free
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			Free	8		Free			Free	6		Free
Detector Phase	7	4		3	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	5.0	15.0		5.0	15.0		5.0	15.0		5.0	15.0	
Minimum Split (s)	10.0	23.0		10.0	23.0		25.0	23.0		10.0	23.0	
Total Split (s)	40.0	50.0		15.0	25.0		29.0	45.0		10.0	26.0	
Total Split (%)	33.3%	41.7%		12.5%	20.8%		24.2%	37.5%		8.3%	21.7%	
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Recall Mode	None	None		None	None		None	C-Max		None	C-Max	
Act Effct Green (s)	33.0	40.4	120.0	25.6	16.5	120.0	20.9	42.7	120.0	37.4	29.6	120.0
Actuated g/C Ratio	0.28	0.34	1.00	0.21	0.14	1.00	0.17	0.36	1.00	0.31	0.25	1.00
v/c Ratio	0.88	0.26	0.16	0.40	0.63	0.14	0.78	0.92	0.17	0.59	0.89	0.30
Control Delay	71.5	38.5	0.2	26.6	54.8	0.2	56.6	47.5	0.2	40.2	54.7	0.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	71.5	38.5	0.2	26.6	54.8	0.2	56.6	47.5	0.2	40.2	54.7	0.5
LOS	E	D	A	C	D	A	E	D	A	D	D	A
Approach Delay		51.5			31.2			43.9			38.5	
Approach LOS		D			C			D			D	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 63 (53%), Referenced to phase 2:NBT and 6:SBTL, Start of Green	
Natural Cycle: 105	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.92	
Intersection Signal Delay: 42.8	Intersection LOS: D
Intersection Capacity Utilization 87.4%	ICU Level of Service E
Analysis Period (min) 15	

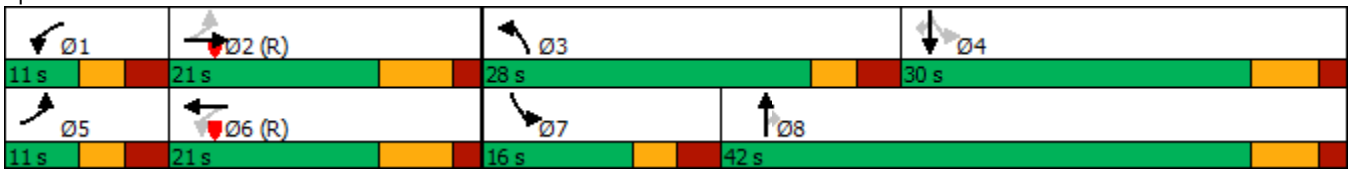
Splits and Phases: 9: US 24 & Woodmen Rd



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	80	347	411	60	495	240	804	1897	80	173	1214	60
Future Volume (vph)	80	347	411	60	495	240	804	1897	80	173	1214	60
Turn Type	pm+pt	NA	Free	pm+pt	NA	Free	Prot	NA	Perm	pm+pt	NA	Perm
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases	2		Free	6		Free			8	4		4
Detector Phase	5	2		1	6		3	8	8	7	4	4
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
Minimum Split (s)	11.0	20.0		11.0	20.0		11.0	20.0	20.0	11.0	20.0	20.0
Total Split (s)	11.0	21.0		11.0	21.0		28.0	42.0	42.0	16.0	30.0	30.0
Total Split (%)	12.2%	23.3%		12.2%	23.3%		31.1%	46.7%	46.7%	17.8%	33.3%	33.3%
Yellow Time (s)	3.0	5.0		3.0	5.0		3.0	4.5	4.5	3.0	4.5	4.5
All-Red Time (s)	3.0	2.0		3.0	2.0		3.0	2.0	2.0	3.0	2.0	2.0
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)	6.0	7.0		6.0	7.0		6.0	6.5	6.5	6.0	6.5	6.5
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max		None	C-Max		None	None	None	None	None	None
Act Effct Green (s)	21.2	16.2	90.0	21.2	16.2	90.0	22.0	36.3	36.3	33.2	23.5	23.5
Actuated g/C Ratio	0.24	0.18	1.00	0.24	0.18	1.00	0.24	0.40	0.40	0.37	0.26	0.26
v/c Ratio	0.45	0.58	0.28	0.25	0.83	0.16	1.02	0.99	0.11	0.69	0.97	0.10
Control Delay	28.1	32.7	0.8	26.7	49.7	0.2	71.0	44.5	0.3	32.0	52.9	0.3
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	28.1	32.7	0.8	26.7	49.7	0.2	71.0	44.5	0.3	32.0	52.9	0.3
LOS	C	C	A	C	D	A	E	D	A	C	D	A
Approach Delay		16.6			33.1			50.9			48.2	
Approach LOS		B			C			D			D	

