# Bent Grass East Commercial Filing No. 3

# Traffic Impact Analysis

Prepared for:
LAND FIRST INC
1378 PROMONTORY BLUFF VW
COLORADO SPRINGS CO, 80921

NOVEMBER 13, 2020

LSC Transportation Consultants, Inc.
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LSC #204660

Add PCD File No. SP2010

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November 13, 2020

LAND FIRST INC
c/o Mr. Ron Waldthausen
1378 PROMONTORY BLUFF VW
COLORADO SPRINGS CO, 80921-3945

RE: Bent Grass East
Commercial Filing No. 3
El Paso County, Colorado
Traffic Impact Analysis
LSC #204660

Dear Ron:

LSC Transportation Consultants, Inc. has prepared this traffic impact analysis for the Bent Grass East Commercial Filing No. 3 development. The site is located southwest of the intersection of Meridian Park Drive and Bent Grass Meadows Drive in El Paso County, Colorado. Figure 1 shows the site location.

A mix of commercial uses is envisioned and access to the site will be from Bent Grass Meadows Drive and Meridian Park Drive.

**REPORT CONTENTS**

The report contains the following:

- The existing roadway and traffic conditions in the site's vicinity, including the roadway widths, surface conditions, lane geometries, traffic controls, and posted speed limits, etc.;
- The existing traffic volumes on the study-area roadways;
- The projected average weekday and peak-hour vehicle-trips to be generated by the site at buildout;
- The assignment of the projected site-generated traffic volumes to the study area roadways and intersections;
- The projected short-term and long-term total traffic volumes on the study-area roadway network;
- The projected levels of service at the intersections of Meridian Road/Bent Grass Meadows Boulevard, Meridian Park Drive/Bent Grass Meadows Drive and at the site access points. For consistency with other traffic reports completed within Bent Grass, the following

offsite intersections have also been analyzed: Woodmen frontage road/Bent Grass Meadows Drive, and Woodmen Road/Golden Sage Drive.
- Recommendations for roadway improvements and phasing of these improvements

LSC has completed the following studies for this site:

- *Bent Grass Subdivision PUD Traffic Impact Analysis* -- October 6, 2006
- *Bent Grass East Commercial – Preliminary Plan* -- January 25, 2013
- *Bent Grass East Commercial – Report Supplement #2* -- March 14, 2013
- *Bent Grass East Commercial Filing No. 2 Updated Traffic Impact Analysis* -- July 17, 2014

Other studies completed in the vicinity include:
- *Bent Grass Subdivision Filing 1 Updated Traffic Impact Analysis* -- July 14, 2014
- *Falcon Dental East Commercial Filing No. 2A* -- March 7, 2016
- *Bent Grass Meadows Drive/Meridian Road Traffic Signal Warrant Analysis* -- October 2, 2017
- *Falcon Marketplace Traffic Impact Analysis* -- October 23, 2017 (September 5, 2018 Revision)
- *Bent Grass Residential Filing No. 2 Traffic Impact Analysis* April 17, 2020
- *Bent Grass West Traffic Impact Analysis* July 23, 2020 (Falcon Meadows at Bent Grass)
- *Bent Grass Meadows Drive & Meridian Road Updated Transportation Memorandum* September 4, 2020

update based on Latest study provided with Goldensage /Woodmen Road Jan 2021; and 2020 Falcon Meadows PUDSP; this is out of date....

**LAND USE AND ACCESS**

**Land Use**

The Bent Grass East Commercial development is located west of Meridian Road and south of Bent Grass Meadows Drive. It is partially developed with a veterinary clinic, a gas station with convenience store, and a dental clinic. There are currently two vacant parcels within the Bent Grass East Commercial development. The 5.05-acre Bent Grass East Commercial Filing No. 2B Tract BB and the 1.46-acre Lot 1A Bent Grass East Commercial Fil No 2A.

The currently proposed Bent Grass East Commercial Filing 3 preliminary plan and plat will subdivide Tract BB into six lots and a tract for a roadway. The site is planned to be developed with about 5,000 square feet of floor space for fast-food restaurants, 18,000 square feet of general retail floor space and 10,800 square feet of floor space that will be used for a mix of office and warehouse uses.

This TIA assumes the 1.46-acre Lot 1A Bent Grass East Commercial Fil No 2A will be developed with about 15,000 square feet of retail floor space in the future.

7-11 access is now closed- no access to Bent Grass Meadows

Please state whether or not the access locations meet the intersection spacing requirements in the ECM for a non-residential collector and local roadway.

**Access Locations**

Bent Grass East Filing 3 is proposed to have one full-movement access point to Bent Grass Meadows Drive about 525 feet west of Meridian Park Drive. An additional full-movement access point is proposed to Meridian Park Drive about 240 feet south of Bent Grass Meadows Drive aligning with the existing south 7-Eleven access.

**Access Sight Distance**

Bent Grass Meadows Drive Access

Figure 3 shows a sight distance analysis at the proposed access point to Bent Grass Meadows Drive. Based on a posted speed of 35 miles per hour (mph) on Bent Grass Meadows Drive and the criteria contained in Table 2-35 of the ECM, the required entering sight distance at the proposed site access points is 350 feet for passenger cars and pickup trucks, 455 feet for single unit trucks and 595 feet for multi-unit trucks. The required *sight distance along the roadway* from ECM Table 2-33 is also shown in the figure. The ECM-prescribed entering sight distance and sight distance along the roadway can be met at the proposed intersection.

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Meridian Park Drive Access

Figure 4 shows the sight distance analysis at the proposed access point to Meridian Park Drive. As shown on Figure 5 the sight distance to the south to the terminus of Meridian Park Drive is unrestricted. If Meridian Park Drive is extended south in the future the design should take into consideration sight distance to the proposed and existing access points.

The proposed access is located 240 feet south of Bent Grass Meadows Drive (centerline to centerline). Figure 4 shows the available sight distance of 208 feet from the proposed access point to the north. It should be noted that vehicles turning from Bent Grass Meadows onto southbound Meridian Park Drive (approaching the site access) will be traveling at a speed less than the ECM standard posted speed of 35 miles per hour for Non-Residential Collector streets. Should a future access be constructed north of Bent Grass Meadows Drive those vehicles continuing on Meridian Park Drive will be travelling from a stop condition.

Based on The American Association of State Highway and Transportation (AASHTO) requirements for intersection sight distance this would be adequate for passenger cars and single unit trucks entering the roadway with southbound vehicles traveling at 18 miles per hour when completing the westbound left turn from Bent Grass Meadows Drive. There would be sufficient stopping sight distance for the infrequent multi-unit truck entering the roadway from this access point.

the CDR are approved for the intersection of Bentgrass Meadows and Meridian, and shall be under construction beginning XXX

**PEDESTRIAN & BICYCLE FACILITIES**

- Woodmen & Meridian are shown as proposed bike routes on the MTCP Non-Motorized Plan. Also shown is a proposed secondary regional trail west of the site.

- Generally, Bent Grass Meadows Drive is sufficiently wide for bicycles with the paved shoulder.

- Developing pedestrian connections along the north side of the Woodmen North Frontage Road, Bent Grass Meadows Drive, and Meridian Park Drive. Other area sections of sidewalk/trail connections are being added as development occurs.

- Sidewalks will be added along Bent Grass Meadows Drive with the connection south to the north terminus of the existing section adjacent to the School District 49 headquarters.

- This commercial subdivision will provide the required sidewalks to connect to the sidewalk along Bent Grass Meadows Drive.

Please include meridian park drive

**EXISTING ROADWAY AND TRAFFIC CONDITIONS**

**Area Roadways**

The roadways in the study area are identified below, followed by a brief description of each. Figure 1 shows the roadway system. Copies of the *2016 El Paso County Major Transportation Corridors Plan (MTCP), 2040 Roadway Plan,* and *2016 MTCP 2060 Corridor Preservation Plan* with the site location identified on each of them have been attached to this report.

**Meridian Road** is shown on the *El Paso County 2040 Major Transportation Corridors Plan* and the *Preserved Corridor Network Plan* as a four-lane Principal Arterial. Meridian Road was recently expanded from two lanes to four lanes between Woodmen Road and Rolling Thunder and may soon be connected to US Highway 24 (US Hwy 24). The posted speed limit is 55 miles per hour (mph).

**Bent Grass Meadows Drive** is a Non-Residential Collector that currently extends north from the Woodmen North frontage road for about 2,000 feet and west from Meridian Road for about one-half mile. Bent Grass Meadows Drive will be extended further west and then curve south to connect to the existing section north of the Woodmen frontage road, as part of the approved Bent Grass Residential Filing No. 2 development. The Bent Grass Meadows Drive/Meridian Road intersection is planned to be signalized in the short-term future once warrants for signalization are satisfied. This is anticipated to occur with development of that filing.

**Woodmen Road** is shown on the *El Paso County 2040 Major Transportation Corridors Plan* and the *Preserved Corridor Network Plan* as a four-lane Expressway in the vicinity of the site. The posted speed limit on Woodmen Road in the vicinity of Golden Sage Road is 55 mph.

**Woodmen Frontage Road** is a paved two-lane frontage road along the north side of Woodmen Road. The Woodmen frontage road extends from just west of Meridian Road to its current terminus west of Golden Sage Road. The posted speed limit on the Woodmen frontage road is 30 mph.

Please see comment in figure 5.

**Existing Traffic Conditions**

Figure 5 shows the existing morning and afternoon peak-hour traffic volumes at the key area intersections. The traffic volumes shown for the intersections of Woodmen/Golden Sage and the Woodmen frontage road/Golden Sage are from traffic counts conducted in January 2020. The traffic volumes shown for the intersection of the Woodmen frontage road/Bent Grass Meadow are from traffic counts conducted in May 2019. The traffic volumes at the intersection of Meridian Road/Bent Grass Meadows Drive, the existing 7-Eleven access to Bent Grass Meadows Drive the intersection of Meridian Park Drive/Bent Grass Meadows Drive were counted in September and October 2018 and again in October 2020. The more recent October 2020 counts are slightly lower than the volumes counted two years previously. Figure 5 shows both the October 2018 counts and the October 2020 counts as the more current counts were likely impacted by the COVID-19 pandemic. The traffic count reports are attached.

**Existing Levels of Service**

Level of service (LOS) is a quantitative measure of the level of congestion or 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<br>Average Control Delay (seconds per vehicle) | Unsignalized Intersections<br>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 | |
| F | 80.1 sec or more | |

(1) For unsignalized intersections, if V/C ratio is greater th
is LOS F, regardless of the projected average control d

What are these improvements or indicate which Bent Grass project will provide these improvements. Additionally what will the LOS be after the improvements/signal.

The intersections of Meridian Road/Bent Grass Meadows Drive, Meridian Park Drive/Bent Grass Meadows Drive and Woodmen frontage road/Bent Grass Meadows Drive were analyzed to determine the existing levels of service based on the unsignalized method of analysis procedures found in the *Highway Capacity Manual, 6th Edition* by the Transportation Research Board. The intersection of Woodmen Road/Golden Sage Drive was analyzed using Synchro. Figure 5 shows the level of service analysis results. The level of service reports are attached.

The eastbound left-turn movement at the stop sign-controlled intersection of Meridian/Bent Grass Meadows is currently operating at LOS F during the morning peak hour and LOS E during the afternoon peak hour. The eastbound right-turn movement is currently operating at LOS D during the morning peak hour and LOS B during the afternoon peak hour. This intersection will soon be signalized and other improvements will be completed.

All movements at the intersections of Bent Grass Meadows/Meridian Park, , the Woodmen frontage road/Bent Grass Meadows Drive and the Woodmen frontage road/Golden Sage Road are currently operating at LOS B or better during the peak hours. The existing 7-Eleven access/Bent Grass Meadows is show to be closed with the improvement plans for the Meridian/ Bent Grass Meadows intersection.

All movements at the signal-controlled intersection of Woodmen/Golden Sage are currently operating at LOS D or better during the peak hours. However, County staff has recently raised a requirement for separate eastbound left turn phasing at this intersection.

Please indicate which project made this requirement.

**BACKGROUND TRAFFIC**

Background traffic is the traffic estimated to be on the roadways without the Bent Grass West traffic. The short-term (Year 2021) background traffic volumes are shown in Figure 6. The background traffic volumes are based on the existing traffic volumes shown in Figure 5, with a portion of the volumes assumed to be rerouted with the construction of Bent Grass Meadows

Drive between the existing sections located north of the Woodmen frontage road and west of Meridian Road. The short-term background traffic volumes also include additional traffic projected to be generated by buildout of Bent Grass Residential Filing No. 2, buildout of Falcon Meadows at Bent Grass, buildout of the initial phase of Banning Lewis Ranch North, and **buildout of Falcon Marketplace** located northwest of the intersection of Woodmen Road/Meridian Road. As buildout of these projects has been assumed, these short-term volumes may be conservative if commercial buildout takes several years to occur. The short-term background traffic volumes also assume a right-in-only access to Woodmen Road just west of Meridian Road. Through traffic on Meridian Road was assumed to grow based on two percent growth per year.

Figure 7 shows the projected 2040 background traffic volumes. These volumes were estimated by LSC, based on previous work completed in the area by LSC, including other Bent Grass Meadows developments, the Falcon Marketplace, and *the Banning Lewis Ranch North - Traffic Impact Study* prepared by SM Rocha, LLC, dated August 2019. The 2040 background traffic volumes assume buildout of the area north of Woodmen Road and west of Meridian Road. Appendix Table 1 shows the trip generation estimates for all existing and future land uses assumed to be built out in this area by 2040. Appendix Figure 1 shows the location of each traffic analysis zone referenced in the appendix tables.

**TRIP GENERATION**

Estimates of the vehicle-trips generated by Bent Grass East Commercial Filing No. 3 have been made using the nationally published trip generation rates found in *Trip Generation, 10th Edition* by the Institute of Transportation Engineers (ITE). The results of the trip generation estimate are shown in Table 2.

The total number of vehicle trips generated by the land uses has been reduced to account for the internal vehicle trips made within the site between land uses, without use of the external streets surrounding the site. As shown on Table 2 about five percent of the total trips were assumed to be internal to the site.

The total number of vehicle trips generated has been reduced to take into account the “pass by” phenomena. A pass-by trip is made by a motorist who would already be on the adjacent roadways regardless of the proposed development, but who stops in at the site while passing by. The motorist would then continue on his or her way to a final destination in the original direction. The pass-by percentages shown on Table 2 are from the *Trip Generation Handbook - An ITE Proposed Recommended Practice, 3rd Edition, 2017* by ITE.

Bent Grass East Commercial Filing No. 3 can be expected to generate about 2,873 vehicle-trips on the average weekday, with about half entering and half exiting in a 24-hour period. During the morning peak hour, which generally occurs for one hour between 6:30 and 8:30 a.m., about 163 vehicles would enter, and 129 vehicles would exit the site. During the afternoon peak hour, which generally occurs for one hour between 4:15 and 6:15 p.m., about 145 vehicles would enter, and 154 vehicles would exit the site.

**TRIP DISTRIBUTION AND ASSIGNMENT**

The estimated directional distribution of the site-generated traffic volumes on the adjacent roadways is an important factor in determining the site's traffic impacts. Figure 8 shows the directional distribution estimates for the site-generated traffic. The estimates have been based on the following factors: the land use proposed for the site and its location; the existing and planned street and roadway system in the vicinity; and the existing/projected traffic volumes.

The pass-by trips from Meridian Road were assigned based, in large part, on the magnitude and direction of the existing traffic volumes.

Trips with destination and/or origins within the area bound by Woodmen Road on the south and Meridian Road on the east have been assigned separately. In the short term, a portion of the trips generated Bent Grass East Commercial development are estimated to travel to and from residential areas within the study area. Appendix Tables 1 and 2 show the internal trip assumptions and calculations.

When the external trip distribution percentages (from Figure 8) are applied to the trip generation estimates (from Table 2), the resulting site-generated traffic volumes can be determined. Figure 9 shows the site-generated traffic-volume estimates.

**TOTAL TRAFFIC**

Figure 10 shows the projected short-term total traffic volumes at the site access points and key area intersections. The short-term total traffic volumes are the sum of the short-term background traffic volumes from Figure 6 plus the site-generated traffic volumes from Figure 9.

Figure 11 shows the projected 2040 total traffic volumes at the site access points and key area intersections. The 2040 total traffic volumes are the sum of the 2040 background traffic volumes from Figure 7 plus the site-generated traffic volumes from Figure 9.

**PROJECTED LEVELS OF SERVICE**

The site access points, and key area intersections were analyzed to determine the projected levels of service, based on the unsignalized method of analysis procedures found in the *Highway Capacity Manual, 6th Edition* (HCM) by the Transportation Research Board or using Synchro. Figures 6, 7, 10 and 11 show the level of service analysis results. The level of service technical reports are attached.

**Meridian/Bent Grass Meadows**

The intersection of Meridian/Bent Grass Meadows is currently two-way, stop sign-controlled. It is our understanding that this intersection will be converted to traffic-signal control in the short-

Please identify which bent grass project will be converting this to a traffic control signal

term future. As a signal-controlled intersection, all movements are projected to operate at LOS D or better during the peak hours, based on both short-term and 2040 total traffic volumes.

**Bent Grass Meadows/Meridian Park**

The intersection of Bent Grass Meadows Drive/Meridian Park Drive is projected to operate at LOS B or better for all movements as a stop sign-controlled intersection, based on the short-term total traffic volumes.

By 2040 it was assumed that the parcels north of Bent Grass Meadows would be developed with a mix of commercial, office and residential uses and would have an access that forms the north leg of the intersection. The 2040 total traffic volumes also assume Meridian Park Drive would be extended south to serve redevelopment of parcels currently served by Owl Lane. Based on the projected 2040 total traffic volumes and using HCM the unsignalized method of analysis procedures the southbound approach is projected to operate at LOS E during the morning peak hour and LOS F during the afternoon peak hour. The upstream signal at Meridian/Bent Grass Meadows will creates gaps in westbound traffic. The HCM unsignalized method of analysis allows for the effect of an upstream signal, however the southbound delay calculated by the HCM procedures at Merdian Park may be conservative. A SimTraffic simulation was run to better analyze the operational effects of the adjacent signal-controlled intersection. The projected 2040 peak hour volumes were entered into the model and the model was run five times. The results were then averaged. The average projected delay for the southbound left-turn movement at the site access was about 34.6 seconds per vehicle during the morning peak hour and 27.8 seconds per vehicle during the afternoon peak hour. Based the SimTraffic simulation results and on the Level of Service delay ranges shown in Table 1 this movement would be considered to operate at LOS D during the peak hours.

Do you mean Meridian Park Drive? the site access points are described below.

**Bent Grass Meadows Site Access Point**

The full-movement site access point to Bent Grass Meadows Drive is projected to operate at LOS C or better for all movements as a stop sign-controlled intersection, based on the short-term and 2040 total traffic volumes.

**Meridian Park Drive Site Access Point**

The full-movement site access point to Meridian Park Drive is projected to operate at LOS C or better for all movements as a stop sign-controlled intersection, based on the short-term and 2040 total traffic volumes.

**Woodmen/Golden Sage**

The shared southbound right-turn and through lane at the intersection of Woodmen/Golden Sage is projected to operate at LOS E during the afternoon peak hour, based on the projected short-term total traffic volumes. These movements are projected to operate at LOS D or better if a separate

southbound right-turn lane is constructed. All other movements at this intersection are projected to operate at LOS D or better during the peak hours, based on the projected short-term total and 2040 total traffic volumes. The analysis assumes the addition of protected/permitted phasing for the eastbound and westbound left-turn movements in the short-term.

**Woodmen North Frontage Road/Golden Sage**

The intersection of the Woodmen North Frontage Road/Golden Sage is currently stop sign-controlled. All movements at this intersection are projected to operate at LOS D or better during the peak hours, based on the projected short-term total traffic volumes. By 2040, the westbound approach is projected to operate at LOS F during the afternoon peak hour. All movements are projected to operate at LOS C or better, if this intersection is converted to either traffic-signal control or reconstructed as a modern roundabout. Due to right-of-way and spacing constraints, the signal is most likely the primary future option. Table 3 shows a comparison of the level of service for each of the options. Due to the short spacing between the frontage road and Woodmen Road and the high volume of northbound right-turning vehicles at this intersection, LSC recommends a dual northbound right-turn to allow for better utilization of the dual eastbound left-turn lanes at the intersection of Woodmen/Golden Sage.

**Possible Alternative to a Traffic Signal: A Modern Roundabout Intersection**

Advantages

- The delay for all movements is projected to be lower with a modern roundabout than with traffic signal control.
- Generally, modern roundabouts have safety advantages over signal-controlled intersections. This is because crashes tend to be lower speed, there are fewer conflict points, and the types (angle) of crashes tend to be those which generally result in less severe accidents. Granted, conventional T-intersections have significantly fewer conflict points than four-leg conventional intersections.
- A roundabout may be more aesthetically appealing than a traditional signal-controlled intersection and may have generally lower traffic noise levels.
- Long-term operation and maintenance cost is likely to be lower with a roundabout than a traffic signal.

Disadvantages

- A roundabout could potentially require additional right-of-way and construction costs than a traffic signal. The required right-of-way may not be available.
- Due to the proximity to Woodmen Road, southbound queues extending from the signal at Woodmen Road have the potential to back into the circulating lanes of a roundabout.

**Woodmen Frontage Road/Bent Grass Meadows**

All movements at the stop sign-controlled intersection of the Woodmen frontage road/Bent Grass Meadows are projected to operate at LOS C or better during the peak hours, based on the projected short-term and 2040 total traffic volumes.

**QUEUING ANALYSIS**

A queuing analysis was performed using Synchro/SimTraffic for Bent Grass Meadows Drive between Meridian Road and Meridian Park Drive. The 2040 total morning and afternoon peak-hour traffic volumes were entered into the Synchro model. The intersection of Bent Grass Meadows/Meridian Park was assumed to be stop-sign controlled. The simulation was run five times.

The maximum westbound left-turn queue on Bent Grass Meadows Drive is about 157 feet approaching Meridian Park Drive and about 46 feet approaching the proposed full-movement site access.

**CONCLUSIONS AND RECOMMENDATIONS**

**Trip Generation**

- Bent Grass East Commercial Filing No. 3 can be expected to generate about 2,873 vehicle-trips on the average weekday, with about half entering and half exiting in a 24-hour period. During the morning peak hour about 163 vehicles would enter, and 129 vehicles would exit the site. During the afternoon peak hour, about 145 vehicles would enter and 154 vehicles would exit the site.

**Level of Service**

- The eastbound left-turn movement at the stop sign-controlled intersection of Meridian/ Bent Grass Meadows is currently operating at LOS F during the morning peak hour and LOS E during the afternoon peak hour. If signalized, all movements are projected to operate at LOS D or better during the peak hours, based on the projected short-term and 2040 total traffic volumes.
- The shared southbound right-turn and through lane at the intersection of Woodmen/Golden Sage is projected to operate at LOS E during the afternoon peak hour, based on the projected short-term total traffic volumes. These movements are projected to operate at LOS D or better if a separate southbound right-turn lane is constructed. All other movements at this intersection are projected to operate at LOS D or better during the peak hours, based on the projected short-term and 2040 total traffic volumes.
- The intersection of Bent Grass Meadows/Meridian Park is projected to operate at an acceptable LOS as a stop-sign controlled intersection based on the projected short-term total traffic volumes. By 2040 it was assumed that the parcels north of Bent Grass Meadows would be developed with a mix of commercial, office and residential uses and would have an access that forms the north leg of the intersection. The 2040 total traffic

volumes also assume Meridian Park Drive would be extended south to serve redevelopment of parcels currently served by Owl Lane. Based on the projected 2040 total traffic volumes the northbound and southbound approaches are projected to operate at a satisfactory level of service based on projected delay from a traffic simulation analysis..

- The site access points to Bent Grass Meadows and Meridian Park are projected to operate at LOS C or better for all movements during the peak hours as a stop sign-controlled intersections, based on the projected short-term and 2040 total traffic volumes.
- All movements at the stop sign-controlled intersection of the Woodmen frontage road/ Golden Sage are projected to operate at LOS D or better during the peak hours, based on the projected short-term total traffic volumes. By 2040, alternate intersection control, such as a traffic signal or a modern roundabout, will likely be needed to maintain an acceptable level of service for this intersection.
- The intersections of the Woodmen frontage road/Bent Grass is projected to operate at LOS C or better for all movements during the peak hours as stop sign-controlled intersection, based on the projected short-term and 2040 total traffic volumes.

**Roadway Improvements**

Please identify if this improvement is to be done by this development or another one of the projects in the area.

- The existing section of Bent Grass Meadows Drive between Meridian Road and Meridian Park Drive is planned to be widened to allow for a three-lane eastbound approach at Meridian/Bent Grass Meadows in the short-term future. As part of this improvement Bent Grass Meadows will be restriped to remove the existing 7-Eleven access and lengthen the existing westbound left-turn lane approaching Meridian Park Drive. The new lane will be about 195 feet long plus an 85-foot taper. Based on the criteria contained in the *El Paso County Engineering Criteria Manual* (ECM) and a design speed of 40 miles per hour this left-turn lanes should be 155 feet long plus storage length of 250 feet or plus a 160 foot taper. Based on the queueing analysis discussed above the proposed 195-foot lane will provide adequate storage for the projected queues. A deviation to the ECM will be required.

it appears that the westbound left turn lane approaching meridian park was addressed above.

- Based on the criteria contained in the *El Paso County Engineering Criteria Manual* (ECM) a westbound left-turn lane would be required on Bent Grass Meadows Drive approaching Meridian Park and the proposed site access. Based on a design speed of 40 miles per hour this left-turn lanes should be 215 feet long plus a 160-foot taper. Bent Grass Meadows Drive is currently striped with an existing 110-foot long westbound left-turn lane approaching the access location. The existing lane could potentially be restriped to meet the ECM criteria, however, once the parcels north of Bent Grass Meadows Drive develop and a north leg is constructed at the Bent Grass Meadows/Meridian Park intersection it will not be possible to provide back-to-back left-turn lanes that meet the ECM criteria in both directions. If the intersection of Meridian Park/Bent Grass Meadows Drive is reconstructed as a modern one-

What is your ultimate recommendation (short term)? to construct the roundabout with this filing? please address? should the existing lane remain (if that is your recommendation), would a queueing analysis determine that the lane has adequate storage? submit a deviation request if it will not meet criteria.

From staffs understanding Meridian Park Drive is local roadway (60' ROW). Will this road need to be reclassified due to the developments impact and need to provide additional ROW to accomodate the 80' ROW needed for a non residential collector? Please address/revise accordingly.

is this total length of the right turn lane adequate? submit a deviaton request with your justification.

lane roundabout an eastbound left-turn lane would not be needed and a westbound left-turn lane approaching the site access that meets the ECM criteria could be maintained.

- Based on the criteria contained in the *El Paso County Engineering Criteria Manual* (ECM) a southbound right-turn deceleration lane would be required on Meridian Park Drive approaching the proposed site access. Based on the ECM standard design speed of 40 miles per hour for Non-Residential Collector streets, this right-turn lane should be 155 feet long plus a 160-foot taper, however, based on the proposed access spacing there is not adequate length for a full length lane at this access. LSC recommends a short (75-foot) right turn turn bay with a 75-foot reverse curve bay taper be constructed on Meridian Park approaching the site access point.
- Table 4 identifies the future roadway improvements that will be needed in the vicinity of the site. Table 4 also gives a recommended trigger for when each improvement will be needed
- Table 5 shows the percentage of the projected 2040 total traffic due to Bent Grass East Commercial Filing No. 3. These percentages could be used to determine the pro-rata share of the cost of intersection improvements.
- Regarding the future eastbound left-turn signal phase at Woodmen/Golden Sage: prior to the opening of the Bent Grass Meadows Boulevard to the public, signal modification plans should be prepared, and coordination with EPC DPW (and possibly the City of Colorado Springs) will be a necessary step(s) toward future implementation of this left-turn phase. Steps should be taken such that the phase can be implemented shortly after it has been determined that it should be implemented. This determination would be made by monitoring the traffic volumes and operations once the Bent Grass Meadows Drive connection is opened to traffic to determine if the phase should be added at that time.

Please discuss the exclusive southbound right turn lane at woodmen and Golden sage. Page 9/10 indicated that the LOS would be satisfactory if this lane is added

**Deviations**

- The following deviations to the ECM will likely be required:
  - A deviation for the spacing of access points to Bent Grass Meadows Drive and Meridian Park Drive
  - A deviation for shortened left-turn lane on Bent Grass Meadows Drive approaching the proposed site access point and the future access to align with Meridian Park Drive.
  - A deviation for a shortened right-turn deceleration lane on Meridian Park Drive approaching the site access.

* * * * *

Please submit the deviations requested with this development for review and a decision by the ECM administrator.

It does not appear that this is part of this subdivision. Staff recommends not including this deviation with this application.

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

Respectfully Submitted,

LSC TRANSPORTATION CONSULTANTS, INC.

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

JCH:KDF:jas

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Figures 1-11
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Please address the following:
-The classification of the proposed private roadway. Address any exclusive left/right turn lanes that would be required/recommended at the intersection of this private road to bent grass meadows and Meridian park drive. Also please coordinate with the project planner/civil engineer your recommendations regarding the classification of the roadway so that the appropriate roadway/cross section is shown on the plans.
-Please state whether the MTCP or other approved corridor study calls for the construction of improvements in the immediate area.
-Please state what the current applicable Transportation Impact fees are and what option the developer will be selecting for payment. If the site is in a special district, so state and s

# Tables

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**Table 2**
**Trip Generation Estimate**
**Bent Grass East Commercial Filing No. 3**

| Lot | Land Use Code | Land Use Description | Trip Generation Units | Trip Generation Rates [1] Average Weekday Traffic | Trip Generation Rates [1] Morning Peak Hour In | Trip Generation Rates [1] Morning Peak Hour Out | Trip Generation Rates [1] Afternoon Peak Hour In | Trip Generation Rates [1] Afternoon Peak Hour Out | Total Trips Generated Average Weekday Traffic | Total Trips Generated Morning Peak Hour In | Total Trips Generated Morning Peak Hour Out | Total Trips Generated Afternoon Peak Hour In | Total Trips Generated Afternoon Peak Hour Out | Internal Trips | Total External Trips Generated Average Weekday Traffic | Total External Trips Generated Morning Peak Hour In | Total External Trips Generated Morning Peak Hour Out | Total External Trips Generated Afternoon Peak Hour In | Total External Trips Generated Afternoon Peak Hour Out | Pass-By Trips [2] | New External Trips Generated Average Weekday Traffic |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 934 | Fast-Food Restaurant with Drive-Through Window | 2.5 KSF[3] | 470.95 | 20.50 | 19.69 | 16.99 | 15.68 | 1,177 | 51 | 49 | 42 | 39 | 5% | 1,118 | 48 | 47 | 40 | 37 | 50% | 559 |
| 2 | 934 | Fast-Food Restaurant with Drive-Through Window | 2.5 KSF | 470.95 | 20.50 | 19.69 | 16.99 | 15.68 | 1,177 | 51 | 49 | 42 | 39 | 5% | 1,118 | 48 | 47 | 40 | 37 | 50% | 559 |
| 3 | 820 | Shopping Center[4] | 6.0 KSF | 85.72 | 3.16 | 1.94 | 3.48 | 3.77 | 514 | 19 | 12 | 21 | 23 | 5% | 488 | 18 | 11 | 20 | 22 | 34% | 322 |
| 4 | 820 | Shopping Center | 6.0 KSF | 85.72 | 3.16 | 1.94 | 3.48 | 3.77 | 514 | 19 | 12 | 21 | 23 | 5% | 488 | 18 | 11 | 20 | 22 | 34% | 322 |
| 5 | 820 | Shopping Center | 6.0 KSF | 85.72 | 3.16 | 1.94 | 3.48 | 3.77 | 514 | 19 | 12 | 21 | 23 | 5% | 488 | 18 | 11 | 20 | 22 | 34% | 322 |
| 6 | 770 | Business Park | 10.8 KSF | 76.88 | 1.29 | 0.23 | 0.48 | 1.36 | 830 | 14 | 2 | 5 | 15 | 5% | 789 | 13 | 2 | 5 | 14 | 0% | 789 |
| | | | | | | | | | **4,726** | **173** | **136** | **152** | **162** | | **4,490** | **163** | **129** | **145** | **154** | | **2,873** |

Notes:
(1) Source: "Trip Generation, 10th Edition, 2017" by the Institute of Transportation Engineers (ITE)
(2) Source: "Trip Generation Handbook - An ITE Proposed Recommended Practice, 3rd Edition, 2017" by ITE
(3) KSF = thousand square feet
(4) The "Shopping Center" trip generation rates were calculated using the fitted rate equations based on the total floor area of retail floor space within the Bent Grass East Commercial development
(Includes 18 KSF within Fil No. 2 Tract BB and 15 KSF within Fil No. 2A Lot 1A)

*Source: LSC Transportation Consultants, Inc.*

# Table 3
## Level of Service Comparison
**Golden Sage Drive/Woodmen frontage road**
**Bent Grass East Commercial Filing No. 3**

| | | 2040 Total Traffic | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | AM Peak | | | | | PM Peak | | | | |
| | | | | Northbound | | | | | Northbound | | |
| **Scenario** | | **Eastbound** | **Westbound** | **Left** | **Right** | **Overall** | **Eastbound** | **Westbound** | **Left** | **Right** | **Overall** |
| **Stop-Sign Control** | **Delay** | 7.3 | 23.4 | Free | Free | - - - | 9.1 | 58.5 | Free | Free | - - - |
| | **LOS** | A | C | | | | A | F | | | |
| **Modern Roundabout** | **Delay** | 5.6 | 6.2 | 3.2 | Free | 3.5 | 5.8 | 7.4 | 3.5 | Free | 3.8 |
| | **LOS** | A | A | A | | A | A | A | A | | A |
| **Traffic Signal Control With Single Northbound Right-Turn Lane** | **Delay** | 3.8 | 5.9 | 21.8 | 6.2 | 7.0 | 4.7 | 7.7 | 23.1 | 6.7 | 8.7 |
| | **LOS** | A | A | C | A | A | A | A | C | A | A |
| **Traffic Signal Control With Dual Northbound Right-Turn Lane[(1)]** | **Delay** | 3.9 | 6.5 | 13.5 | 7.8 | 7.8 | 5.4 | 10.8 | 20.2 | 6.9 | 11.8 |
| | **LOS** | A | A | B | A | A | A | B | C | A | B |

**Note:**
(1) Dual northbound right-turn lanes will allow for better utilization of the dual eastbound left-turn lanes at the intersection of Golden Sage/Woodmen

*Source: LSC Transportation Consultants, Inc.* Nov-20

For clarity, If some of the listed improvements are already known to be required/installed with a certain development or are currently in the process of being constructed by a certain development, please identify that in this table.

Table 4

**Roadway System Improvements**

**Bent Grass Commercial Filing No. 3**

| | Description | | Trigger | Timing | Reponsiblity |
|---|---|---|---|---|---|
| | | | **Meridian Road/Bent Grass Meadows Road** | | |
| A | Signalize Meridian/Bent Grass Meadows | Remove existing stop-sign and replace with traffic signal control. | When warrant(s) are met -- 2 of the 3 conditions of the "Crash Experience" warrant are currently met. The current number of reported crashes (susceptible to correction with a signal) exceeds the threshold as do the associated traffic volume thresholds. | Once El Paso County determines that the remaining condition within the Crash Experience Warrant has been met (determines that alternatives have failed to reduce crash frequency) and determines that a signal should be installed. | Bent Grass Metro District |
| B | Right-turn acceleration lane on Meridian at Bent Grass Meadows | ECM criteria indicates the acceleration lane would need to be 960 feet long plus a 222-foot taper based on the design speed of 60 mph. Note that Owl Lane is located approximately 925 feet south of Bent Grass Meadows Drive. Therefore, the lane would be a continuous acceleration/deceleration lane between Bent Grass Meadows Drive and Owl Lane. | ECM criteria has been exceeded. A deviation was previously approved waiving this requirement with the development of Bent Grass Residential Filing 1 and Bent Grass East Commercial Filing 2A. Additional development will either require the submittal and approval of a new deviation or construction of this improvement. (Notes: The installation of the traffic signal will regularly stop southbound traffic allowing eastbound right turns to enter southbound Meridian Road without an acceleration lane. The LOS analysis indicates significant improvement of the LOS with the signal. The crash data does not indicate a safety issue with the current eastbound right movement without the accel lane. Several costly improvements may be needed to build the accel lane -- including burying the overhead power lines south to Owl Place, reconstructing the ditch section along the west side of Meridian Road, and reworking the radius at Meridian Road. This intersection is similar to the Meridian/Woodmen Hills, Meridian/Stapleton, and Meridian/Londonderry intersections to the north in that **[or "to the extent that"]** southbound right acceleration lanes have not been added. If the County ultimately wants a raised right-turn island on this southwest corner of the Bent Grass Meadows/Meridian Road intersection in conjunction with an accel lane, this would likely need to be accomplished later with the overall widening of Bent Grass Meadows just west of Meridian Road. | Accel lane construction or a deviation -- with any development beyond the approved expansion of the veterinary clinic and expansion of parking for the dental clinic. | Bent Grass Metro District |
| | | | **Bent Grass Meadows Dr** | | |
| C | Construct Bent Grass Meadows Drive between the existing sections located north of the Woodmen frontage road and west of Meridian Road | Construct Bent Grass Meadows Drive as a Non-Residential Collector | With any development west of Bent Grass Residential Filing No. 1 | With Bent Grass Residential Filing No. 2 | Bent Grass Metro District |
| D | Restrict westbound left-turn at 7-Eleven access | Remove the striping for the left-turn bay at the 7-Eleven access, restripe for two sets of dual yellow lines as shown in Figure 9. If trigger for closure of westbound left-in is reached prior to the trigger for access closure, install No Left Turn signs and reflective, plastic delineators within the painted center median across the 7-Eleven access. | When westbound left-turn queue exceeds the length of the existing lane. | 'With 50% percent development of the remaining vacant parcels within Bent Grass East Commercial beyond the approved expansion of the veterinary clinic and expansion of parking for the dental clinic.<br>**or**<br>With the completion of Bent Grass Meadows Dr between the Woodmen frontage road and Meridian Road | Bent Grass Metro District |
| E | Close 7-Eleven Access | Remove the existing curb cut. | When the eastbound right-turn queue approaching Meridian Road blocks the access **and/or** if motorists exiting from the 7-Eleven access and turning into the eastbound left-turn lane approaching Meridian Road regularly impede/block the adjacent eastbound right-turn lane approaching Meridian Road. | With 50% percent development of the remaining vacant parcels within Bent Grass East Commercial beyond the approved expansion of the veterinary clinic and expansion of parking for the dental clinic.<br>**or**<br>With the completion of Bent Grass Meadows Dr between the Woodmen frontage road and Meridian Road | Bent Grass Metro District |
| F | Modify pavement markings to extend westbound left-turn lane approaching Meridian Park Drive | | | With B | Bent Grass Metro District |
| G | Modify pavement markings to extend westbound left-turn lane approaching the site access | Restripe with a 215 foot westbound left-turn lane plus 160 foot taper | Westbound left-turn volume > 25 vehicles per hour | With Bent Grass East Filing No. 3 | Bent Grass Metro District |
| H | Alternate traffic control for the intersection of Bent Grass Meadows/Meridian Park | Potential changes could include reconstructing as a modern roundabout, converting to traffic signal control or restricting turning movements | Level of service degrades below an acceptable level (below LOS D) | With the development of parcels north of Bent Grass Meadows Drive and/or redevelopment of parcels currently served by Owl Ln | Others |
| | | | **Woodmen frontage road/Bent Grass Meadows Dr** | | |
| I | Eastbound left-turn lane on Woodmen frontage road approaching Bent Grass Meadows Dr. | ECM criteria indicates the left-turn lane would need to be 315 feet long (155 feet of deceleration length plus 160 feet of storage length) plus a 160-foot taper based on the design speed of 40 mph. | When the eastbound left-turn volume exceeds 25 vehicles per hour | With the completion of Bent Grass Meadows Dr between the Woodmen frontage road and Meridian Road | Bent Grass Metro District* |
| | | | **Woodmen/Golden Sage** | | |
| J | Add protected/permitted phasing for left-turn movements | Prepare a traffic signal modification plan and furnish/install new traffic signal heads for protected-permissive phasing and other necessary hardware, software needed to implement this phase; modify existing signal timing plan. | If/when needed to maintain acceptable level of service/traffic operations and/or to control vehicle queues. . | --Prior to the opening of the Bent Grass Meadows Boulevard to the public, signal modification plans should be prepared, and coordination with EPC DPW (and possibly the City of Colorado Springs) will be a necessary step(s) toward future implementation of this left turn phase. Steps should be taken such that the phase can be implemented shortly after it has been determined that it should be implemented. This determination would be made by monitoring the traffic volumes and operations once Bent Grass Meadows Drive connection is opened to traffic to determine if the phase should be added at that time. | Bent Grass Metro District* - pro-rata share (based on total traffic volumes) of the cost of the improvement.(1) Note: Other potential responsibility for participation: In addition to the yet-to-be developed properties within the Bent Grass Metro District service area and the Falcon Marketplace development, other future developers of currently vacant lane within the "travel shed" of the north leg (and potentially the south leg) of the Golden Sage/Woodmen and Golden Sage/Woodmen N. Frontage Road intersection may also be assigned as responsible participants in future or completed (if a cost recovery agreement is put in place) traffic/roadway improvements. |
| K | Lengthening of the current eastbound single left-turn deceleration lane on Woodmen approaching Golden Sage Road | Provide a 240-foot transition taper (20:1 taper ratio), 290 feet of deceleration distance plus sufficient vehicle stacking distance. CURRENT: 175-foot taper plus a 465-foot left-turn lane which translates to a 175-foot taper, 290-foot deceleration distance, and 175 feet of stacking distance. SHORT TERM: Adequate stacking is available in the current turn lane - calculated queue length 204 feet. LONG TERM: Lengthen single left-turn lane and/or future implementation of dual left-turn lanes (if capacity needs dictate). If a dual left is implemented in the future, consideration will need to be given to the configuration on Golden Sage and at the Golden Sage/Woodmen Frontage Road intersection to receive the dual left-turn movement. | The estimated "trigger" of 40 PM peak hour eastbound left turns above the estimated short term total volume (from Figure 16a of the TIS) approximately translates to and additional 589 directional ADT for residential trips making this turning movement (based on the ITE single family trip ratio). This estimated threshold may be reached with a combination of site-generated trips and background trips. | AS NEEDED TO MAINTAIN ADEQUATE LEVEL OF SERVICE AND VEHICLE STACKING DISTANCE ." This is estimated to be when the eastbound left turn turning volume reaches approximately 200 vehicles per hour during the PM peak. This translates to about 40 vehicles per hour over the estimated short term total volume from Figure 16a of the Falcon Marketplace TIS. Note: Short term total volumes assume the Meridian extension to Highway 24 to be open. | Bent Grass Metro District*- pro-rata share (based on total traffic volumes) of the cost of the improvement.(1) Note: Other potential responsibility for participation: In addition to the yet-to-be developed properties within the Bent Grass Metro District service area and the Falcon Marketplace development, other future developers of currently vacant lane within the "travel shed" of the north leg (and potentially the south leg) of the Golden Sage/Woodmen and Golden Sage/Woodmen N. Frontage Road intersection may also be assigned as responsible participants in future or completed (if a cost recovery agreement is put in place) traffic/roadway improvements. |
| L | Southbound exclusive right-turn lane on Golden Sage Road approaching Woodmen Road | A continuous right-turn lane within the 150 feet between the Woodmen Frontage Road and Woodmen Road | The estimated "trigger" of 5-30 AM peak hour southbound right turns above the estimated short term total volume (from Figure 16a of the Falcon Marketplace TIS) approximately translates to an additional 85-510 directional ADT for residential trips making this turning movement (based on the ITE single family trip ratio). This estimated threshold may be reached with a combination of site-generated trips and background trips. | AS NEEDED TO MAINTAIN ADEQUATE LEVEL OF SERVICE AND VEHICLE STACKING DISTANCE ." A preliminary trigger could be a southbound right turn volume of about 150-175 vehicles per hour. This translates to about 5 to 30 vehicles per hour over the projected short term volume from Figure 16a of the Falcon Marketplace TIS. This may be conservative due to the westbound right turn acceleration lane on Woodmen Road. Additional study may indicate a higher threshold based on empirical data collection and analysis. | Bent Grass Metro District - pro-rata share (based on total traffic volumes) of the cost of the improvement. (1)Note: Other potential responsibility for participation: In addition to the yet-to-be developed properties within the Bent Grass Metro District service area and the Falcon Marketplace development, other future developers of currently vacant lane within the "travel shed" of the north leg (and potentially the south leg) of the Golden Sage/Woodmen and Golden Sage/Woodmen N. Frontage Road intersection may also be assigned as responsible participants in future or completed (if a cost recovery agreement is put in place) traffic/roadway improvements |
| **M** | Signalization of Golden Sage Road/Woodmen Frontage Road or reconstruction as a modern roundabout; Future additional laneage may be necessary at this intersection to accommodate vehicle queues and for traffic operations. | Remove existing stop-signs and replace with traffic signal control or reconstruct as modern roundabout | If/when needed to maintain acceptable level of service/traffic operations and/or to control vehicle queues. Fair-share participation by the development or the district on behalf of the district members. | If/when needed to maintain acceptable level of service/traffic operations and/or to control vehicle queues. | Bent Grass Metro District* - pro-rata share (based on total traffic volumes) of the cost of the improvement. (1)Note: Other potential responsibility for participation: In addition to the yet-to-be developed properties within the Bent Grass Metro District service area and the Falcon Marketplace development, other future developers of currently vacant lane within the "travel shed" of the north leg (and potentially the south leg) of the Golden Sage/Woodmen and Golden Sage/Woodmen N. Frontage Road intersection may also be assigned as responsible participants in future or completed (if a cost recovery agreement is put in place) traffic/roadway improvements. |

Notes: *Note: It is our understanding that the specifics of the district participation will need to be included in the SIA/revised development agreement to be completed and finalized prior to the development of lots beyond the initial 49 lots. If for some reason the District is unable or unwilling to participate, or if determination by the district is delayed, the applicant would be responsible. In this case, an escrow agreement between the applicant and the County would be prepared and finalized). We understand that staff would like for that the applicant to understand the estimated/approximate costs associated with their fair share of future improvements at Golden Sage/Woodmen. LSC will provide preliminary fair share cost estimates utilizing available information from the Falcon Marketplace SIA. This will be provided by March 31st to the applicant and staff.