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 71 (79%), Referenced to phase 2:EBTL and 6:WBTL, Start of FDW or yellow	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.02	
Intersection Signal Delay: 42.9	Intersection LOS: D
Intersection Capacity Utilization 85.8%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 10: US 24 & Meridian Rd



Intersection	
Int Delay, s/veh	0

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations			↱			↱		↑↑↑	↱		↑↑↑	↱
Traffic Vol, veh/h	0	0	75	0	0	175	0	2087	130	0	1372	15
Future Vol, veh/h	0	0	75	0	0	175	0	2087	130	0	1372	15
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	Free	-	-	Free	-	-	None	-	-	None
Storage Length	-	-	0	-	-	0	-	-	400	-	-	400
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	94	90	90	94	90
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	83	0	0	194	0	2220	144	0	1460	17

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	-	-	-	-	-	-	-	0	0	-	-	0
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	-	-	-	-	-	-	-
Pot Cap-1 Maneuver	0	0	0	0	0	0	0	-	-	0	-	-
Stage 1	0	0	0	0	0	0	0	-	-	0	-	-
Stage 2	0	0	0	0	0	0	0	-	-	0	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-

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

Minor Lane/Major Mvmt	NBT	NBR	EBLn1	WBLn1	SBT	SBR
Capacity (veh/h)	-	-	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-	-	-
HCM Control Delay (s)	-	-	0	0	-	-
HCM Lane LOS	-	-	A	A	-	-
HCM 95th %tile Q(veh)	-	-	-	-	-	-

Queuing Reports

TRANSPORTATION
CONSULTANTS, INC.

Queuing and Blocking Report

Intersection: 1: Towhee Ct/Gyrfalcon Rd & Retail Row St

Movement	WB	NB	SB
Directions Served	L	LTR	LTR
Maximum Queue (ft)	34	66	41
Average Queue (ft)	3	26	15
95th Queue (ft)	18	52	39
Link Distance (ft)		143	96
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)	190		
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 3: Retail Row St & Towee Ln

Movement	EB	SB
Directions Served	L	R
Maximum Queue (ft)	36	42
Average Queue (ft)	4	20
95th Queue (ft)	21	44
Link Distance (ft)		175
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)	120	
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 5: Retail Row St & Merlin Way

Movement	EB	SB
Directions Served	L	LR
Maximum Queue (ft)	31	48
Average Queue (ft)	2	27
95th Queue (ft)	13	50
Link Distance (ft)		472
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)	100	
Storage Blk Time (%)		
Queuing Penalty (veh)		

Queuing and Blocking Report

Intersection: 9: US 24 & Woodmen Rd

Movement	EB	EB	EB	EB	WB	WB	WB	NB	NB	NB	NB	NB
Directions Served	L	L	T	T	L	T	T	L	L	T	T	T
Maximum Queue (ft)	206	223	154	140	140	96	85	227	242	167	181	199
Average Queue (ft)	108	125	48	61	58	44	48	118	144	50	78	98
95th Queue (ft)	176	194	110	119	114	84	89	194	217	121	161	177
Link Distance (ft)			640	640		348	348			1182	1182	1182
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	350	350			270			855	855			
Storage Blk Time (%)												
Queuing Penalty (veh)												

Intersection: 9: US 24 & Woodmen Rd

Movement	SB	SB	SB	SB
Directions Served	L	T	T	T
Maximum Queue (ft)	88	267	249	223
Average Queue (ft)	36	178	171	141
95th Queue (ft)	72	239	231	201
Link Distance (ft)		865	865	865
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)	500			
Storage Blk Time (%)				
Queuing Penalty (veh)				

Zone Summary

Zone wide Queuing Penalty: 0

Queuing and Blocking Report

Intersection: 1: Towhee Ct/Gyrfalcon Rd & Retail Row St

Movement	WB	NB	SB
Directions Served	L	LTR	LTR
Maximum Queue (ft)	30	54	100
Average Queue (ft)	9	16	39
95th Queue (ft)	30	43	71
Link Distance (ft)		143	96
Upstream Blk Time (%)			0
Queuing Penalty (veh)			0
Storage Bay Dist (ft)	190		
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 3: Retail Row St & Towee Ln

Movement	EB	SB
Directions Served	L	R
Maximum Queue (ft)	40	85
Average Queue (ft)	8	39
95th Queue (ft)	31	67
Link Distance (ft)		175
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)	120	
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 5: Retail Row St & Merlin Way