(1) See Table 5 for pro-rata percentage calculations

*Source: LSC Transportation Consultants, Inc.* *October 2020*

the narrative indicates that this is shown to be closed with the improvement plans for meridian/bent grass meadows intersection

Commercial

Please provide info for this improvement

Please include the turn lane to be added on Meridian park drive.

# Table 5

## Prorata Share Contribution Calculations

### Bent Grass East Commercial Filing No. 3

| Item | Improvement Description and Estimated Cost | | | AM | PM | AM + PM |
|---|---|---|---|---|---|---|
| J | Add protected/permitted phasing at Woodmen/Golden Sage | | Site-Generated Traffic[1] (vehicles per hour) | 5 | 4 | 9 |
| | | | 2040 Total Traffic[1] (vehicles per hour) | 325 | 451 | 776 |
| | | | % | 1.54% | 0.89% | 1.16% |
| | Estimated Improvement Cost: | **$ 33,750** | Estimated Fair-Share Portion for this project based on calculated AM + PM percentage: | | | **$ 391** |
| K | Lengthening of the current eastbound single left-turn deceleration lane on Woodmen approaching Golden Sage Road | | Site-Generated Traffic[1] (vehicles per hour) | 5 | 4 | 9 |
| | | | 2040 Total Traffic[1] (vehicles per hour) | 325 | 451 | 776 |
| | | | % | 1.54% | 0.89% | 1.16% |
| | Estimated Improvement Cost: | **$ 200,000** | Estimated Fair-Share Portion for this project based on calculated AM + PM percentage: | | | **$ 2,320** |
| L | Southbound exclusive right-turn lane on Golden Sage Road approaching Woodmen Road | | Site-Generated Traffic[2] (vehicles per hour) | 4 | 6 | 10 |
| | | | 2040 Total Traffic[2] (vehicles per hour) | 395 | 393 | 788 |
| | | | % | 1.01% | 1.53% | 1.27% |
| | Estimated Improvement Cost: | **$ 100,000** | Estimated Fair-Share Portion for this project based on calculated AM + PM percentage: | | | **$ 1,269** |
| M | Signalization of Golden Sage Road/Woodmen Frontage Road or reconstruction as a modern roundabout; Future additional laneage may be necessary at this intersection to accommodate vehicle queues and for traffic operations. | | Site-Generated Traffic[3] (vehicles per hour) | 13 | 14 | 27 |
| | | | 2040 Total Traffic[3] (vehicles per hour) | 984 | 1188 | 2172 |
| | | | % | 1.32% | 1.18% | 1.24% |
| | Estimated Improvement Cost: | **$ 350,000** | Estimated Fair-Share Portion for this project based on calculated AM + PM percentage: | | | **$ 4,351** |

Notes:
(1) Eastbound left-turn volume at the intersection of Woodmen/Golden Sage
(2) Southbound right-turn volume at the intersection of Woodmen/Golden Sage
(3) Sum of all traffic volumes at the intersection of Golden Sage/Woodmen frontage road

*Source: LSC Transportation Consultants, Inc.* November 2020

# Figures

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N

*Approximate Scale*
*Scale: 1"= 1,200'*

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Figure 1

# Vicinity Map

Bent Grass East Commercial Filing 3 (LSC #204660)

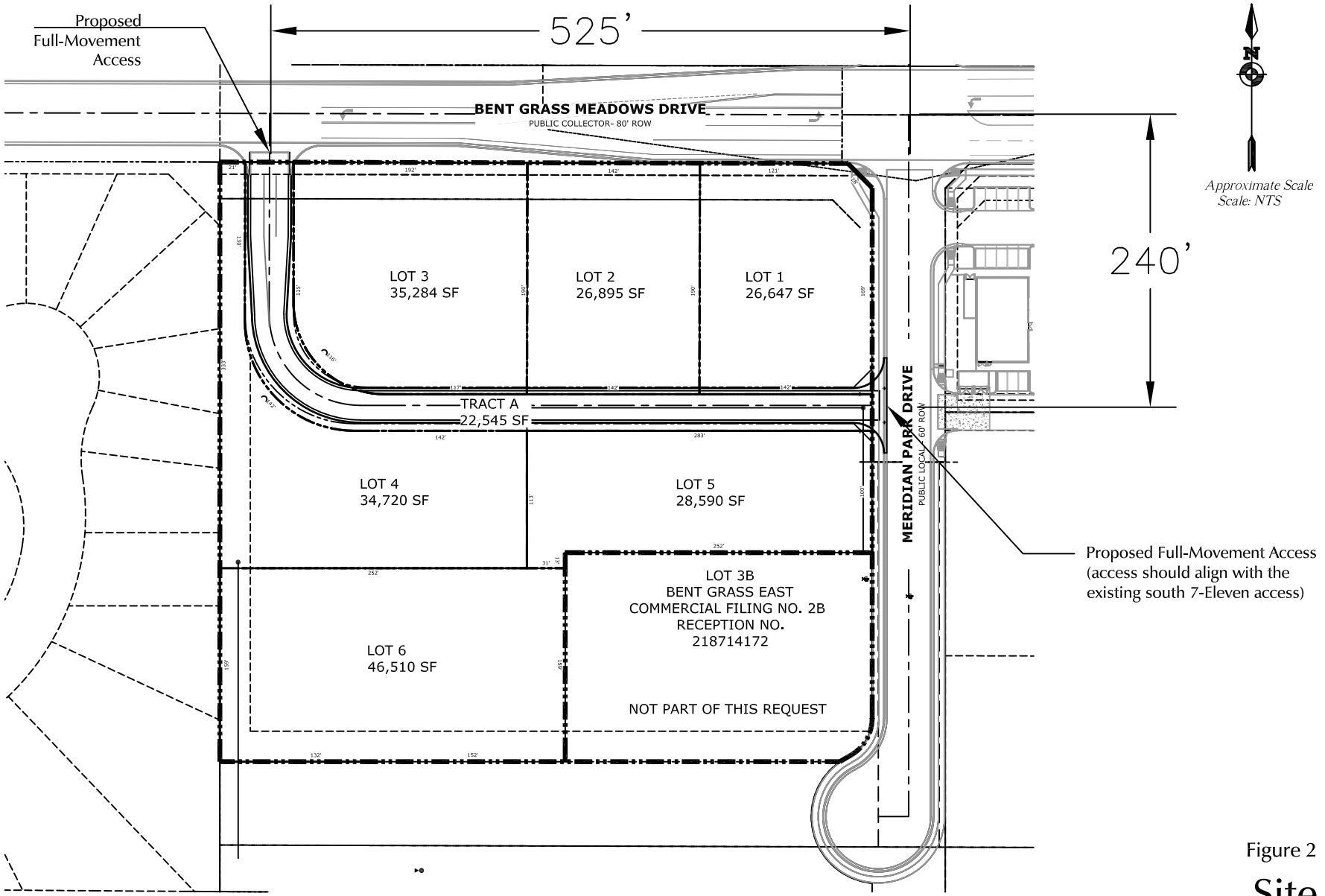



Figure 2

# Site Plan

Bent Grass East Commercial Filing 3 (LSC #204660)

TRANSPORTATION CONSULTANTS, INC.

The proposed private drive is considered a roadway per the LDC therefore the intersection sight distance criteria should be used for the intersection of the private road to Bent Grass Meadwos Dr and Meridian Park Dr. Please revise accordingly.

ECM Required Entering Sight Distance for Driveways (access design) for Passenger Cars (350' from Table 2-35 based on a posted speed limit of 35mph)

ECM Required Entering Sight Distance for Driveways (access design) for Single-Unit Trucks (455' from Table 2-35 based on a posted speed limit of 35mph)

ECM Required Entering Sight Distance for Driveways (access design) for Multi-Unit Trucks (595' from Table 2-35 based on a posted speed limit of 35mph)

ECM Required Sight Distance Along Roadways (250' from Table 2-33 based on a posted speed limit of 35mph)

N

*Approximate Scale*
*Scale: NTS*

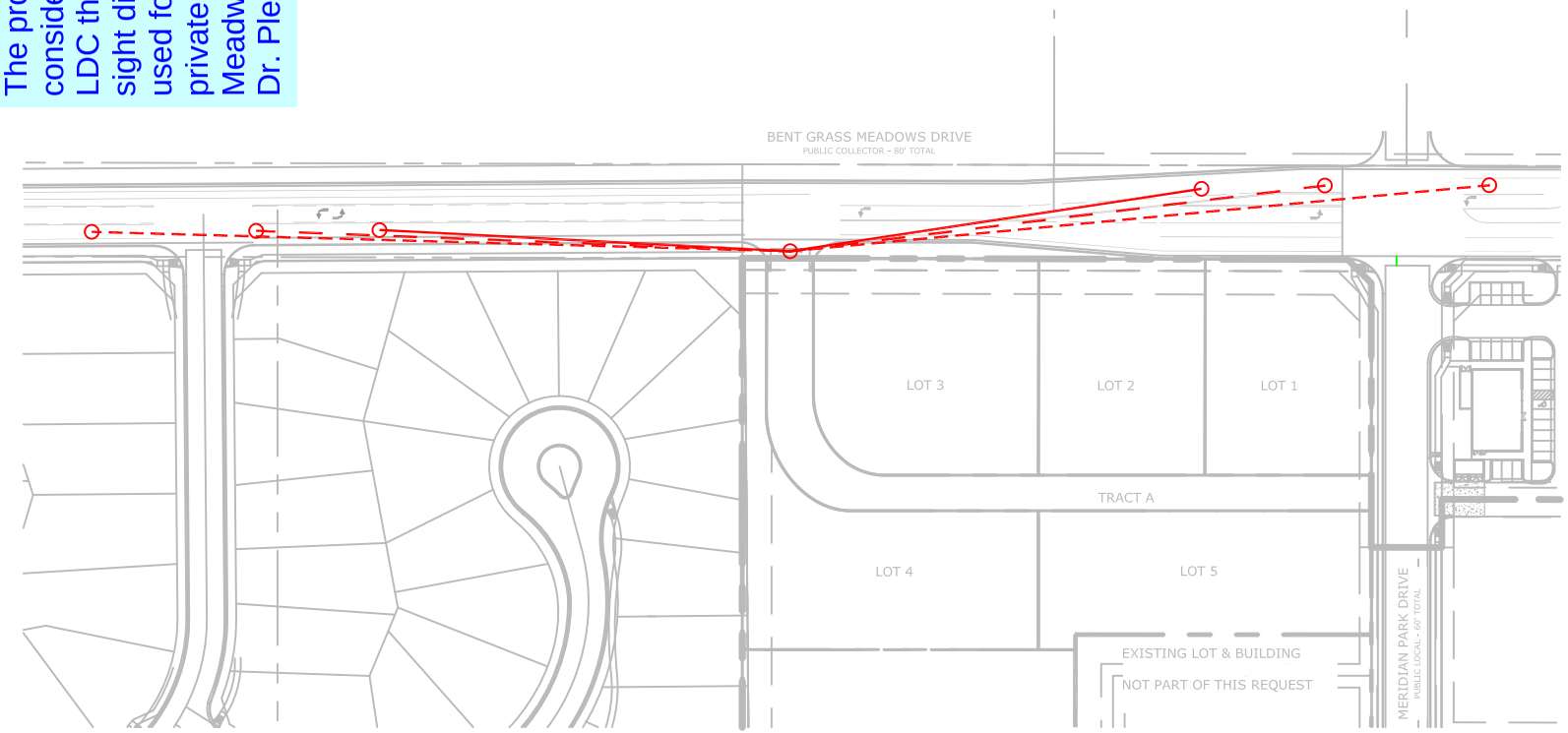



Figure 3

# Bent Grass Meadows Dr. Access Sight Distance Analysis

Bent Grass East Commercial Filing 3 (LSC #204660)

LSC TRANSPORTATION CONSULTANTS, INC.

ECM Required Entering Sight Distance for Driveways (access design) for Passenger Cars (350' from Table 2-35 based on a posted speed limit of 35mph)

ECM Required Entering Sight Distance for Driveways (access design) for Single-Unit Trucks (455' from Table 2-35 based on a posted speed limit of 35mph)

ECM Required Entering Sight Distance for Driveways (access design) for Multi-Unit Trucks (595' from Table 2-35 based on a posted speed limit of 35mph)

ECM Required Sight Distance Along Roadways (250' from Table 2-33 based on a posted speed limit of 35mph)

*Approximate Scale*
*Scale: NTS*

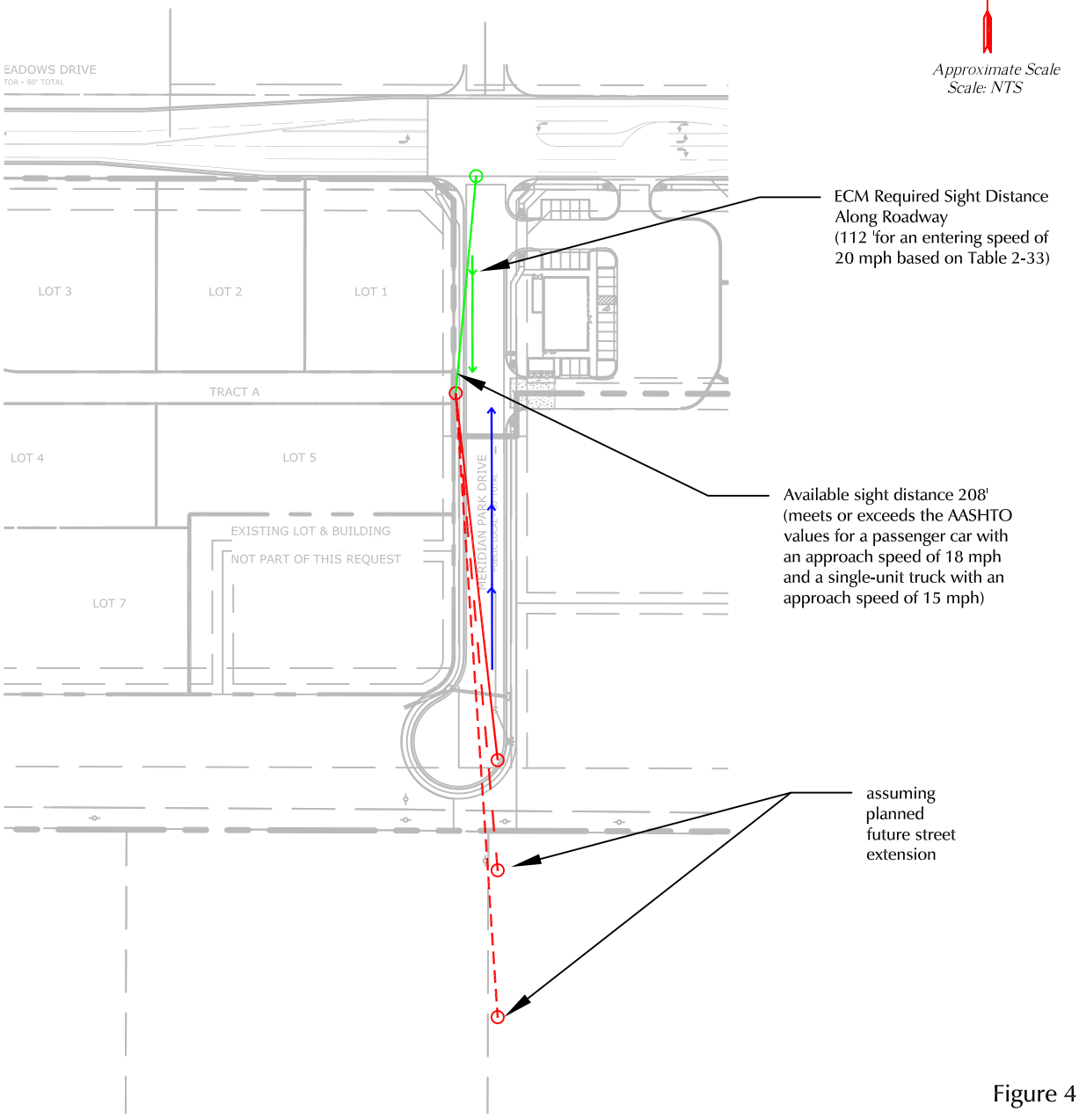
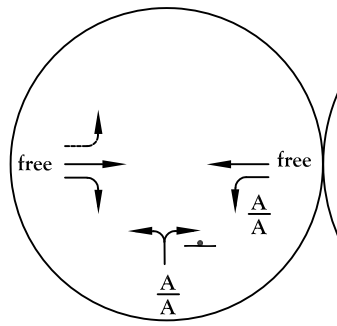


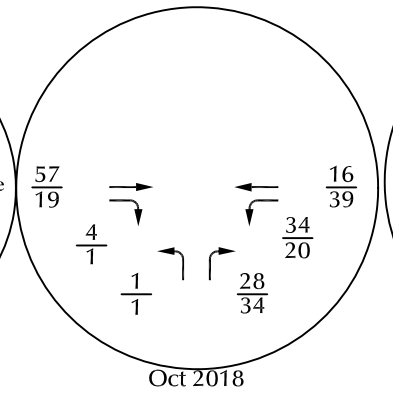

Figure 4

# Meridian Park Dr. Access Sight Distance Analysis

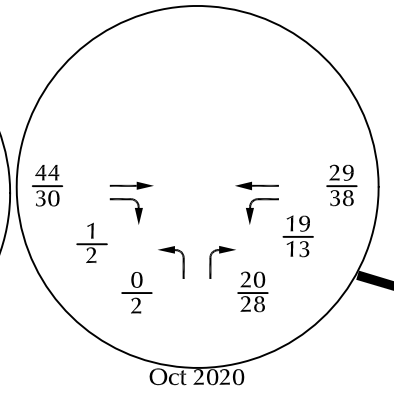
Bent Grass East Commercial Filing 3 (LSC #204660)

LSC TRANSPORTATION CONSULTANTS, INC.




Oct 2018

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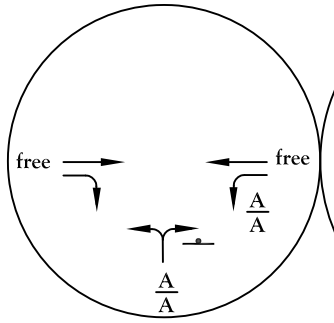


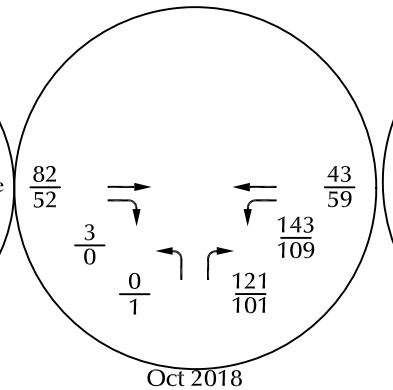


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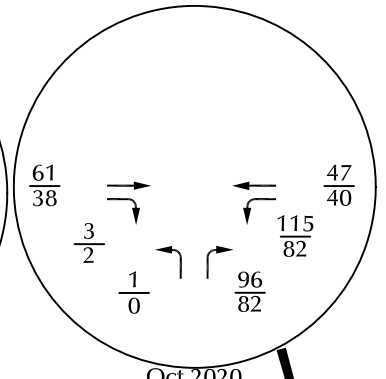


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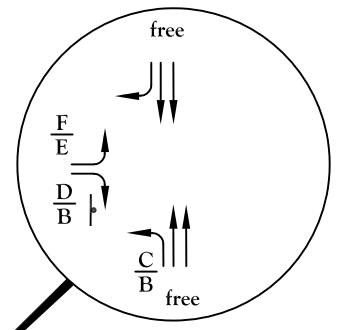
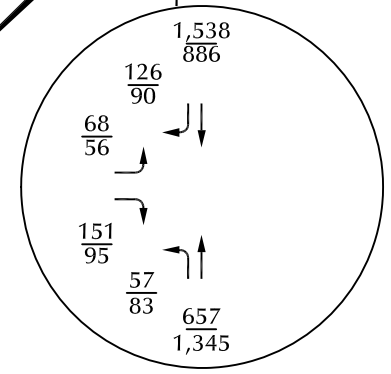



Sept 2018

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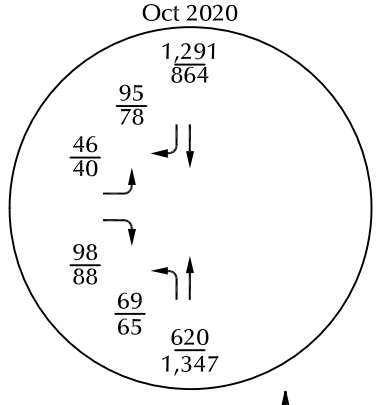
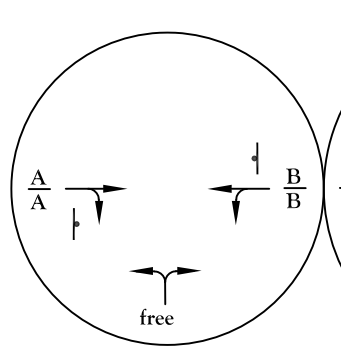
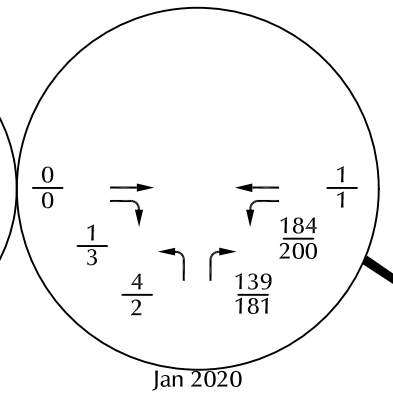
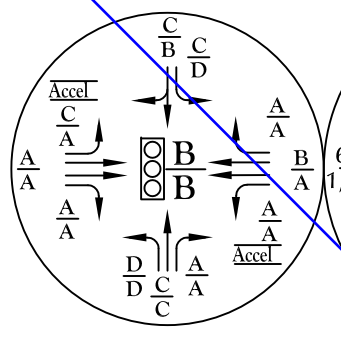


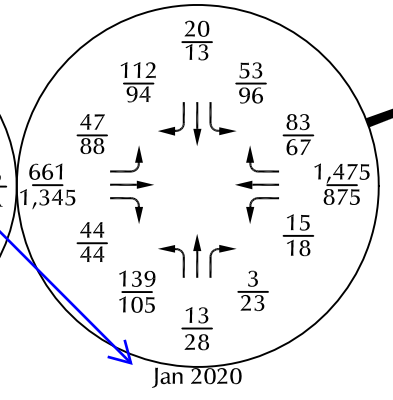




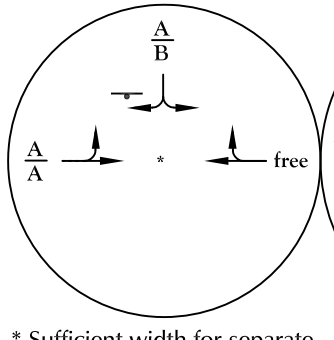



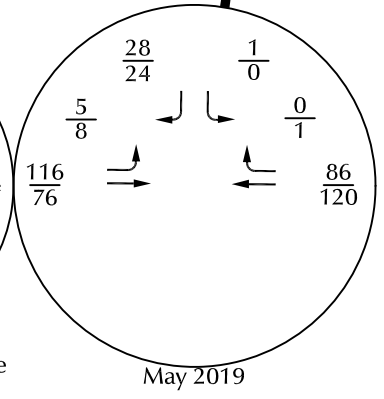

Jan 2020




Jan 2020




May 2019

* Sufficient width for separate SB left- and right-turn lanes

Per the Falcon Meadows PUDSP traffic study it appears that traffic counts were also conducted in December 2020. Please also include these or any other more current studies in your analysis.

LEGEND:

= Stop Sign

= Traffic Signal

XX/XX = AM Weekday Peak-Hour Traffic (vehicles per hour) / PM Weekday Peak-Hour Traffic (vehicles per hour)

A/B = AM Individual Movement Peak-Hour Level of Service / PM Individual Movement Peak-Hour Level of Service

C/C = AM Entire Intersection Peak-Hour Level of Service / PM Entire Intersection Peak-Hour Level of Service

X,XXX= Average Daily Traffic (vehicles per day)

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N

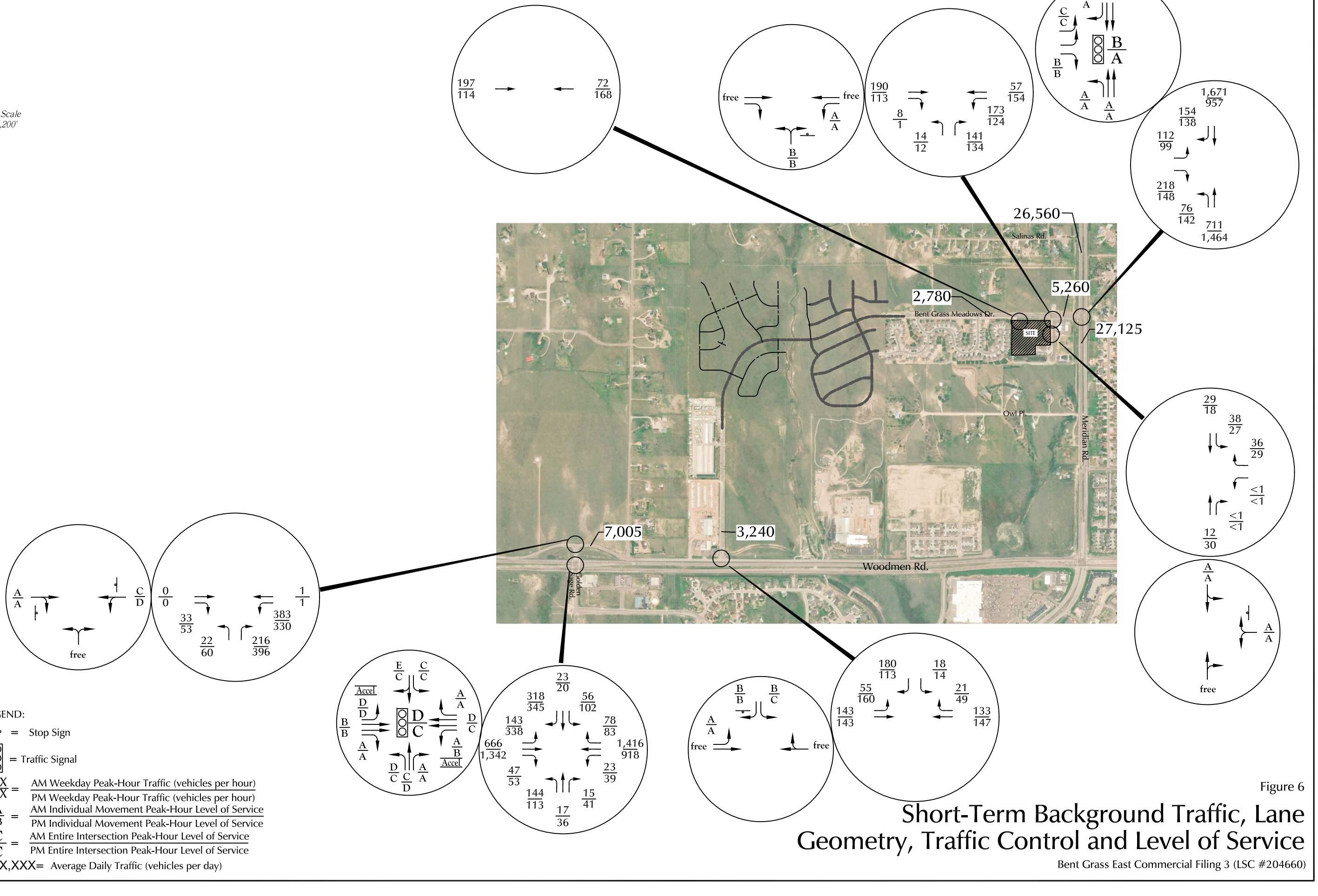
*Approximate Scale*
*Scale: 1"= 1,200'*

Figure 5

# Existing Traffic, Lane Geometry, Traffic Control and Level of Service

Bent Grass East Commercial Filing 3 (LSC #204660)

Approximate Scale
Scale: 1"= 1,200'




LEGEND:

= Stop Sign

= Traffic Signal

$\frac{XX}{XX}$ = $\frac{\text{AM Weekday Peak-Hour Traffic (vehicles per hour)}}{\text{PM Weekday Peak-Hour Traffic (vehicles per hour)}}$

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

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

X,XXX= Average Daily Traffic (vehicles per day)

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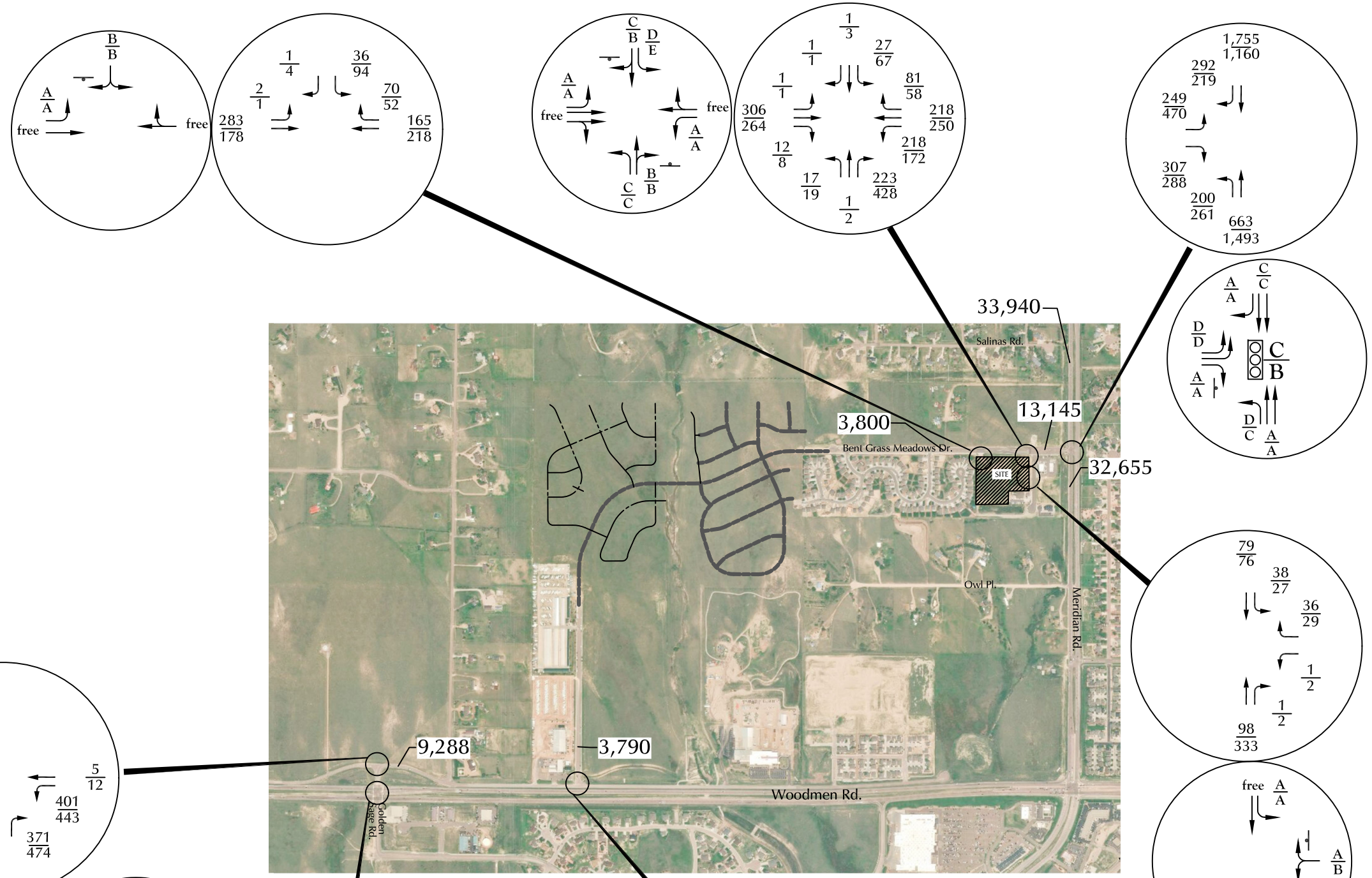
Figure 6

# Short-Term Background Traffic, Lane Geometry, Traffic Control and Level of Service

Bent Grass East Commercial Filing 3 (LSC #204660)

*Approximate Scale*
*Scale: 1"= 1,200'*




LEGEND:

= Stop Sign

= Traffic Signal

= Modern Roundabout

$\frac{XX}{XX}$ = $\frac{\text{AM Weekday Peak-Hour Traffic (vehicles per hour)}}{\text{PM Weekday Peak-Hour Traffic (vehicles per hour)}}$

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

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

X,XXX= Average Daily Traffic (vehicles per day)

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Figure 7

# Year 2040 Background Traffic, Lane Geometry, Traffic Control and Level of Service

Bent Grass East Commercial Filing 3 (LSC #204660)


N

*Approximate Scale*
*Scale: 1"= 1,200'*

LEGEND:

XX% = Percent Directional Distribution of Primary External Traffic

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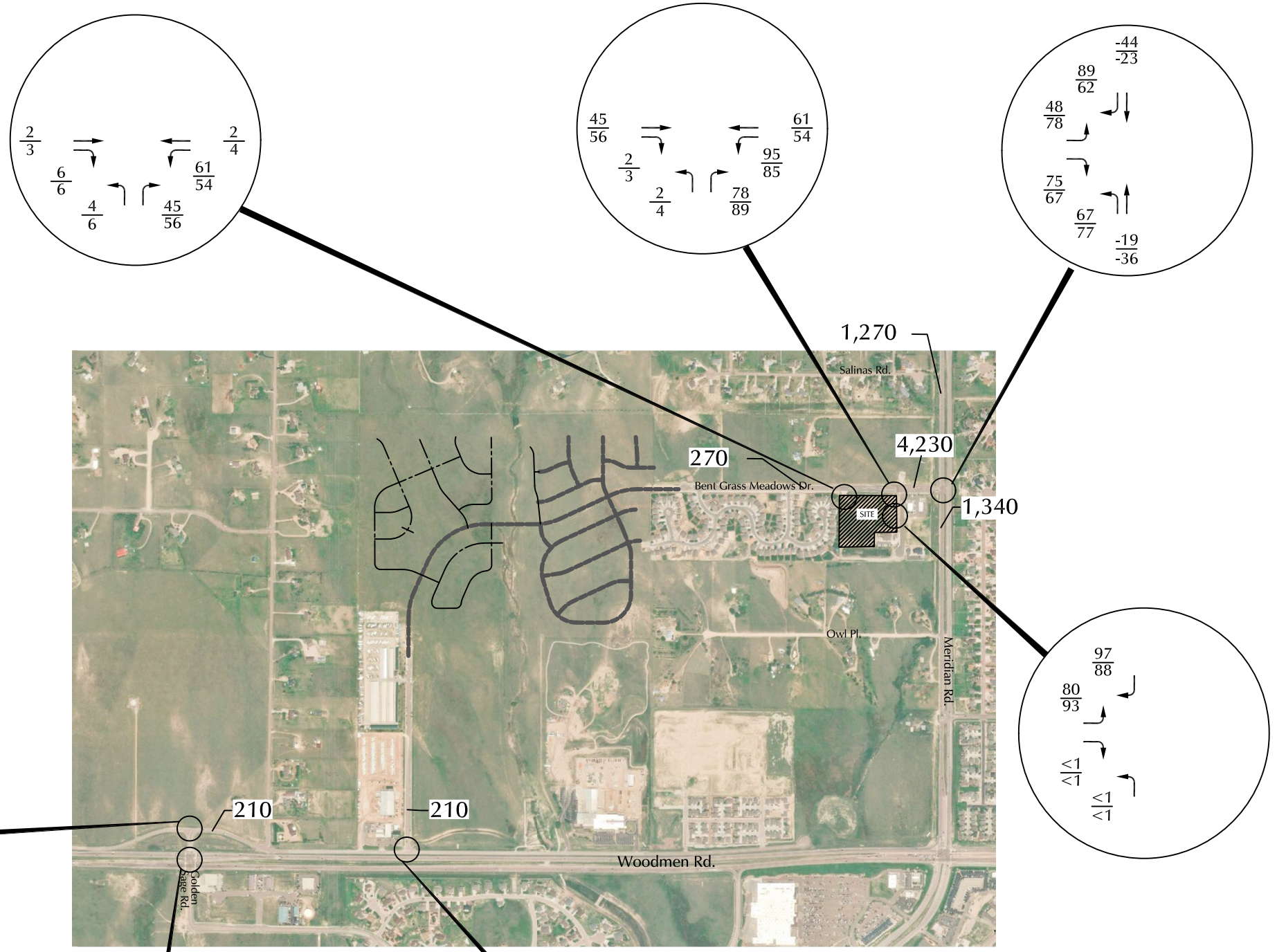
Figure 8

# Directional Distribution of Site-Generated Traffic

Bent Grass East Commercial Filing 3 (LSC #204660)

*Approximate Scale*
*Scale: 1"= 1,200'*




LEGEND:

$\frac{XX}{XX}$ = $\frac{\text{AM Weekday Peak-Hour Traffic (vehicles per hour)}}{\text{PM Weekday Peak-Hour Traffic (vehicles per hour)}}$

X,XXX= Average Daily Traffic (vehicles per day)

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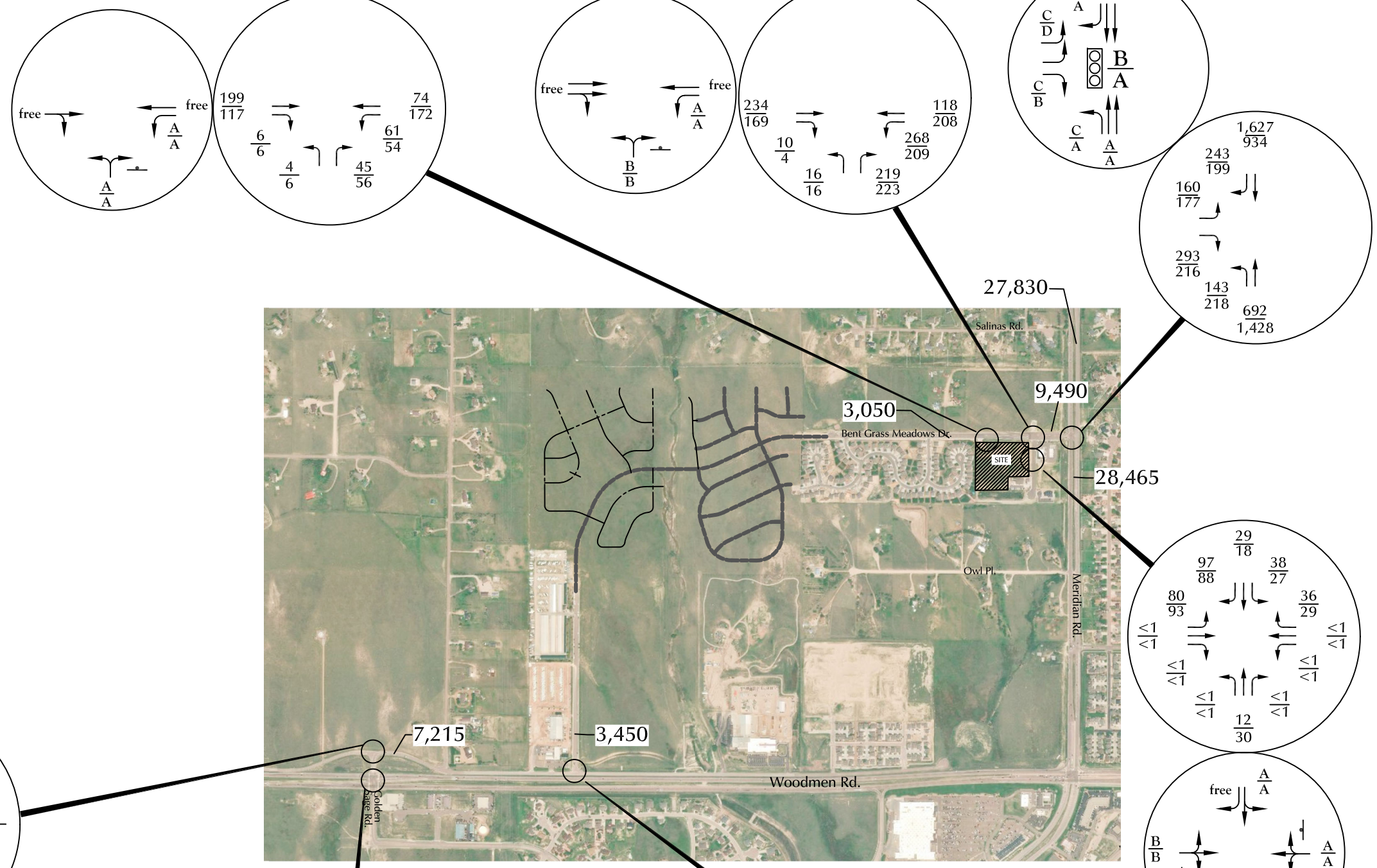
Figure 9

# Site Generated Traffic

Bent Grass East Commercial Filing 3 (LSC #204660)

Approximate Scale
Scale: 1"= 1,200'




LEGEND:

= Stop Sign

= Traffic Signal

$\frac{XX}{XX}$ = $\frac{\text{AM Weekday Peak-Hour Traffic (vehicles per hour)}}{\text{PM Weekday Peak-Hour Traffic (vehicles per hour)}}$

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

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

X,XXX= Average Daily Traffic (vehicles per day)

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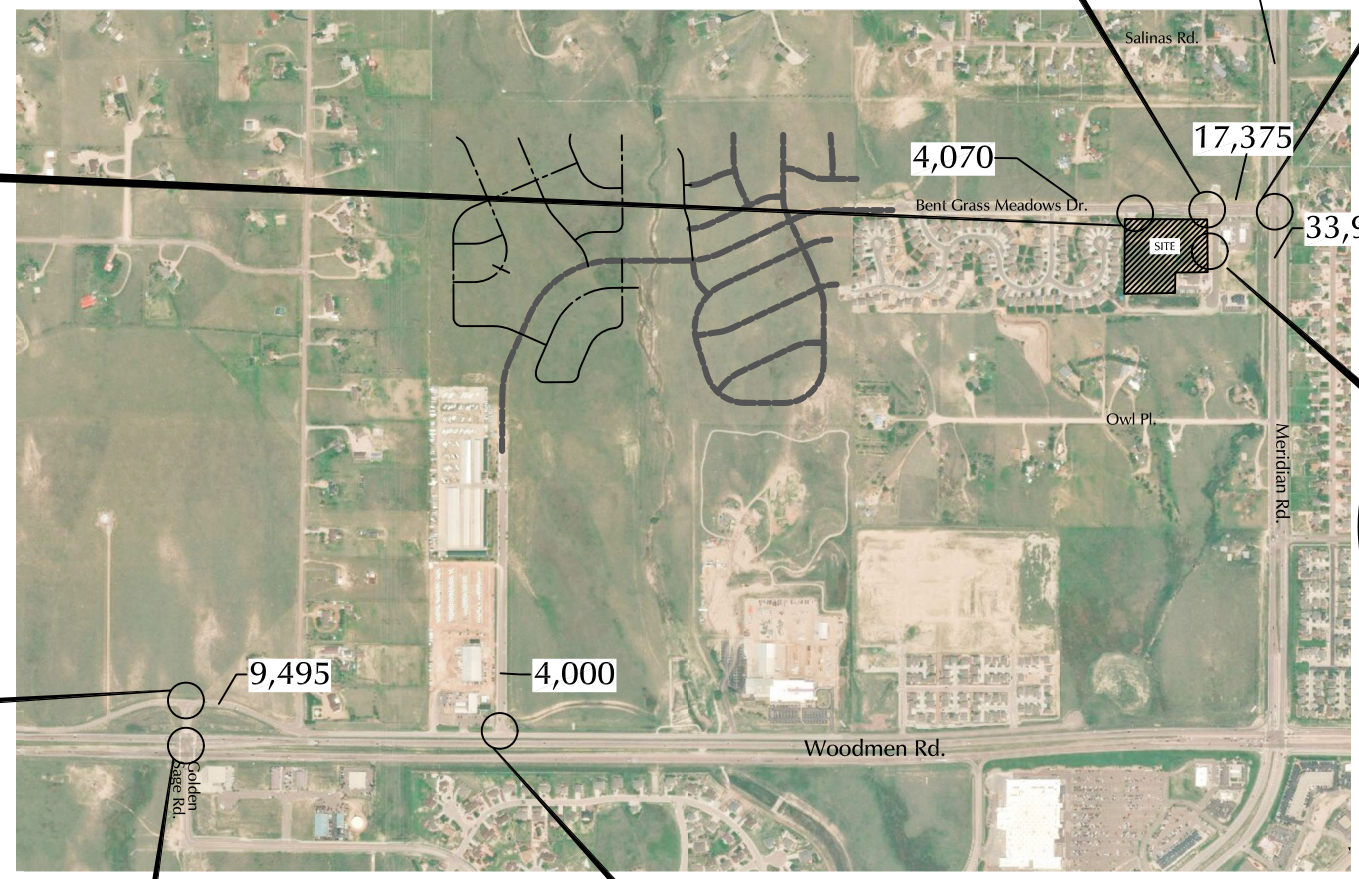
Figure 10

# Short-Term Total Traffic, Lane Geometry, Traffic Control and Level of Service

Bent Grass East Commercial Filing 3 (LSC #204660)

Approximate Scale
Scale: 1"= 1,200'

** Although the HCM unsignalized method of analysis results in a projected LOS E during the morning peak hour and LOS F during the afternoon peak hour based on simulation analalysis this movement is projected to operate at LOS D during both the morning and afternoon peak hours. Please refer to the report narrative for details.




* See Table 3 for analysis of additional traffic control options

LEGEND:

= Stop Sign

= Traffic Signal

= Modern Roundabout

XX/XX = AM Weekday Peak-Hour Traffic (vehicles per hour) / PM Weekday Peak-Hour Traffic (vehicles per hour)

A/B = AM Individual Movement Peak-Hour Level of Service / PM Individual Movement Peak-Hour Level of Service

C/C = AM Entire Intersection Peak-Hour Level of Service / PM Entire Intersection Peak-Hour Level of Service

X,XXX= Average Daily Traffic (vehicles per day)

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Figure 11

# Year 2040 Total Traffic, Lane Geometry, Traffic Control and Level of Service

Bent Grass East Commercial Filing 3 (LSC #204660)

# Appendix Figures and Tables

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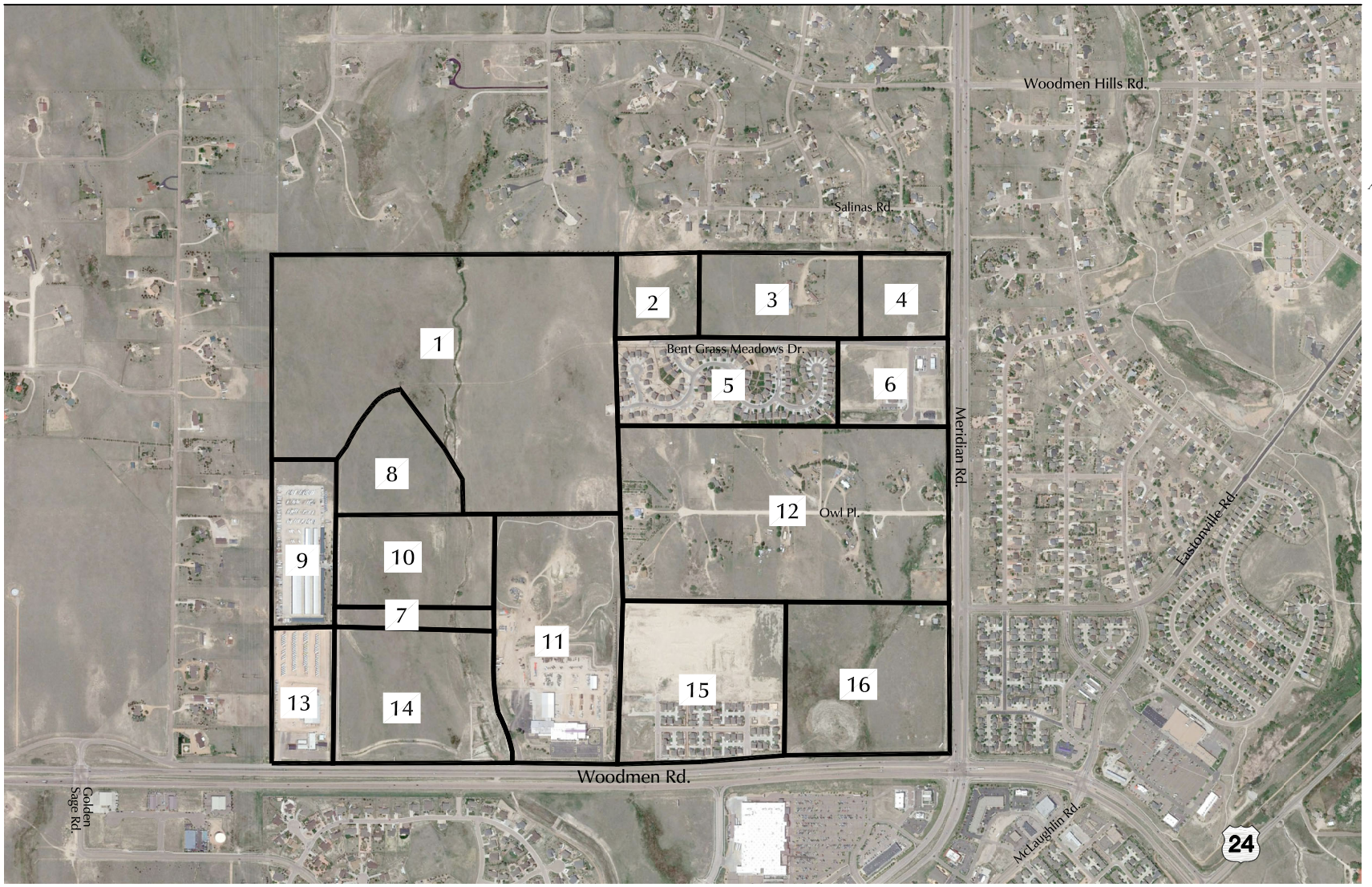
CONSULTANTS, INC.




N

*Approximate Scale*
*Scale: 1"= 1,200'*

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Appendix Figure 1

# Traffic Analysis Zone Map

Bent Grass East Commercial Filing 3 (LSC #204660)

**Appendix Table 1**
**Bent Grass Commercial East Filing No. 3**
**Study Area Buildout Trip Generation Estimate**

| TAZ | Name | 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 Future Trips Generated Average Weekday Traffic | Morning Peak Hour In | Morning Peak Hour Out | Afternoon Peak Hour In | Afternoon Peak Hour Out | TAZ Internal Trips | Total Future Trips Internal to The TAZ Average Weekday Traffic | Morning Peak Hour In | Morning Peak Hour Out | Afternoon Peak Hour In | Afternoon Peak Hour Out | Total Future Trips Internal to The Study Area Average Weekday Traffic | Morning Peak Hour In | Morning Peak Hour Out | Afternoon Peak Hour In | Afternoon Peak Hour Out | Pass-By Trips [*2] | New Future External Trips Generated Average New Weekday Traffic |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Bent Grass Residential Fil 2 South | 210 | Single-Family Detached Housing | 121 DU[3] | 9.44 | 0.19 | 0.56 | 0.62 | 0.37 | 1,142 | 22 | 67 | 75 | 44 | 0% | 0 | 0 | 0 | 0 | 0 | 150 | 7 | 17 | 7 | 5 | 0% | 992 |
| | Bent Grass Residential Fil 2 North | 210 | Single-Family Detached Housing | 58 DU | 9.44 | 0.19 | 0.56 | 0.62 | 0.37 | 548 | 11 | 32 | 36 | 21 | 0% | 0 | 0 | 0 | 0 | 0 | 72 | 4 | 8 | 4 | 2 | 0% | 476 |
| 1 | Bent Grass West | 210 | Single-Family Detached Housing | 15 DU | 9.44 | 0.19 | 0.56 | 0.62 | 0.37 | 142 | 3 | 8 | 9 | 5 | 0% | 0 | 0 | 0 | 0 | 0 | 19 | 1 | 2 | 0 | 0 | 0% | 123 |
| | Bent Grass West | 210 | Single-Family Detached Housing | 70 DU | 9.44 | 0.19 | 0.56 | 0.62 | 0.37 | 661 | 13 | 39 | 44 | 26 | 0% | 0 | 0 | 0 | 0 | 0 | 87 | 5 | 10 | 4 | 3 | 0% | 574 |
| | Bent Grass West | 210 | Single-Family Detached Housing | 93 DU | 9.44 | 0.19 | 0.56 | 0.62 | 0.37 | 878 | 17 | 52 | 58 | 34 | 0% | 0 | 0 | 0 | 0 | 0 | 116 | 6 | 14 | 5 | 3 | 0% | 762 |
| 2 | Bent Grass School | 520 | Elementary School | 500 Students | 1.89 | 0.36 | 0.31 | 0.08 | 0.09 | 945 | 181 | 154 | 41 | 44 | 0% | 0 | 0 | 0 | 0 | 0 | 473 | 91 | 39 | 10 | 22 | 0% | 472 |
| | | 210 | Single-Family Detached Housing | 54 DU | 9.44 | 0.19 | 0.56 | 0.62 | 0.37 | 510 | 10 | 30 | 34 | 20 | 0% | 0 | 0 | 0 | 0 | 0 | 67 | 4 | 8 | 3 | 2 | 0% | 443 |
| 3 | Single Family/Retail/Office | 820 | Shopping Center | 11.5 KSF[4] | 83.44 | 2.93 | 1.80 | 3.40 | 3.69 | 960 | 34 | 21 | 39 | 42 | 2% | 19 | 1 | 0 | 1 | 1 | 10 | 0 | 0 | 0 | 0 | 34% | 614 |
| | | 710 | General Office Building | 17 KSF | 10.74 | 1.15 | 0.19 | 0.19 | 0.98 | 183 | 20 | 3 | 3 | 17 | 8% | 19 | 0 | 1 | 1 | 1 | 2 | 0 | 0 | 0 | 0 | 0% | 162 |
| | | 820 | Shopping Center | 24.4 KSF | 83.44 | 2.93 | 1.80 | 3.40 | 3.69 | 2,036 | 72 | 44 | 83 | 90 | 2% | 41 | 1 | 1 | 2 | 2 | 20 | 1 | 1 | 1 | 1 | 34% | 1,303 |
| 4 | Retail/Office | 710 | General Office Building | 50 KSF | 10.74 | 1.15 | 0.19 | 0.19 | 0.98 | 537 | 57 | 9 | 9 | 49 | 8% | 41 | 1 | 1 | 2 | 2 | 5 | 0 | 0 | 0 | 0 | 0% | 491 |
| 5 | Bent Grass Residential Filing 1 | 210 | Single-Family Detached Housing | 0 DU | 9.44 | 0.19 | 0.56 | 0.62 | 0.37 | 0 | 0 | 0 | 0 | 0 | 0% | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0% | 0 |
| | Bent Grass East Commercial Existing | - - - | Gas Station/Vet Clinic/Dental Clinic | - - - - - - | - - - | - - - | - - - | - - - | - - - | 0 | 0 | 0 | 0 | 0 | 0% | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 50% | 0 |
| | | 934 | Fast-Food Restaurant with Drive-Through Window | 2.5 KSF | 470.95 | 20.50 | 19.69 | 16.99 | 15.68 | 1,177 | 51 | 49 | 42 | 39 | 5% | 59 | 3 | 2 | 2 | 2 | 12 | 1 | 1 | 0 | 1 | 50% | 547 |
| | | 934 | Fast-Food Restaurant with Drive-Through Window | 2.5 KSF | 470.95 | 20.50 | 19.69 | 16.99 | 15.68 | 1,177 | 51 | 49 | 42 | 39 | 5% | 59 | 3 | 2 | 2 | 2 | 12 | 0 | 0 | 0 | 1 | 50% | 547 |
| | | 820 | Shopping Center | 6 KSF | 85.72 | 3.16 | 1.94 | 3.48 | 3.77 | 514 | 19 | 12 | 21 | 23 | 5% | 26 | 1 | 1 | 1 | 1 | 5 | 0 | 0 | 0 | 0 | 34% | 317 |
| 6 | Bent Grass East Commercial Fil No. 3 | 820 | Shopping Center | 6 KSF | 85.72 | 3.16 | 1.94 | 3.48 | 3.77 | 514 | 19 | 12 | 21 | 23 | 5% | 26 | 1 | 1 | 1 | 1 | 5 | 0 | 0 | 0 | 0 | 34% | 317 |
| | | 820 | Shopping Center | 6 KSF | 85.72 | 3.16 | 1.94 | 3.48 | 3.77 | 514 | 19 | 12 | 21 | 23 | 5% | 26 | 1 | 1 | 1 | 1 | 5 | 0 | 0 | 0 | 0 | 34% | 317 |
| | | 770 | Business Park | 4.8 KSF | 76.88 | 1.29 | 0.23 | 0.48 | 1.36 | 369 | 6 | 1 | 2 | 7 | 5% | 18 | 0 | 0 | 0 | 0 | 4 | 0 | 0 | 0 | 0 | 0% | 347 |
| | | 770 | Business Park | 6 KSF | 76.88 | 1.29 | 0.23 | 0.48 | 1.36 | 461 | 8 | 1 | 3 | 8 | 5% | 23 | 0 | 0 | 0 | 0 | 5 | 0 | 0 | 0 | 0 | 0% | 433 |
| | Bent Grass East Commercial Fil. No. 2A Lot 1A | 820 | Shopping Center | 15 KSF | 85.72 | 3.16 | 1.94 | 3.48 | 3.77 | 1,286 | 47 | 29 | 52 | 57 | 5% | 64 | 2 | 1 | 3 | 3 | 13 | 0 | 0 | 1 | 1 | 34% | 794 |
| 7 | Bent Grass Industrial (5301000017) | 110 | General Light Industrial | 54 KSF | 4.96 | 0.62 | 0.08 | 0.08 | 0.55 | 268 | 33 | 5 | 4 | 30 | 0% | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0% | 268 |
| 8 | Bent Grass West | 210 | Single-Family Detached Housing | 82 DU | 9.44 | 0.19 | 0.56 | 0.62 | 0.37 | 774 | 15 | 46 | 51 | 30 | 0% | 0 | 0 | 0 | 0 | 0 | 101 | 5 | 11 | 4 | 3 | 0% | 673 |
| 9 | Falcon Mini-Storage | 151 | Mini-Warehouse | 3.74 Storage Units (100s) | — | — | — | — | — | 0 | 0 | 0 | 0 | 0 | 0% | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0% | 0 |
| 10 | Man Cave at Bentgrass | - - - | RV/Vehicle Storage | 0.65 Occupied Spaces (100s) | 20.00 | 2.28 | 1.37 | 1.98 | 2.81 | 13 | 1 | 1 | 1 | 2 | 0% | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0% | 13 |
| | | 151 | Mini-Warehouse | 1.04 Storage Units (100s) | 17.96 | 0.71 | 0.68 | 0.98 | 0.98 | 19 | 1 | 1 | 1 | 1 | 0% | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0% | 19 |
| 11 | Mountain View Electric | — | Mountain View Electric | — — | — | — | — | — | — | 0 | 0 | 0 | 0 | 0 | 0% | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0% | 0 |
| | | 110 | General Light Industrial | 218 KSF | 4.96 | 0.62 | 0.08 | 0.08 | 0.55 | 1,081 | 134 | 18 | 18 | 119 | 0% | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0% | 1,081 |
| | | 820 | Shopping Center | 318 KSF | 41.52 | 0.61 | 0.37 | 1.93 | 2.09 | 13,203 | 193 | 118 | 614 | 665 | 0% | 0 | 0 | 0 | 0 | 0 | 132 | 4 | 2 | 6 | 6 | 20% | 10,457 |
| 12 | Owl Lane Redevelopment | 210 | Single-Family Detached Housing | 140 DU | 9.44 | 0.19 | 0.56 | 0.62 | 0.37 | 1,322 | 26 | 78 | 87 | 51 | 0% | 0 | 0 | 0 | 0 | 0 | 173 | 10 | 20 | 8 | 5 | 0% | 1,149 |
| | | 220 | Multifamily Housing Low-Rise | 120 DU | 7.32 | 0.11 | 0.35 | 0.35 | 0.21 | 878 | 13 | 43 | 42 | 25 | 0% | 0 | 0 | 0 | 0 | 0 | 116 | 6 | 14 | 5 | 3 | 0% | 762 |
| 13 | Falcon School District 49 | — | Administration Office/Bus Barn | — — | — | — | — | — | — | 0 | 0 | 0 | 0 | 0 | 0% | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0% | 0 |
| 14 | Latigo (5301002007) | 140 | Manufacturing | 29.34 Acres | 33.92 | 3.95 | 0.44 | 1.95 | 2.59 | 995 | 116 | 13 | 57 | 76 | 0% | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0% | 995 |
| 15 | Courtyards at Woodmen Hills West | 210 | Single-Family Detached Housing | 0 DU | 9.44 | 0.19 | 0.56 | 0.62 | 0.37 | 0 | 0 | 0 | 0 | 0 | 0% | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0% | 0 |
| | | 866 | Pet Supply Superstore[5] | 15 KSF | 38.24 | 0.53 | 0.33 | 1.69 | 1.69 | 574 | 8 | 5 | 25 | 25 | | 54 | 1 | 2 | 3 | 2 | 6 | 0 | 0 | 0 | 0 | 10% | 463 |
| | | 850 | Supermarket | 123 KSF | 78.26 | 2.11 | 1.29 | 3.76 | 3.62 | 9,626 | 259 | 159 | 463 | 445 | | 909 | 17 | 26 | 48 | 37 | 96 | 5 | 3 | 4 | 4 | 36% | 5517 |
| | | 944 | Gasoline/Service Station | 18 VFP[6] | 168.56 | 6.20 | 5.96 | 6.94 | 6.94 | 3,034 | 112 | 107 | 125 | 125 | | 286 | 5 | 8 | 15 | 12 | 30 | 1 | 1 | 1 | 1 | 56% | 1196 |
| | | 934 | Fast-Food Restaurant with Drive-Through Window[7] | 2.5 KSF | 496.12 | 0.42 | 0.39 | 16.98 | 15.67 | 1,240 | 1 | 1 | 42 | 39 | | 380 | 0 | 0 | 12 | 17 | 12 | 0 | 0 | 1 | 1 | 50% | 424 |
| | | 820 | Shopping Center | 5 KSF | 55.14 | 0.77 | 0.47 | 2.36 | 2.51 | 276 | 4 | 2 | 12 | 13 | | 26 | 1 | 0 | 1 | 1 | 3 | 0 | 0 | 0 | 0 | 34% | 163 |
| 16 | Falcon Marketplace | 848 | Tire Store | 7.72 KSF | 24.87 | 1.82 | 1.07 | 1.78 | 2.37 | 192 | 14 | 8 | 14 | 18 | (8) | 18 | 0 | 1 | 1 | 1 | 2 | 0 | 0 | 0 | 0 | 28% | 124 |
| | | 934 | Fast-Food Restaurant with Drive-Through Window | 3.5 KSF | 496.12 | 23.16 | 22.26 | 16.98 | 15.67 | 1,736 | 81 | 78 | 59 | 55 | | 532 | 26 | 12 | 17 | 24 | 17 | 0 | 0 | 1 | 1 | 50% | 593 |
| | | 934 | Fast-Food Restaurant with Drive-Through Window[7] | 2.5 KSF | 496.12 | 0.42 | 0.39 | 16.98 | 15.67 | 1,240 | 1 | 1 | 42 | 39 | | 380 | 0 | 0 | 12 | 17 | 12 | 0 | 0 | 1 | 1 | 50% | 424 |
| | | 610 | Clinic | 7.8 KSF | 31.45 | 2.19 | 2.19 | 2.12 | 3.06 | 245 | 17 | 17 | 17 | 24 | | 40 | 3 | 16 | 10 | 5 | 2 | 0 | 0 | 0 | 0 | 0% | 203 |
| | | 820 | Shopping Center | 8 KSF | 55.14 | 0.77 | 0.47 | 2.36 | 2.51 | 441 | 6 | 4 | 19 | 20 | | 42 | 1 | 1 | 2 | 2 | 4 | 0 | 0 | 0 | 0 | 34% | 261 |
| | | 937 | Coffee/Donut Shop With Drive-Through Window | 1.3 KSF | 818.58 | 51.30 | 49.28 | 21.40 | 21.40 | 1,064 | 67 | 64 | 28 | 28 | | 326 | 21 | 10 | 9 | 12 | 11 | 0 | 0 | 0 | 0 | 89% | 80 |
| | **TOTAL** | | | | | | | | | **52,775** | **1,762** | **1,393** | **2,356** | **2,441** | | **3,414** | **89** | **87** | **146** | **146** | **1,799** | **151** | **151** | **66** | **66** | | **34,896** |

Notes:
(1) Source: "Trip Generation, 10th Edition, 2017" by the Institute of Transportation Engineers (ITE)
(2) Source: "Trip Generation Handbook - An ITE Proposed Recommended Practice, Third Edition" by ITE
(3) DU = dwelling unit
(4) KSF = thousand square feet
(5) Daily and morning peak-hour trip generation rates for Pet Supply Superstore are estimates by LSC
(6) VFP = vehicle fueling position
(7) The AM peak-hour trip generation rates have been reduced by LSC as the proposed fast-food restaurant does not serve breakfast
(8) Based on the NCHRP 684 Internal Trip Capture Estimate Tool

*Source: LSC Transportation Consultants, Inc.* *Oct 2020*

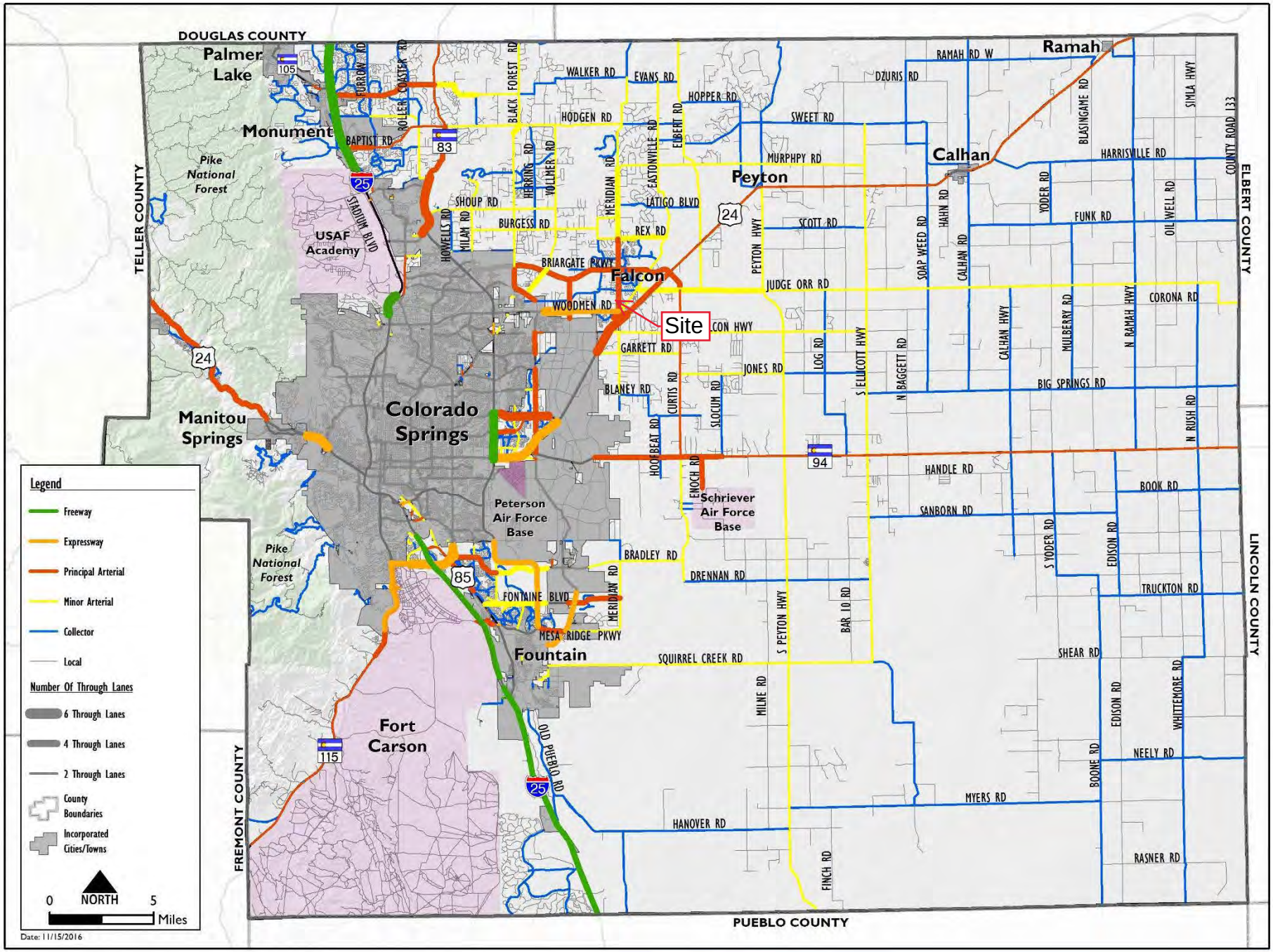
**Appendix Table 2**
**Bent Grass Commercial East Filing No. 3**
**Buildout Internal Trip Estimate**

| Land Use | Raw ITE Trip Generation (Individual Driveway Trips) | | | | | | Percent Internal Trips | | | | | | Total Internal Trips | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Daily | AM Peak Hour | | PM Peak Hour | | | Daily | AM Peak Hour | | PM Peak Hour | | | Daily | AM Peak Hour | | PM Peak Hour | |
| | | In | Out | In | Out | | | In | Out | In | Out | | | In | Out | In | Out |
| Single-Family Detached Housing | 5,977 | 117 | 352 | 394 | 231 | | | | | | | | | | | | |
| Multifamily Housing (Low-Rise) | 878 | 13 | 43 | 42 | 25 | | | | | | | | | | | | |
| | | | | | | **School** | 7% | 30% | 23% | 5% | 4% | | 473 | 39 | 91 | 22 | 10 |
| | | | | | | **Other** | 6% | 6% | 3% | 4% | 7% | | 426 | 8 | 12 | 19 | 18 |
| | **6,855** | **130** | **395** | **436** | **256** | **Total** | 13% | 36% | 26% | 9% | 11% | | **899** | **47** | **103** | **41** | **28** |
| Elementary School | 945 | 181 | 154 | 41 | 44 | | 50% | 50% | 25% | 25% | 50% | | 473 | 91 | 39 | 10 | 22 |
| Retail/Office | 42,599 | 1,166 | 806 | 1,798 | 1,913 | | 1% | 1% | 1% | 1% | 1% | | 426 | 12 | 8 | 18 | 19 |
| Industrial/Manufacturing | 2,376 | 285 | 38 | 81 | 228 | | 0% | 0% | 0% | 0% | 0% | | 0 | 0 | 0 | 0 | 0 |
| **TOTAL Non-Residential** | **45,920** | **1,632** | **998** | **1,920** | **2,185** | | | | | | | | **899** | **103** | **47** | **28** | **41** |
| **TOTAL** | **52,775** | **1,762** | **1,393** | **2,356** | **2,441** | | | | | | | | **1,798** | **150** | **150** | **69** | **69** |

*LSC Transportation Consultants, Inc.* *Oct 2020*

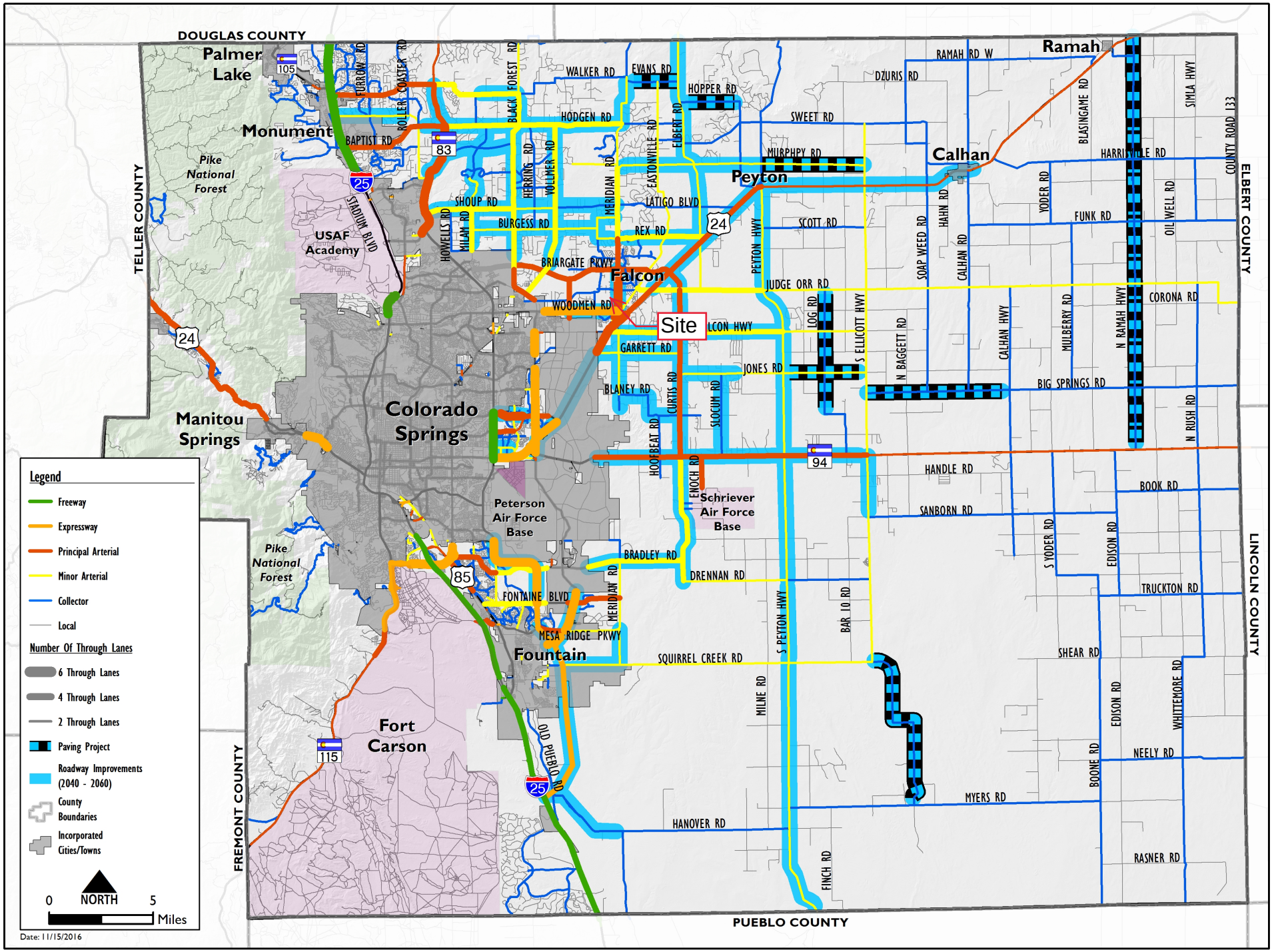
# MTCP Maps

TRANSPORTATION
CONSULTANTS, INC.




**Map 14: 2040 Roadway Plan (Classification and Lanes)**

# Map 17: 2060 Corridor Preservation



# Traffic Counts

TRANSPORTATION
CONSULTANTS, INC.

# LSC Transportation Consultants, Inc.

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


File Name
Site Code
Start Date
Page #

**Groups Printed- Unshifted**

| | Bent Grass Meadows Southbound | | | | | Woodmen Frontage Rd Westbound | | | | | Northbound | | | | | Woodmen Frontage Rd Eastbound | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Start Time** | **Left** | **Through** | **Right** | **Peds** | **App. Total** | **Left** | **Through** | **Right** | **Peds** | **App. Total** | **Left** | **Through** | **Right** | **Peds** | **App. Total** | **Left** | **Through** | **Right** | **Peds** | **App. Total** | **Int. Total** |
| 06:30 AM | 1 | 0 | 20 | 0 | 21 | 0 | 14 | 0 | 0 | 14 | 0 | 0 | 0 | 0 | 0 | 0 | 37 | 0 | 0 | 37 | 72 |
| 06:45 AM | 0 | 0 | 6 | 0 | 6 | 0 | 15 | 0 | 0 | 15 | 0 | 0 | 0 | 0 | 0 | 1 | 49 | 0 | 0 | 50 | 71 |
| Total | 1 | 0 | 26 | 0 | 27 | 0 | 29 | 0 | 0 | 29 | 0 | 0 | 0 | 0 | 0 | 1 | 86 | 0 | 0 | 87 | 143 |
| | | | | | | | | | | | | | | | | | | | | | |
| 07:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 24 | 0 | 0 | 24 | 0 | 0 | 0 | 0 | 0 | 0 | 14 | 0 | 0 | 14 | 38 |
| 07:15 AM | 0 | 0 | 2 | 0 | 2 | 0 | 33 | 0 | 0 | 33 | 0 | 0 | 0 | 0 | 0 | 4 | 16 | 0 | 0 | 20 | 55 |
| 07:30 AM | 0 | 0 | 3 | 0 | 3 | 0 | 24 | 0 | 0 | 24 | 0 | 0 | 0 | 0 | 0 | 2 | 6 | 0 | 0 | 8 | 35 |
| 07:45 AM | 0 | 0 | 2 | 0 | 2 | 0 | 23 | 0 | 0 | 23 | 0 | 0 | 0 | 0 | 0 | 0 | 8 | 0 | 0 | 8 | 33 |
| Total | 0 | 0 | 7 | 0 | 7 | 0 | 104 | 0 | 0 | 104 | 0 | 0 | 0 | 0 | 0 | 6 | 44 | 0 | 0 | 50 | 161 |
| | | | | | | | | | | | | | | | | | | | | | |
| 08:00 AM | 0 | 0 | 1 | 0 | 1 | 0 | 12 | 0 | 0 | 12 | 0 | 0 | 0 | 0 | 0 | 2 | 9 | 0 | 0 | 11 | 24 |
| 08:15 AM | 0 | 0 | 13 | 0 | 13 | 0 | 14 | 0 | 0 | 14 | 0 | 0 | 0 | 0 | 0 | 0 | 11 | 0 | 0 | 11 | 38 |

# LSC Transportation Consultants, Inc.

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


File Name
Site Code
Start Date
Page #

**Groups Printed- Unshifted**

| | Bent Grass Meadows Southbound | | | | | Woodmen Frontage Rd Westbound | | | | | Northbound | | | | | Woodmen Frontage Rd Eastbound | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Start Time** | **Left** | **Through** | **Right** | **Peds** | **App. Total** | **Left** | **Through** | **Right** | **Peds** | **App. Total** | **Left** | **Through** | **Right** | **Peds** | **App. Total** | **Left** | **Through** | **Right** | **Peds** | **App. Total** | **Int. Total** |
| 04:00 PM | 0 | 0 | 2 | 0 | 2 | 0 | 13 | 0 | 0 | 13 | 0 | 0 | 0 | 0 | 0 | 3 | 14 | 0 | 0 | 17 | 32 |
| 04:15 PM | 0 | 0 | 4 | 0 | 4 | 0 | 11 | 0 | 0 | 11 | 0 | 0 | 0 | 0 | 0 | 1 | 21 | 0 | 0 | 22 | 37 |
| 04:30 PM | 0 | 0 | 20 | 0 | 20 | 0 | 10 | 0 | 0 | 10 | 0 | 0 | 0 | 0 | 0 | 3 | 16 | 0 | 0 | 19 | 49 |
| 04:45 PM | 0 | 0 | 12 | 0 | 12 | 0 | 10 | 1 | 0 | 11 | 0 | 0 | 0 | 0 | 0 | 2 | 24 | 0 | 0 | 26 | 49 |
| Total | 0 | 0 | 38 | 0 | 38 | 0 | 44 | 1 | 0 | 45 | 0 | 0 | 0 | 0 | 0 | 9 | 75 | 0 | 0 | 84 | 167 |
| | | | | | | | | | | | | | | | | | | | | | |
| 05:00 PM | 0 | 0 | 7 | 0 | 7 | 0 | 10 | 0 | 0 | 10 | 0 | 0 | 0 | 0 | 0 | 0 | 18 | 0 | 0 | 18 | 35 |
| 05:15 PM | 0 | 0 | 3 | 0 | 3 | 0 | 17 | 0 | 0 | 17 | 0 | 0 | 0 | 0 | 0 | 3 | 17 | 0 | 0 | 20 | 40 |
| 05:30 PM | 0 | 0 | 2 | 0 | 2 | 0 | 83 | 1 | 0 | 84 | 0 | 0 | 0 | 0 | 0 | 3 | 17 | 0 | 0 | 20 | 106 |
| 05:45 PM | 0 | 0 | 3 | 0 | 3 | 0 | 25 | 0 | 0 | 25 | 0 | 0 | 0 | 0 | 0 | 1 | 16 | 0 | 0 | 17 | 45 |
| Total | 0 | 0 | 15 | 0 | 15 | 0 | 135 | 1 | 0 | 136 | 0 | 0 | 0 | 0 | 0 | 7 | 68 | 0 | 0 | 75 | 226 |

# LSC Transportation Consultants, Inc.

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


File Name : Golden Sage Rd - Woodmen Rd AM 1-20
Site Code : 00194460
Start Date : 1/21/2020
Page No : 1

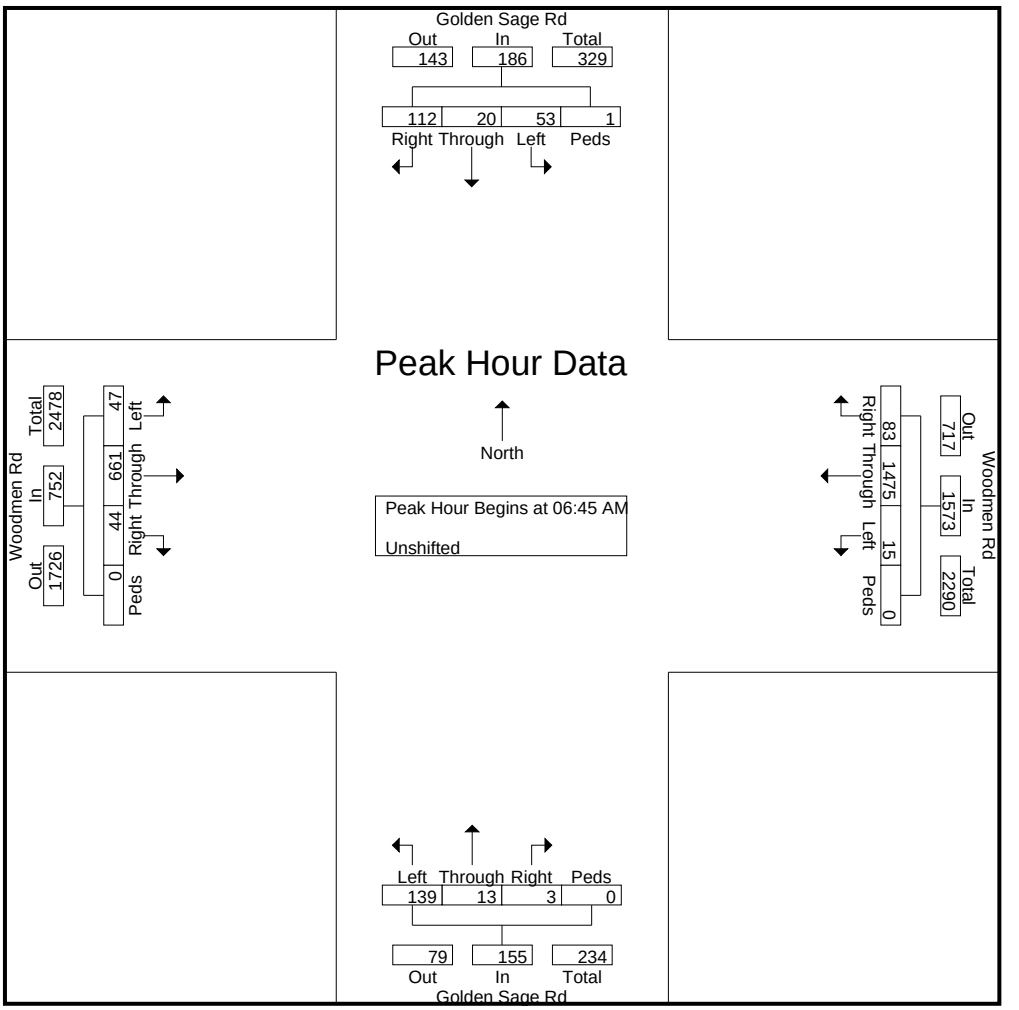
**Groups Printed- Unshifted**

| | Golden Sage Rd Southbound | | | | | Woodmen Rd Westbound | | | | | Golden Sage Rd Northbound | | | | | Woodmen Rd Eastbound | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Start Time** | **Left** | **Through** | **Right** | **Peds** | **App. Total** | **Left** | **Through** | **Right** | **Peds** | **App. Total** | **Left** | **Through** | **Right** | **Peds** | **App. Total** | **Left** | **Through** | **Right** | **Peds** | **App. Total** | **Int. Total** |
| 06:30 AM | 5 | 1 | 25 | 0 | 31 | 0 | 195 | 48 | 1 | 244 | 20 | 2 | 0 | 0 | 22 | 10 | 107 | 0 | 0 | 117 | 414 |
| 06:45 AM | 12 | 5 | 28 | 0 | 45 | 4 | 355 | 30 | 0 | 389 | 24 | 4 | 0 | 0 | 28 | 14 | 151 | 9 | 0 | 174 | 636 |
| Total | 17 | 6 | 53 | 0 | 76 | 4 | 550 | 78 | 1 | 633 | 44 | 6 | 0 | 0 | 50 | 24 | 258 | 9 | 0 | 291 | 1050 |
| 07:00 AM | 17 | 7 | 29 | 0 | 53 | 2 | 340 | 25 | 0 | 367 | 42 | 2 | 1 | 0 | 45 | 13 | 158 | 13 | 0 | 184 | 649 |
| 07:15 AM | 8 | 4 | 30 | 0 | 42 | 3 | 424 | 16 | 0 | 443 | 44 | 3 | 1 | 0 | 48 | 12 | 171 | 11 | 0 | 194 | 727 |
| 07:30 AM | 16 | 4 | 25 | 1 | 46 | 6 | 356 | 12 | 0 | 374 | 29 | 4 | 1 | 0 | 34 | 8 | 181 | 11 | 0 | 200 | 654 |
| 07:45 AM | 7 | 1 | 7 | 0 | 15 | 2 | 293 | 17 | 0 | 312 | 13 | 5 | 0 | 0 | 18 | 16 | 209 | 20 | 0 | 245 | 590 |
| Total | 48 | 16 | 91 | 1 | 156 | 13 | 1413 | 70 | 0 | 1496 | 128 | 14 | 3 | 0 | 145 | 49 | 719 | 55 | 0 | 823 | 2620 |
| 08:00 AM | 9 | 1 | 14 | 0 | 24 | 3 | 239 | 12 | 1 | 255 | 18 | 0 | 0 | 0 | 18 | 16 | 165 | 13 | 1 | 195 | 492 |
| 08:15 AM | 13 | 2 | 12 | 0 | 27 | 2 | 267 | 19 | 1 | 289 | 18 | 3 | 2 | 0 | 23 | 28 | 142 | 6 | 1 | 177 | 516 |
| Grand Total | 87 | 25 | 170 | 1 | 283 | 22 | 2469 | 179 | 3 | 2673 | 208 | 23 | 5 | 0 | 236 | 117 | 1284 | 83 | 2 | 1486 | 4678 |
| Apprch % | 30.7 | 8.8 | 60.1 | 0.4 | | 0.8 | 92.4 | 6.7 | 0.1 | | 88.1 | 9.7 | 2.1 | 0 | | 7.9 | 86.4 | 5.6 | 0.1 | | |
| Total % | 1.9 | 0.5 | 3.6 | 0 | 6 | 0.5 | 52.8 | 3.8 | 0.1 | 57.1 | 4.4 | 0.5 | 0.1 | 0 | 5 | 2.5 | 27.4 | 1.8 | 0 | 31.8 | |