Movement	EB	SB
Directions Served	L	LR
Maximum Queue (ft)	14	55
Average Queue (ft)	0	33
95th Queue (ft)	6	50
Link Distance (ft)		472
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)	100	
Storage Blk Time (%)		
Queuing Penalty (veh)		

Queuing and Blocking Report

Intersection: 9: US 24 & Woodmen Rd

Movement	EB	EB	EB	EB	WB	WB	WB	NB	NB	NB	NB	NB
Directions Served	L	L	T	T	L	T	T	L	L	T	T	T
Maximum Queue (ft)	328	324	165	161	151	184	176	215	284	373	396	419
Average Queue (ft)	227	239	50	68	57	96	110	116	153	208	240	264
95th Queue (ft)	309	313	107	126	110	149	169	178	224	320	351	367
Link Distance (ft)			640	640		348	348			1182	1182	1182
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	350	350			270			855	855			
Storage Blk Time (%)	0	0										4
Queuing Penalty (veh)	0	0										11

Intersection: 9: US 24 & Woodmen Rd

Movement	NB	SB	SB	SB	SB	SB
Directions Served	R	L	T	T	T	R
Maximum Queue (ft)	200	207	497	504	471	237
Average Queue (ft)	6	65	274	265	241	20
95th Queue (ft)	84	141	432	425	403	178
Link Distance (ft)			865	865	865	
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)	300	500				375
Storage Blk Time (%)			2		4	
Queuing Penalty (veh)			2		18	

Zone Summary

Zone wide Queuing Penalty: 31

NCHRP Report 684 Internal Trip Capture Estimation Tool

NCHRP 684 Internal Trip Capture Estimation Tool			
Project Name:	The Commons at Falcon Field	**Organization:**	LSC Transportation Consultants, Inc
Project Location:	El Paso County, CO	**Performed By:**	KDF
Scenario Description:	Buildout	**Date:**	5/23/2023
Analysis Year:	2043	**Checked By:**	
Analysis Period:	**AM Street Peak Hour**	**Date:**	

Table 1-A: Base Vehicle-Trip Generation Estimates (Single-Use Site Estimate)

Land Use	Development Data (*For Information Only*)			Estimated Vehicle-Trips[3]		
	ITE LUCs[1]	Quantity	Units	Total	Entering	Exiting
Office				0		
Retail				145	90	55
Restaurant				0		
Cinema/Entertainment				0		
Residential				119	30	89
Hotel				0		
All Other Land Uses[2]				0		
				264	120	144

Table 2-A: Mode Split and Vehicle Occupancy Estimates

Land Use	Entering Trips			Exiting Trips		
	Veh. Occ.[4]	% Transit	% Non-Motorized	Veh. Occ.[4]	% Transit	% Non-Motorized
Office						
Retail						
Restaurant						
Cinema/Entertainment						
Residential						
Hotel						
All Other Land Uses[2]						

Table 3-A: Average Land Use Interchange Distances (Feet Walking Distance)

Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office						
Retail						
Restaurant						
Cinema/Entertainment						
Residential						
Hotel						

Table 4-A: Internal Person-Trip Origin-Destination Matrix*

Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		0	0	0	0	0
Retail	0		0	0	1	0
Restaurant	0	0		0	0	0
Cinema/Entertainment	0	0	0		0	0
Residential	0	1	0	0		0
Hotel	0	0	0	0	0	

Table 5-A: Computations Summary

	Total	Entering	Exiting
All Person-Trips	264	120	144
Internal Capture Percentage	2%	2%	1%
External Vehicle-Trips[5]	260	118	142
External Transit-Trips[6]	0	0	0
External Non-Motorized Trips[6]	0	0	0

Table 6-A: Internal Trip Capture Percentages by Land Use

Land Use	Entering Trips	Exiting Trips
Office	N/A	N/A
Retail	1%	2%
Restaurant	N/A	N/A
Cinema/Entertainment	N/A	N/A
Residential	3%	1%
Hotel	N/A	N/A

[1]Land Use Codes (LUCs) from *Trip Generation Manual*, published by the Institute of Transportation Engineers.

[2]Total estimate for all other land uses at mixed-use development site is not subject to internal trip capture computations in this estimator.

[3]Enter trips assuming no transit or non-motorized trips (as assumed in ITE *Trip Generation Manual*).

[4]Enter vehicle occupancy assumed in Table 1-A vehicle trips. If vehicle occupancy changes for proposed mixed-use project, manual adjustments must be made to Tables 5-A, 9-A (O and D). Enter transit, non-motorized percentages that will result with proposed mixed-use project complete.