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

File Name : Golden Sage Rd - Woodmen Rd AM 1-20
Site Code : 00194460
Start Date : 1/21/2020
Page No : 2

| | Golden Sage Rd Southbound | | | | | Woodmen Rd Westbound | | | | | Golden Sage Rd Northbound | | | | | Woodmen Rd Eastbound | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Start Time** | **Left** | Through | **Right** | **Peds** | App. Total | **Left** | Through | **Right** | **Peds** | App. Total | **Left** | Through | **Right** | **Peds** | App. Total | **Left** | Through | **Right** | **Peds** | 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 | 12 | 5 | 28 | 0 | 45 | 4 | 355 | **30** | 0 | 389 | 24 | **4** | 0 | 0 | 28 | **14** | 151 | 9 | 0 | 174 | 636 |
| 7:00:00 AM | **17** | **7** | 29 | 0 | **53** | 2 | 340 | 25 | 0 | 367 | 42 | 2 | **1** | 0 | 45 | 13 | 158 | **13** | 0 | 184 | 649 |
| 7:15:00 AM | 8 | 4 | **30** | 0 | 42 | 3 | **424** | 16 | 0 | **443** | **44** | 3 | 1 | 0 | **48** | 12 | 171 | 11 | 0 | 194 | **727** |
| 7:30:00 AM | 16 | 4 | 25 | **1** | 46 | **6** | 356 | 12 | 0 | 374 | 29 | 4 | 1 | 0 | 34 | 8 | **181** | 11 | 0 | **200** | 654 |
| Total Volume | 53 | 20 | 112 | 1 | 186 | 15 | 1475 | 83 | 0 | 1573 | 139 | 13 | 3 | 0 | 155 | 47 | 661 | 44 | 0 | 752 | 2666 |
| % App. Total | 28.5 | 10.8 | 60.2 | 0.5 | | 1 | 93.8 | 5.3 | 0 | | 89.7 | 8.4 | 1.9 | 0 | | 6.2 | 87.9 | 5.9 | 0 | | |
| PHF | .779 | .714 | .933 | .250 | .877 | .625 | .870 | .692 | .000 | .888 | .790 | .813 | .750 | .000 | .807 | .839 | .913 | .846 | .000 | .940 | .917 |

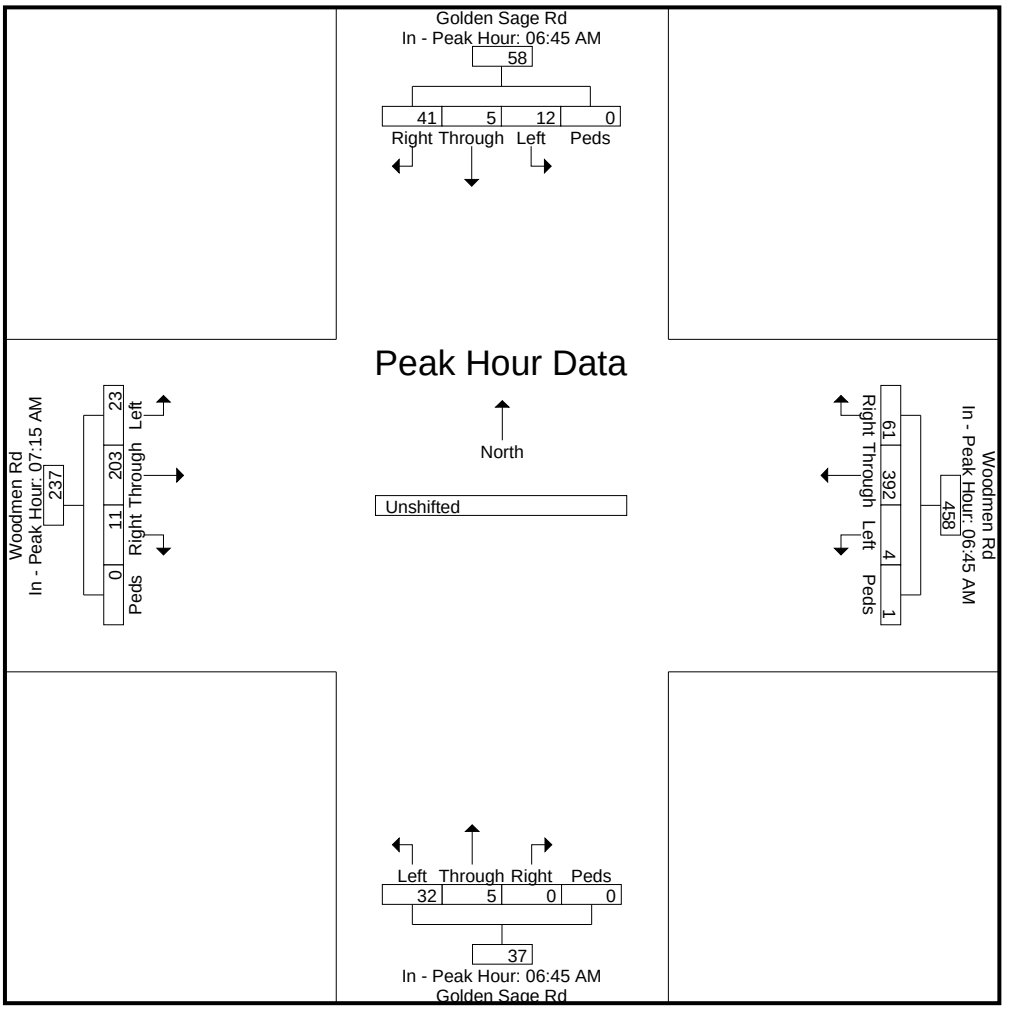


# LSC Transportation Consultants, Inc.

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


File Name : Golden Sage Rd - Woodmen Rd AM 1-20
Site Code : 00194460
Start Date : 1/21/2020


| | Golden Sage Rd Southbound | | | | | Woodmen Rd Westbound | | | | | Golden Sage Rd Northbound | | | | | Woodmen Rd Eastbound | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Start Time** | **Left** | **Through** | **Right** | **Peds** | **App. Total** | **Left** | **Through** | **Right** | **Peds** | **App. Total** | **Left** | **Through** | **Right** | **Peds** | **App. Total** | **Left** | **Through** | **Right** | **Peds** | **App. Total** | **Int. Total** |
| **Peak Hour Analysis From 6:30:00 AM to 8:15:00 AM - Peak 1 of 1** | | | | | | | | | | | | | | | | | | | | | |
| Peak Hour for Each Approach Begins at: | | | | | | | | | | | | | | | | | | | | | |
| | 6:45:00 AM | | | | | 6:45:00 AM | | | | | 6:45:00 AM | | | | | 7:15:00 AM | | | | | |
| +0 mins. | 12 | 5 | 28 | 0 | 45 | 4 | 355 | **30** | 0 | 389 | 24 | **4** | 0 | 0 | 28 | 12 | 171 | 11 | 0 | 194 | |
| +5 mins. | **17** | **7** | 29 | 0 | **53** | 2 | 340 | 25 | 0 | 367 | 42 | 2 | **1** | 0 | 45 | 8 | 181 | 11 | 0 | 200 | |
| +10 mins. | 8 | 4 | **30** | 0 | 42 | 3 | **424** | 16 | 0 | **443** | **44** | 3 | 1 | 0 | **48** | **16** | **209** | **20** | 0 | **245** | |
| +15 mins. | 16 | 4 | 25 | **1** | 46 | **6** | 356 | 12 | 0 | 374 | 29 | 4 | 1 | 0 | 34 | 16 | 165 | 13 | **1** | 195 | |
| Total Volume | 53 | 20 | 112 | 1 | 186 | 15 | 1475 | 83 | 0 | 1573 | 139 | 13 | 3 | 0 | 155 | 52 | 726 | 55 | 1 | 834 | |
| % App. Total | 28.5 | 10.8 | 60.2 | 0.5 | | 1 | 93.8 | 5.3 | 0 | | 89.7 | 8.4 | 1.9 | 0 | | 6.2 | 87.1 | 6.6 | 0.1 | | |
| PHF | .779 | .714 | .933 | .250 | .877 | .625 | .870 | .692 | .000 | .888 | .790 | .813 | .750 | .000 | .807 | .813 | .868 | .688 | .250 | .851 | |



# LSC Transportation Consultants, Inc.

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


File Name : Golden Sage Rd - Woodmen Rd PM 1-20
Site Code : 00194460
Start Date : 1/21/2020
Page No : 1

**Groups Printed- Unshifted**

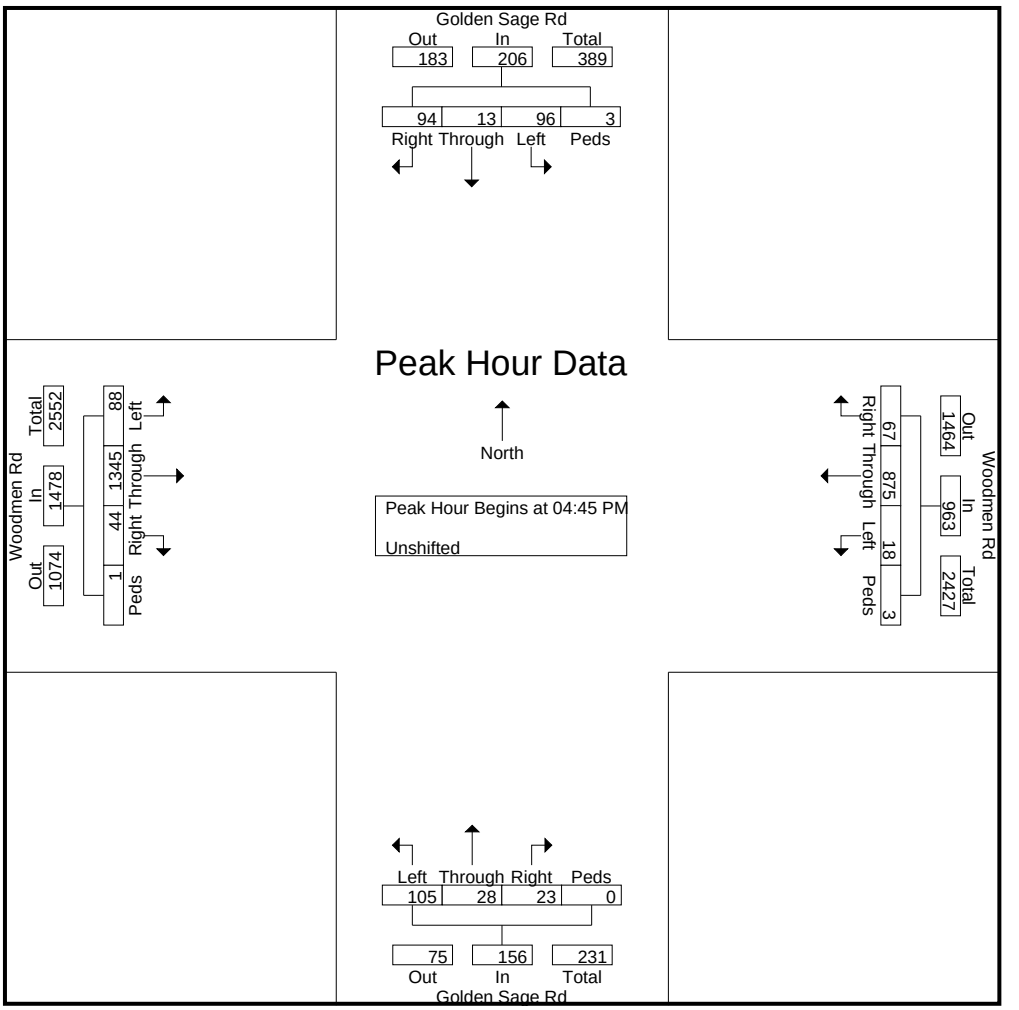
| | Golden Sage Rd Southbound | | | | | Woodmen Rd Westbound | | | | | Golden Sage Rd Northbound | | | | | Woodmen Rd Eastbound | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Start Time** | **Left** | **Through** | **Right** | **Peds** | **App. Total** | **Left** | **Through** | **Right** | **Peds** | **App. Total** | **Left** | **Through** | **Right** | **Peds** | **App. Total** | **Left** | **Through** | **Right** | **Peds** | **App. Total** | **Int. Total** |
| 04:00 PM | 17 | 2 | 26 | 0 | 45 | 7 | 205 | 16 | 0 | 228 | 23 | 9 | 5 | 0 | 37 | 21 | 272 | 23 | 2 | 318 | 628 |
| 04:15 PM | 7 | 1 | 22 | 0 | 30 | 5 | 241 | 26 | 0 | 272 | 26 | 5 | 6 | 0 | 37 | 28 | 325 | 12 | 1 | 366 | 705 |
| 04:30 PM | 21 | 4 | 24 | 0 | 49 | 1 | 241 | 20 | 1 | 263 | 26 | 8 | 4 | 0 | 38 | 24 | 313 | 3 | 1 | 341 | 691 |
| 04:45 PM | 29 | 3 | 19 | 2 | 53 | 1 | 202 | 24 | 0 | 227 | 16 | 4 | 0 | 0 | 20 | 18 | 341 | 10 | 1 | 370 | 670 |
| Total | 74 | 10 | 91 | 2 | 177 | 14 | 889 | 86 | 1 | 990 | 91 | 26 | 15 | 0 | 132 | 91 | 1251 | 48 | 5 | 1395 | 2694 |
| 05:00 PM | 18 | 1 | 27 | 0 | 46 | 2 | 254 | 11 | 2 | 269 | 27 | 7 | 1 | 0 | 35 | 19 | 328 | 11 | 0 | 358 | 708 |
| 05:15 PM | 7 | 2 | 6 | 0 | 15 | 8 | 192 | 9 | 1 | 210 | 32 | 10 | 12 | 0 | 54 | 23 | 340 | 17 | 0 | 380 | 659 |
| 05:30 PM | 42 | 7 | 42 | 1 | 92 | 7 | 227 | 23 | 0 | 257 | 30 | 7 | 10 | 0 | 47 | 28 | 336 | 6 | 0 | 370 | 766 |
| 05:45 PM | 21 | 1 | 18 | 0 | 40 | 1 | 180 | 12 | 1 | 194 | 19 | 5 | 5 | 0 | 29 | 18 | 326 | 9 | 0 | 353 | 616 |
| Total | 88 | 11 | 93 | 1 | 193 | 18 | 853 | 55 | 4 | 930 | 108 | 29 | 28 | 0 | 165 | 88 | 1330 | 43 | 0 | 1461 | 2749 |
| Grand Total | 162 | 21 | 184 | 3 | 370 | 32 | 1742 | 141 | 5 | 1920 | 199 | 55 | 43 | 0 | 297 | 179 | 2581 | 91 | 5 | 2856 | 5443 |
| Apprch % | 43.8 | 5.7 | 49.7 | 0.8 | | 1.7 | 90.7 | 7.3 | 0.3 | | 67 | 18.5 | 14.5 | 0 | | 6.3 | 90.4 | 3.2 | 0.2 | | |
| Total % | 3 | 0.4 | 3.4 | 0.1 | 6.8 | 0.6 | 32 | 2.6 | 0.1 | 35.3 | 3.7 | 1 | 0.8 | 0 | 5.5 | 3.3 | 47.4 | 1.7 | 0.1 | 52.5 | |

# LSC Transportation Consultants, Inc.

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


File Name : Golden Sage Rd - Woodmen Rd PM 1-20
Site Code : 00194460
Start Date : 1/21/2020
Page No : 2

| | Golden Sage Rd Southbound | | | | | Woodmen Rd Westbound | | | | | Golden Sage Rd Northbound | | | | | Woodmen Rd Eastbound | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Start Time** | **Left** | Through | **Right** | **Peds** | App. Total | **Left** | Through | **Right** | **Peds** | App. Total | **Left** | Through | **Right** | **Peds** | App. Total | **Left** | Through | **Right** | **Peds** | 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 4:45:00 PM | | | | | | | | | | | | | | | | | | | | | |
| 4:45:00 PM | 29 | 3 | 19 | **2** | 53 | 1 | 202 | **24** | 0 | 227 | 16 | 4 | 0 | 0 | 20 | 18 | **341** | 10 | **1** | 370 | 670 |
| 5:00:00 PM | 18 | 1 | 27 | 0 | 46 | 2 | **254** | 11 | **2** | **269** | 27 | 7 | 1 | 0 | 35 | 19 | 328 | 11 | 0 | 358 | 708 |
| 5:15:00 PM | 7 | 2 | 6 | 0 | 15 | **8** | 192 | 9 | 1 | 210 | **32** | **10** | **12** | 0 | **54** | 23 | 340 | **17** | 0 | **380** | 659 |
| 5:30:00 PM | **42** | **7** | **42** | 1 | **92** | 7 | 227 | 23 | 0 | 257 | 30 | 7 | 10 | 0 | 47 | **28** | 336 | 6 | 0 | 370 | **766** |
| Total Volume | 96 | 13 | 94 | 3 | 206 | 18 | 875 | 67 | 3 | 963 | 105 | 28 | 23 | 0 | 156 | 88 | 1345 | 44 | 1 | 1478 | 2803 |
| % App. Total | 46.6 | 6.3 | 45.6 | 1.5 | | 1.9 | 90.9 | 7 | 0.3 | | 67.3 | 17.9 | 14.7 | 0 | | 6 | 91 | 3 | 0.1 | | |
| PHF | .571 | .464 | .560 | .375 | .560 | .563 | .861 | .698 | .375 | .895 | .820 | .700 | .479 | .000 | .722 | .786 | .986 | .647 | .250 | .972 | .915 |

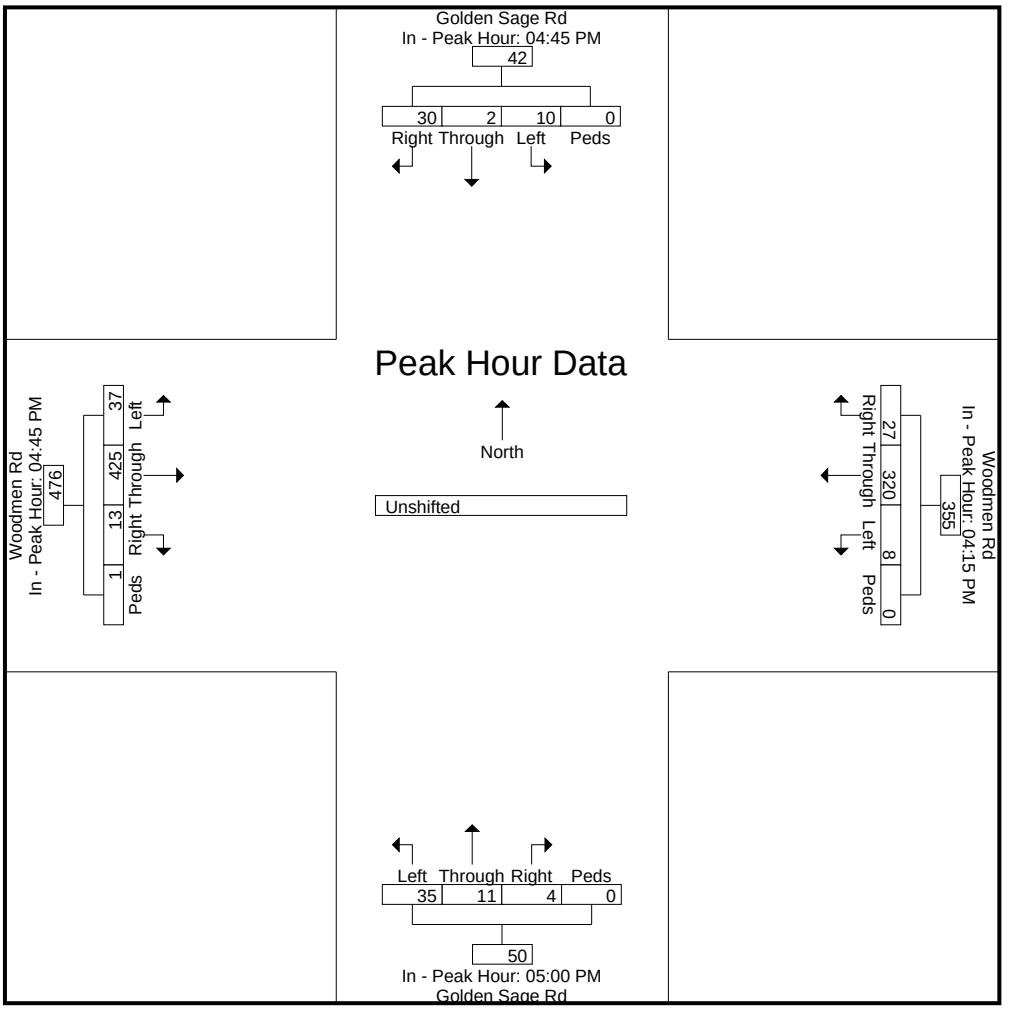


# LSC Transportation Consultants, Inc.

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


File Name : Golden Sage Rd - Woodmen Rd PM 1-20
Site Code : 00194460
Start Date : 1/21/2020
Page No : 3

| | Golden Sage Rd Southbound | | | | | Woodmen Rd Westbound | | | | | Golden Sage Rd Northbound | | | | | Woodmen Rd Eastbound | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Start Time** | **Left** | **Through** | **Right** | **Peds** | **App. Total** | **Left** | **Through** | **Right** | **Peds** | **App. Total** | **Left** | **Through** | **Right** | **Peds** | **App. Total** | **Left** | **Through** | **Right** | **Peds** | **App. Total** | **Int. Total** |
| **Peak Hour Analysis From 4:00:00 PM to 5:45:00 PM - Peak 1 of 1** | | | | | | | | | | | | | | | | | | | | | |
| Peak Hour for Each Approach Begins at: | | | | | | | | | | | | | | | | | | | | | |
| | 4:45:00 PM | | | | | 4:15:00 PM | | | | | 5:00:00 PM | | | | | 4:45:00 PM | | | | | |
| +0 mins. | 29 | 3 | 19 | **2** | 53 | **5** | 241 | **26** | 0 | **272** | 27 | 7 | 1 | 0 | 35 | 18 | **341** | 10 | **1** | 370 | |
| +5 mins. | 18 | 1 | 27 | 0 | 46 | 1 | 241 | 20 | 1 | 263 | **32** | **10** | **12** | 0 | **54** | 19 | 328 | 11 | 0 | 358 | |
| +10 mins. | 7 | 2 | 6 | 0 | 15 | 1 | 202 | 24 | 0 | 227 | 30 | 7 | 10 | 0 | 47 | 23 | 340 | **17** | 0 | **380** | |
| +15 mins. | **42** | **7** | **42** | 1 | **92** | 2 | **254** | 11 | **2** | 269 | 19 | 5 | 5 | 0 | 29 | **28** | 336 | 6 | 0 | 370 | |
| Total Volume | 96 | 13 | 94 | 3 | 206 | 9 | 938 | 81 | 3 | 1031 | 108 | 29 | 28 | 0 | 165 | 88 | 1345 | 44 | 1 | 1478 | |
| % App. Total | 46.6 | 6.3 | 45.6 | 1.5 | | 0.9 | 91 | 7.9 | 0.3 | | 65.5 | 17.6 | 17 | 0 | | 6 | 91 | 3 | 0.1 | | |
| PHF | .571 | .464 | .560 | .375 | .560 | .450 | .923 | .779 | .375 | .948 | .844 | .725 | .583 | .000 | .764 | .786 | .986 | .647 | .250 | .972 | |



# LSC Transportation Consultants, Inc.

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


File Name : Golden Sage Rd - Woodmen Frontage Rd AM 1-20
Site Code : 00194460
Start Date : 1/21/2020
Page No : 1

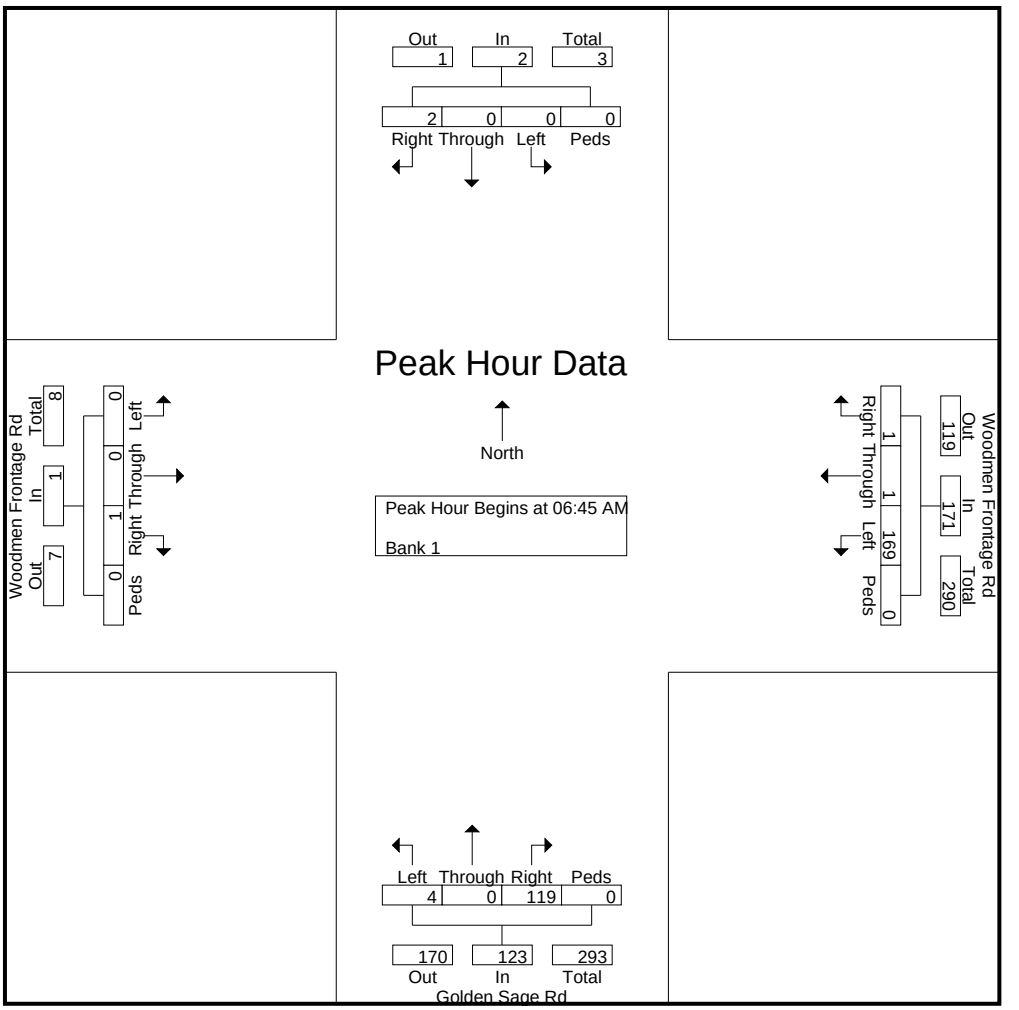
**Groups Printed- Bank 1**

| | Southbound | | | | | Woodmen Frontage Rd Westbound | | | | | Golden Sage Rd Northbound | | | | | Woodmen Frontage Rd Eastbound | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Start Time** | **Left** | **Through** | **Right** | **Peds** | **App. Total** | **Left** | **Through** | **Right** | **Peds** | **App. Total** | **Left** | **Through** | **Right** | **Peds** | **App. Total** | **Left** | **Through** | **Right** | **Peds** | **App. Total** | **Int. Total** |
| 06:30 AM | 0 | 0 | 0 | 0 | 0 | 19 | 0 | 0 | 0 | 19 | 0 | 0 | 21 | 0 | 21 | 1 | 0 | 0 | 0 | 1 | 41 |
| 06:45 AM | 0 | 0 | 2 | 0 | 2 | 41 | 0 | 1 | 0 | 42 | 4 | 0 | 47 | 0 | 51 | 0 | 0 | 0 | 0 | 0 | 95 |
| Total | 0 | 0 | 2 | 0 | 2 | 60 | 0 | 1 | 0 | 61 | 4 | 0 | 68 | 0 | 72 | 1 | 0 | 0 | 0 | 1 | 136 |
| 07:00 AM | 0 | 0 | 0 | 0 | 0 | 49 | 1 | 0 | 0 | 50 | 0 | 0 | 19 | 0 | 19 | 0 | 0 | 0 | 0 | 0 | 69 |
| 07:15 AM | 0 | 0 | 0 | 0 | 0 | 34 | 0 | 0 | 0 | 34 | 0 | 0 | 31 | 0 | 31 | 0 | 0 | 0 | 0 | 0 | 65 |
| 07:30 AM | 0 | 0 | 0 | 0 | 0 | 45 | 0 | 0 | 0 | 45 | 0 | 0 | 22 | 0 | 22 | 0 | 0 | 1 | 0 | 1 | 68 |
| 07:45 AM | 0 | 0 | 0 | 0 | 0 | 19 | 0 | 0 | 0 | 19 | 0 | 0 | 36 | 0 | 36 | 0 | 0 | 0 | 0 | 0 | 55 |
| Total | 0 | 0 | 0 | 0 | 0 | 147 | 1 | 0 | 0 | 148 | 0 | 0 | 108 | 0 | 108 | 0 | 0 | 1 | 0 | 1 | 257 |
| 08:00 AM | 0 | 0 | 0 | 0 | 0 | 27 | 0 | 0 | 0 | 27 | 0 | 0 | 24 | 0 | 24 | 0 | 0 | 0 | 0 | 0 | 51 |
| 08:15 AM | 0 | 0 | 0 | 0 | 0 | 26 | 0 | 0 | 0 | 26 | 0 | 0 | 48 | 1 | 49 | 0 | 0 | 1 | 0 | 1 | 76 |
| Grand Total | 0 | 0 | 2 | 0 | 2 | 260 | 1 | 1 | 0 | 262 | 4 | 0 | 248 | 1 | 253 | 1 | 0 | 2 | 0 | 3 | 520 |
| Apprch % | 0 | 0 | 100 | 0 | | 99.2 | 0.4 | 0.4 | 0 | | 1.6 | 0 | 98 | 0.4 | | 33.3 | 0 | 66.7 | 0 | | |
| Total % | 0 | 0 | 0.4 | 0 | 0.4 | 50 | 0.2 | 0.2 | 0 | 50.4 | 0.8 | 0 | 47.7 | 0.2 | 48.7 | 0.2 | 0 | 0.4 | 0 | 0.6 | |

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

File Name : Golden Sage Rd - Woodmen Frontage Rd AM 1-20
Site Code : 00194460
Start Date : 1/21/2020
Page No : 2

| | Southbound | | | | | Woodmen Frontage Rd Westbound | | | | | Golden Sage Rd Northbound | | | | | Woodmen Frontage Rd Eastbound | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Start Time** | **Left** | Through | **Right** | **Peds** | App. Total | **Left** | Through | **Right** | **Peds** | App. Total | **Left** | Through | **Right** | **Peds** | App. Total | **Left** | Through | **Right** | **Peds** | 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 | 0 | **2** | 0 | **2** | 41 | 0 | **1** | 0 | 42 | **4** | 0 | **47** | 0 | **51** | 0 | 0 | 0 | 0 | 0 | **95** |
| 7:00:00 AM | 0 | 0 | 0 | 0 | 0 | **49** | **1** | 0 | 0 | **50** | 0 | 0 | 19 | 0 | 19 | 0 | 0 | 0 | 0 | 0 | 69 |
| 7:15:00 AM | 0 | 0 | 0 | 0 | 0 | 34 | 0 | 0 | 0 | 34 | 0 | 0 | 31 | 0 | 31 | 0 | 0 | 0 | 0 | 0 | 65 |
| 7:30:00 AM | 0 | 0 | 0 | 0 | 0 | 45 | 0 | 0 | 0 | 45 | 0 | 0 | 22 | 0 | 22 | 0 | 0 | **1** | 0 | **1** | 68 |
| Total Volume | 0 | 0 | 2 | 0 | 2 | 169 | 1 | 1 | 0 | 171 | 4 | 0 | 119 | 0 | 123 | 0 | 0 | 1 | 0 | 1 | 297 |
| % App. Total | 0 | 0 | 100 | 0 | | 98.8 | 0.6 | 0.6 | 0 | | 3.3 | 0 | 96.7 | 0 | | 0 | 0 | 100 | 0 | | |
| PHF | .000 | .000 | .250 | .000 | .250 | .862 | .250 | .250 | .000 | .855 | .250 | .000 | .633 | .000 | .603 | .000 | .000 | .250 | .000 | .250 | .782 |

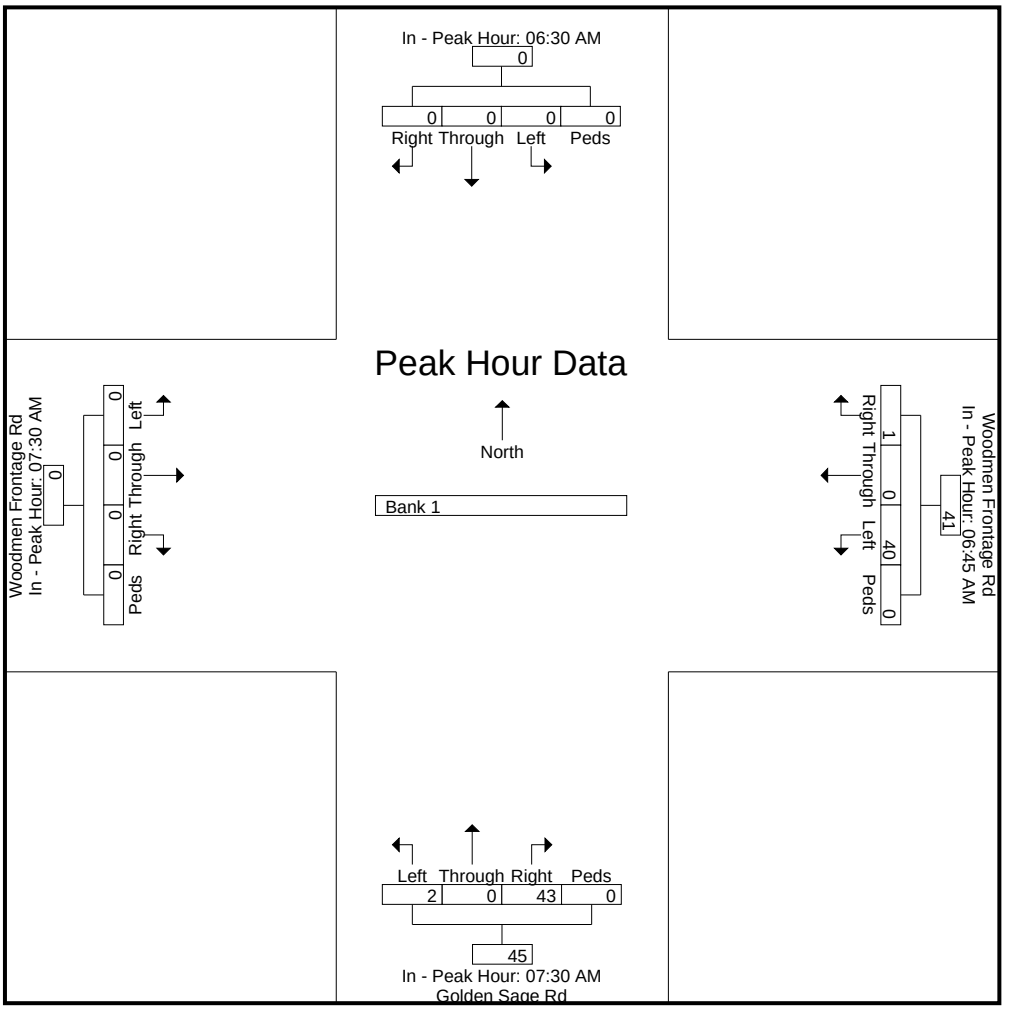


# LSC Transportation Consultants, Inc.

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


File Name : Golden Sage Rd - Woodmen Frontage Rd AM 1-20
Site Code : 00194460
Start Date : 1/21/2020
Page No : 3

| | Southbound | | | | | Woodmen Frontage Rd Westbound | | | | | Golden Sage Rd Northbound | | | | | Woodmen Frontage Rd Eastbound | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Start Time** | **Left** | **Through** | **Right** | **Peds** | **App. Total** | **Left** | **Through** | **Right** | **Peds** | **App. Total** | **Left** | **Through** | **Right** | **Peds** | **App. Total** | **Left** | **Through** | **Right** | **Peds** | **App. Total** | **Int. Total** |
| **Peak Hour Analysis From 6:30:00 AM to 8:15:00 AM - Peak 1 of 1** | | | | | | | | | | | | | | | | | | | | | |
| Peak Hour for Each Approach Begins at: | | | | | | | | | | | | | | | | | | | | | |
| | 6:30:00 AM | | | | | 6:45:00 AM | | | | | 7:30:00 AM | | | | | 7:30:00 AM | | | | | |
| +0 mins. | 0 | 0 | 0 | 0 | 0 | 41 | 0 | **1** | 0 | 42 | 0 | 0 | 22 | 0 | 22 | 0 | 0 | **1** | 0 | **1** | |
| +5 mins. | 0 | 0 | **2** | 0 | **2** | **49** | **1** | 0 | 0 | **50** | 0 | 0 | 36 | 0 | 36 | 0 | 0 | 0 | 0 | 0 | |
| +10 mins. | 0 | 0 | 0 | 0 | 0 | 34 | 0 | 0 | 0 | 34 | 0 | 0 | 24 | 0 | 24 | 0 | 0 | 0 | 0 | 0 | |
| +15 mins. | 0 | 0 | 0 | 0 | 0 | 45 | 0 | 0 | 0 | 45 | 0 | 0 | **48** | **1** | **49** | 0 | 0 | 1 | 0 | 1 | |
| Total Volume | 0 | 0 | 2 | 0 | 2 | 169 | 1 | 1 | 0 | 171 | 0 | 0 | 130 | 1 | 131 | 0 | 0 | 2 | 0 | 2 | |
| % App. Total | 0 | 0 | 100 | 0 | | 98.8 | 0.6 | 0.6 | 0 | | 0 | 0 | 99.2 | 0.8 | | 0 | 0 | 100 | 0 | | |
| PHF | .000 | .000 | .250 | .000 | .250 | .862 | .250 | .250 | .000 | .855 | .000 | .000 | .677 | .250 | .668 | .000 | .000 | .500 | .000 | .500 | |



# LSC Transportation Consultants, Inc.

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


File Name : Golden Sage Rd - Woodmen Frontage Rd PM 1-20
Site Code : 00194460
Start Date : 1/21/2020
Page No : 1

**Groups Printed- Bank 1**

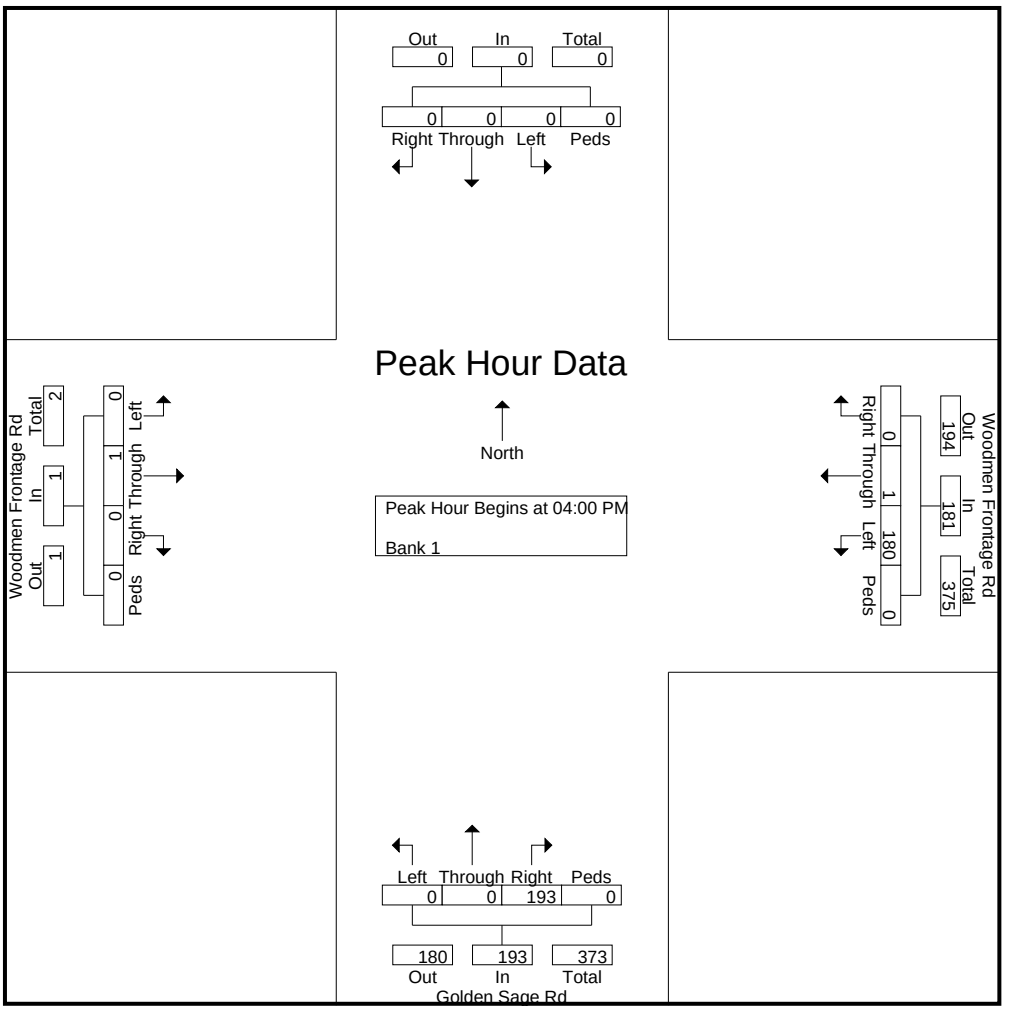
| | Southbound | | | | | Woodmen Frontage Rd Westbound | | | | | Golden Sage Rd Northbound | | | | | Woodmen Frontage Rd Eastbound | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Start Time** | **Left** | **Through** | **Right** | **Peds** | **App. Total** | **Left** | **Through** | **Right** | **Peds** | **App. Total** | **Left** | **Through** | **Right** | **Peds** | **App. Total** | **Left** | **Through** | **Right** | **Peds** | **App. Total** | **Int. Total** |
| 04:00 PM | 0 | 0 | 0 | 0 | 0 | 43 | 1 | 0 | 0 | 44 | 0 | 0 | 45 | 0 | 45 | 0 | 0 | 0 | 0 | 0 | 89 |
| 04:15 PM | 0 | 0 | 0 | 0 | 0 | 33 | 0 | 0 | 0 | 33 | 0 | 0 | 52 | 0 | 52 | 0 | 1 | 0 | 0 | 1 | 86 |
| 04:30 PM | 0 | 0 | 0 | 0 | 0 | 44 | 0 | 0 | 0 | 44 | 0 | 0 | 52 | 0 | 52 | 0 | 0 | 0 | 0 | 0 | 96 |
| 04:45 PM | 0 | 0 | 0 | 0 | 0 | 60 | 0 | 0 | 0 | 60 | 0 | 0 | 44 | 0 | 44 | 0 | 0 | 0 | 0 | 0 | 104 |
| Total | 0 | 0 | 0 | 0 | 0 | 180 | 1 | 0 | 0 | 181 | 0 | 0 | 193 | 0 | 193 | 0 | 1 | 0 | 0 | 1 | 375 |
| 05:00 PM | 0 | 0 | 0 | 0 | 0 | 45 | 0 | 0 | 0 | 45 | 0 | 0 | 33 | 0 | 33 | 0 | 0 | 2 | 0 | 2 | 80 |
| 05:15 PM | 0 | 0 | 0 | 0 | 0 | 13 | 0 | 0 | 0 | 13 | 2 | 0 | 41 | 1 | 44 | 0 | 0 | 1 | 0 | 1 | 58 |
| 05:30 PM | 0 | 0 | 0 | 0 | 0 | 89 | 0 | 1 | 0 | 90 | 0 | 0 | 35 | 0 | 35 | 0 | 0 | 0 | 0 | 0 | 125 |
| 05:45 PM | 0 | 0 | 0 | 0 | 0 | 43 | 0 | 1 | 0 | 44 | 0 | 0 | 31 | 0 | 31 | 0 | 0 | 0 | 0 | 0 | 75 |
| Total | 0 | 0 | 0 | 0 | 0 | 190 | 0 | 2 | 0 | 192 | 2 | 0 | 140 | 1 | 143 | 0 | 0 | 3 | 0 | 3 | 338 |
| Grand Total | 0 | 0 | 0 | 0 | 0 | 370 | 1 | 2 | 0 | 373 | 2 | 0 | 333 | 1 | 336 | 0 | 1 | 3 | 0 | 4 | 713 |
| Apprch % | 0 | 0 | 0 | 0 | | 99.2 | 0.3 | 0.5 | 0 | | 0.6 | 0 | 99.1 | 0.3 | | 0 | 25 | 75 | 0 | | |
| Total % | 0 | 0 | 0 | 0 | 0 | 51.9 | 0.1 | 0.3 | 0 | 52.3 | 0.3 | 0 | 46.7 | 0.1 | 47.1 | 0 | 0.1 | 0.4 | 0 | 0.6 | |

# LSC Transportation Consultants, Inc.

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


File Name : Golden Sage Rd - Woodmen Frontage Rd PM 1-20
Site Code : 00194460
Start Date : 1/21/2020


| | Southbound | | | | | Woodmen Frontage Rd Westbound | | | | | Golden Sage Rd Northbound | | | | | Woodmen Frontage Rd Eastbound | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Start Time** | **Left** | Through | **Right** | **Peds** | App. Total | **Left** | Through | **Right** | **Peds** | App. Total | **Left** | Through | **Right** | **Peds** | App. Total | **Left** | Through | **Right** | **Peds** | 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 | 43 | **1** | 0 | 0 | 44 | 0 | 0 | 45 | 0 | 45 | 0 | 0 | 0 | 0 | 0 | 89 |
| 4:15:00 PM | 0 | 0 | 0 | 0 | 0 | 33 | 0 | 0 | 0 | 33 | 0 | 0 | **52** | 0 | **52** | 0 | **1** | 0 | 0 | **1** | 86 |
| 4:30:00 PM | 0 | 0 | 0 | 0 | 0 | 44 | 0 | 0 | 0 | 44 | 0 | 0 | 52 | 0 | 52 | 0 | 0 | 0 | 0 | 0 | 96 |
| 4:45:00 PM | 0 | 0 | 0 | 0 | 0 | **60** | 0 | 0 | 0 | **60** | 0 | 0 | 44 | 0 | 44 | 0 | 0 | 0 | 0 | 0 | **104** |
| Total Volume | 0 | 0 | 0 | 0 | 0 | 180 | 1 | 0 | 0 | 181 | 0 | 0 | 193 | 0 | 193 | 0 | 1 | 0 | 0 | 1 | 375 |
| % App. Total | 0 | 0 | 0 | 0 | | 99.4 | 0.6 | 0 | 0 | | 0 | 0 | 100 | 0 | | 0 | 100 | 0 | 0 | | |
| PHF | .000 | .000 | .000 | .000 | .000 | .750 | .250 | .000 | .000 | .754 | .000 | .000 | .928 | .000 | .928 | .000 | .250 | .000 | .000 | .250 | .901 |

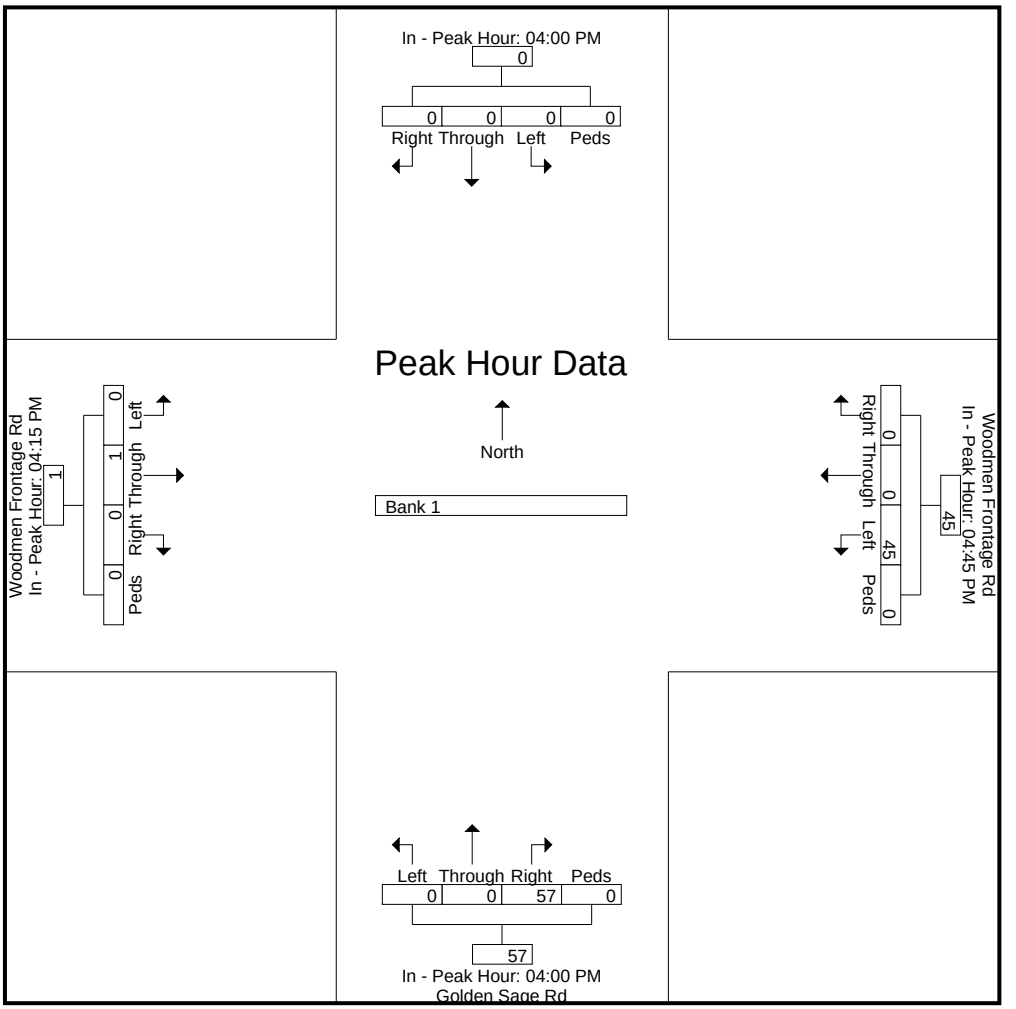


# LSC Transportation Consultants, Inc.

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


File Name : Golden Sage Rd - Woodmen Frontage Rd PM 1-20
Site Code : 00194460
Start Date : 1/21/2020
Page No : 3

| | Southbound | | | | | Woodmen Frontage Rd Westbound | | | | | Golden Sage Rd Northbound | | | | | Woodmen Frontage Rd Eastbound | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Start Time** | **Left** | Through | **Right** | **Peds** | App. Total | **Left** | Through | **Right** | **Peds** | App. Total | **Left** | Through | **Right** | **Peds** | App. Total | **Left** | Through | **Right** | **Peds** | App. Total | Int. Total |
| **Peak Hour Analysis From 4:00:00 PM to 5:45:00 PM - Peak 1 of 1** | | | | | | | | | | | | | | | | | | | | | |
| Peak Hour for Each Approach Begins at: | | | | | | | | | | | | | | | | | | | | | |
| | 4:00:00 PM | | | | | 4:45:00 PM | | | | | 4:00:00 PM | | | | | 4:15:00 PM | | | | | |
| +0 mins. | 0 | 0 | 0 | 0 | 0 | 60 | 0 | 0 | 0 | 60 | 0 | 0 | 45 | 0 | 45 | 0 | **1** | 0 | 0 | 1 | |
| +5 mins. | 0 | 0 | 0 | 0 | 0 | 45 | 0 | 0 | 0 | 45 | 0 | 0 | **52** | 0 | **52** | 0 | 0 | 0 | 0 | 0 | |
| +10 mins. | 0 | 0 | 0 | 0 | 0 | 13 | 0 | 0 | 0 | 13 | 0 | 0 | 52 | 0 | 52 | 0 | 0 | 0 | 0 | 0 | |
| +15 mins. | 0 | 0 | 0 | 0 | 0 | **89** | 0 | **1** | 0 | **90** | 0 | 0 | 44 | 0 | 44 | 0 | 0 | **2** | 0 | **2** | |
| Total Volume | 0 | 0 | 0 | 0 | 0 | 207 | 0 | 1 | 0 | 208 | 0 | 0 | 193 | 0 | 193 | 0 | 1 | 2 | 0 | 3 | |
| % App. Total | 0 | 0 | 0 | 0 | | 99.5 | 0 | 0.5 | 0 | | 0 | 0 | 100 | 0 | | 0 | 33.3 | 66.7 | 0 | | |
| PHF | .000 | .000 | .000 | .000 | .000 | .581 | .000 | .250 | .000 | .578 | .000 | .000 | .928 | .000 | .928 | .000 | .250 | .250 | .000 | .375 | |



# Levels of Service

TRANSPORTATION
CONSULTANTS, INC.

| Intersection | |
|---|---|
| Int Delay, s/veh | 5.7 |

| Movement | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 68 | 151 | 57 | 657 | 1538 | 126 |
| Future Vol, veh/h | 68 | 151 | 57 | 657 | 1538 | 126 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 0 | 0 | 700 | - | - | 330 |
| Veh in Median Storage, # | 1 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 96 | 96 | 86 | 86 | 88 | 88 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 71 | 157 | 66 | 764 | 1748 | 143 |

| Major/Minor | Minor2 | | Major1 | | Major2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 2262 | 874 | 1891 | 0 | - | 0 |
| Stage 1 | 1748 | - | - | - | - | - |
| Stage 2 | 514 | - | - | - | - | - |
| Critical Hdwy | 6.84 | 6.94 | 4.14 | - | - | - |
| Critical Hdwy Stg 1 | 5.84 | - | - | - | - | - |
| Critical Hdwy Stg 2 | 5.84 | - | - | - | - | - |
| Follow-up Hdwy | 3.52 | 3.32 | 2.22 | - | - | - |
| Pot Cap-1 Maneuver | ~ 35 | 293 | 312 | - | - | - |
| Stage 1 | 125 | - | - | - | - | - |
| Stage 2 | 565 | - | - | - | - | - |
| Platoon blocked, % | | | | - | - | - |
| Mov Cap-1 Maneuver | ~ 28 | 293 | 312 | - | - | - |
| Mov Cap-2 Maneuver | 82 | - | - | - | - | - |
| Stage 1 | 99 | - | - | - | - | - |
| Stage 2 | 565 | - | - | - | - | - |

| Approach | EB | NB | SB |
|---|---|---|---|
| HCM Control Delay, s | 68.5 | 1.6 | 0 |
| HCM LOS | F | | |

| Minor Lane/Major Mvmt | NBL | NBT | EBLn1 | EBLn2 | SBT | SBR |
|---|---|---|---|---|---|---|
| Capacity (veh/h) | 312 | - | 82 | 293 | - | - |
| HCM Lane V/C Ratio | 0.212 | - | 0.864 | 0.537 | - | - |
| HCM Control Delay (s) | 19.6 | - | 152.4 | 30.7 | - | - |
| HCM Lane LOS | C | - | F | D | - | - |
| HCM 95th %tile Q(veh) | 0.8 | - | 4.5 | 3 | - | - |

| 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | |
| Traffic Volume (vph) | 47 | 661 | 44 | 15 | 1475 | 83 | 134 | 13 | 3 | 53 | 20 |
| Future Volume (vph) | 47 | 661 | 44 | 15 | 1475 | 83 | 134 | 13 | 3 | 53 | 20 |
| Turn Type | Perm | NA | Perm | Perm | NA | Perm | Perm | NA | Perm | Perm | NA |
| Protected Phases | | 2 | | | 6 | | | 8 | | | 4 |
| Permitted Phases | 2 | | 2 | 6 | | 6 | 8 | | 8 | 4 | |
| Detector Phase | 2 | 2 | 2 | 6 | 6 | 6 | 8 | 8 | 8 | 4 | 4 |
| Switch Phase | | | | | | | | | | | |
| Minimum Initial (s) | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Minimum Split (s) | 11.0 | 11.0 | 11.0 | 11.0 | 11.0 | 11.0 | 21.5 | 21.5 | 21.5 | 21.5 | 21.5 |
| Total Split (s) | 63.0 | 63.0 | 63.0 | 63.0 | 63.0 | 63.0 | 27.0 | 27.0 | 27.0 | 27.0 | 27.0 |
| Total Split (%) | 70.0% | 70.0% | 70.0% | 70.0% | 70.0% | 70.0% | 30.0% | 30.0% | 30.0% | 30.0% | 30.0% |
| Yellow Time (s) | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 |
| All-Red Time (s) | 2.0 | 2.0 | 2.0 | 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 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 7.0 | 7.0 | 7.0 | 7.0 | 7.0 | 7.0 | 5.5 | 5.5 | 5.5 | 5.5 | 5.5 |
| Lead/Lag | | | | | | | | | | | |
| Lead-Lag Optimize? | | | | | | | | | | | |
| Recall Mode | Max | Max | Max | Max | Max | Max | None | None | None | None | None |
| Act Effct Green (s) | 56.2 | 56.2 | 56.2 | 56.2 | 56.2 | 56.2 | 16.4 | 16.4 | 16.4 | 16.4 | 16.4 |
| Actuated g/C Ratio | 0.66 | 0.66 | 0.66 | 0.66 | 0.66 | 0.66 | 0.19 | 0.19 | 0.19 | 0.19 | 0.19 |
| v/c Ratio | 0.44 | 0.31 | 0.05 | 0.04 | 0.71 | 0.09 | 0.76 | 0.04 | 0.01 | 0.24 | 0.47 |
| Control Delay | 23.6 | 7.1 | 2.2 | 6.6 | 12.2 | 1.8 | 54.1 | 27.1 | 0.0 | 30.7 | 28.9 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 23.6 | 7.1 | 2.2 | 6.6 | 12.2 | 1.8 | 54.1 | 27.1 | 0.0 | 30.7 | 28.9 |
| LOS | C | A | A | A | B | A | D | C | A | C | C |
| Approach Delay | | 7.9 | | | 11.6 | | | 50.6 | | | 29.4 |
| Approach LOS | | A | | | B | | | D | | | C |

| Intersection Summary | |
|---|---|
| Cycle Length: 90 | |
| Actuated Cycle Length: 85.1 | |
| Natural Cycle: 60 | |
| Control Type: Semi Act-Uncoord | |
| Maximum v/c Ratio: 0.76 | |
| Intersection Signal Delay: 14.3 | Intersection LOS: B |
| Intersection Capacity Utilization 71.2% | ICU Level of Service C |
| Analysis Period (min) 15 | |

Splits and Phases: 25: Golden Sage & Woodmen

| Intersection | |
|---|---|
| Int Delay, s/veh | 5.5 |

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Vol, veh/h | 0 | 0 | 1 | 184 | 1 | 0 | 4 | 0 | 139 | 0 | 0 | 0 |
| Future Vol, veh/h | 0 | 0 | 1 | 184 | 1 | 0 | 4 | 0 | 139 | 0 | 0 | 0 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Stop | Stop | Stop | Stop | Free | Free | Free | Free | Free | Free |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | - | - | - | - | - | - | - | - | - | - | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 78 | 78 | 78 | 83 | 83 | 83 | 65 | 65 | 65 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 0 | 0 | 1 | 222 | 1 | 0 | 6 | 0 | 214 | 0 | 0 | 0 |

| Major/Minor | Minor2 | | | Minor1 | | | Major1 | | | Major2 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Conflicting Flow All | - | 227 | 1 | 121 | 120 | - | 1 | 0 | 0 | 214 | 0 | 0 |
| Stage 1 | - | 1 | - | 119 | 119 | - | - | - | - | - | - | - |
| Stage 2 | - | 226 | - | 2 | 1 | - | - | - | - | - | - | - |
| Critical Hdwy | - | 6.52 | 6.22 | 7.12 | 6.52 | - | 4.12 | - | - | 4.12 | - | - |
| Critical Hdwy Stg 1 | - | 5.52 | - | 6.12 | 5.52 | - | - | - | - | - | - | - |
| Critical Hdwy Stg 2 | - | 5.52 | - | 6.12 | 5.52 | - | - | - | - | - | - | - |
| Follow-up Hdwy | - | 4.018 | 3.318 | 3.518 | 4.018 | - | 2.218 | - | - | 2.218 | - | - |
| Pot Cap-1 Maneuver | 0 | 672 | 1084 | 854 | 770 | 0 | 1622 | - | - | 1356 | - | - |
| Stage 1 | 0 | 895 | - | 885 | 797 | 0 | - | - | - | - | - | - |
| Stage 2 | 0 | 717 | - | 1021 | 895 | 0 | - | - | - | - | - | - |
| Platoon blocked, % | | | | | | | | - | - | | - | - |
| Mov Cap-1 Maneuver | - | 669 | 1084 | 851 | 767 | - | 1622 | - | - | 1356 | - | - |
| Mov Cap-2 Maneuver | - | 669 | - | 851 | 767 | - | - | - | - | - | - | - |
| Stage 1 | - | 895 | - | 881 | 794 | - | - | - | - | - | - | - |
| Stage 2 | - | 714 | - | 1020 | 895 | - | - | - | - | - | - | - |

| Approach | EB | WB | NB | SB |
|---|---|---|---|---|
| HCM Control Delay, s | 8.3 | 10.7 | 0.2 | 0 |
| HCM LOS | A | B | | |

| Minor Lane/Major Mvmt | NBL | NBT | NBR | EBLn1 | WBLn1 | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|
| Capacity (veh/h) | 1622 | - | - | 1084 | 850 | 1356 | - | - |
| HCM Lane V/C Ratio | 0.004 | - | - | 0.001 | 0.262 | - | - | - |
| HCM Control Delay (s) | 7.2 | 0 | - | 8.3 | 10.7 | 0 | - | - |
| HCM Lane LOS | A | A | - | A | B | A | - | - |
| HCM 95th %tile Q(veh) | 0 | - | - | 0 | 1.1 | 0 | - | - |

| Intersection | |
|---|---|
| Int Delay, s/veh | 2.4 |

| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 5 | 116 | 86 | 0 | 1 | 28 |
| Future Vol, veh/h | 5 | 116 | 86 | 0 | 1 | 28 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 155 | - | - | - | - | - |
| Veh in Median Storage, # | - | 0 | 0 | - | 0 | - |
| Grade, % | - | 0 | 0 | - | 0 | - |
| Peak Hour Factor | 82 | 82 | 83 | 83 | 35 | 35 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 6 | 141 | 104 | 0 | 3 | 80 |

| Major/Minor | Major1 | | Major2 | | Minor2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 104 | 0 | - | 0 | 257 | 104 |
| Stage 1 | - | - | - | - | 104 | - |
| Stage 2 | - | - | - | - | 153 | - |
| 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 | 1488 | - | - | - | 732 | 951 |
| Stage 1 | - | - | - | - | 920 | - |
| Stage 2 | - | - | - | - | 875 | - |
| Platoon blocked, % | | | - | - | - | |
| Mov Cap-1 Maneuver | 1488 | - | - | - | 729 | 951 |
| Mov Cap-2 Maneuver | - | - | - | - | 729 | - |
| Stage 1 | - | - | - | - | 916 | - |
| Stage 2 | - | - | - | - | 875 | - |

| Approach | EB | WB | SB |
|---|---|---|---|
| HCM Control Delay, s | 0.3 | 0 | 9.2 |
| HCM LOS | | | A |

| Minor Lane/Major Mvmt | EBL | EBT | WBT | WBR | SBLn1 |
|---|---|---|---|---|---|
| Capacity (veh/h) | 1488 | - | - | - | 941 |
| HCM Lane V/C Ratio | 0.004 | - | - | - | 0.088 |
| HCM Control Delay (s) | 7.4 | - | - | - | 9.2 |
| HCM Lane LOS | A | - | - | - | A |
| HCM 95th %tile Q(veh) | 0 | - | - | - | 0.3 |

| Intersection | |
|---|---|
| Int Delay, s/veh | 1.9 |

| Movement | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 56 | 95 | 83 | 1345 | 886 | 90 |
| Future Vol, veh/h | 56 | 95 | 83 | 1345 | 886 | 90 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 0 | 0 | 700 | - | - | 330 |
| Veh in Median Storage, # | 1 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 86 | 86 | 96 | 96 | 100 | 100 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 65 | 110 | 86 | 1401 | 886 | 90 |

| Major/Minor | Minor2 | | Major1 | | Major2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 1759 | 443 | 976 | 0 | - | 0 |
| Stage 1 | 886 | - | - | - | - | - |
| Stage 2 | 873 | - | - | - | - | - |
| Critical Hdwy | 6.84 | 6.94 | 4.14 | - | - | - |
| Critical Hdwy Stg 1 | 5.84 | - | - | - | - | - |
| Critical Hdwy Stg 2 | 5.84 | - | - | - | - | - |
| Follow-up Hdwy | 3.52 | 3.32 | 2.22 | - | - | - |
| Pot Cap-1 Maneuver | 76 | 562 | 703 | - | - | - |
| Stage 1 | 363 | - | - | - | - | - |
| Stage 2 | 369 | - | - | - | - | - |
| Platoon blocked, % | | | | - | - | - |
| Mov Cap-1 Maneuver | 67 | 562 | 703 | - | - | - |
| Mov Cap-2 Maneuver | 167 | - | - | - | - | - |
| Stage 1 | 319 | - | - | - | - | - |
| Stage 2 | 369 | - | - | - | - | - |

| Approach | EB | NB | SB |
|---|---|---|---|
| HCM Control Delay, s | 22.9 | 0.6 | 0 |
| HCM LOS | C | | |

| Minor Lane/Major Mvmt | NBL | NBT | EBLn1 | EBLn2 | SBT | SBR |
|---|---|---|---|---|---|---|
| Capacity (veh/h) | 703 | - | 167 | 562 | - | - |
| HCM Lane V/C Ratio | 0.123 | - | 0.39 | 0.197 | - | - |
| HCM Control Delay (s) | 10.8 | - | 39.7 | 13 | - | - |
| HCM Lane LOS | B | - | E | B | - | - |
| HCM 95th %tile Q(veh) | 0.4 | - | 1.7 | 0.7 | - | - |

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | |
| Traffic Volume (vph) | 88 | 1345 | 44 | 18 | 875 | 67 | 105 | 28 | 23 | 96 | 13 |
| Future Volume (vph) | 88 | 1345 | 44 | 18 | 875 | 67 | 105 | 28 | 23 | 96 | 13 |
| Turn Type | Perm | NA | Perm | Perm | NA | Perm | Perm | NA | Perm | Perm | NA |
| Protected Phases | | 2 | | | 6 | | | 8 | | | 4 |
| Permitted Phases | 2 | | 2 | 6 | | 6 | 8 | | 8 | 4 | |
| Detector Phase | 2 | 2 | 2 | 6 | 6 | 6 | 8 | 8 | 8 | 4 | 4 |
| Switch Phase | | | | | | | | | | | |
| Minimum Initial (s) | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Minimum Split (s) | 11.0 | 11.0 | 11.0 | 11.0 | 11.0 | 11.0 | 21.5 | 21.5 | 21.5 | 21.5 | 21.5 |
| Total Split (s) | 65.0 | 65.0 | 65.0 | 65.0 | 65.0 | 65.0 | 25.0 | 25.0 | 25.0 | 25.0 | 25.0 |
| Total Split (%) | 72.2% | 72.2% | 72.2% | 72.2% | 72.2% | 72.2% | 27.8% | 27.8% | 27.8% | 27.8% | 27.8% |
| Yellow Time (s) | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 |
| All-Red Time (s) | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 |
| Lost Time Adjust (s) | 0.0 | -3.0 | -3.0 | -1.0 | -3.0 | -3.0 | -1.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 7.0 | 4.0 | 4.0 | 6.0 | 4.0 | 4.0 | 4.5 | 5.5 | 5.5 | 5.5 | 5.5 |
| Lead/Lag | | | | | | | | | | | |
| Lead-Lag Optimize? | | | | | | | | | | | |
| Recall Mode | Max | Max | Max | Max | Max | Max | None | None | None | None | None |
| Act Effct Green (s) | 58.1 | 61.1 | 61.1 | 59.1 | 61.1 | 61.1 | 16.2 | 15.2 | 15.2 | 15.2 | 15.2 |
| Actuated g/C Ratio | 0.68 | 0.71 | 0.71 | 0.69 | 0.71 | 0.71 | 0.19 | 0.18 | 0.18 | 0.18 | 0.18 |
| v/c Ratio | 0.25 | 0.58 | 0.04 | 0.11 | 0.37 | 0.06 | 0.69 | 0.10 | 0.09 | 0.71 | 0.45 |
| Control Delay | 8.5 | 7.7 | 1.6 | 7.3 | 5.8 | 1.4 | 52.4 | 29.6 | 4.7 | 49.6 | 10.6 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 8.5 | 7.7 | 1.6 | 7.3 | 5.8 | 1.4 | 52.4 | 29.6 | 4.7 | 49.6 | 10.6 |
| LOS | A | A | A | A | A | A | D | C | A | D | B |
| Approach Delay | | 7.6 | | | 5.5 | | | 41.2 | | | 29.0 |
| Approach LOS | | A | | | A | | | D | | | C |

| Intersection Summary | |
|---|---|
| Cycle Length: 90 | |
| Actuated Cycle Length: 85.8 | |
| Natural Cycle: 55 | |
| Control Type: Semi Act-Uncoord | |
| Maximum v/c Ratio: 0.71 | |
| Intersection Signal Delay: 11.3 | Intersection LOS: B |
| Intersection Capacity Utilization 65.9% | ICU Level of Service C |
| Analysis Period (min) 15 | |

Splits and Phases: 25: Golden Sage & Woodmen

| 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 | 3 | 200 | 1 | 0 | 2 | 0 | 181 | 0 | 0 | 0 |
| Future Vol, veh/h | 0 | 0 | 3 | 200 | 1 | 0 | 2 | 0 | 181 | 0 | 0 | 0 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Stop | Stop | Stop | Stop | Free | Free | Free | Free | Free | Free |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | - | - | - | - | - | - | - | - | - | - | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 78 | 78 | 78 | 58 | 58 | 58 | 83 | 83 | 83 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 0 | 0 | 4 | 345 | 2 | 0 | 2 | 0 | 218 | 0 | 0 | 0 |

| Major/Minor | Minor2 | | | Minor1 | | | Major1 | | | Major2 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Conflicting Flow All | - | 223 | 1 | 116 | 114 | - | 1 | 0 | 0 | 218 | 0 | 0 |
| Stage 1 | - | 1 | - | 113 | 113 | - | - | - | - | - | - | - |
| Stage 2 | - | 222 | - | 3 | 1 | - | - | - | - | - | - | - |
| Critical Hdwy | - | 6.52 | 6.22 | 7.12 | 6.52 | - | 4.12 | - | - | 4.12 | - | - |
| Critical Hdwy Stg 1 | - | 5.52 | - | 6.12 | 5.52 | - | - | - | - | - | - | - |
| Critical Hdwy Stg 2 | - | 5.52 | - | 6.12 | 5.52 | - | - | - | - | - | - | - |
| Follow-up Hdwy | - | 4.018 | 3.318 | 3.518 | 4.018 | - | 2.218 | - | - | 2.218 | - | - |
| Pot Cap-1 Maneuver | 0 | 676 | 1084 | 861 | 776 | 0 | 1622 | - | - | 1352 | - | - |
| Stage 1 | 0 | 895 | - | 892 | 802 | 0 | - | - | - | - | - | - |
| Stage 2 | 0 | 720 | - | 1020 | 895 | 0 | - | - | - | - | - | - |
| Platoon blocked, % | | | | | | | | - | - | | - | - |
| Mov Cap-1 Maneuver | - | 675 | 1084 | 858 | 775 | - | 1622 | - | - | 1352 | - | - |
| Mov Cap-2 Maneuver | - | 675 | - | 858 | 775 | - | - | - | - | - | - | - |
| Stage 1 | - | 895 | - | 891 | 801 | - | - | - | - | - | - | - |
| Stage 2 | - | 719 | - | 1016 | 895 | - | - | - | - | - | - | - |

| Approach | EB | WB | NB | SB |
|---|---|---|---|---|
| HCM Control Delay, s | 8.3 | 12 | 0.1 | 0 |
| HCM LOS | A | B | | |

| Minor Lane/Major Mvmt | NBL | NBT | NBR | EBLn1 | WBLn1 | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|
| Capacity (veh/h) | 1622 | - | - | 1084 | 858 | 1352 | - | - |
| HCM Lane V/C Ratio | 0.001 | - | - | 0.004 | 0.404 | - | - | - |
| HCM Control Delay (s) | 7.2 | 0 | - | 8.3 | 12 | 0 | - | - |
| HCM Lane LOS | A | A | - | A | B | A | - | - |
| HCM 95th %tile Q(veh) | 0 | - | - | 0 | 2 | 0 | - | - |

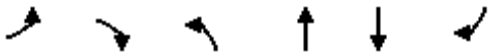
| Intersection | |
|---|---|
| Int Delay, s/veh | 0.8 |

| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 8 | 76 | 120 | 1 | 0 | 24 |
| Future Vol, veh/h | 8 | 76 | 120 | 1 | 0 | 24 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 155 | - | - | - | - | - |
| Veh in Median Storage, # | - | 0 | 0 | - | 0 | - |
| Grade, % | - | 0 | 0 | - | 0 | - |
| Peak Hour Factor | 78 | 78 | 36 | 36 | 78 | 78 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 10 | 97 | 333 | 3 | 0 | 31 |

| Major/Minor | Major1 | | Major2 | | Minor2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 336 | 0 | - | 0 | 452 | 335 |
| Stage 1 | - | - | - | - | 335 | - |
| Stage 2 | - | - | - | - | 117 | - |
| 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 | 1223 | - | - | - | 565 | 707 |
| Stage 1 | - | - | - | - | 725 | - |
| Stage 2 | - | - | - | - | 908 | - |
| Platoon blocked, % | | | - | - | - | |
| Mov Cap-1 Maneuver | 1223 | - | - | - | 560 | 707 |
| Mov Cap-2 Maneuver | - | - | - | - | 560 | - |
| Stage 1 | - | - | - | - | 719 | - |
| Stage 2 | - | - | - | - | 908 | - |

| Approach | EB | WB | SB |
|---|---|---|---|
| HCM Control Delay, s | 0.8 | 0 | 10.3 |
| HCM LOS | | | B |

| Minor Lane/Major Mvmt | EBL | EBT | WBT | WBR | SBLn1 |
|---|---|---|---|---|---|
| Capacity (veh/h) | 1223 | - | - | - | 707 |
| HCM Lane V/C Ratio | 0.008 | - | - | - | 0.044 |
| HCM Control Delay (s) | 8 | - | - | - | 10.3 |
| HCM Lane LOS | A | - | - | - | B |
| HCM 95th %tile Q(veh) | 0 | - | - | - | 0.1 |



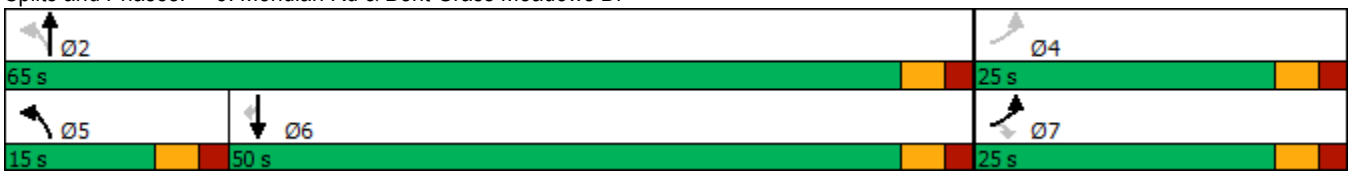
| Lane Group | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Traffic Volume (vph) | 112 | 218 | 76 | 711 | 1671 | 154 |
| Future Volume (vph) | 112 | 218 | 76 | 711 | 1671 | 154 |
| Confl. Peds. (#/hr) | | | | | | |
| Confl. Bikes (#/hr) | | | | | | |
| Peak Hour Factor | 0.96 | 0.96 | 0.86 | 0.86 | 0.88 | 0.88 |
| Growth Factor | 100% | 100% | 100% | 100% | 100% | 100% |
| Heavy Vehicles (%) | 2% | 2% | 2% | 2% | 2% | 2% |
| Bus Blockages (#/hr) | 0 | 0 | 0 | 0 | 0 | 0 |
| Parking (#/hr) | | | | | | |
| Mid-Block Traffic (%) | 0% | | | 0% | 0% | |
| Adj. Flow (vph) | 117 | 227 | 88 | 827 | 1899 | 175 |
| Shared Lane Traffic (%) | | | | | | |
| Lane Group Flow (vph) | 117 | 227 | 88 | 827 | 1899 | 175 |

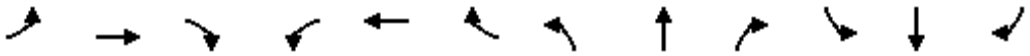
Intersection Summary

| Lane Group | EBL | EBR | NBL | NBT | SBT | SBR | Ø4 |
|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | |
| Traffic Volume (vph) | 112 | 218 | 76 | 711 | 1671 | 154 | |
| Future Volume (vph) | 112 | 218 | 76 | 711 | 1671 | 154 | |
| Turn Type | pm+pt | Perm | pm+pt | NA | NA | Perm | |
| Protected Phases | 7 | | 5 | 2 | 6 | | 4 |
| Permitted Phases | 4 | 7 | 2 | | | 6 | |
| Detector Phase | 7 | 7 | 5 | 2 | 6 | 6 | |
| Switch Phase | | | | | | | |
| Minimum Initial (s) | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 |
| Minimum Split (s) | 23.0 | 23.0 | 10.0 | 23.0 | 23.0 | 23.0 | 23.0 |
| Total Split (s) | 25.0 | 25.0 | 15.0 | 65.0 | 50.0 | 50.0 | 25.0 |
| Total Split (%) | 27.8% | 27.8% | 16.7% | 72.2% | 55.6% | 55.6% | 28% |
| Yellow Time (s) | 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 |
| 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 | None | None | None | Max | Max | Max | None |
| Act Effct Green (s) | 8.9 | 8.9 | 61.1 | 61.1 | 51.5 | 51.5 | |
| Actuated g/C Ratio | 0.11 | 0.11 | 0.76 | 0.76 | 0.64 | 0.64 | |
| v/c Ratio | 0.31 | 0.64 | 0.37 | 0.31 | 0.83 | 0.16 | |
| Control Delay | 34.1 | 15.6 | 9.9 | 3.5 | 17.5 | 1.8 | |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | |
| Total Delay | 34.1 | 15.6 | 9.9 | 3.5 | 17.5 | 1.8 | |
| LOS | C | B | A | A | B | A | |
| Approach Delay | 21.9 | | | 4.1 | 16.1 | | |
| Approach LOS | C | | | A | B | | |

| Intersection Summary | |
|---|---|
| Cycle Length: 90 | |
| Actuated Cycle Length: 80 | |
| Natural Cycle: 80 | |
| Control Type: Semi Act-Uncoord | |
| Maximum v/c Ratio: 0.83 | |
| Intersection Signal Delay: 13.4 | Intersection LOS: B |
| Intersection Capacity Utilization 68.0% | ICU Level of Service C |
| Analysis Period (min) 15 | |

Splits and Phases: 3: Meridian Rd & Bent Grass Meadows Dr





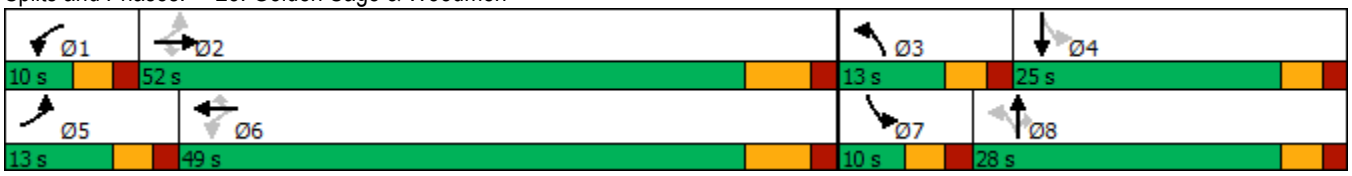
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Traffic Volume (vph) | 143 | 666 | 47 | 23 | 1416 | 78 | 144 | 17 | 15 | 56 | 23 | 338 |
| Future Volume (vph) | 143 | 666 | 47 | 23 | 1416 | 78 | 144 | 17 | 15 | 56 | 23 | 338 |
| Confl. Peds. (#/hr) | | | | | | | | | | | | |
| Confl. Bikes (#/hr) | | | | | | | | | | | | |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.89 | 0.89 | 0.89 | 0.81 | 0.81 | 0.81 | 0.87 | 0.87 | 0.87 |
| Growth Factor | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% |
| Heavy Vehicles (%) | 2% | 2% | 2% | 2% | 2% | 2% | 2% | 2% | 2% | 2% | 2% | 2% |
| Bus Blockages (#/hr) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Parking (#/hr) | | | | | | | | | | | | |
| Mid-Block Traffic (%) | | 0% | | | 0% | | | 0% | | | 0% | |
| Adj. Flow (vph) | 155 | 724 | 51 | 26 | 1591 | 88 | 178 | 21 | 19 | 64 | 26 | 389 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 155 | 724 | 51 | 26 | 1591 | 88 | 178 | 21 | 19 | 64 | 415 | 0 |

| Intersection Summary |
|---|

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | |
| Traffic Volume (vph) | 143 | 666 | 47 | 23 | 1416 | 78 | 144 | 17 | 15 | 56 | 23 |
| Future Volume (vph) | 143 | 666 | 47 | 23 | 1416 | 78 | 144 | 17 | 15 | 56 | 23 |
| Turn Type | pm+pt | NA | Perm | pm+pt | NA | Perm | pm+pt | NA | Perm | pm+pt | NA |
| Protected Phases | 5 | 2 | | 1 | 6 | | 3 | 8 | | 7 | 4 |
| Permitted Phases | 2 | | 2 | 6 | | 6 | 8 | | 8 | 4 | |
| Detector Phase | 5 | 2 | 2 | 1 | 6 | 6 | 3 | 8 | 8 | 7 | 4 |
| Switch Phase | | | | | | | | | | | |
| Minimum Initial (s) | 5.0 | 4.0 | 4.0 | 5.0 | 4.0 | 4.0 | 5.0 | 4.0 | 4.0 | 5.0 | 4.0 |
| Minimum Split (s) | 10.0 | 11.0 | 11.0 | 10.0 | 11.0 | 11.0 | 10.0 | 21.0 | 21.0 | 10.0 | 21.0 |
| Total Split (s) | 13.0 | 52.0 | 52.0 | 10.0 | 49.0 | 49.0 | 13.0 | 28.0 | 28.0 | 10.0 | 25.0 |
| Total Split (%) | 13.0% | 52.0% | 52.0% | 10.0% | 49.0% | 49.0% | 13.0% | 28.0% | 28.0% | 10.0% | 25.0% |
| Yellow Time (s) | 3.0 | 5.0 | 5.0 | 3.0 | 5.0 | 5.0 | 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 | 2.0 | 2.0 | 2.0 |
| Lost Time Adjust (s) | 0.0 | -3.0 | -3.0 | -1.0 | -3.0 | -3.0 | -1.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 5.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 5.0 | 5.0 | 5.0 | 5.0 |
| Lead/Lag | Lead | Lag | Lag | Lead | Lag | Lag | Lead | Lag | Lag | Lead | Lag |
| Lead-Lag Optimize? | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Recall Mode | None | Max | Max | None | Max | Max | None | None | None | None | None |
| Act Effct Green (s) | 56.1 | 53.9 | 53.9 | 51.0 | 45.0 | 45.0 | 28.4 | 21.6 | 21.6 | 26.6 | 20.0 |
| Actuated g/C Ratio | 0.56 | 0.54 | 0.54 | 0.51 | 0.45 | 0.45 | 0.28 | 0.22 | 0.22 | 0.27 | 0.20 |
| v/c Ratio | 0.73 | 0.38 | 0.06 | 0.07 | 1.00 | 0.11 | 0.79 | 0.05 | 0.04 | 0.16 | 0.98 |
| Control Delay | 38.7 | 14.8 | 0.1 | 9.7 | 50.5 | 1.3 | 53.1 | 31.4 | 0.2 | 24.9 | 67.3 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 38.7 | 14.8 | 0.1 | 9.7 | 50.5 | 1.3 | 53.1 | 31.4 | 0.2 | 24.9 | 67.3 |
| LOS | D | B | A | A | D | A | D | C | A | C | E |
| Approach Delay | | 18.0 | | | 47.4 | | | 46.4 | | | 61.7 |
| Approach LOS | | B | | | D | | | D | | | E |

| Intersection Summary | |
|---|---|
| Cycle Length: 100 | |
| Actuated Cycle Length: 99.9 | |
| Natural Cycle: 90 | |
| Control Type: Semi Act-Uncoord | |
| Maximum v/c Ratio: 1.00 | |
| Intersection Signal Delay: 41.2 | Intersection LOS: D |
| Intersection Capacity Utilization 92.1% | ICU Level of Service F |
| Analysis Period (min) 15 | |