[5]Vehicle-trips computed using the mode split and vehicle occupancy values provided in Table 2-A.

[6]Person-Trips

*Indicates computation that has been rounded to the nearest whole number.

Estimation Tool Developed by the Texas A&M Transportation Institute - Version 2013.1

Project Name:	The Commons at Falcon Field
Analysis Period:	**AM Street Peak Hour**

Table 7-A: Conversion of Vehicle-Trip Ends to Person-Trip Ends

Land Use	Table 7-A (D): Entering Trips			Table 7-A (O): Exiting Trips		
	Veh. Occ.	Vehicle-Trips	Person-Trips*	Veh. Occ.	Vehicle-Trips	Person-Trips*
Office	1.00	0	0	1.00	0	0
Retail	1.00	90	90	1.00	55	55
Restaurant	1.00	0	0	1.00	0	0
Cinema/Entertainment	1.00	0	0	1.00	0	0
Residential	1.00	30	30	1.00	89	89
Hotel	1.00	0	0	1.00	0	0

Table 8-A (O): Internal Person-Trip Origin-Destination Matrix (Computed at Origin)

Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		0	0	0	0	0
Retail	16		7	0	8	0
Restaurant	0	0		0	0	0
Cinema/Entertainment	0	0	0		0	0
Residential	2	1	18	0		0
Hotel	0	0	0	0	0	

Table 8-A (D): Internal Person-Trip Origin-Destination Matrix (Computed at Destination)

Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		29	0	0	0	0
Retail	0		0	0	1	0
Restaurant	0	7		0	2	0
Cinema/Entertainment	0	0	0		0	0
Residential	0	15	0	0		0
Hotel	0	4	0	0	0	

Table 9-A (D): Internal and External Trips Summary (Entering Trips)

Destination Land Use	Person-Trip Estimates			External Trips by Mode*		
	Internal	External	Total	Vehicles[1]	Transit[2]	Non-Motorized[2]
Office	0	0	0	0	0	0
Retail	1	89	90	89	0	0
Restaurant	0	0	0	0	0	0
Cinema/Entertainment	0	0	0	0	0	0
Residential	1	29	30	29	0	0
Hotel	0	0	0	0	0	0
All Other Land Uses[3]	0	0	0	0	0	0

Table 9-A (O): Internal and External Trips Summary (Exiting Trips)

Origin Land Use	Person-Trip Estimates			External Trips by Mode*		
	Internal	External	Total	Vehicles[1]	Transit[2]	Non-Motorized[2]
Office	0	0	0	0	0	0
Retail	1	54	55	54	0	0
Restaurant	0	0	0	0	0	0
Cinema/Entertainment	0	0	0	0	0	0
Residential	1	88	89	88	0	0
Hotel	0	0	0	0	0	0
All Other Land Uses[3]	0	0	0	0	0	0

[1]Vehicle-trips computed using the mode split and vehicle occupancy values provided in Table 2-A

[2]Person-Trips

[3]Total estimate for all other land uses at mixed-use development site is not subject to internal trip capture computations in this estimator

*Indicates computation that has been rounded to the nearest whole number.

NCHRP 684 Internal Trip Capture Estimation Tool			
Project Name:	The Commons at Falcon Field	**Organization:**	LSC Transportation Consultants, Inc
Project Location:	El Paso County, CO	**Performed By:**	KDF
Scenario Description:	Buildout	**Date:**	45069
Analysis Year:	2043	**Checked By:**	
Analysis Period:	**PM Street Peak Hour**	**Date:**	

Table 1-P: Base Vehicle-Trip Generation Estimates (Single-Use Site Estimate)

Land Use	Development Data (*For Information Only*)			Estimated Vehicle-Trips[3]		
	ITE LUCs[1]	Quantity	Units	Total	Entering	Exiting
Office				0		
Retail				436	214	222
Restaurant				0		
Cinema/Entertainment				0		
Residential				159	100	59
Hotel				0		
All Other Land Uses[2]				0		
				595	314	281

Table 2-P: Mode Split and Vehicle Occupancy Estimates

Land Use	Entering Trips			Exiting Trips		
	Veh. Occ.[4]	% Transit	% Non-Motorized	Veh. Occ.[4]	% Transit	% Non-Motorized
Office						
Retail						
Restaurant						
Cinema/Entertainment						
Residential						
Hotel						
All Other Land Uses[2]						

Table 3-P: Average Land Use Interchange Distances (Feet Walking Distance)

Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office						
Retail					5280	
Restaurant						
Cinema/Entertainment						
Residential						
Hotel						