Splits and Phases: 25: Golden Sage & Woodmen



| Intersection | |
|---|---|
| Int Delay, s/veh | 5.5 |

| Movement | EBT | EBR | WBL | WBT | NBL | NBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 190 | 8 | 173 | 57 | 14 | 141 |
| Future Vol, veh/h | 190 | 8 | 173 | 57 | 14 | 141 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | 150 | 120 | - | 0 | - |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 85 | 85 | 85 | 85 | 85 | 85 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 224 | 9 | 204 | 67 | 16 | 166 |

| Major/Minor | Major1 | | Major2 | | Minor1 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 0 | 0 | 233 | 0 | 699 | 224 |
| Stage 1 | - | - | - | - | 224 | - |
| Stage 2 | - | - | - | - | 475 | - |
| 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 | - | - | 1335 | - | 406 | 815 |
| Stage 1 | - | - | - | - | 813 | - |
| Stage 2 | - | - | - | - | 626 | - |
| Platoon blocked, % | - | - | | - | | |
| Mov Cap-1 Maneuver | - | - | 1335 | - | 344 | 815 |
| Mov Cap-2 Maneuver | - | - | - | - | 344 | - |
| Stage 1 | - | - | - | - | 813 | - |
| Stage 2 | - | - | - | - | 530 | - |

| Approach | EB | WB | NB |
|---|---|---|---|
| HCM Control Delay, s | 0 | 6.2 | 11.6 |
| HCM LOS | | | B |

| Minor Lane/Major Mvmt | NBLn1 | EBT | EBR | WBL | WBT |
|---|---|---|---|---|---|
| Capacity (veh/h) | 725 | - | - | 1335 | - |
| HCM Lane V/C Ratio | 0.252 | - | - | 0.152 | - |
| HCM Control Delay (s) | 11.6 | - | - | 8.2 | - |
| HCM Lane LOS | B | - | - | A | - |
| HCM 95th %tile Q(veh) | 1 | - | - | 0.5 | - |

| Intersection | |
|---|---|
| Int Delay, s/veh | 10.9 |

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Vol, veh/h | 0 | 0 | 33 | 383 | 1 | 0 | 22 | 0 | 216 | 0 | 0 | 0 |
| Future Vol, veh/h | 0 | 0 | 33 | 383 | 1 | 0 | 22 | 0 | 216 | 0 | 0 | 0 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Stop | Stop | Stop | Stop | Free | Free | Free | Free | Free | Free |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | - | - | - | - | - | - | - | - | - | - | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 78 | 78 | 78 | 87 | 87 | 87 | 87 | 87 | 87 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 0 | 0 | 42 | 440 | 1 | 0 | 25 | 0 | 248 | 0 | 0 | 0 |

| Major/Minor | Minor2 | | | Minor1 | | | Major1 | | | Major2 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Conflicting Flow All | - | 299 | 1 | 196 | 175 | - | 1 | 0 | 0 | 248 | 0 | 0 |
| Stage 1 | - | 1 | - | 174 | 174 | - | - | - | - | - | - | - |
| Stage 2 | - | 298 | - | 22 | 1 | - | - | - | - | - | - | - |
| Critical Hdwy | - | 6.52 | 6.22 | 7.12 | 6.52 | - | 4.12 | - | - | 4.12 | - | - |
| Critical Hdwy Stg 1 | - | 5.52 | - | 6.12 | 5.52 | - | - | - | - | - | - | - |
| Critical Hdwy Stg 2 | - | 5.52 | - | 6.12 | 5.52 | - | - | - | - | - | - | - |
| Follow-up Hdwy | - | 4.018 | 3.318 | 3.518 | 4.018 | - | 2.218 | - | - | 2.218 | - | - |
| Pot Cap-1 Maneuver | 0 | 613 | 1084 | 763 | 718 | 0 | 1622 | - | - | 1318 | - | - |
| Stage 1 | 0 | 895 | - | 828 | 755 | 0 | - | - | - | - | - | - |
| Stage 2 | 0 | 667 | - | 996 | 895 | 0 | - | - | - | - | - | - |
| Platoon blocked, % | | | | | | | | - | - | | - | - |
| Mov Cap-1 Maneuver | - | 602 | 1084 | 723 | 705 | - | 1622 | - | - | 1318 | - | - |
| Mov Cap-2 Maneuver | - | 602 | - | 723 | 705 | - | - | - | - | - | - | - |
| Stage 1 | - | 895 | - | 813 | 741 | - | - | - | - | - | - | - |
| Stage 2 | - | 655 | - | 957 | 895 | - | - | - | - | - | - | - |

| Approach | EB | WB | NB | SB |
|---|---|---|---|---|
| HCM Control Delay, s | 8.5 | 17.5 | 0.7 | 0 |
| HCM LOS | A | C | | |

| Minor Lane/Major Mvmt | NBL | NBT | NBR | EBLn1 | WBLn1 | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|
| Capacity (veh/h) | 1622 | - | - | 1084 | 723 | 1318 | - | - |
| HCM Lane V/C Ratio | 0.016 | - | - | 0.039 | 0.61 | - | - | - |
| HCM Control Delay (s) | 7.3 | 0 | - | 8.5 | 17.5 | 0 | - | - |
| HCM Lane LOS | A | A | - | A | C | A | - | - |
| HCM 95th %tile Q(veh) | 0 | - | - | 0.1 | 4.2 | 0 | - | - |

| Intersection | |
|---|---|
| Int Delay, s/veh | 4.3 |

| Movement | WBL | WBR | NBT | NBR | SBL | SBT |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 0 | 29 | 30 | 0 | 27 | 18 |
| Future Vol, veh/h | 0 | 29 | 30 | 0 | 27 | 18 |
| 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 | 85 | 85 | 85 | 85 | 85 | 85 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 0 | 34 | 35 | 0 | 32 | 21 |

| Major/Minor | Minor1 | | Major1 | | Major2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 120 | 35 | 0 | 0 | 35 | 0 |
| Stage 1 | 35 | - | - | - | - | - |
| Stage 2 | 85 | - | - | - | - | - |
| 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 | 876 | 1038 | - | - | 1576 | - |
| Stage 1 | 987 | - | - | - | - | - |
| Stage 2 | 938 | - | - | - | - | - |
| Platoon blocked, % | | | - | - | | - |
| Mov Cap-1 Maneuver | 858 | 1038 | - | - | 1576 | - |
| Mov Cap-2 Maneuver | 858 | - | - | - | - | - |
| Stage 1 | 987 | - | - | - | - | - |
| Stage 2 | 918 | - | - | - | - | - |

| Approach | WB | NB | SB |
|---|---|---|---|
| HCM Control Delay, s | 8.6 | 0 | 4.4 |
| HCM LOS | A | | |

| Minor Lane/Major Mvmt | NBT | NBR | WBLn1 | SBL | SBT |
|---|---|---|---|---|---|
| Capacity (veh/h) | - | - | 1038 | 1576 | - |
| HCM Lane V/C Ratio | - | - | 0.033 | 0.02 | - |
| HCM Control Delay (s) | - | - | 8.6 | 7.3 | 0 |
| HCM Lane LOS | - | - | A | A | A |
| HCM 95th %tile Q(veh) | - | - | 0.1 | 0.1 | - |

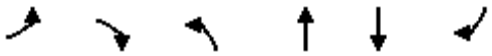
| Intersection | |
|---|---|
| Int Delay, s/veh | 4.6 |

| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 55 | 143 | 133 | 21 | 18 | 180 |
| Future Vol, veh/h | 55 | 143 | 133 | 21 | 18 | 180 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 155 | - | - | - | 155 | 0 |
| Veh in Median Storage, # | - | 0 | 0 | - | 0 | - |
| Grade, % | - | 0 | 0 | - | 0 | - |
| Peak Hour Factor | 82 | 82 | 83 | 83 | 83 | 83 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 67 | 174 | 160 | 25 | 22 | 217 |

| Major/Minor | Major1 | | Major2 | | Minor2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 185 | 0 | - | 0 | 481 | 173 |
| Stage 1 | - | - | - | - | 173 | - |
| Stage 2 | - | - | - | - | 308 | - |
| 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 | 1390 | - | - | - | 544 | 871 |
| Stage 1 | - | - | - | - | 857 | - |
| Stage 2 | - | - | - | - | 745 | - |
| Platoon blocked, % | | | - | - | - | |
| Mov Cap-1 Maneuver | 1390 | - | - | - | 518 | 871 |
| Mov Cap-2 Maneuver | - | - | - | - | 518 | - |
| Stage 1 | - | - | - | - | 816 | - |
| Stage 2 | - | - | - | - | 745 | - |

| Approach | EB | WB | SB |
|---|---|---|---|
| HCM Control Delay, s | 2.1 | 0 | 10.7 |
| HCM LOS | | | B |

| Minor Lane/Major Mvmt | EBL | EBT | WBT | WBR | SBLn1 | SBLn2 |
|---|---|---|---|---|---|---|
| Capacity (veh/h) | 1390 | - | - | - | 518 | 871 |
| HCM Lane V/C Ratio | 0.048 | - | - | - | 0.042 | 0.249 |
| HCM Control Delay (s) | 7.7 | - | - | - | 12.3 | 10.5 |
| HCM Lane LOS | A | - | - | - | B | B |
| HCM 95th %tile Q(veh) | 0.2 | - | - | - | 0.1 | 1 |



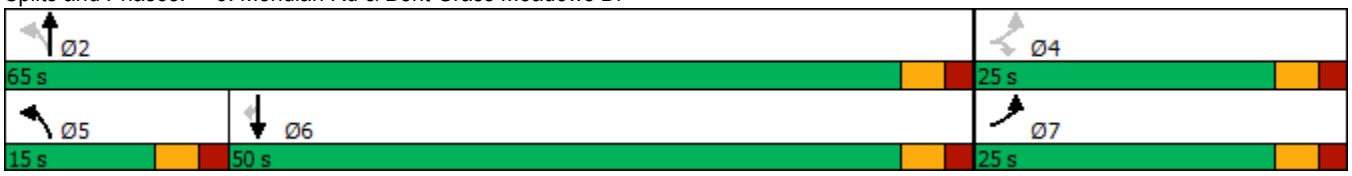
| Lane Group | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Traffic Volume (vph) | 99 | 148 | 142 | 1464 | 957 | 138 |
| Future Volume (vph) | 99 | 148 | 142 | 1464 | 957 | 138 |
| Confl. Peds. (#/hr) | | | | | | |
| Confl. Bikes (#/hr) | | | | | | |
| Peak Hour Factor | 0.86 | 0.86 | 0.96 | 0.96 | 1.00 | 1.00 |
| Growth Factor | 100% | 100% | 100% | 100% | 100% | 100% |
| Heavy Vehicles (%) | 2% | 2% | 2% | 2% | 2% | 2% |
| Bus Blockages (#/hr) | 0 | 0 | 0 | 0 | 0 | 0 |
| Parking (#/hr) | | | | | | |
| Mid-Block Traffic (%) | 0% | | | 0% | 0% | |
| Adj. Flow (vph) | 115 | 172 | 148 | 1525 | 957 | 138 |
| Shared Lane Traffic (%) | | | | | | |
| Lane Group Flow (vph) | 115 | 172 | 148 | 1525 | 957 | 138 |

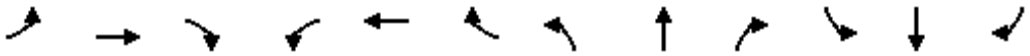
Intersection Summary

| Lane Group | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (vph) | 99 | 148 | 142 | 1464 | 957 | 138 |
| Future Volume (vph) | 99 | 148 | 142 | 1464 | 957 | 138 |
| Turn Type | pm+pt | Perm | pm+pt | NA | NA | Perm |
| Protected Phases | 7 | | 5 | 2 | 6 | |
| Permitted Phases | 4 | 4 | 2 | | | 6 |
| Detector Phase | 7 | 4 | 5 | 2 | 6 | 6 |
| Switch Phase | | | | | | |
| Minimum Initial (s) | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 |
| Minimum Split (s) | 23.0 | 23.0 | 10.0 | 23.0 | 23.0 | 23.0 |
| Total Split (s) | 25.0 | 25.0 | 15.0 | 65.0 | 50.0 | 50.0 |
| Total Split (%) | 27.8% | 27.8% | 16.7% | 72.2% | 55.6% | 55.6% |
| 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 | None | None | None | Max | Max | Max |
| Act Effct Green (s) | 8.2 | 8.2 | 60.0 | 60.0 | 47.8 | 47.8 |
| Actuated g/C Ratio | 0.10 | 0.10 | 0.77 | 0.77 | 0.61 | 0.61 |
| v/c Ratio | 0.32 | 0.54 | 0.33 | 0.56 | 0.44 | 0.14 |
| Control Delay | 34.7 | 12.5 | 4.5 | 4.9 | 9.3 | 1.9 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 34.7 | 12.5 | 4.5 | 4.9 | 9.3 | 1.9 |
| LOS | C | B | A | A | A | A |
| Approach Delay | 21.4 | | | 4.8 | 8.4 | |
| Approach LOS | C | | | A | A | |

| Intersection Summary | |
|---|---|
| Cycle Length: 90 | |
| Actuated Cycle Length: 78.2 | |
| Natural Cycle: 60 | |
| Control Type: Semi Act-Uncoord | |
| Maximum v/c Ratio: 0.56 | |
| Intersection Signal Delay: 7.7 | Intersection LOS: A |
| Intersection Capacity Utilization 53.0% | ICU Level of Service A |
| Analysis Period (min) 15 | |

Splits and Phases: 3: Meridian Rd & Bent Grass Meadows Dr





| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Traffic Volume (vph) | 338 | 1342 | 53 | 39 | 918 | 83 | 113 | 36 | 41 | 102 | 20 | 245 |
| Future Volume (vph) | 338 | 1342 | 53 | 39 | 918 | 83 | 113 | 36 | 41 | 102 | 20 | 245 |
| Confl. Peds. (#/hr) | | | | | | | | | | | | |
| Confl. Bikes (#/hr) | | | | | | | | | | | | |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.93 | 0.93 | 0.93 | 0.83 | 0.83 | 0.83 | 0.87 | 0.87 | 0.87 |
| Growth Factor | 90% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% |
| Heavy Vehicles (%) | 2% | 2% | 2% | 2% | 2% | 2% | 2% | 2% | 2% | 2% | 2% | 2% |
| Bus Blockages (#/hr) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Parking (#/hr) | | | | | | | | | | | | |
| Mid-Block Traffic (%) | | 0% | | | 0% | | | 0% | | | 0% | |
| Adj. Flow (vph) | 331 | 1459 | 58 | 42 | 987 | 89 | 136 | 43 | 49 | 117 | 23 | 282 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 331 | 1459 | 58 | 42 | 987 | 89 | 136 | 43 | 49 | 117 | 305 | 0 |

Intersection Summary

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | |
| Traffic Volume (vph) | 338 | 1342 | 53 | 39 | 918 | 83 | 113 | 36 | 41 | 102 | 20 |
| Future Volume (vph) | 338 | 1342 | 53 | 39 | 918 | 83 | 113 | 36 | 41 | 102 | 20 |
| Turn Type | pm+pt | NA | Perm | pm+pt | NA | Perm | pm+pt | NA | Perm | pm+pt | NA |
| Protected Phases | 5 | 2 | | 1 | 6 | | 3 | 8 | | 7 | 4 |
| Permitted Phases | 2 | | 2 | 6 | | 6 | 8 | | 8 | 4 | |
| Detector Phase | 5 | 2 | 2 | 1 | 6 | 6 | 3 | 8 | 8 | 7 | 4 |
| Switch Phase | | | | | | | | | | | |
| Minimum Initial (s) | 5.0 | 4.0 | 4.0 | 5.0 | 4.0 | 4.0 | 5.0 | 4.0 | 4.0 | 5.0 | 4.0 |
| Minimum Split (s) | 10.0 | 11.0 | 11.0 | 10.0 | 11.0 | 11.0 | 10.0 | 21.0 | 21.0 | 10.0 | 21.0 |
| Total Split (s) | 18.0 | 54.0 | 54.0 | 10.0 | 46.0 | 46.0 | 15.0 | 21.0 | 21.0 | 15.0 | 21.0 |
| Total Split (%) | 18.0% | 54.0% | 54.0% | 10.0% | 46.0% | 46.0% | 15.0% | 21.0% | 21.0% | 15.0% | 21.0% |
| Yellow Time (s) | 3.0 | 5.0 | 5.0 | 3.0 | 5.0 | 5.0 | 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 | 2.0 | 2.0 | 2.0 |
| Lost Time Adjust (s) | 0.0 | -3.0 | -3.0 | -1.0 | -3.0 | -3.0 | -1.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 5.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 5.0 | 5.0 | 5.0 | 5.0 |
| Lead/Lag | Lead | Lag | Lag | Lead | Lag | Lag | Lead | Lag | Lag | Lead | Lag |
| Lead-Lag Optimize? | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Recall Mode | None | Max | Max | None | Max | Max | None | None | None | None | None |
| Act Effct Green (s) | 59.1 | 54.3 | 54.3 | 48.1 | 42.1 | 42.1 | 22.2 | 12.7 | 12.7 | 18.9 | 9.8 |
| Actuated g/C Ratio | 0.63 | 0.58 | 0.58 | 0.51 | 0.45 | 0.45 | 0.24 | 0.14 | 0.14 | 0.20 | 0.10 |
| v/c Ratio | 0.86 | 0.71 | 0.06 | 0.21 | 0.62 | 0.11 | 0.51 | 0.17 | 0.12 | 0.37 | 0.78 |
| Control Delay | 38.3 | 18.4 | 0.1 | 10.8 | 22.4 | 0.3 | 33.7 | 39.1 | 0.7 | 30.6 | 23.6 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 38.3 | 18.4 | 0.1 | 10.8 | 22.4 | 0.3 | 33.7 | 39.1 | 0.7 | 30.6 | 23.6 |
| LOS | D | B | A | B | C | A | C | D | A | C | C |
| Approach Delay | | 21.4 | | | 20.2 | | | 27.6 | | | 25.5 |
| Approach LOS | | C | | | C | | | C | | | C |

| Intersection Summary | |
|---|---|
| Cycle Length: 100 | |
| Actuated Cycle Length: 93.4 | |
| Natural Cycle: 80 | |
| Control Type: Semi Act-Uncoord | |
| Maximum v/c Ratio: 0.86 | |
| Intersection Signal Delay: 21.9 | Intersection LOS: C |
| Intersection Capacity Utilization 79.7% | ICU Level of Service D |
| Analysis Period (min) 15 | |

Splits and Phases: 25: Golden Sage & Woodmen

| Intersection | |
|---|---|
| Int Delay, s/veh | 4.6 |

| Movement | EBT | EBR | WBL | WBT | NBL | NBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 113 | 1 | 124 | 154 | 12 | 134 |
| Future Vol, veh/h | 113 | 1 | 124 | 154 | 12 | 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 | - | 150 | 120 | - | 0 | - |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 85 | 85 | 85 | 85 | 85 | 85 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 133 | 1 | 146 | 181 | 14 | 158 |

| Major/Minor | Major1 | | Major2 | | Minor1 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 0 | 0 | 134 | 0 | 606 | 133 |
| Stage 1 | - | - | - | - | 133 | - |
| Stage 2 | - | - | - | - | 473 | - |
| 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 | - | - | 1451 | - | 460 | 916 |
| Stage 1 | - | - | - | - | 893 | - |
| Stage 2 | - | - | - | - | 627 | - |
| Platoon blocked, % | - | - | | - | | |
| Mov Cap-1 Maneuver | - | - | 1451 | - | 414 | 916 |
| Mov Cap-2 Maneuver | - | - | - | - | 414 | - |
| Stage 1 | - | - | - | - | 893 | - |
| Stage 2 | - | - | - | - | 564 | - |

| Approach | EB | WB | NB |
|---|---|---|---|
| HCM Control Delay, s | 0 | 3.5 | 10.4 |
| HCM LOS | | | B |

| Minor Lane/Major Mvmt | NBLn1 | EBT | EBR | WBL | WBT |
|---|---|---|---|---|---|
| Capacity (veh/h) | 833 | - | - | 1451 | - |
| HCM Lane V/C Ratio | 0.206 | - | - | 0.101 | - |
| HCM Control Delay (s) | 10.4 | - | - | 7.8 | - |
| HCM Lane LOS | B | - | - | A | - |
| HCM 95th %tile Q(veh) | 0.8 | - | - | 0.3 | - |

| Intersection | |
|---|---|
| Int Delay, s/veh | 11.9 |

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Vol, veh/h | 0 | 0 | 53 | 312 | 1 | 0 | 60 | 0 | 396 | 0 | 0 | 0 |
| Future Vol, veh/h | 0 | 0 | 53 | 312 | 1 | 0 | 60 | 0 | 396 | 0 | 0 | 0 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Stop | Stop | Stop | Stop | Free | Free | Free | Free | Free | Free |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | - | - | - | - | - | - | - | - | - | - | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 78 | 78 | 78 | 87 | 87 | 87 | 87 | 87 | 87 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 0 | 0 | 68 | 359 | 1 | 0 | 69 | 0 | 455 | 0 | 0 | 0 |

| Major/Minor | Minor2 | | | Minor1 | | | Major1 | | | Major2 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Conflicting Flow All | - | 594 | 1 | 401 | 367 | - | 1 | 0 | 0 | 455 | 0 | 0 |
| Stage 1 | - | 1 | - | 366 | 366 | - | - | - | - | - | - | - |
| Stage 2 | - | 593 | - | 35 | 1 | - | - | - | - | - | - | - |
| Critical Hdwy | - | 6.52 | 6.22 | 7.12 | 6.52 | - | 4.12 | - | - | 4.12 | - | - |
| Critical Hdwy Stg 1 | - | 5.52 | - | 6.12 | 5.52 | - | - | - | - | - | - | - |
| Critical Hdwy Stg 2 | - | 5.52 | - | 6.12 | 5.52 | - | - | - | - | - | - | - |
| Follow-up Hdwy | - | 4.018 | 3.318 | 3.518 | 4.018 | - | 2.218 | - | - | 2.218 | - | - |
| Pot Cap-1 Maneuver | 0 | 418 | 1084 | 560 | 562 | 0 | 1622 | - | - | 1106 | - | - |
| Stage 1 | 0 | 895 | - | 653 | 623 | 0 | - | - | - | - | - | - |
| Stage 2 | 0 | 493 | - | 981 | 895 | 0 | - | - | - | - | - | - |
| Platoon blocked, % | | | | | | | | - | - | | - | - |
| Mov Cap-1 Maneuver | - | 393 | 1084 | 501 | 528 | - | 1622 | - | - | 1106 | - | - |
| Mov Cap-2 Maneuver | - | 393 | - | 501 | 528 | - | - | - | - | - | - | - |
| Stage 1 | - | 895 | - | 613 | 585 | - | - | - | - | - | - | - |
| Stage 2 | - | 463 | - | 920 | 895 | - | - | - | - | - | - | - |

| Approach | EB | WB | NB | SB |
|---|---|---|---|---|
| HCM Control Delay, s | 8.5 | 28.4 | 1 | 0 |
| HCM LOS | A | D | | |

| Minor Lane/Major Mvmt | NBL | NBT | NBR | EBLn1 | WBLn1 | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|
| Capacity (veh/h) | 1622 | - | - | 1084 | 501 | 1106 | - | - |
| HCM Lane V/C Ratio | 0.043 | - | - | 0.063 | 0.718 | - | - | - |
| HCM Control Delay (s) | 7.3 | 0 | - | 8.5 | 28.4 | 0 | - | - |
| HCM Lane LOS | A | A | - | A | D | A | - | - |
| HCM 95th %tile Q(veh) | 0.1 | - | - | 0.2 | 5.8 | 0 | - | - |

| Intersection | |
|---|---|
| Int Delay, s/veh | 4.3 |

| Movement | WBL | WBR | NBT | NBR | SBL | SBT |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 0 | 29 | 30 | 0 | 27 | 18 |
| Future Vol, veh/h | 0 | 29 | 30 | 0 | 27 | 18 |
| 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 | 85 | 85 | 85 | 85 | 85 | 85 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 0 | 34 | 35 | 0 | 32 | 21 |

| Major/Minor | Minor1 | | Major1 | | Major2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 120 | 35 | 0 | 0 | 35 | 0 |
| Stage 1 | 35 | - | - | - | - | - |
| Stage 2 | 85 | - | - | - | - | - |
| 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 | 876 | 1038 | - | - | 1576 | - |
| Stage 1 | 987 | - | - | - | - | - |
| Stage 2 | 938 | - | - | - | - | - |
| Platoon blocked, % | | | - | - | | - |
| Mov Cap-1 Maneuver | 858 | 1038 | - | - | 1576 | - |
| Mov Cap-2 Maneuver | 858 | - | - | - | - | - |
| Stage 1 | 987 | - | - | - | - | - |
| Stage 2 | 918 | - | - | - | - | - |

| Approach | WB | NB | SB |
|---|---|---|---|
| HCM Control Delay, s | 8.6 | 0 | 4.4 |
| HCM LOS | A | | |

| Minor Lane/Major Mvmt | NBT | NBR | WBLn1 | SBL | SBT |
|---|---|---|---|---|---|
| Capacity (veh/h) | - | - | 1038 | 1576 | - |
| HCM Lane V/C Ratio | - | - | 0.033 | 0.02 | - |
| HCM Control Delay (s) | - | - | 8.6 | 7.3 | 0 |
| HCM Lane LOS | - | - | A | A | A |
| HCM 95th %tile Q(veh) | - | - | 0.1 | 0.1 | - |

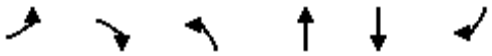
| Intersection | |
|---|---|
| Int Delay, s/veh | 4.4 |

| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 160 | 143 | 147 | 49 | 14 | 113 |
| Future Vol, veh/h | 160 | 143 | 147 | 49 | 14 | 113 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 155 | - | - | - | 155 | 0 |
| Veh in Median Storage, # | - | 0 | 0 | - | 0 | - |
| Grade, % | - | 0 | 0 | - | 0 | - |
| Peak Hour Factor | 87 | 87 | 83 | 83 | 78 | 78 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 184 | 164 | 177 | 59 | 18 | 145 |

| Major/Minor | Major1 | | Major2 | | Minor2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 236 | 0 | - | 0 | 739 | 207 |
| Stage 1 | - | - | - | - | 207 | - |
| Stage 2 | - | - | - | - | 532 | - |
| 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 | 1331 | - | - | - | 385 | 833 |
| Stage 1 | - | - | - | - | 828 | - |
| Stage 2 | - | - | - | - | 589 | - |
| Platoon blocked, % | | - | - | - | | |
| Mov Cap-1 Maneuver | 1331 | - | - | - | 332 | 833 |
| Mov Cap-2 Maneuver | - | - | - | - | 332 | - |
| Stage 1 | - | - | - | - | 714 | - |
| Stage 2 | - | - | - | - | 589 | - |

| Approach | EB | WB | SB |
|---|---|---|---|
| HCM Control Delay, s | 4.3 | 0 | 10.9 |
| HCM LOS | | | B |

| Minor Lane/Major Mvmt | EBL | EBT | WBT | WBR | SBLn1 | SBLn2 |
|---|---|---|---|---|---|---|
| Capacity (veh/h) | 1331 | - | - | - | 332 | 833 |
| HCM Lane V/C Ratio | 0.138 | - | - | - | 0.054 | 0.174 |
| HCM Control Delay (s) | 8.1 | - | - | - | 16.5 | 10.2 |
| HCM Lane LOS | A | - | - | - | C | B |
| HCM 95th %tile Q(veh) | 0.5 | - | - | - | 0.2 | 0.6 |



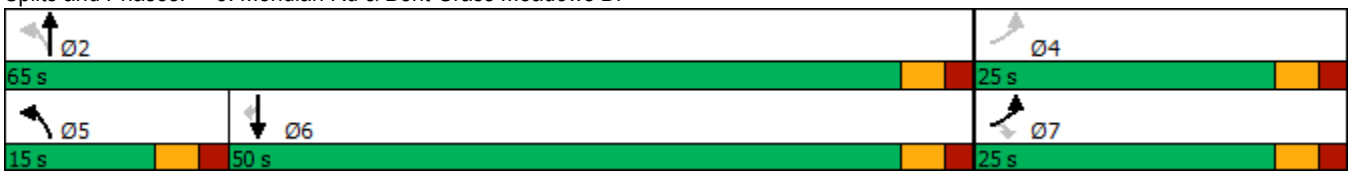
| Lane Group | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Traffic Volume (vph) | 160 | 293 | 143 | 692 | 1627 | 243 |
| Future Volume (vph) | 160 | 293 | 143 | 692 | 1627 | 243 |
| Confl. Peds. (#/hr) | | | | | | |
| Confl. Bikes (#/hr) | | | | | | |
| Peak Hour Factor | 0.96 | 0.96 | 0.86 | 0.86 | 0.88 | 0.88 |
| Growth Factor | 100% | 100% | 100% | 100% | 100% | 100% |
| Heavy Vehicles (%) | 2% | 2% | 2% | 2% | 2% | 2% |
| Bus Blockages (#/hr) | 0 | 0 | 0 | 0 | 0 | 0 |
| Parking (#/hr) | | | | | | |
| Mid-Block Traffic (%) | 0% | | | 0% | 0% | |
| Adj. Flow (vph) | 167 | 305 | 166 | 805 | 1849 | 276 |
| Shared Lane Traffic (%) | | | | | | |
| Lane Group Flow (vph) | 167 | 305 | 166 | 805 | 1849 | 276 |

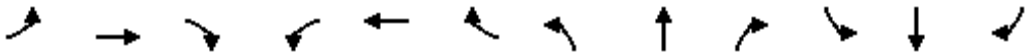
Intersection Summary

| Lane Group | EBL | EBR | NBL | NBT | SBT | SBR | Ø4 |
|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | |
| Traffic Volume (vph) | 160 | 293 | 143 | 692 | 1627 | 243 | |
| Future Volume (vph) | 160 | 293 | 143 | 692 | 1627 | 243 | |
| Turn Type | pm+pt | Perm | pm+pt | NA | NA | Perm | |
| Protected Phases | 7 | | 5 | 2 | 6 | | 4 |
| Permitted Phases | 4 | 7 | 2 | | | 6 | |
| Detector Phase | 7 | 7 | 5 | 2 | 6 | 6 | |
| Switch Phase | | | | | | | |
| Minimum Initial (s) | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 |
| Minimum Split (s) | 23.0 | 23.0 | 10.0 | 23.0 | 23.0 | 23.0 | 23.0 |
| Total Split (s) | 25.0 | 25.0 | 15.0 | 65.0 | 50.0 | 50.0 | 25.0 |
| Total Split (%) | 27.8% | 27.8% | 16.7% | 72.2% | 55.6% | 55.6% | 28% |
| Yellow Time (s) | 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 |
| 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 | None | None | None | Max | Max | Max | None |
| Act Effct Green (s) | 12.0 | 12.0 | 60.2 | 60.2 | 47.0 | 47.0 | |
| Actuated g/C Ratio | 0.15 | 0.15 | 0.73 | 0.73 | 0.57 | 0.57 | |
| v/c Ratio | 0.33 | 0.75 | 0.62 | 0.31 | 0.91 | 0.27 | |
| Control Delay | 32.7 | 24.0 | 23.6 | 4.7 | 26.3 | 2.3 | |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | |
| Total Delay | 32.7 | 24.0 | 23.6 | 4.7 | 26.3 | 2.3 | |
| LOS | C | C | C | A | C | A | |
| Approach Delay | 27.1 | | | 8.0 | 23.2 | | |
| Approach LOS | C | | | A | C | | |

| Intersection Summary | |
|---|---|
| Cycle Length: 90 | |
| Actuated Cycle Length: 82.2 | |
| Natural Cycle: 90 | |
| Control Type: Semi Act-Uncoord | |
| Maximum v/c Ratio: 0.91 | |
| Intersection Signal Delay: 19.5 | Intersection LOS: B |
| Intersection Capacity Utilization 71.5% | ICU Level of Service C |
| Analysis Period (min) 15 | |

Splits and Phases: 3: Meridian Rd & Bent Grass Meadows Dr





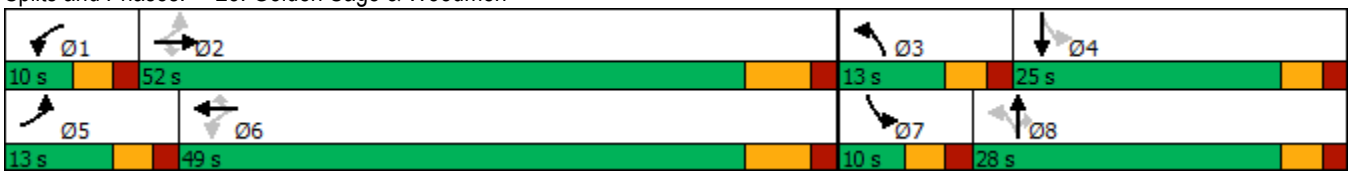
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Traffic Volume (vph) | 147 | 671 | 47 | 23 | 1419 | 78 | 144 | 18 | 15 | 56 | 24 | 341 |
| Future Volume (vph) | 147 | 671 | 47 | 23 | 1419 | 78 | 144 | 18 | 15 | 56 | 24 | 341 |
| Confl. Peds. (#/hr) | | | | | | | | | | | | |
| Confl. Bikes (#/hr) | | | | | | | | | | | | |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.89 | 0.89 | 0.89 | 0.81 | 0.81 | 0.81 | 0.87 | 0.87 | 0.87 |
| Growth Factor | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% |
| Heavy Vehicles (%) | 2% | 2% | 2% | 2% | 2% | 2% | 2% | 2% | 2% | 2% | 2% | 2% |
| Bus Blockages (#/hr) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Parking (#/hr) | | | | | | | | | | | | |
| Mid-Block Traffic (%) | | 0% | | | 0% | | | 0% | | | 0% | |
| Adj. Flow (vph) | 160 | 729 | 51 | 26 | 1594 | 88 | 178 | 22 | 19 | 64 | 28 | 392 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 160 | 729 | 51 | 26 | 1594 | 88 | 178 | 22 | 19 | 64 | 420 | 0 |

| Intersection Summary |
|---|

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | |
| Traffic Volume (vph) | 147 | 671 | 47 | 23 | 1419 | 78 | 144 | 18 | 15 | 56 | 24 |
| Future Volume (vph) | 147 | 671 | 47 | 23 | 1419 | 78 | 144 | 18 | 15 | 56 | 24 |
| Turn Type | pm+pt | NA | Perm | pm+pt | NA | Perm | pm+pt | NA | Perm | pm+pt | NA |
| Protected Phases | 5 | 2 | | 1 | 6 | | 3 | 8 | | 7 | 4 |
| Permitted Phases | 2 | | 2 | 6 | | 6 | 8 | | 8 | 4 | |
| Detector Phase | 5 | 2 | 2 | 1 | 6 | 6 | 3 | 8 | 8 | 7 | 4 |
| Switch Phase | | | | | | | | | | | |
| Minimum Initial (s) | 5.0 | 4.0 | 4.0 | 5.0 | 4.0 | 4.0 | 5.0 | 4.0 | 4.0 | 5.0 | 4.0 |
| Minimum Split (s) | 10.0 | 11.0 | 11.0 | 10.0 | 11.0 | 11.0 | 10.0 | 21.0 | 21.0 | 10.0 | 21.0 |
| Total Split (s) | 13.0 | 52.0 | 52.0 | 10.0 | 49.0 | 49.0 | 13.0 | 28.0 | 28.0 | 10.0 | 25.0 |
| Total Split (%) | 13.0% | 52.0% | 52.0% | 10.0% | 49.0% | 49.0% | 13.0% | 28.0% | 28.0% | 10.0% | 25.0% |
| Yellow Time (s) | 3.0 | 5.0 | 5.0 | 3.0 | 5.0 | 5.0 | 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 | 2.0 | 2.0 | 2.0 |
| Lost Time Adjust (s) | 0.0 | -3.0 | -3.0 | -1.0 | -3.0 | -3.0 | -1.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 5.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 5.0 | 5.0 | 5.0 | 5.0 |
| Lead/Lag | Lead | Lag | Lag | Lead | Lag | Lag | Lead | Lag | Lag | Lead | Lag |
| Lead-Lag Optimize? | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Recall Mode | None | Max | Max | None | Max | Max | None | None | None | None | None |
| Act Effct Green (s) | 56.2 | 54.0 | 54.0 | 51.0 | 45.0 | 45.0 | 28.4 | 21.6 | 21.6 | 26.6 | 20.0 |
| Actuated g/C Ratio | 0.56 | 0.54 | 0.54 | 0.51 | 0.45 | 0.45 | 0.28 | 0.22 | 0.22 | 0.27 | 0.20 |
| v/c Ratio | 0.75 | 0.38 | 0.06 | 0.07 | 1.00 | 0.11 | 0.79 | 0.05 | 0.04 | 0.16 | 0.99 |
| Control Delay | 41.0 | 14.8 | 0.1 | 9.7 | 51.1 | 1.3 | 53.2 | 31.4 | 0.2 | 24.9 | 69.8 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 41.0 | 14.8 | 0.1 | 9.7 | 51.1 | 1.3 | 53.2 | 31.4 | 0.2 | 24.9 | 69.8 |
| LOS | D | B | A | A | D | A | D | C | A | C | E |
| Approach Delay | | 18.5 | | | 47.9 | | | 46.4 | | | 63.9 |
| Approach LOS | | B | | | D | | | D | | | E |

| Intersection Summary | |
|---|---|
| Cycle Length: 100 | |
| Actuated Cycle Length: 100 | |
| Natural Cycle: 90 | |
| Control Type: Semi Act-Uncoord | |
| Maximum v/c Ratio: 1.00 | |
| Intersection Signal Delay: 41.9 | Intersection LOS: D |
| Intersection Capacity Utilization 92.7% | ICU Level of Service F |
| Analysis Period (min) 15 | |

Splits and Phases: 25: Golden Sage & Woodmen



| Intersection | |
|---|---|
| Int Delay, s/veh | 2.5 |

| Movement | EBT | EBR | WBL | WBT | NBL | NBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 199 | 5 | 61 | 74 | 3 | 45 |
| Future Vol, veh/h | 199 | 5 | 61 | 74 | 3 | 45 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | 110 | - | 0 | - |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 85 | 85 | 85 | 85 | 85 | 85 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 234 | 6 | 72 | 87 | 4 | 53 |

| Major/Minor | Major1 | | Major2 | | Minor1 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 0 | 0 | 240 | 0 | 468 | 237 |
| Stage 1 | - | - | - | - | 237 | - |
| Stage 2 | - | - | - | - | 231 | - |
| 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 | - | - | 1327 | - | 553 | 802 |
| Stage 1 | - | - | - | - | 802 | - |
| Stage 2 | - | - | - | - | 807 | - |
| Platoon blocked, % | - | - | | - | | |
| Mov Cap-1 Maneuver | - | - | 1327 | - | 523 | 802 |
| Mov Cap-2 Maneuver | - | - | - | - | 595 | - |
| Stage 1 | - | - | - | - | 802 | - |
| Stage 2 | - | - | - | - | 763 | - |

| Approach | EB | WB | NB |
|---|---|---|---|
| HCM Control Delay, s | 0 | 3.6 | 9.9 |
| HCM LOS | | | A |

| Minor Lane/Major Mvmt | NBLn1 | EBT | EBR | WBL | WBT |
|---|---|---|---|---|---|
| Capacity (veh/h) | 785 | - | - | 1327 | - |
| HCM Lane V/C Ratio | 0.072 | - | - | 0.054 | - |
| HCM Control Delay (s) | 9.9 | - | - | 7.9 | - |
| HCM Lane LOS | A | - | - | A | - |
| HCM 95th %tile Q(veh) | 0.2 | - | - | 0.2 | - |

| Intersection | |
|---|---|
| Int Delay, s/veh | 6.4 |

| Movement | EBT | EBR | WBL | WBT | NBL | NBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 234 | 10 | 268 | 118 | 16 | 219 |
| Future Vol, veh/h | 234 | 10 | 268 | 118 | 16 | 219 |
| 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 | 85 | 85 | 85 | 85 | 85 | 85 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 275 | 12 | 315 | 139 | 19 | 258 |

| Major/Minor | Major1 | | Major2 | | Minor1 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 0 | 0 | 287 | 0 | 1050 | 144 |
| Stage 1 | - | - | - | - | 281 | - |
| Stage 2 | - | - | - | - | 769 | - |
| Critical Hdwy | - | - | 4.13 | - | 6.63 | 6.93 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.83 | - |
| Critical Hdwy Stg 2 | - | - | - | - | 5.43 | - |
| Follow-up Hdwy | - | - | 2.219 | - | 3.519 | 3.319 |
| Pot Cap-1 Maneuver | - | - | 1274 | - | 237 | 878 |
| Stage 1 | - | - | - | - | 742 | - |
| Stage 2 | - | - | - | - | 456 | - |
| Platoon blocked, % | - | - | | - | | |
| Mov Cap-1 Maneuver | - | - | 1274 | - | 178 | 878 |
| Mov Cap-2 Maneuver | - | - | - | - | 178 | - |
| Stage 1 | - | - | - | - | 742 | - |
| Stage 2 | - | - | - | - | 343 | - |

| Approach | EB | WB | NB |
|---|---|---|---|
| HCM Control Delay, s | 0 | 6.1 | 13.6 |
| HCM LOS | | | B |

| Minor Lane/Major Mvmt | NBLn1 | EBT | EBR | WBL | WBT |
|---|---|---|---|---|---|
| Capacity (veh/h) | 693 | - | - | 1274 | - |
| HCM Lane V/C Ratio | 0.399 | - | - | 0.247 | - |
| HCM Control Delay (s) | 13.6 | - | - | 8.8 | - |
| HCM Lane LOS | B | - | - | A | - |
| HCM 95th %tile Q(veh) | 1.9 | - | - | 1 | - |

| Intersection | |
|---|---|
| Int Delay, s/veh | 11.2 |

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Vol, veh/h | 0 | 1 | 33 | 387 | 2 | 0 | 22 | 0 | 221 | 0 | 0 | 0 |
| Future Vol, veh/h | 0 | 1 | 33 | 387 | 2 | 0 | 22 | 0 | 221 | 0 | 0 | 0 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Stop | Stop | Stop | Stop | Free | Free | Free | Free | Free | Free |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | - | - | - | - | - | - | - | - | - | - | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 78 | 78 | 78 | 87 | 87 | 87 | 87 | 87 | 87 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 0 | 1 | 42 | 445 | 2 | 0 | 25 | 0 | 254 | 0 | 0 | 0 |

| Major/Minor | Minor2 | | | Minor1 | | | Major1 | | | Major2 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Conflicting Flow All | - | 305 | 1 | 200 | 178 | - | 1 | 0 | 0 | 254 | 0 | 0 |
| Stage 1 | - | 1 | - | 177 | 177 | - | - | - | - | - | - | - |
| Stage 2 | - | 304 | - | 23 | 1 | - | - | - | - | - | - | - |
| Critical Hdwy | - | 6.52 | 6.22 | 7.12 | 6.52 | - | 4.12 | - | - | 4.12 | - | - |
| Critical Hdwy Stg 1 | - | 5.52 | - | 6.12 | 5.52 | - | - | - | - | - | - | - |
| Critical Hdwy Stg 2 | - | 5.52 | - | 6.12 | 5.52 | - | - | - | - | - | - | - |
| Follow-up Hdwy | - | 4.018 | 3.318 | 3.518 | 4.018 | - | 2.218 | - | - | 2.218 | - | - |
| Pot Cap-1 Maneuver | 0 | 608 | 1084 | 759 | 716 | 0 | 1622 | - | - | 1311 | - | - |
| Stage 1 | 0 | 895 | - | 825 | 753 | 0 | - | - | - | - | - | - |
| Stage 2 | 0 | 663 | - | 995 | 895 | 0 | - | - | - | - | - | - |
| Platoon blocked, % | | | | | | | | - | - | | - | - |
| Mov Cap-1 Maneuver | - | 596 | 1084 | 717 | 702 | - | 1622 | - | - | 1311 | - | - |
| Mov Cap-2 Maneuver | - | 596 | - | 717 | 702 | - | - | - | - | - | - | - |
| Stage 1 | - | 895 | - | 809 | 739 | - | - | - | - | - | - | - |
| Stage 2 | - | 650 | - | 955 | 895 | - | - | - | - | - | - | - |

| Approach | EB | WB | NB | SB |
|---|---|---|---|---|
| HCM Control Delay, s | 8.5 | 18 | 0.7 | 0 |
| HCM LOS | A | C | | |

| Minor Lane/Major Mvmt | NBL | NBT | NBR | EBLn1 | WBLn1 | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|
| Capacity (veh/h) | 1622 | - | - | 1059 | 717 | 1311 | - | - |
| HCM Lane V/C Ratio | 0.016 | - | - | 0.041 | 0.624 | - | - | - |
| HCM Control Delay (s) | 7.3 | 0 | - | 8.5 | 18 | 0 | - | - |
| HCM Lane LOS | A | A | - | A | C | A | - | - |
| HCM 95th %tile Q(veh) | 0 | - | - | 0.1 | 4.4 | 0 | - | - |

| Intersection | |
|---|---|
| Int Delay, s/veh | 4.9 |

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Vol, veh/h | 80 | 0 | 0 | 0 | 0 | 36 | 0 | 12 | 0 | 38 | 29 | 97 |
| Future Vol, veh/h | 80 | 0 | 0 | 0 | 0 | 36 | 0 | 12 | 0 | 38 | 29 | 97 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Stop | Stop | Stop | Stop | Free | Free | Free | Free | Free | Free |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | - | - | - | - | - | - | - | - | - | - | - | 75 |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 85 | 85 | 85 | 85 | 85 | 85 | 85 | 85 | 85 | 85 | 85 | 85 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 94 | 0 | 0 | 0 | 0 | 42 | 0 | 14 | 0 | 45 | 34 | 114 |

| Major/Minor | Minor2 | | | Minor1 | | | Major1 | | | Major2 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Conflicting Flow All | 159 | 138 | 34 | 195 | 252 | 14 | 148 | 0 | 0 | 14 | 0 | 0 |
| Stage 1 | 124 | 124 | - | 14 | 14 | - | - | - | - | - | - | - |
| Stage 2 | 35 | 14 | - | 181 | 238 | - | - | - | - | - | - | - |
| Critical Hdwy | 7.12 | 6.52 | 6.22 | 7.12 | 6.52 | 6.22 | 4.12 | - | - | 4.12 | - | - |
| Critical Hdwy Stg 1 | 6.12 | 5.52 | - | 6.12 | 5.52 | - | - | - | - | - | - | - |
| Critical Hdwy Stg 2 | 6.12 | 5.52 | - | 6.12 | 5.52 | - | - | - | - | - | - | - |
| Follow-up Hdwy | 3.518 | 4.018 | 3.318 | 3.518 | 4.018 | 3.318 | 2.218 | - | - | 2.218 | - | - |
| Pot Cap-1 Maneuver | 807 | 753 | 1039 | 764 | 651 | 1066 | 1434 | - | - | 1604 | - | - |
| Stage 1 | 880 | 793 | - | 1006 | 884 | - | - | - | - | - | - | - |
| Stage 2 | 981 | 884 | - | 821 | 708 | - | - | - | - | - | - | - |
| Platoon blocked, % | | | | | | | | - | - | | - | - |
| Mov Cap-1 Maneuver | 757 | 730 | 1039 | 746 | 631 | 1066 | 1434 | - | - | 1604 | - | - |
| Mov Cap-2 Maneuver | 757 | 730 | - | 746 | 631 | - | - | - | - | - | - | - |
| Stage 1 | 880 | 768 | - | 1006 | 884 | - | - | - | - | - | - | - |
| Stage 2 | 942 | 884 | - | 796 | 686 | - | - | - | - | - | - | - |

| Approach | EB | WB | NB | SB |
|---|---|---|---|---|
| HCM Control Delay, s | 10.4 | 8.5 | 0 | 1.7 |
| HCM LOS | B | A | | |

| Minor Lane/Major Mvmt | NBL | NBT | NBR | EBLn1 | WBLn1 | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|
| Capacity (veh/h) | 1434 | - | - | 757 | 1066 | 1604 | - | - |
| HCM Lane V/C Ratio | - | - | - | 0.124 | 0.04 | 0.028 | - | - |
| HCM Control Delay (s) | 0 | - | - | 10.4 | 8.5 | 7.3 | 0 | - |
| HCM Lane LOS | A | - | - | B | A | A | A | - |
| HCM 95th %tile Q(veh) | 0 | - | - | 0.4 | 0.1 | 0.1 | - | - |

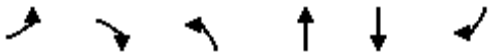
| Intersection | |
|---|---|
| Int Delay, s/veh | 4.7 |

| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 61 | 143 | 133 | 21 | 18 | 185 |
| Future Vol, veh/h | 61 | 143 | 133 | 21 | 18 | 185 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 155 | - | - | - | 155 | 0 |
| Veh in Median Storage, # | - | 0 | 0 | - | 0 | - |
| Grade, % | - | 0 | 0 | - | 0 | - |
| Peak Hour Factor | 82 | 82 | 83 | 83 | 83 | 83 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 74 | 174 | 160 | 25 | 22 | 223 |

| Major/Minor | Major1 | | Major2 | | Minor2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 185 | 0 | - | 0 | 495 | 173 |
| Stage 1 | - | - | - | - | 173 | - |
| Stage 2 | - | - | - | - | 322 | - |
| 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 | 1390 | - | - | - | 534 | 871 |
| Stage 1 | - | - | - | - | 857 | - |
| Stage 2 | - | - | - | - | 735 | - |
| Platoon blocked, % | | - | - | - | | |
| Mov Cap-1 Maneuver | 1390 | - | - | - | 506 | 871 |
| Mov Cap-2 Maneuver | - | - | - | - | 506 | - |
| Stage 1 | - | - | - | - | 812 | - |
| Stage 2 | - | - | - | - | 735 | - |

| Approach | EB | WB | SB |
|---|---|---|---|
| HCM Control Delay, s | 2.3 | 0 | 10.7 |
| HCM LOS | | | B |

| Minor Lane/Major Mvmt | EBL | EBT | WBT | WBR | SBLn1 | SBLn2 |
|---|---|---|---|---|---|---|
| Capacity (veh/h) | 1390 | - | - | - | 506 | 871 |
| HCM Lane V/C Ratio | 0.054 | - | - | - | 0.043 | 0.256 |
| HCM Control Delay (s) | 7.7 | - | - | - | 12.4 | 10.5 |
| HCM Lane LOS | A | - | - | - | B | B |
| HCM 95th %tile Q(veh) | 0.2 | - | - | - | 0.1 | 1 |



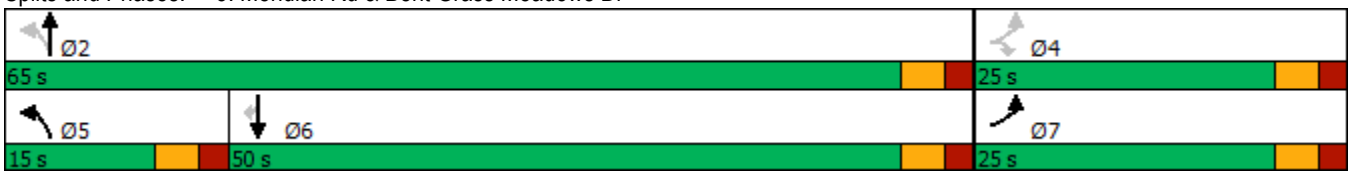
| Lane Group | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Traffic Volume (vph) | 177 | 216 | 218 | 1428 | 934 | 199 |
| Future Volume (vph) | 177 | 216 | 218 | 1428 | 934 | 199 |
| Confl. Peds. (#/hr) | | | | | | |
| Confl. Bikes (#/hr) | | | | | | |
| Peak Hour Factor | 0.86 | 0.86 | 0.96 | 0.96 | 1.00 | 1.00 |
| Growth Factor | 100% | 100% | 100% | 100% | 100% | 100% |
| Heavy Vehicles (%) | 2% | 2% | 2% | 2% | 2% | 2% |
| Bus Blockages (#/hr) | 0 | 0 | 0 | 0 | 0 | 0 |
| Parking (#/hr) | | | | | | |
| Mid-Block Traffic (%) | 0% | | | 0% | 0% | |
| Adj. Flow (vph) | 206 | 251 | 227 | 1488 | 934 | 199 |
| Shared Lane Traffic (%) | | | | | | |
| Lane Group Flow (vph) | 206 | 251 | 227 | 1488 | 934 | 199 |

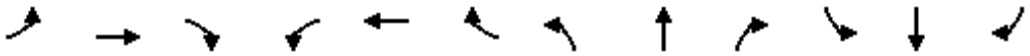
| Intersection Summary |
|---|

| Lane Group | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (vph) | 177 | 216 | 218 | 1428 | 934 | 199 |
| Future Volume (vph) | 177 | 216 | 218 | 1428 | 934 | 199 |
| Turn Type | pm+pt | Perm | pm+pt | NA | NA | Perm |
| Protected Phases | 7 | | 5 | 2 | 6 | |
| Permitted Phases | 4 | 4 | 2 | | | 6 |
| Detector Phase | 7 | 4 | 5 | 2 | 6 | 6 |
| Switch Phase | | | | | | |
| Minimum Initial (s) | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 |
| Minimum Split (s) | 23.0 | 23.0 | 10.0 | 23.0 | 23.0 | 23.0 |
| Total Split (s) | 25.0 | 25.0 | 15.0 | 65.0 | 50.0 | 50.0 |
| Total Split (%) | 27.8% | 27.8% | 16.7% | 72.2% | 55.6% | 55.6% |
| 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 | None | None | None | Max | Max | Max |
| Act Effct Green (s) | 10.1 | 10.1 | 60.1 | 60.1 | 46.7 | 46.7 |
| Actuated g/C Ratio | 0.13 | 0.13 | 0.75 | 0.75 | 0.58 | 0.58 |
| v/c Ratio | 0.48 | 0.60 | 0.49 | 0.56 | 0.45 | 0.20 |
| Control Delay | 36.2 | 11.1 | 6.9 | 5.6 | 10.9 | 2.0 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 36.2 | 11.1 | 6.9 | 5.6 | 10.9 | 2.0 |
| LOS | D | B | A | A | B | A |
| Approach Delay | 22.4 | | | 5.8 | 9.3 | |
| Approach LOS | C | | | A | A | |

| Intersection Summary | |
|---|---|
| Cycle Length: 90 | |
| Actuated Cycle Length: 80.2 | |
| Natural Cycle: 60 | |
| Control Type: Semi Act-Uncoord | |
| Maximum v/c Ratio: 0.60 | |
| Intersection Signal Delay: 9.3 | Intersection LOS: A |
| Intersection Capacity Utilization 55.4% | ICU Level of Service B |
| Analysis Period (min) 15 | |

Splits and Phases: 3: Meridian Rd & Bent Grass Meadows Dr





| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Traffic Volume (vph) | 342 | 1346 | 53 | 39 | 922 | 83 | 113 | 36 | 41 | 102 | 20 | 250 |
| Future Volume (vph) | 342 | 1346 | 53 | 39 | 922 | 83 | 113 | 36 | 41 | 102 | 20 | 250 |
| Confl. Peds. (#/hr) | | | | | | | | | | | | |
| Confl. Bikes (#/hr) | | | | | | | | | | | | |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.93 | 0.93 | 0.93 | 0.83 | 0.83 | 0.83 | 0.87 | 0.87 | 0.87 |
| Growth Factor | 90% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% |
| Heavy Vehicles (%) | 2% | 2% | 2% | 2% | 2% | 2% | 2% | 2% | 2% | 2% | 2% | 2% |
| Bus Blockages (#/hr) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Parking (#/hr) | | | | | | | | | | | | |
| Mid-Block Traffic (%) | | 0% | | | 0% | | | 0% | | | 0% | |
| Adj. Flow (vph) | 335 | 1463 | 58 | 42 | 991 | 89 | 136 | 43 | 49 | 117 | 23 | 287 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 335 | 1463 | 58 | 42 | 991 | 89 | 136 | 43 | 49 | 117 | 310 | 0 |

Intersection Summary

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | |
| Traffic Volume (vph) | 342 | 1346 | 53 | 39 | 922 | 83 | 113 | 36 | 41 | 102 | 20 |
| Future Volume (vph) | 342 | 1346 | 53 | 39 | 922 | 83 | 113 | 36 | 41 | 102 | 20 |
| Turn Type | pm+pt | NA | Perm | pm+pt | NA | Perm | pm+pt | NA | Perm | pm+pt | NA |
| Protected Phases | 5 | 2 | | 1 | 6 | | 3 | 8 | | 7 | 4 |
| Permitted Phases | 2 | | 2 | 6 | | 6 | 8 | | 8 | 4 | |
| Detector Phase | 5 | 2 | 2 | 1 | 6 | 6 | 3 | 8 | 8 | 7 | 4 |
| Switch Phase | | | | | | | | | | | |
| Minimum Initial (s) | 5.0 | 4.0 | 4.0 | 5.0 | 4.0 | 4.0 | 5.0 | 4.0 | 4.0 | 5.0 | 4.0 |
| Minimum Split (s) | 10.0 | 11.0 | 11.0 | 10.0 | 11.0 | 11.0 | 10.0 | 21.0 | 21.0 | 10.0 | 21.0 |
| Total Split (s) | 18.0 | 54.0 | 54.0 | 10.0 | 46.0 | 46.0 | 15.0 | 21.0 | 21.0 | 15.0 | 21.0 |
| Total Split (%) | 18.0% | 54.0% | 54.0% | 10.0% | 46.0% | 46.0% | 15.0% | 21.0% | 21.0% | 15.0% | 21.0% |
| Yellow Time (s) | 3.0 | 5.0 | 5.0 | 3.0 | 5.0 | 5.0 | 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 | 2.0 | 2.0 | 2.0 |
| Lost Time Adjust (s) | 0.0 | -3.0 | -3.0 | -1.0 | -3.0 | -3.0 | -1.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 5.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 5.0 | 5.0 | 5.0 | 5.0 |
| Lead/Lag | Lead | Lag | Lag | Lead | Lag | Lag | Lead | Lag | Lag | Lead | Lag |
| Lead-Lag Optimize? | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Recall Mode | None | Max | Max | None | Max | Max | None | None | None | None | None |
| Act Effct Green (s) | 59.1 | 54.4 | 54.4 | 48.1 | 42.1 | 42.1 | 22.5 | 13.0 | 13.0 | 19.2 | 10.1 |
| Actuated g/C Ratio | 0.63 | 0.58 | 0.58 | 0.51 | 0.45 | 0.45 | 0.24 | 0.14 | 0.14 | 0.20 | 0.11 |
| v/c Ratio | 0.88 | 0.71 | 0.06 | 0.21 | 0.62 | 0.11 | 0.51 | 0.17 | 0.12 | 0.37 | 0.78 |
| Control Delay | 40.9 | 18.7 | 0.1 | 10.9 | 22.6 | 0.3 | 33.6 | 39.0 | 0.6 | 30.4 | 24.4 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 40.9 | 18.7 | 0.1 | 10.9 | 22.6 | 0.3 | 33.6 | 39.0 | 0.6 | 30.4 | 24.4 |
| LOS | D | B | A | B | C | A | C | D | A | C | C |
| Approach Delay | | 22.1 | | | 20.4 | | | 27.5 | | | 26.0 |
| Approach LOS | | C | | | C | | | C | | | C |

| Intersection Summary | |
|---|---|
| Cycle Length: 100 | |
| Actuated Cycle Length: 93.7 | |
| Natural Cycle: 80 | |
| Control Type: Semi Act-Uncoord | |
| Maximum v/c Ratio: 0.88 | |
| Intersection Signal Delay: 22.4 | Intersection LOS: C |
| Intersection Capacity Utilization 80.3% | ICU Level of Service D |
| Analysis Period (min) 15 | |

Splits and Phases: 25: Golden Sage & Woodmen

| Intersection | |
|---|---|
| Int Delay, s/veh | 2.4 |

| Movement | EBT | EBR | WBL | WBT | NBL | NBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 117 | 5 | 53 | 172 | 5 | 57 |
| Future Vol, veh/h | 117 | 5 | 53 | 172 | 5 | 57 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | - | 110 | - | 0 | - |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 85 | 85 | 85 | 85 | 85 | 85 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 138 | 6 | 62 | 202 | 6 | 67 |

| Major/Minor | Major1 | | Major2 | | Minor1 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 0 | 0 | 144 | 0 | 467 | 141 |
| Stage 1 | - | - | - | - | 141 | - |
| Stage 2 | - | - | - | - | 326 | - |
| 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 | - | - | 1438 | - | 554 | 907 |
| Stage 1 | - | - | - | - | 886 | - |
| Stage 2 | - | - | - | - | 731 | - |
| Platoon blocked, % | - | - | | - | | |
| Mov Cap-1 Maneuver | - | - | 1438 | - | 530 | 907 |
| Mov Cap-2 Maneuver | - | - | - | - | 589 | - |
| Stage 1 | - | - | - | - | 886 | - |
| Stage 2 | - | - | - | - | 700 | - |

| Approach | EB | WB | NB |
|---|---|---|---|
| HCM Control Delay, s | 0 | 1.8 | 9.5 |
| HCM LOS | | | A |

| Minor Lane/Major Mvmt | NBLn1 | EBT | EBR | WBL | WBT |
|---|---|---|---|---|---|
| Capacity (veh/h) | 869 | - | - | 1438 | - |
| HCM Lane V/C Ratio | 0.084 | - | - | 0.043 | - |
| HCM Control Delay (s) | 9.5 | - | - | 7.6 | - |
| HCM Lane LOS | A | - | - | A | - |
| HCM 95th %tile Q(veh) | 0.3 | - | - | 0.1 | - |

| Intersection | |
|---|---|
| Int Delay, s/veh | 5.6 |

| Movement | EBT | EBR | WBL | WBT | NBL | NBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 169 | 4 | 209 | 208 | 16 | 223 |
| Future Vol, veh/h | 169 | 4 | 209 | 208 | 16 | 223 |
| 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 | 85 | 85 | 85 | 85 | 85 | 85 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 199 | 5 | 246 | 245 | 19 | 262 |

| Major/Minor | Major1 | | Major2 | | Minor1 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 0 | 0 | 204 | 0 | 939 | 102 |
| Stage 1 | - | - | - | - | 202 | - |
| Stage 2 | - | - | - | - | 737 | - |
| Critical Hdwy | - | - | 4.13 | - | 6.63 | 6.93 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.83 | - |
| Critical Hdwy Stg 2 | - | - | - | - | 5.43 | - |
| Follow-up Hdwy | - | - | 2.219 | - | 3.519 | 3.319 |
| Pot Cap-1 Maneuver | - | - | 1366 | - | 277 | 934 |
| Stage 1 | - | - | - | - | 813 | - |
| Stage 2 | - | - | - | - | 472 | - |
| Platoon blocked, % | - | - | | - | | |
| Mov Cap-1 Maneuver | - | - | 1366 | - | 227 | 934 |
| Mov Cap-2 Maneuver | - | - | - | - | 227 | - |
| Stage 1 | - | - | - | - | 813 | - |
| Stage 2 | - | - | - | - | 387 | - |

| Approach | EB | WB | NB |
|---|---|---|---|
| HCM Control Delay, s | 0 | 4.1 | 12.3 |
| HCM LOS | | | B |

| Minor Lane/Major Mvmt | NBLn1 | EBT | EBR | WBL | WBT |
|---|---|---|---|---|---|
| Capacity (veh/h) | 773 | - | - | 1366 | - |
| HCM Lane V/C Ratio | 0.364 | - | - | 0.18 | - |
| HCM Control Delay (s) | 12.3 | - | - | 8.2 | - |
| HCM Lane LOS | B | - | - | A | - |
| HCM 95th %tile Q(veh) | 1.7 | - | - | 0.7 | - |

| Intersection | |
|---|---|
| Int Delay, s/veh | 12.8 |

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Vol, veh/h | 0 | 1 | 53 | 319 | 2 | 0 | 60 | 0 | 401 | 0 | 0 | 0 |
| Future Vol, veh/h | 0 | 1 | 53 | 319 | 2 | 0 | 60 | 0 | 401 | 0 | 0 | 0 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Stop | Stop | Stop | Stop | Free | Free | Free | Free | Free | Free |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | - | - | - | - | - | - | - | - | - | - | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 78 | 78 | 78 | 87 | 87 | 87 | 87 | 87 | 87 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 0 | 1 | 68 | 367 | 2 | 0 | 69 | 0 | 461 | 0 | 0 | 0 |

| Major/Minor | Minor2 | | | Minor1 | | | Major1 | | | Major2 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Conflicting Flow All | - | 600 | 1 | 405 | 370 | - | 1 | 0 | 0 | 461 | 0 | 0 |
| Stage 1 | - | 1 | - | 369 | 369 | - | - | - | - | - | - | - |
| Stage 2 | - | 599 | - | 36 | 1 | - | - | - | - | - | - | - |
| Critical Hdwy | - | 6.52 | 6.22 | 7.12 | 6.52 | - | 4.12 | - | - | 4.12 | - | - |
| Critical Hdwy Stg 1 | - | 5.52 | - | 6.12 | 5.52 | - | - | - | - | - | - | - |
| Critical Hdwy Stg 2 | - | 5.52 | - | 6.12 | 5.52 | - | - | - | - | - | - | - |
| Follow-up Hdwy | - | 4.018 | 3.318 | 3.518 | 4.018 | - | 2.218 | - | - | 2.218 | - | - |
| Pot Cap-1 Maneuver | 0 | 415 | 1084 | 556 | 560 | 0 | 1622 | - | - | 1100 | - | - |
| Stage 1 | 0 | 895 | - | 651 | 621 | 0 | - | - | - | - | - | - |
| Stage 2 | 0 | 490 | - | 980 | 895 | 0 | - | - | - | - | - | - |
| Platoon blocked, % | | | | | | | | - | - | | - | - |
| Mov Cap-1 Maneuver | - | 390 | 1084 | 495 | 526 | - | 1622 | - | - | 1100 | - | - |
| Mov Cap-2 Maneuver | - | 390 | - | 495 | 526 | - | - | - | - | - | - | - |
| Stage 1 | - | 895 | - | 611 | 583 | - | - | - | - | - | - | - |
| Stage 2 | - | 460 | - | 917 | 895 | - | - | - | - | - | - | - |

| Approach | EB | WB | NB | SB |
|---|---|---|---|---|
| HCM Control Delay, s | 8.7 | 30.6 | 1 | 0 |
| HCM LOS | A | D | | |

| Minor Lane/Major Mvmt | NBL | NBT | NBR | EBLn1 | WBLn1 | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|
| Capacity (veh/h) | 1622 | - | - | 1049 | 495 | 1100 | - | - |
| HCM Lane V/C Ratio | 0.043 | - | - | 0.066 | 0.745 | - | - | - |
| HCM Control Delay (s) | 7.3 | 0 | - | 8.7 | 30.6 | 0 | - | - |
| HCM Lane LOS | A | A | - | A | D | A | - | - |
| HCM 95th %tile Q(veh) | 0.1 | - | - | 0.2 | 6.3 | 0 | - | - |

| Intersection | |
|---|---|
| Int Delay, s/veh | 4.9 |

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Vol, veh/h | 93 | 0 | 0 | 0 | 0 | 29 | 0 | 30 | 0 | 27 | 18 | 88 |
| Future Vol, veh/h | 93 | 0 | 0 | 0 | 0 | 29 | 0 | 30 | 0 | 27 | 18 | 88 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Stop | Stop | Stop | Stop | Free | Free | Free | Free | Free | Free |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | - | - | - | - | - | - | - | - | - | - | - | 75 |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 85 | 85 | 85 | 85 | 85 | 85 | 85 | 85 | 85 | 85 | 85 | 85 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 109 | 0 | 0 | 0 | 0 | 34 | 0 | 35 | 0 | 32 | 21 | 104 |

| Major/Minor | Minor2 | | | Minor1 | | | Major1 | | | Major2 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Conflicting Flow All | 137 | 120 | 21 | 172 | 224 | 35 | 125 | 0 | 0 | 35 | 0 | 0 |
| Stage 1 | 85 | 85 | - | 35 | 35 | - | - | - | - | - | - | - |
| Stage 2 | 52 | 35 | - | 137 | 189 | - | - | - | - | - | - | - |
| Critical Hdwy | 7.12 | 6.52 | 6.22 | 7.12 | 6.52 | 6.22 | 4.12 | - | - | 4.12 | - | - |
| Critical Hdwy Stg 1 | 6.12 | 5.52 | - | 6.12 | 5.52 | - | - | - | - | - | - | - |
| Critical Hdwy Stg 2 | 6.12 | 5.52 | - | 6.12 | 5.52 | - | - | - | - | - | - | - |
| Follow-up Hdwy | 3.518 | 4.018 | 3.318 | 3.518 | 4.018 | 3.318 | 2.218 | - | - | 2.218 | - | - |
| Pot Cap-1 Maneuver | 834 | 770 | 1056 | 791 | 675 | 1038 | 1462 | - | - | 1576 | - | - |
| Stage 1 | 923 | 824 | - | 981 | 866 | - | - | - | - | - | - | - |
| Stage 2 | 961 | 866 | - | 866 | 744 | - | - | - | - | - | - | - |
| Platoon blocked, % | | | | | | | | - | - | | - | - |
| Mov Cap-1 Maneuver | 793 | 753 | 1056 | 778 | 660 | 1038 | 1462 | - | - | 1576 | - | - |
| Mov Cap-2 Maneuver | 793 | 753 | - | 778 | 660 | - | - | - | - | - | - | - |
| Stage 1 | 923 | 806 | - | 981 | 866 | - | - | - | - | - | - | - |
| Stage 2 | 929 | 866 | - | 847 | 728 | - | - | - | - | - | - | - |

| Approach | EB | WB | NB | SB |
|---|---|---|---|---|
| HCM Control Delay, s | 10.3 | 8.6 | 0 | 1.5 |
| HCM LOS | B | A | | |

| Minor Lane/Major Mvmt | NBL | NBT | NBR | EBLn1 | WBLn1 | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|
| Capacity (veh/h) | 1462 | - | - | 793 | 1038 | 1576 | - | - |
| HCM Lane V/C Ratio | - | - | - | 0.138 | 0.033 | 0.02 | - | - |
| HCM Control Delay (s) | 0 | - | - | 10.3 | 8.6 | 7.3 | 0 | - |
| HCM Lane LOS | A | - | - | B | A | A | A | - |
| HCM 95th %tile Q(veh) | 0 | - | - | 0.5 | 0.1 | 0.1 | - | - |

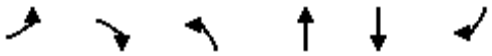
| Intersection | |
|---|---|
| Int Delay, s/veh | 4.5 |

| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 166 | 143 | 147 | 49 | 14 | 120 |
| Future Vol, veh/h | 166 | 143 | 147 | 49 | 14 | 120 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 155 | - | - | - | 155 | 0 |
| Veh in Median Storage, # | - | 0 | 0 | - | 0 | - |
| Grade, % | - | 0 | 0 | - | 0 | - |
| Peak Hour Factor | 87 | 87 | 83 | 83 | 78 | 78 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 191 | 164 | 177 | 59 | 18 | 154 |

| Major/Minor | Major1 | | Major2 | | Minor2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 236 | 0 | - | 0 | 753 | 207 |
| Stage 1 | - | - | - | - | 207 | - |
| Stage 2 | - | - | - | - | 546 | - |
| 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 | 1331 | - | - | - | 377 | 833 |
| Stage 1 | - | - | - | - | 828 | - |
| Stage 2 | - | - | - | - | 580 | - |
| Platoon blocked, % | | - | - | - | | |
| Mov Cap-1 Maneuver | 1331 | - | - | - | 323 | 833 |
| Mov Cap-2 Maneuver | - | - | - | - | 323 | - |
| Stage 1 | - | - | - | - | 709 | - |
| Stage 2 | - | - | - | - | 580 | - |

| Approach | EB | WB | SB |
|---|---|---|---|
| HCM Control Delay, s | 4.4 | 0 | 11 |
| HCM LOS | | | B |

| Minor Lane/Major Mvmt | EBL | EBT | WBT | WBR | SBLn1 | SBLn2 |
|---|---|---|---|---|---|---|
| Capacity (veh/h) | 1331 | - | - | - | 323 | 833 |
| HCM Lane V/C Ratio | 0.143 | - | - | - | 0.056 | 0.185 |
| HCM Control Delay (s) | 8.2 | - | - | - | 16.8 | 10.3 |
| HCM Lane LOS | A | - | - | - | C | B |
| HCM 95th %tile Q(veh) | 0.5 | - | - | - | 0.2 | 0.7 |



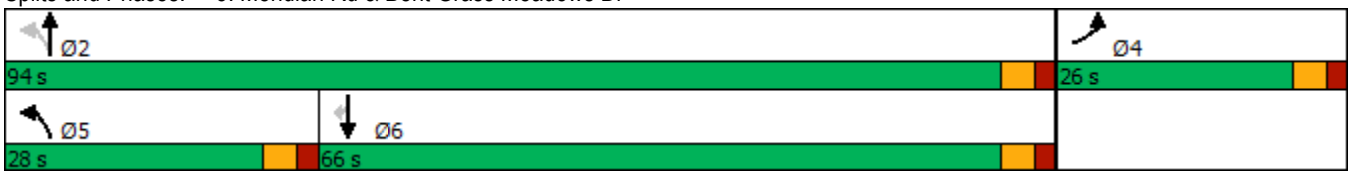
| Lane Group | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Traffic Volume (vph) | 249 | 307 | 226 | 663 | 1755 | 292 |
| Future Volume (vph) | 249 | 307 | 226 | 663 | 1755 | 292 |
| Confl. Peds. (#/hr) | | | | | | |
| Confl. Bikes (#/hr) | | | | | | |
| Peak Hour Factor | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 |
| Growth Factor | 100% | 100% | 100% | 100% | 100% | 100% |
| Heavy Vehicles (%) | 2% | 2% | 2% | 2% | 2% | 2% |
| Bus Blockages (#/hr) | 0 | 0 | 0 | 0 | 0 | 0 |
| Parking (#/hr) | | | | | | |
| Mid-Block Traffic (%) | 0% | | | 0% | 0% | |
| Adj. Flow (vph) | 262 | 323 | 238 | 698 | 1847 | 307 |
| Shared Lane Traffic (%) | | | | | | |
| Lane Group Flow (vph) | 262 | 323 | 238 | 698 | 1847 | 307 |

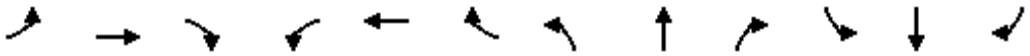
Intersection Summary

| Lane Group | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (vph) | 249 | 307 | 226 | 663 | 1755 | 292 |
| Future Volume (vph) | 249 | 307 | 226 | 663 | 1755 | 292 |
| Turn Type | Prot | Free | pm+pt | NA | NA | Perm |
| Protected Phases | 4 | | 5 | 2 | 6 | |
| Permitted Phases | | Free | 2 | | | 6 |
| Detector Phase | 4 | | 5 | 2 | 6 | 6 |
| Switch Phase | | | | | | |
| Minimum Initial (s) | 5.0 | | 5.0 | 5.0 | 5.0 | 5.0 |
| Minimum Split (s) | 10.0 | | 10.0 | 10.0 | 10.0 | 10.0 |
| Total Split (s) | 26.0 | | 28.0 | 94.0 | 66.0 | 66.0 |
| Total Split (%) | 21.7% | | 23.3% | 78.3% | 55.0% | 55.0% |
| Yellow Time (s) | 3.0 | | 3.0 | 3.0 | 3.0 | 3.0 |
| All-Red Time (s) | 2.0 | | 2.0 | 2.0 | 2.0 | 2.0 |
| Lost Time Adjust (s) | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 5.0 | | 5.0 | 5.0 | 5.0 | 5.0 |
| Lead/Lag | | | Lead | | Lag | Lag |
| Lead-Lag Optimize? | | | Yes | | Yes | Yes |
| Recall Mode | None | | None | Max | Max | Max |
| Act Effct Green (s) | 13.8 | 112.9 | 89.1 | 89.1 | 68.8 | 68.8 |
| Actuated g/C Ratio | 0.12 | 1.00 | 0.79 | 0.79 | 0.61 | 0.61 |
| v/c Ratio | 0.62 | 0.20 | 0.78 | 0.25 | 0.86 | 0.29 |
| Control Delay | 53.9 | 0.3 | 45.8 | 3.6 | 24.9 | 3.1 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 53.9 | 0.3 | 45.8 | 3.6 | 24.9 | 3.1 |
| LOS | D | A | D | A | C | A |
| Approach Delay | 24.3 | | | 14.3 | 21.8 | |
| Approach LOS | C | | | B | C | |

| Intersection Summary | |
|---|---|
| Cycle Length: 120 | |
| Actuated Cycle Length: 112.9 | |
| Natural Cycle: 65 | |
| Control Type: Semi Act-Uncoord | |
| Maximum v/c Ratio: 0.86 | |
| Intersection Signal Delay: 20.3 | Intersection LOS: C |
| Intersection Capacity Utilization 80.6% | ICU Level of Service D |
| Analysis Period (min) 15 | |

Splits and Phases: 3: Meridian Rd & Bent Grass Meadows Dr





| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Traffic Volume (vph) | 320 | 741 | 74 | 68 | 1779 | 110 | 164 | 19 | 51 | 98 | 25 | 391 |
| Future Volume (vph) | 320 | 741 | 74 | 68 | 1779 | 110 | 164 | 19 | 51 | 98 | 25 | 391 |
| Confl. Peds. (#/hr) | | | | | | | | | | | | |
| Confl. Bikes (#/hr) | | | | | | | | | | | | |
| Peak Hour Factor | 0.95 | 0.98 | 0.95 | 0.95 | 0.98 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 |
| Growth Factor | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% |
| Heavy Vehicles (%) | 2% | 2% | 2% | 2% | 2% | 2% | 2% | 2% | 2% | 2% | 2% | 2% |
| Bus Blockages (#/hr) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Parking (#/hr) | | | | | | | | | | | | |
| Mid-Block Traffic (%) | | 0% | | | 0% | | | 0% | | | 0% | |
| Adj. Flow (vph) | 337 | 756 | 78 | 72 | 1815 | 116 | 173 | 20 | 54 | 103 | 26 | 412 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 337 | 756 | 78 | 72 | 1815 | 116 | 173 | 20 | 54 | 103 | 26 | 412 |

Intersection Summary

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 320 | 741 | 74 | 68 | 1779 | 110 | 164 | 19 | 51 | 98 | 25 | 391 |
| Future Volume (vph) | 320 | 741 | 74 | 68 | 1779 | 110 | 164 | 19 | 51 | 98 | 25 | 391 |
| Turn Type | Prot | NA | Perm | pm+pt | NA | Perm | pm+pt | NA | Perm | pm+pt | NA | Free |
| Protected Phases | 5 | 2 | | 1 | 6 | | 3 | 8 | | 7 | 4 | |
| Permitted Phases | | | 2 | 6 | | 6 | 8 | | 8 | 4 | | Free |
| Detector Phase | 5 | 2 | 2 | 1 | 6 | 6 | 3 | 8 | 8 | 7 | 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 | |
| Minimum Split (s) | 10.0 | 12.0 | 12.0 | 10.0 | 12.0 | 12.0 | 10.0 | 10.0 | 10.0 | 10.0 | 10.0 | |
| Total Split (s) | 21.0 | 72.0 | 72.0 | 10.0 | 61.0 | 61.0 | 23.0 | 15.0 | 15.0 | 23.0 | 15.0 | |
| Total Split (%) | 17.5% | 60.0% | 60.0% | 8.3% | 50.8% | 50.8% | 19.2% | 12.5% | 12.5% | 19.2% | 12.5% | |
| Yellow Time (s) | 3.0 | 5.0 | 5.0 | 3.0 | 5.0 | 5.0 | 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 | 2.0 | 2.0 | 2.0 | |
| Lost Time Adjust (s) | -1.0 | -1.0 | -1.0 | -1.0 | -1.0 | -1.0 | -1.0 | -1.0 | -1.0 | -1.0 | -1.0 | |
| Total Lost Time (s) | 4.0 | 6.0 | 6.0 | 4.0 | 6.0 | 6.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | |
| Lead/Lag | Lead | Lag | Lag | Lead | Lag | Lag | Lead | Lag | Lag | Lead | Lag | |
| Lead-Lag Optimize? | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | |
| Recall Mode | None | Min | Min | None | Min | Min | None | None | None | None | None | |
| Act Effct Green (s) | 15.5 | 67.3 | 67.3 | 63.6 | 55.5 | 55.5 | 24.1 | 10.3 | 10.3 | 17.6 | 8.1 | 109.4 |
| Actuated g/C Ratio | 0.14 | 0.62 | 0.62 | 0.58 | 0.51 | 0.51 | 0.22 | 0.09 | 0.09 | 0.16 | 0.07 | 1.00 |
| v/c Ratio | 0.69 | 0.35 | 0.08 | 0.16 | 1.01 | 0.13 | 0.53 | 0.11 | 0.18 | 0.39 | 0.19 | 0.26 |
| Control Delay | 54.1 | 12.6 | 1.1 | 8.4 | 52.8 | 1.5 | 42.3 | 48.5 | 1.3 | 40.3 | 53.6 | 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 | 54.1 | 12.6 | 1.1 | 8.4 | 52.8 | 1.5 | 42.3 | 48.5 | 1.3 | 40.3 | 53.6 | 0.4 |
| LOS | D | B | A | A | D | A | D | D | A | D | D | A |
| Approach Delay | | 23.8 | | | 48.3 | | | 33.8 | | | 10.5 | |
| Approach LOS | | C | | | D | | | C | | | B | |

| Intersection Summary | | |
|---|---|---|
| Cycle Length: 120 | | |
| Actuated Cycle Length: 109.4 | | |
| Natural Cycle: 80 | | |
| Control Type: Semi Act-Uncoord | | |
| Maximum v/c Ratio: 1.01 | | |
| Intersection Signal Delay: 35.0 | Intersection LOS: C | |
| Intersection Capacity Utilization 85.7% | ICU Level of Service E | |
| Analysis Period (min) 15 | | |

Splits and Phases: 25: Golden Sage Rd & Woodmen Rd

| Intersection | |
|---|---|
| Int Delay, s/veh | 0.9 |

| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 2 | 283 | 165 | 70 | 36 | 1 |
| Future Vol, veh/h | 2 | 283 | 165 | 70 | 36 | 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 | 155 | - | - | - | 0 | - |
| Veh in Median Storage, # | - | 0 | 0 | - | 0 | - |
| Grade, % | - | 0 | 0 | - | 0 | - |
| Peak Hour Factor | 95 | 95 | 95 | 95 | 95 | 95 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 2 | 298 | 174 | 74 | 38 | 1 |

| Major/Minor | Major1 | | Major2 | | Minor2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 248 | 0 | - | 0 | 513 | 211 |
| Stage 1 | - | - | - | - | 211 | - |
| Stage 2 | - | - | - | - | 302 | - |
| 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 | 1318 | - | - | - | 521 | 829 |
| Stage 1 | - | - | - | - | 824 | - |
| Stage 2 | - | - | - | - | 750 | - |
| Platoon blocked, % | | | - | - | - | |
| Mov Cap-1 Maneuver | 1318 | - | - | - | 520 | 829 |
| Mov Cap-2 Maneuver | - | - | - | - | 520 | - |
| Stage 1 | - | - | - | - | 822 | - |
| Stage 2 | - | - | - | - | 750 | - |

| Approach | EB | WB | SB |
|---|---|---|---|
| HCM Control Delay, s | 0.1 | 0 | 12.4 |
| HCM LOS | | | B |

| Minor Lane/Major Mvmt | EBL | EBT | WBT | WBR | SBLn1 |
|---|---|---|---|---|---|
| Capacity (veh/h) | 1318 | - | - | - | 525 |
| HCM Lane V/C Ratio | 0.002 | - | - | - | 0.074 |
| HCM Control Delay (s) | 7.7 | - | - | - | 12.4 |
| HCM Lane LOS | A | - | - | - | B |
| HCM 95th %tile Q(veh) | 0 | - | - | - | 0.2 |

| Intersection | |
|---|---|
| Int Delay, s/veh | 5.1 |

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Vol, veh/h | 1 | 306 | 12 | 218 | 218 | 81 | 17 | 1 | 223 | 27 | 1 | 1 |
| Future Vol, veh/h | 1 | 306 | 12 | 218 | 218 | 81 | 17 | 1 | 223 | 27 | 1 | 1 |
| 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 | 155 | - | - | 0 | - | - | 100 | - | - | 0 | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 1 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 95 | 95 | 95 | 95 | 95 | 95 | 95 | 95 | 95 | 95 | 95 | 95 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 1 | 322 | 13 | 229 | 229 | 85 | 18 | 1 | 235 | 28 | 1 | 1 |

| Major/Minor | Major1 | | | Major2 | | | Minor1 | | | Minor2 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Conflicting Flow All | 314 | 0 | 0 | 335 | 0 | 0 | 1062 | 1103 | 168 | 894 | 1067 | 272 |
| Stage 1 | - | - | - | - | - | - | 331 | 331 | - | 730 | 730 | - |
| Stage 2 | - | - | - | - | - | - | 731 | 772 | - | 164 | 337 | - |
| Critical Hdwy | 4.13 | - | - | 4.13 | - | - | 7.33 | 6.53 | 6.93 | 7.33 | 6.53 | 6.23 |
| Critical Hdwy Stg 1 | - | - | - | - | - | - | 6.53 | 5.53 | - | 6.13 | 5.53 | - |
| Critical Hdwy Stg 2 | - | - | - | - | - | - | 6.13 | 5.53 | - | 6.53 | 5.53 | - |
| Follow-up Hdwy | 2.219 | - | - | 2.219 | - | - | 3.519 | 4.019 | 3.319 | 3.519 | 4.019 | 3.319 |
| Pot Cap-1 Maneuver | 1245 | - | - | 1223 | - | - | 189 | 211 | 847 | 249 | 221 | 766 |
| Stage 1 | - | - | - | - | - | - | 657 | 644 | - | 413 | 427 | - |
| Stage 2 | - | - | - | - | - | - | 412 | 408 | - | 822 | 640 | - |
| Platoon blocked, % | | - | - | | - | - | | | | | | |
| Mov Cap-1 Maneuver | 1245 | - | - | 1223 | - | - | 161 | 171 | 847 | 154 | 179 | 766 |
| Mov Cap-2 Maneuver | - | - | - | - | - | - | 263 | 265 | - | 154 | 179 | - |
| Stage 1 | - | - | - | - | - | - | 656 | 643 | - | 413 | 347 | - |
| Stage 2 | - | - | - | - | - | - | 333 | 332 | - | 593 | 639 | - |

| Approach | EB | WB | NB | SB |
|---|---|---|---|---|
| HCM Control Delay, s | 0 | 3.6 | 11.6 | 32.5 |
| HCM LOS | | | B | D |

| Minor Lane/Major Mvmt | NBLn1 | NBLn2 | EBL | EBT | EBR | WBL | WBT | WBR | SBLn1 | SBLn2 |
|---|---|---|---|---|---|---|---|---|---|---|
| Capacity (veh/h) | 263 | 839 | 1245 | - | - | 1223 | - | - | 154 | 290 |
| HCM Lane V/C Ratio | 0.068 | 0.281 | 0.001 | - | - | 0.188 | - | - | 0.185 | 0.007 |
| HCM Control Delay (s) | 19.7 | 11 | 7.9 | - | - | 8.6 | - | - | 33.6 | 17.5 |
| HCM Lane LOS | C | B | A | - | - | A | - | - | D | C |
| HCM 95th %tile Q(veh) | 0.2 | 1.2 | 0 | - | - | 0.7 | - | - | 0.7 | 0 |

| Intersection | |
|---|---|
| Int Delay, s/veh | 18.1 |

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Vol, veh/h | 0 | 7 | 114 | 401 | 5 | 0 | 78 | 0 | 371 | 0 | 0 | 0 |
| Future Vol, veh/h | 0 | 7 | 114 | 401 | 5 | 0 | 78 | 0 | 371 | 0 | 0 | 0 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Stop | Stop | Stop | Stop | Free | Free | Free | Free | Free | Free |
| RT Channelized | - | - | None | - | - | None | - | - | Free | - | - | None |
| Storage Length | - | - | - | - | - | - | - | - | 0 | - | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 92 | 95 | 95 | 95 | 95 | 92 | 95 | 92 | 95 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 0 | 7 | 120 | 422 | 5 | 0 | 82 | 0 | 391 | 0 | 0 | 0 |

| Major/Minor | Minor2 | | | Minor1 | | | Major1 | | | Major2 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Conflicting Flow All | - | 165 | 1 | 229 | 165 | - | 1 | 0 | - | 0 | 0 | 0 |
| Stage 1 | - | 1 | - | 164 | 164 | - | - | - | - | - | - | - |
| Stage 2 | - | 164 | - | 65 | 1 | - | - | - | - | - | - | - |
| Critical Hdwy | - | 6.52 | 6.22 | 7.12 | 6.52 | - | 4.12 | - | - | 4.12 | - | - |
| Critical Hdwy Stg 1 | - | 5.52 | - | 6.12 | 5.52 | - | - | - | - | - | - | - |
| Critical Hdwy Stg 2 | - | 5.52 | - | 6.12 | 5.52 | - | - | - | - | - | - | - |
| Follow-up Hdwy | - | 4.018 | 3.318 | 3.518 | 4.018 | - | 2.218 | - | - | 2.218 | - | - |
| Pot Cap-1 Maneuver | 0 | 728 | 1084 | 726 | 728 | 0 | 1622 | - | 0 | - | - | - |
| Stage 1 | 0 | 895 | - | 838 | 762 | 0 | - | - | 0 | - | - | - |
| Stage 2 | 0 | 762 | - | 946 | 895 | 0 | - | - | 0 | - | - | - |
| Platoon blocked, % | | | | | | | | - | | | - | - |
| Mov Cap-1 Maneuver | - | 691 | 1084 | 616 | 691 | - | 1622 | - | - | - | - | - |
| Mov Cap-2 Maneuver | - | 691 | - | 616 | 691 | - | - | - | - | - | - | - |
| Stage 1 | - | 895 | - | 795 | 723 | - | - | - | - | - | - | - |
| Stage 2 | - | 723 | - | 834 | 895 | - | - | - | - | - | - | - |

| Approach | EB | WB | NB | SB |
|---|---|---|---|---|
| HCM Control Delay, s | 8.9 | 22.9 | 7.3 | 0 |
| HCM LOS | A | C | | |

| Minor Lane/Major Mvmt | NBL | NBT | EBLn1 | WBLn1 | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|
| Capacity (veh/h) | 1622 | - | 1049 | 617 | - | - | - |
| HCM Lane V/C Ratio | 0.051 | - | 0.121 | 0.693 | - | - | - |
| HCM Control Delay (s) | 7.3 | 0 | 8.9 | 22.9 | 0 | - | - |
| HCM Lane LOS | A | A | A | C | A | - | - |
| HCM 95th %tile Q(veh) | 0.2 | - | 0.4 | 5.5 | - | - | - |

| Intersection | |
|---|---|
| Int Delay, s/veh | 2.4 |

| Movement | WBL | WBR | NBT | NBR | SBL | SBT |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 1 | 36 | 98 | 1 | 38 | 79 |
| Future Vol, veh/h | 1 | 36 | 98 | 1 | 38 | 79 |
| 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 | - | - | - | 50 | - |
| Veh in Median Storage, # | 0 | - | 0 | - | - | 0 |
| Grade, % | 0 | - | 0 | - | - | 0 |
| Peak Hour Factor | 95 | 95 | 95 | 95 | 95 | 95 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 1 | 38 | 103 | 1 | 40 | 83 |

| Major/Minor | Minor1 | | Major1 | | Major2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 267 | 104 | 0 | 0 | 104 | 0 |
| Stage 1 | 104 | - | - | - | - | - |
| Stage 2 | 163 | - | - | - | - | - |
| 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 | 722 | 951 | - | - | 1488 | - |
| Stage 1 | 920 | - | - | - | - | - |
| Stage 2 | 866 | - | - | - | - | - |
| Platoon blocked, % | | | - | - | | - |
| Mov Cap-1 Maneuver | 703 | 951 | - | - | 1488 | - |
| Mov Cap-2 Maneuver | 703 | - | - | - | - | - |
| Stage 1 | 920 | - | - | - | - | - |
| Stage 2 | 843 | - | - | - | - | - |

| Approach | WB | NB | SB |
|---|---|---|---|
| HCM Control Delay, s | 9 | 0 | 2.4 |
| HCM LOS | A | | |

| Minor Lane/Major Mvmt | NBT | NBR | WBLn1 | SBL | SBT |
|---|---|---|---|---|---|
| Capacity (veh/h) | - | - | 942 | 1488 | - |
| HCM Lane V/C Ratio | - | - | 0.041 | 0.027 | - |
| HCM Control Delay (s) | - | - | 9 | 7.5 | - |
| HCM Lane LOS | - | - | A | A | - |
| HCM 95th %tile Q(veh) | - | - | 0.1 | 0.1 | - |