Table 4-P: Internal Person-Trip Origin-Destination Matrix*

Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		0	0	0	0	0
Retail	0		0	0	6	0
Restaurant	0	0		0	0	0
Cinema/Entertainment	0	0	0		0	0
Residential	0	21	0	0		0
Hotel	0	0	0	0	0	

Table 5-P: Computations Summary

	Total	Entering	Exiting
All Person-Trips	595	314	281
Internal Capture Percentage	9%	9%	10%
External Vehicle-Trips[5]	541	287	254
External Transit-Trips[6]	0	0	0
External Non-Motorized Trips[6]	0	0	0

Table 6-P: Internal Trip Capture Percentages by Land Use

Land Use	Entering Trips	Exiting Trips
Office	N/A	N/A
Retail	10%	3%
Restaurant	N/A	N/A
Cinema/Entertainment	N/A	N/A
Residential	6%	36%
Hotel	N/A	N/A

[1]Land Use Codes (LUCs) from *Trip Generation Manual*, published by the Institute of Transportation Engineers.

[2]Total estimate for all other land uses at mixed-use development site is not subject to internal trip capture computations in this estimator.

[3]Enter trips assuming no transit or non-motorized trips (as assumed in ITE *Trip Generation Manual*).

[4]Enter vehicle occupancy assumed in Table 1-P vehicle trips. If vehicle occupancy changes for proposed mixed-use project, manual adjustments must be made to Tables 5-P, 9-P (O and D). Enter transit, non-motorized percentages that will result with proposed mixed-use project complete.

[5]Vehicle-trips computed using the mode split and vehicle occupancy values provided in Table 2-P.

[6]Person-Trips

*Indicates computation that has been rounded to the nearest whole number.

Estimation Tool Developed by the Texas A&M Transportation Institute - Version 2013.1

Project Name:	The Commons at Falcon Field
Analysis Period:	**PM Street Peak Hour**

Table 7-P: Conversion of Vehicle-Trip Ends to Person-Trip Ends

Land Use	Table 7-P (D): Entering Trips			Table 7-P (O): Exiting Trips		
	Veh. Occ.	Vehicle-Trips	Person-Trips*	Veh. Occ.	Vehicle-Trips	Person-Trips*
Office	1.00	0	0	1.00	0	0
Retail	1.00	214	214	1.00	222	222
Restaurant	1.00	0	0	1.00	0	0
Cinema/Entertainment	1.00	0	0	1.00	0	0
Residential	1.00	100	100	1.00	59	59
Hotel	1.00	0	0	1.00	0	0

Table 8-P (O): Internal Person-Trip Origin-Destination Matrix (Computed at Origin)

Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		0	0	0	0	0
Retail	4		64	9	6	11
Restaurant	0	0		0	0	0
Cinema/Entertainment	0	0	0		0	0
Residential	2	25	12	0		2
Hotel	0	0	0	0	0	

Table 8-P (D): Internal Person-Trip Origin-Destination Matrix (Computed at Destination)

Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		17	0	0	4	0
Retail	0		0	0	46	0
Restaurant	0	107		0	16	0
Cinema/Entertainment	0	9	0		4	0
Residential	0	21	0	0		0
Hotel	0	4	0	0	0	

Table 9-P (D): Internal and External Trips Summary (Entering Trips)

Destination Land Use	Person-Trip Estimates			External Trips by Mode*		
	Internal	External	Total	Vehicles[1]	Transit[2]	Non-Motorized[2]
Office	0	0	0	0	0	0
Retail	21	193	214	193	0	0
Restaurant	0	0	0	0	0	0
Cinema/Entertainment	0	0	0	0	0	0
Residential	6	94	100	94	0	0
Hotel	0	0	0	0	0	0
All Other Land Uses[3]	0	0	0	0	0	0

Table 9-P (O): Internal and External Trips Summary (Exiting Trips)

Origin Land Use	Person-Trip Estimates			External Trips by Mode*		
	Internal	External	Total	Vehicles[1]	Transit[2]	Non-Motorized[2]
Office	0	0	0	0	0	0
Retail	6	216	222	216	0	0
Restaurant	0	0	0	0	0	0
Cinema/Entertainment	0	0	0	0	0	0
Residential	21	38	59	38	0	0
Hotel	0	0	0	0	0	0
All Other Land Uses[3]	0	0	0	0	0	0

[1]Vehicle-trips computed using the mode split and vehicle occupancy values provided in Table 2-P

[2]Person-Trips

[3]Total estimate for all other land uses at mixed-use development site is not subject to internal trip capture computations in this estimator

*Indicates computation that has been rounded to the nearest whole number.