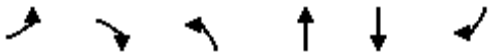
| Intersection | |
|---|---|
| Int Delay, s/veh | 4.2 |

| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 105 | 255 | 148 | 18 | 21 | 187 |
| Future Vol, veh/h | 105 | 255 | 148 | 18 | 21 | 187 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 155 | - | - | - | 155 | 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 | 114 | 277 | 161 | 20 | 23 | 203 |

| Major/Minor | Major1 | | Major2 | | Minor2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 181 | 0 | - | 0 | 676 | 171 |
| Stage 1 | - | - | - | - | 171 | - |
| Stage 2 | - | - | - | - | 505 | - |
| 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 | 1394 | - | - | - | 419 | 873 |
| Stage 1 | - | - | - | - | 859 | - |
| Stage 2 | - | - | - | - | 606 | - |
| Platoon blocked, % | | - | - | - | | |
| Mov Cap-1 Maneuver | 1394 | - | - | - | 385 | 873 |
| Mov Cap-2 Maneuver | - | - | - | - | 385 | - |
| Stage 1 | - | - | - | - | 789 | - |
| Stage 2 | - | - | - | - | 606 | - |

| Approach | EB | WB | SB |
|---|---|---|---|
| HCM Control Delay, s | 2.3 | 0 | 10.9 |
| HCM LOS | | | B |

| Minor Lane/Major Mvmt | EBL | EBT | WBT | WBR | SBLn1 | SBLn2 |
|---|---|---|---|---|---|---|
| Capacity (veh/h) | 1394 | - | - | - | 385 | 873 |
| HCM Lane V/C Ratio | 0.082 | - | - | - | 0.059 | 0.233 |
| HCM Control Delay (s) | 7.8 | - | - | - | 14.9 | 10.4 |
| HCM Lane LOS | A | - | - | - | B | B |
| HCM 95th %tile Q(veh) | 0.3 | - | - | - | 0.2 | 0.9 |



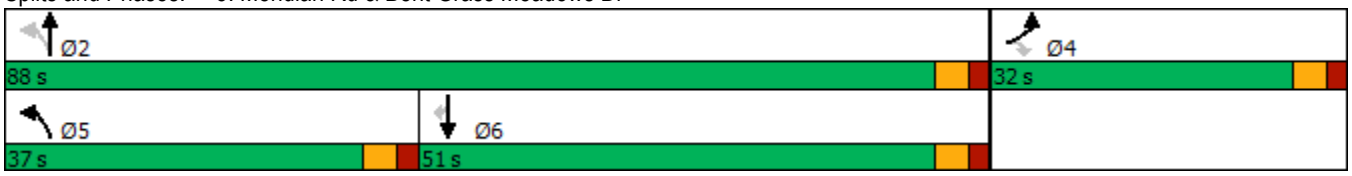
| Lane Group | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Traffic Volume (vph) | 470 | 288 | 261 | 1493 | 1160 | 219 |
| Future Volume (vph) | 470 | 288 | 261 | 1493 | 1160 | 219 |
| Confl. Peds. (#/hr) | | | | | | |
| Confl. Bikes (#/hr) | | | | | | |
| Peak Hour Factor | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 |
| Growth Factor | 100% | 100% | 100% | 100% | 100% | 100% |
| Heavy Vehicles (%) | 2% | 2% | 2% | 2% | 2% | 2% |
| Bus Blockages (#/hr) | 0 | 0 | 0 | 0 | 0 | 0 |
| Parking (#/hr) | | | | | | |
| Mid-Block Traffic (%) | 0% | | | 0% | 0% | |
| Adj. Flow (vph) | 495 | 303 | 275 | 1572 | 1221 | 231 |
| Shared Lane Traffic (%) | | | | | | |
| Lane Group Flow (vph) | 495 | 303 | 275 | 1572 | 1221 | 231 |

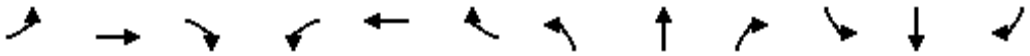
Intersection Summary

| Lane Group | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (vph) | 470 | 288 | 261 | 1493 | 1160 | 219 |
| Future Volume (vph) | 470 | 288 | 261 | 1493 | 1160 | 219 |
| Turn Type | Prot | Perm | pm+pt | NA | NA | Perm |
| Protected Phases | 4 | | 5 | 2 | 6 | |
| Permitted Phases | | 4 | 2 | | | 6 |
| Detector Phase | 4 | 4 | 5 | 2 | 6 | 6 |
| Switch Phase | | | | | | |
| Minimum Initial (s) | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 |
| Minimum Split (s) | 10.0 | 10.0 | 10.0 | 10.0 | 10.0 | 10.0 |
| Total Split (s) | 32.0 | 32.0 | 37.0 | 88.0 | 51.0 | 51.0 |
| Total Split (%) | 26.7% | 26.7% | 30.8% | 73.3% | 42.5% | 42.5% |
| 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 | None | None | None | Max | Max | Max |
| Act Effct Green (s) | 21.8 | 21.8 | 83.1 | 83.1 | 60.8 | 60.8 |
| Actuated g/C Ratio | 0.19 | 0.19 | 0.72 | 0.72 | 0.53 | 0.53 |
| v/c Ratio | 0.76 | 0.55 | 0.69 | 0.61 | 0.65 | 0.24 |
| Control Delay | 52.2 | 8.5 | 23.2 | 9.7 | 23.6 | 3.2 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 52.2 | 8.5 | 23.2 | 9.7 | 23.6 | 3.2 |
| LOS | D | A | C | A | C | A |
| Approach Delay | 35.6 | | | 11.7 | 20.4 | |
| Approach LOS | D | | | B | C | |

| Intersection Summary | |
|---|---|
| Cycle Length: 120 | |
| Actuated Cycle Length: 114.9 | |
| Natural Cycle: 60 | |
| Control Type: Semi Act-Uncoord | |
| Maximum v/c Ratio: 0.76 | |
| Intersection Signal Delay: 19.4 | Intersection LOS: B |
| Intersection Capacity Utilization 72.4% | ICU Level of Service C |
| Analysis Period (min) 15 | |

Splits and Phases: 3: Meridian Rd & Bent Grass Meadows Dr





| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Traffic Volume (vph) | 447 | 1640 | 78 | 86 | 1096 | 121 | 178 | 39 | 72 | 136 | 20 | 388 |
| Future Volume (vph) | 447 | 1640 | 78 | 86 | 1096 | 121 | 178 | 39 | 72 | 136 | 20 | 388 |
| Confl. Peds. (#/hr) | | | | | | | | | | | | |
| Confl. Bikes (#/hr) | | | | | | | | | | | | |
| Peak Hour Factor | 0.95 | 0.98 | 0.95 | 0.95 | 0.98 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 |
| Growth Factor | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% |
| Heavy Vehicles (%) | 2% | 2% | 2% | 2% | 2% | 2% | 2% | 2% | 2% | 2% | 2% | 2% |
| Bus Blockages (#/hr) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Parking (#/hr) | | | | | | | | | | | | |
| Mid-Block Traffic (%) | | 0% | | | 0% | | | 0% | | | 0% | |
| Adj. Flow (vph) | 471 | 1673 | 82 | 91 | 1118 | 127 | 187 | 41 | 76 | 143 | 21 | 408 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 471 | 1673 | 82 | 91 | 1118 | 127 | 187 | 41 | 76 | 143 | 21 | 408 |

| Intersection Summary |
|---|

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 447 | 1640 | 78 | 86 | 1096 | 121 | 178 | 39 | 72 | 136 | 20 | 388 |
| Future Volume (vph) | 447 | 1640 | 78 | 86 | 1096 | 121 | 178 | 39 | 72 | 136 | 20 | 388 |
| Turn Type | Prot | NA | Perm | pm+pt | NA | Perm | pm+pt | NA | Perm | pm+pt | NA | Free |
| Protected Phases | 5 | 2 | | 1 | 6 | | 3 | 8 | | 7 | 4 | |
| Permitted Phases | | | 2 | 6 | | 6 | 8 | | 8 | 4 | | Free |
| Detector Phase | 5 | 2 | 2 | 1 | 6 | 6 | 3 | 8 | 8 | 7 | 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 | |
| Minimum Split (s) | 10.0 | 12.0 | 12.0 | 10.0 | 12.0 | 12.0 | 10.0 | 10.0 | 10.0 | 10.0 | 10.0 | |
| Total Split (s) | 23.0 | 64.0 | 64.0 | 10.0 | 51.0 | 51.0 | 31.0 | 15.0 | 15.0 | 31.0 | 15.0 | |
| Total Split (%) | 19.2% | 53.3% | 53.3% | 8.3% | 42.5% | 42.5% | 25.8% | 12.5% | 12.5% | 25.8% | 12.5% | |
| Yellow Time (s) | 3.0 | 5.0 | 5.0 | 3.0 | 5.0 | 5.0 | 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 | 2.0 | 2.0 | 2.0 | |
| Lost Time Adjust (s) | -1.0 | -1.0 | -1.0 | -1.0 | -1.0 | -1.0 | -1.0 | -1.0 | -1.0 | -1.0 | -1.0 | |
| Total Lost Time (s) | 4.0 | 6.0 | 6.0 | 4.0 | 6.0 | 6.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | |
| Lead/Lag | Lead | Lag | Lag | Lead | Lag | Lag | Lead | Lag | Lag | Lead | Lag | |
| Lead-Lag Optimize? | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | |
| Recall Mode | None | Min | Min | None | Min | Min | None | None | None | None | None | |
| Act Effct Green (s) | 18.6 | 56.2 | 56.2 | 49.2 | 40.8 | 40.8 | 24.5 | 9.4 | 9.4 | 17.6 | 7.9 | 98.8 |
| Actuated g/C Ratio | 0.19 | 0.57 | 0.57 | 0.50 | 0.41 | 0.41 | 0.25 | 0.10 | 0.10 | 0.18 | 0.08 | 1.00 |
| v/c Ratio | 0.73 | 0.83 | 0.09 | 0.48 | 0.76 | 0.17 | 0.47 | 0.23 | 0.25 | 0.45 | 0.14 | 0.26 |
| Control Delay | 47.9 | 24.6 | 1.5 | 22.6 | 29.8 | 2.6 | 35.5 | 48.6 | 1.9 | 39.4 | 49.4 | 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 | 47.9 | 24.6 | 1.5 | 22.6 | 29.8 | 2.6 | 35.5 | 48.6 | 1.9 | 39.4 | 49.4 | 0.4 |
| LOS | D | C | A | C | C | A | D | D | A | D | D | A |
| Approach Delay | | 28.7 | | | 26.8 | | | 28.9 | | | 11.9 | |
| Approach LOS | | C | | | C | | | C | | | B | |

| Intersection Summary | | |
|---|---|---|
| Cycle Length: 120 | | |
| Actuated Cycle Length: 98.8 | | |
| Natural Cycle: 70 | | |
| Control Type: Semi Act-Uncoord | | |
| Maximum v/c Ratio: 0.83 | | |
| Intersection Signal Delay: 25.9 | Intersection LOS: C | |
| Intersection Capacity Utilization 78.3% | ICU Level of Service D | |
| Analysis Period (min) 15 | | |

Splits and Phases: 25: Golden Sage Rd & Woodmen Rd

| Intersection | |
|---|---|
| Int Delay, s/veh | 2.3 |

| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 1 | 178 | 218 | 52 | 94 | 4 |
| Future Vol, veh/h | 1 | 178 | 218 | 52 | 94 | 4 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 155 | - | - | - | 0 | - |
| Veh in Median Storage, # | - | 0 | 0 | - | 0 | - |
| Grade, % | - | 0 | 0 | - | 0 | - |
| Peak Hour Factor | 95 | 95 | 95 | 95 | 95 | 95 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 1 | 187 | 229 | 55 | 99 | 4 |

| Major/Minor | Major1 | | Major2 | | Minor2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 284 | 0 | - | 0 | 446 | 257 |
| Stage 1 | - | - | - | - | 257 | - |
| Stage 2 | - | - | - | - | 189 | - |
| Critical Hdwy | 4.12 | - | - | - | 6.42 | 6.22 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.42 | - |
| Critical Hdwy Stg 2 | - | - | - | - | 5.42 | - |
| Follow-up Hdwy | 2.218 | - | - | - | 3.518 | 3.318 |
| Pot Cap-1 Maneuver | 1278 | - | - | - | 570 | 782 |
| Stage 1 | - | - | - | - | 786 | - |
| Stage 2 | - | - | - | - | 843 | - |
| Platoon blocked, % | | | - | - | - | |
| Mov Cap-1 Maneuver | 1278 | - | - | - | 569 | 782 |
| Mov Cap-2 Maneuver | - | - | - | - | 569 | - |
| Stage 1 | - | - | - | - | 785 | - |
| Stage 2 | - | - | - | - | 843 | - |

| Approach | EB | WB | SB |
|---|---|---|---|
| HCM Control Delay, s | 0 | 0 | 12.6 |
| HCM LOS | | | B |

| Minor Lane/Major Mvmt | EBL | EBT | WBT | WBR | SBLn1 |
|---|---|---|---|---|---|
| Capacity (veh/h) | 1278 | - | - | - | 575 |
| HCM Lane V/C Ratio | 0.001 | - | - | - | 0.179 |
| HCM Control Delay (s) | 7.8 | - | - | - | 12.6 |
| HCM Lane LOS | A | - | - | - | B |
| HCM 95th %tile Q(veh) | 0 | - | - | - | 0.6 |

| Intersection | |
|---|---|
| Int Delay, s/veh | 7.9 |

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Vol, veh/h | 1 | 264 | 8 | 172 | 250 | 58 | 19 | 2 | 428 | 67 | 2 | 1 |
| Future Vol, veh/h | 1 | 264 | 8 | 172 | 250 | 58 | 19 | 2 | 428 | 67 | 2 | 1 |
| 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 | 155 | - | - | 0 | - | - | 0 | - | - | 0 | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 1 | - | - | 1 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 95 | 95 | 95 | 95 | 95 | 95 | 95 | 95 | 95 | 95 | 95 | 95 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 1 | 278 | 8 | 181 | 263 | 61 | 20 | 2 | 451 | 71 | 2 | 1 |

| Major/Minor | Major1 | | | Major2 | | | Minor1 | | | Minor2 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Conflicting Flow All | 324 | 0 | 0 | 286 | 0 | 0 | 941 | 970 | 143 | 798 | 944 | 294 |
| Stage 1 | - | - | - | - | - | - | 284 | 284 | - | 656 | 656 | - |
| Stage 2 | - | - | - | - | - | - | 657 | 686 | - | 142 | 288 | - |
| Critical Hdwy | 4.13 | - | - | 4.13 | - | - | 7.33 | 6.53 | 6.93 | 7.33 | 6.53 | 6.23 |
| Critical Hdwy Stg 1 | - | - | - | - | - | - | 6.53 | 5.53 | - | 6.13 | 5.53 | - |
| Critical Hdwy Stg 2 | - | - | - | - | - | - | 6.13 | 5.53 | - | 6.53 | 5.53 | - |
| Follow-up Hdwy | 2.219 | - | - | 2.219 | - | - | 3.519 | 4.019 | 3.319 | 3.519 | 4.019 | 3.319 |
| Pot Cap-1 Maneuver | 1234 | - | - | 1275 | - | - | 230 | 252 | 879 | 290 | 261 | 744 |
| Stage 1 | - | - | - | - | - | - | 700 | 676 | - | 454 | 461 | - |
| Stage 2 | - | - | - | - | - | - | 453 | 447 | - | 847 | 673 | - |
| Platoon blocked, % | | - | - | | - | - | | | | | | |
| Mov Cap-1 Maneuver | 1234 | - | - | 1275 | - | - | 204 | 216 | 879 | 125 | 224 | 744 |
| Mov Cap-2 Maneuver | - | - | - | - | - | - | 307 | 309 | - | 187 | 300 | - |
| Stage 1 | - | - | - | - | - | - | 699 | 675 | - | 454 | 396 | - |
| Stage 2 | - | - | - | - | - | - | 386 | 384 | - | 411 | 672 | - |

| Approach | EB | WB | NB | SB |
|---|---|---|---|---|
| HCM Control Delay, s | 0 | 3 | 13.7 | 34.6 |
| HCM LOS | | | B | D |

| Minor Lane/Major Mvmt | NBLn1 | NBLn2 | EBL | EBT | EBR | WBL | WBT | WBR | SBLn1 | SBLn2 |
|---|---|---|---|---|---|---|---|---|---|---|
| Capacity (veh/h) | 307 | 872 | 1234 | - | - | 1275 | - | - | 187 | 374 |
| HCM Lane V/C Ratio | 0.065 | 0.519 | 0.001 | - | - | 0.142 | - | - | 0.377 | 0.008 |
| HCM Control Delay (s) | 17.5 | 13.5 | 7.9 | - | - | 8.3 | - | - | 35.5 | 14.7 |
| HCM Lane LOS | C | B | A | - | - | A | - | - | E | B |
| HCM 95th %tile Q(veh) | 0.2 | 3.1 | 0 | - | - | 0.5 | - | - | 1.6 | 0 |

| Intersection | |
|---|---|
| Int Delay, s/veh | 37.6 |

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Vol, veh/h | 0 | 11 | 101 | 443 | 12 | 0 | 132 | 0 | 474 | 0 | 0 | 0 |
| Future Vol, veh/h | 0 | 11 | 101 | 443 | 12 | 0 | 132 | 0 | 474 | 0 | 0 | 0 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Stop | Stop | Stop | Stop | Free | Free | Free | Free | Free | Free |
| RT Channelized | - | - | None | - | - | None | - | - | Free | - | - | None |
| Storage Length | - | - | - | - | - | - | - | - | 0 | - | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 92 | 95 | 95 | 95 | 95 | 92 | 95 | 92 | 95 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 0 | 12 | 106 | 466 | 13 | 0 | 139 | 0 | 499 | 0 | 0 | 0 |

| Major/Minor | Minor2 | | | Minor1 | | | Major1 | | | Major2 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Conflicting Flow All | - | 279 | 1 | 338 | 279 | - | 1 | 0 | - | 0 | 0 | 0 |
| Stage 1 | - | 1 | - | 278 | 278 | - | - | - | - | - | - | - |
| Stage 2 | - | 278 | - | 60 | 1 | - | - | - | - | - | - | - |
| Critical Hdwy | - | 6.52 | 6.22 | 7.12 | 6.52 | - | 4.12 | - | - | 4.12 | - | - |
| Critical Hdwy Stg 1 | - | 5.52 | - | 6.12 | 5.52 | - | - | - | - | - | - | - |
| Critical Hdwy Stg 2 | - | 5.52 | - | 6.12 | 5.52 | - | - | - | - | - | - | - |
| Follow-up Hdwy | - | 4.018 | 3.318 | 3.518 | 4.018 | - | 2.218 | - | - | 2.218 | - | - |
| Pot Cap-1 Maneuver | 0 | 629 | 1084 | 616 | 629 | 0 | 1622 | - | 0 | - | - | - |
| Stage 1 | 0 | 895 | - | 728 | 680 | 0 | - | - | 0 | - | - | - |
| Stage 2 | 0 | 680 | - | 951 | 895 | 0 | - | - | 0 | - | - | - |
| Platoon blocked, % | | | | | | | | - | | | - | - |
| Mov Cap-1 Maneuver | - | 575 | 1084 | 511 | 575 | - | 1622 | - | - | - | - | - |
| Mov Cap-2 Maneuver | - | 575 | - | 511 | 575 | - | - | - | - | - | - | - |
| Stage 1 | - | 895 | - | 665 | 622 | - | - | - | - | - | - | - |
| Stage 2 | - | 622 | - | 847 | 895 | - | - | - | - | - | - | - |

| Approach | EB | WB | NB | SB |
|---|---|---|---|---|
| HCM Control Delay, s | 9.1 | 53.4 | 7.4 | 0 |
| HCM LOS | A | F | | |

| Minor Lane/Major Mvmt | NBL | NBT | EBLn1 | WBLn1 | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|
| Capacity (veh/h) | 1622 | - | 997 | 513 | - | - | - |
| HCM Lane V/C Ratio | 0.086 | - | 0.118 | 0.934 | - | - | - |
| HCM Control Delay (s) | 7.4 | 0 | 9.1 | 53.4 | 0 | - | - |
| HCM Lane LOS | A | A | A | F | A | - | - |
| HCM 95th %tile Q(veh) | 0.3 | - | 0.4 | 11.4 | - | - | - |

| Intersection | |
|---|---|
| Int Delay, s/veh | 1.2 |

| Movement | WBL | WBR | NBT | NBR | SBL | SBT |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 2 | 29 | 333 | 2 | 27 | 76 |
| Future Vol, veh/h | 2 | 29 | 333 | 2 | 27 | 76 |
| 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 | - | - | - | 50 | - |
| Veh in Median Storage, # | 0 | - | 0 | - | - | 0 |
| Grade, % | 0 | - | 0 | - | - | 0 |
| Peak Hour Factor | 95 | 95 | 95 | 95 | 95 | 95 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 2 | 31 | 351 | 2 | 28 | 80 |

| Major/Minor | Minor1 | | Major1 | | Major2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 488 | 352 | 0 | 0 | 353 | 0 |
| Stage 1 | 352 | - | - | - | - | - |
| Stage 2 | 136 | - | - | - | - | - |
| 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 | 539 | 692 | - | - | 1206 | - |
| Stage 1 | 712 | - | - | - | - | - |
| Stage 2 | 890 | - | - | - | - | - |
| Platoon blocked, % | | | - | - | | - |
| Mov Cap-1 Maneuver | 527 | 692 | - | - | 1206 | - |
| Mov Cap-2 Maneuver | 527 | - | - | - | - | - |
| Stage 1 | 712 | - | - | - | - | - |
| Stage 2 | 870 | - | - | - | - | - |

| Approach | WB | NB | SB |
|---|---|---|---|
| HCM Control Delay, s | 10.6 | 0 | 2.1 |
| HCM LOS | B | | |

| Minor Lane/Major Mvmt | NBT | NBR | WBLn1 | SBL | SBT |
|---|---|---|---|---|---|
| Capacity (veh/h) | - | - | 678 | 1206 | - |
| HCM Lane V/C Ratio | - | - | 0.048 | 0.024 | - |
| HCM Control Delay (s) | - | - | 10.6 | 8.1 | - |
| HCM Lane LOS | - | - | B | A | - |
| HCM 95th %tile Q(veh) | - | - | 0.2 | 0.1 | - |

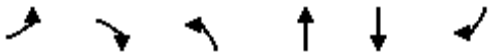
| Intersection | |
|---|---|
| Int Delay, s/veh | 4.4 |

| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 192 | 199 | 239 | 49 | 12 | 164 |
| Future Vol, veh/h | 192 | 199 | 239 | 49 | 12 | 164 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 155 | - | - | - | 155 | 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 | 209 | 216 | 260 | 53 | 13 | 178 |

| Major/Minor | Major1 | | Major2 | | Minor2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 313 | 0 | - | 0 | 921 | 287 |
| Stage 1 | - | - | - | - | 287 | - |
| Stage 2 | - | - | - | - | 634 | - |
| 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 | 1247 | - | - | - | 300 | 752 |
| Stage 1 | - | - | - | - | 762 | - |
| Stage 2 | - | - | - | - | 529 | - |
| Platoon blocked, % | | - | - | - | | |
| Mov Cap-1 Maneuver | 1247 | - | - | - | 250 | 752 |
| Mov Cap-2 Maneuver | - | - | - | - | 250 | - |
| Stage 1 | - | - | - | - | 634 | - |
| Stage 2 | - | - | - | - | 529 | - |

| Approach | EB | WB | SB |
|---|---|---|---|
| HCM Control Delay, s | 4.2 | 0 | 11.9 |
| HCM LOS | | | B |

| Minor Lane/Major Mvmt | EBL | EBT | WBT | WBR | SBLn1 | SBLn2 |
|---|---|---|---|---|---|---|
| Capacity (veh/h) | 1247 | - | - | - | 250 | 752 |
| HCM Lane V/C Ratio | 0.167 | - | - | - | 0.052 | 0.237 |
| HCM Control Delay (s) | 8.5 | - | - | - | 20.2 | 11.3 |
| HCM Lane LOS | A | - | - | - | C | B |
| HCM 95th %tile Q(veh) | 0.6 | - | - | - | 0.2 | 0.9 |



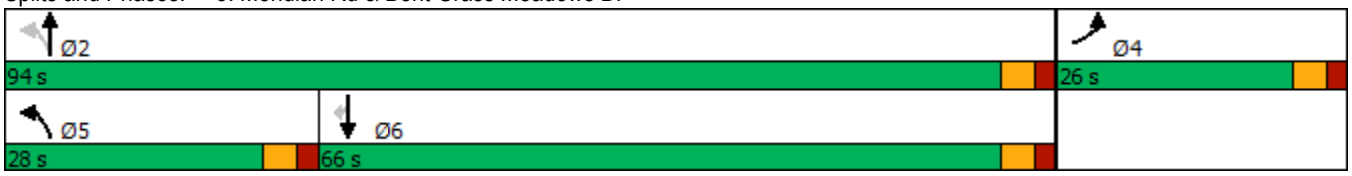
| Lane Group | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Traffic Volume (vph) | 298 | 381 | 293 | 644 | 1711 | 381 |
| Future Volume (vph) | 298 | 381 | 293 | 644 | 1711 | 381 |
| Confl. Peds. (#/hr) | | | | | | |
| Confl. Bikes (#/hr) | | | | | | |
| Peak Hour Factor | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 |
| Growth Factor | 100% | 100% | 100% | 100% | 100% | 100% |
| Heavy Vehicles (%) | 2% | 2% | 2% | 2% | 2% | 2% |
| Bus Blockages (#/hr) | 0 | 0 | 0 | 0 | 0 | 0 |
| Parking (#/hr) | | | | | | |
| Mid-Block Traffic (%) | 0% | | | 0% | 0% | |
| Adj. Flow (vph) | 314 | 401 | 308 | 678 | 1801 | 401 |
| Shared Lane Traffic (%) | | | | | | |
| Lane Group Flow (vph) | 314 | 401 | 308 | 678 | 1801 | 401 |

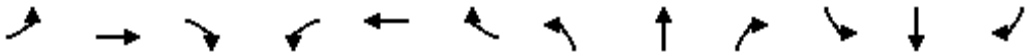
Intersection Summary

| Lane Group | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (vph) | 298 | 381 | 293 | 644 | 1711 | 381 |
| Future Volume (vph) | 298 | 381 | 293 | 644 | 1711 | 381 |
| Turn Type | Prot | Free | pm+pt | NA | NA | Perm |
| Protected Phases | 4 | | 5 | 2 | 6 | |
| Permitted Phases | | Free | 2 | | | 6 |
| Detector Phase | 4 | | 5 | 2 | 6 | 6 |
| Switch Phase | | | | | | |
| Minimum Initial (s) | 5.0 | | 5.0 | 5.0 | 5.0 | 5.0 |
| Minimum Split (s) | 10.0 | | 10.0 | 10.0 | 10.0 | 10.0 |
| Total Split (s) | 26.0 | | 28.0 | 94.0 | 66.0 | 66.0 |
| Total Split (%) | 21.7% | | 23.3% | 78.3% | 55.0% | 55.0% |
| Yellow Time (s) | 3.0 | | 3.0 | 3.0 | 3.0 | 3.0 |
| All-Red Time (s) | 2.0 | | 2.0 | 2.0 | 2.0 | 2.0 |
| Lost Time Adjust (s) | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 5.0 | | 5.0 | 5.0 | 5.0 | 5.0 |
| Lead/Lag | | | Lead | | Lag | Lag |
| Lead-Lag Optimize? | | | Yes | | Yes | Yes |
| Recall Mode | None | | None | Max | Max | Max |
| Act Effct Green (s) | 15.7 | 114.8 | 89.1 | 89.1 | 65.0 | 65.0 |
| Actuated g/C Ratio | 0.14 | 1.00 | 0.78 | 0.78 | 0.57 | 0.57 |
| v/c Ratio | 0.67 | 0.25 | 0.86 | 0.25 | 0.90 | 0.38 |
| Control Delay | 54.4 | 0.4 | 54.7 | 4.0 | 30.8 | 3.4 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 54.4 | 0.4 | 54.7 | 4.0 | 30.8 | 3.4 |
| LOS | D | A | D | A | C | A |
| Approach Delay | 24.1 | | | 19.9 | 25.8 | |
| Approach LOS | C | | | B | C | |

| Intersection Summary | |
|---|---|
| Cycle Length: 120 | |
| Actuated Cycle Length: 114.8 | |
| Natural Cycle: 80 | |
| Control Type: Semi Act-Uncoord | |
| Maximum v/c Ratio: 0.90 | |
| Intersection Signal Delay: 24.0 | Intersection LOS: C |
| Intersection Capacity Utilization 84.5% | ICU Level of Service E |
| Analysis Period (min) 15 | |

Splits and Phases: 3: Meridian Rd & Bent Grass Meadows Dr





| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Traffic Volume (vph) | 325 | 746 | 74 | 68 | 1782 | 110 | 164 | 20 | 51 | 98 | 26 | 395 |
| Future Volume (vph) | 325 | 746 | 74 | 68 | 1782 | 110 | 164 | 20 | 51 | 98 | 26 | 395 |
| Confl. Peds. (#/hr) | | | | | | | | | | | | |
| Confl. Bikes (#/hr) | | | | | | | | | | | | |
| Peak Hour Factor | 0.95 | 0.98 | 0.95 | 0.95 | 0.98 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 |
| Growth Factor | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% |
| Heavy Vehicles (%) | 2% | 2% | 2% | 2% | 2% | 2% | 2% | 2% | 2% | 2% | 2% | 2% |
| Bus Blockages (#/hr) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Parking (#/hr) | | | | | | | | | | | | |
| Mid-Block Traffic (%) | | 0% | | | 0% | | | 0% | | | 0% | |
| Adj. Flow (vph) | 342 | 761 | 78 | 72 | 1818 | 116 | 173 | 21 | 54 | 103 | 27 | 416 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 342 | 761 | 78 | 72 | 1818 | 116 | 173 | 21 | 54 | 103 | 27 | 416 |

Intersection Summary

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 325 | 746 | 74 | 68 | 1782 | 110 | 164 | 20 | 51 | 98 | 26 | 395 |
| Future Volume (vph) | 325 | 746 | 74 | 68 | 1782 | 110 | 164 | 20 | 51 | 98 | 26 | 395 |
| Turn Type | Prot | NA | Perm | pm+pt | NA | Perm | pm+pt | NA | Perm | pm+pt | NA | Free |
| Protected Phases | 5 | 2 | | 1 | 6 | | 3 | 8 | | 7 | 4 | |
| Permitted Phases | | | 2 | 6 | | 6 | 8 | | 8 | 4 | | Free |
| Detector Phase | 5 | 2 | 2 | 1 | 6 | 6 | 3 | 8 | 8 | 7 | 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 | |
| Minimum Split (s) | 10.0 | 12.0 | 12.0 | 10.0 | 12.0 | 12.0 | 10.0 | 10.0 | 10.0 | 10.0 | 10.0 | |
| Total Split (s) | 21.0 | 72.0 | 72.0 | 10.0 | 61.0 | 61.0 | 23.0 | 15.0 | 15.0 | 23.0 | 15.0 | |
| Total Split (%) | 17.5% | 60.0% | 60.0% | 8.3% | 50.8% | 50.8% | 19.2% | 12.5% | 12.5% | 19.2% | 12.5% | |
| Yellow Time (s) | 3.0 | 5.0 | 5.0 | 3.0 | 5.0 | 5.0 | 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 | 2.0 | 2.0 | 2.0 | |
| Lost Time Adjust (s) | -1.0 | -1.0 | -1.0 | -1.0 | -1.0 | -1.0 | -1.0 | -1.0 | -1.0 | -1.0 | -1.0 | |
| Total Lost Time (s) | 4.0 | 6.0 | 6.0 | 4.0 | 6.0 | 6.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | |
| Lead/Lag | Lead | Lag | Lag | Lead | Lag | Lag | Lead | Lag | Lag | Lead | Lag | |
| Lead-Lag Optimize? | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | |
| Recall Mode | None | Min | Min | None | Min | Min | None | None | None | None | None | |
| Act Effct Green (s) | 15.5 | 67.4 | 67.4 | 63.6 | 55.5 | 55.5 | 24.2 | 10.4 | 10.4 | 17.6 | 8.2 | 109.5 |
| Actuated g/C Ratio | 0.14 | 0.62 | 0.62 | 0.58 | 0.51 | 0.51 | 0.22 | 0.09 | 0.09 | 0.16 | 0.07 | 1.00 |
| v/c Ratio | 0.70 | 0.35 | 0.08 | 0.16 | 1.01 | 0.13 | 0.53 | 0.12 | 0.18 | 0.39 | 0.19 | 0.26 |
| Control Delay | 54.4 | 12.6 | 1.1 | 8.5 | 53.6 | 1.5 | 42.2 | 48.6 | 1.3 | 40.3 | 53.7 | 0.4 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 54.4 | 12.6 | 1.1 | 8.5 | 53.6 | 1.5 | 42.2 | 48.6 | 1.3 | 40.3 | 53.7 | 0.4 |
| LOS | D | B | A | A | D | A | D | D | A | D | D | A |
| Approach Delay | | 24.0 | | | 49.0 | | | 33.9 | | | 10.6 | |
| Approach LOS | | C | | | D | | | C | | | B | |

| Intersection Summary | |
|---|---|
| Cycle Length: 120 | |
| Actuated Cycle Length: 109.5 | |
| Natural Cycle: 90 | |
| Control Type: Semi Act-Uncoord | |
| Maximum v/c Ratio: 1.01 | |
| Intersection Signal Delay: 35.4 | Intersection LOS: D |
| Intersection Capacity Utilization 86.0% | ICU Level of Service E |
| Analysis Period (min) 15 | |

Splits and Phases: 25: Golden Sage Rd & Woodmen Rd

| Intersection | |
|---|---|
| Int Delay, s/veh | 2.5 |

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Vol, veh/h | 2 | 285 | 6 | 61 | 168 | 70 | 4 | 1 | 45 | 36 | 1 | 1 |
| Future Vol, veh/h | 2 | 285 | 6 | 61 | 168 | 70 | 4 | 1 | 45 | 36 | 1 | 1 |
| 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 | 155 | - | - | 110 | - | - | - | - | - | - | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 95 | 95 | 95 | 95 | 95 | 95 | 95 | 95 | 95 | 95 | 95 | 95 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 2 | 300 | 6 | 64 | 177 | 74 | 4 | 1 | 47 | 38 | 1 | 1 |

| Major/Minor | Major1 | | | Major2 | | | Minor1 | | | Minor2 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Conflicting Flow All | 251 | 0 | 0 | 306 | 0 | 0 | 650 | 686 | 303 | 673 | 652 | 214 |
| Stage 1 | - | - | - | - | - | - | 307 | 307 | - | 342 | 342 | - |
| Stage 2 | - | - | - | - | - | - | 343 | 379 | - | 331 | 310 | - |
| Critical Hdwy | 4.12 | - | - | 4.12 | - | - | 7.12 | 6.52 | 6.22 | 7.12 | 6.52 | 6.22 |
| Critical Hdwy Stg 1 | - | - | - | - | - | - | 6.12 | 5.52 | - | 6.12 | 5.52 | - |
| Critical Hdwy Stg 2 | - | - | - | - | - | - | 6.12 | 5.52 | - | 6.12 | 5.52 | - |
| Follow-up Hdwy | 2.218 | - | - | 2.218 | - | - | 3.518 | 4.018 | 3.318 | 3.518 | 4.018 | 3.318 |
| Pot Cap-1 Maneuver | 1314 | - | - | 1255 | - | - | 382 | 370 | 737 | 369 | 387 | 826 |
| Stage 1 | - | - | - | - | - | - | 703 | 661 | - | 673 | 638 | - |
| Stage 2 | - | - | - | - | - | - | 672 | 615 | - | 682 | 659 | - |
| Platoon blocked, % | | - | - | | - | - | | | | | | |
| Mov Cap-1 Maneuver | 1314 | - | - | 1255 | - | - | 366 | 350 | 737 | 331 | 366 | 826 |
| Mov Cap-2 Maneuver | - | - | - | - | - | - | 366 | 350 | - | 331 | 366 | - |
| Stage 1 | - | - | - | - | - | - | 702 | 660 | - | 672 | 605 | - |
| Stage 2 | - | - | - | - | - | - | 636 | 584 | - | 636 | 658 | - |

| Approach | EB | WB | NB | SB |
|---|---|---|---|---|
| HCM Control Delay, s | 0.1 | 1.6 | 10.9 | 17.1 |
| HCM LOS | | | B | C |

| Minor Lane/Major Mvmt | NBLn1 | EBL | EBT | EBR | WBL | WBT | WBR | SBLn1 |
|---|---|---|---|---|---|---|---|---|
| Capacity (veh/h) | 668 | 1314 | - | - | 1255 | - | - | 337 |
| HCM Lane V/C Ratio | 0.079 | 0.002 | - | - | 0.051 | - | - | 0.119 |
| HCM Control Delay (s) | 10.9 | 7.7 | - | - | 8 | - | - | 17.1 |
| HCM Lane LOS | B | A | - | - | A | - | - | C |
| HCM 95th %tile Q(veh) | 0.3 | 0 | - | - | 0.2 | - | - | 0.4 |

| Intersection | |
|---|---|
| Int Delay, s/veh | 6 |

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Vol, veh/h | 1 | 350 | 15 | 313 | 279 | 81 | 19 | 1 | 301 | 27 | 1 | 0 |
| Future Vol, veh/h | 1 | 350 | 15 | 313 | 279 | 81 | 19 | 1 | 301 | 27 | 1 | 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 | 150 | - | - | 0 | - | - | 0 | - | - | 0 | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 1 | - | - | 1 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 95 | 95 | 95 | 95 | 95 | 95 | 95 | 95 | 95 | 95 | 95 | 95 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 1 | 368 | 16 | 329 | 294 | 85 | 20 | 1 | 317 | 28 | 1 | 0 |

| Major/Minor | Major1 | | | Major2 | | | Minor1 | | | Minor2 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Conflicting Flow All | 379 | 0 | 0 | 384 | 0 | 0 | 1373 | 1415 | 192 | 1182 | 1381 | 337 |
| Stage 1 | - | - | - | - | - | - | 378 | 378 | - | 995 | 995 | - |
| Stage 2 | - | - | - | - | - | - | 995 | 1037 | - | 187 | 386 | - |
| Critical Hdwy | 4.13 | - | - | 4.13 | - | - | 7.33 | 6.53 | 6.93 | 7.33 | 6.53 | 6.23 |
| Critical Hdwy Stg 1 | - | - | - | - | - | - | 6.53 | 5.53 | - | 6.13 | 5.53 | - |
| Critical Hdwy Stg 2 | - | - | - | - | - | - | 6.13 | 5.53 | - | 6.53 | 5.53 | - |
| Follow-up Hdwy | 2.219 | - | - | 2.219 | - | - | 3.519 | 4.019 | 3.319 | 3.519 | 4.019 | 3.319 |
| Pot Cap-1 Maneuver | 1178 | - | - | 1173 | - | - | 114 | 137 | 818 | 155 | 144 | 704 |
| Stage 1 | - | - | - | - | - | - | 616 | 614 | - | 294 | 322 | - |
| Stage 2 | - | - | - | - | - | - | 294 | 307 | - | 797 | 609 | - |
| Platoon blocked, % | | - | - | | - | - | | | | | | |
| Mov Cap-1 Maneuver | 1178 | - | - | 1173 | - | - | 89 | 99 | 818 | 74 | 104 | 704 |
| Mov Cap-2 Maneuver | - | - | - | - | - | - | 171 | 180 | - | 123 | 162 | - |
| Stage 1 | - | - | - | - | - | - | 615 | 613 | - | 294 | 232 | - |
| Stage 2 | - | - | - | - | - | - | 211 | 221 | - | 487 | 608 | - |

| Approach | EB | WB | NB | SB |
|---|---|---|---|---|
| HCM Control Delay, s | 0 | 4.3 | 13.3 | 42.3 |
| HCM LOS | | | B | E |

| Minor Lane/Major Mvmt | NBLn1 | NBLn2 | EBL | EBT | EBR | WBL | WBT | WBR | SBLn1 | SBLn2 |
|---|---|---|---|---|---|---|---|---|---|---|
| Capacity (veh/h) | 171 | 809 | 1178 | - | - | 1173 | - | - | 123 | 162 |
| HCM Lane V/C Ratio | 0.117 | 0.393 | 0.001 | - | - | 0.281 | - | - | 0.231 | 0.006 |
| HCM Control Delay (s) | 28.8 | 12.3 | 8.1 | - | - | 9.3 | - | - | 42.9 | 27.4 |
| HCM Lane LOS | D | B | A | - | - | A | - | - | E | D |
| HCM 95th %tile Q(veh) | 0.4 | 1.9 | 0 | - | - | 1.2 | - | - | 0.8 | 0 |

## 20: Meridian Park Dr & Bent Grass Meadows Dr Performance by lane Interval #1 7:00

| Lane | EB | EB | EB | WB | WB | NB | NB | SB | SB | All |
|---|---|---|---|---|---|---|---|---|---|---|
| Movements Served | L | T | TR | L | TR | L | TR | L | TR | |
| Stop Del/Veh (s) | | 0.0 | 0.2 | 2.8 | 0.3 | 32.8 | 7.0 | 34.6 | | 3.4 |

## 20: Meridian Park Dr & Bent Grass Meadows Dr Performance by lane Interval #2 7:15

| Lane | EB | EB | EB | WB | WB | NB | NB | SB | All |
|---|---|---|---|---|---|---|---|---|---|
| Movements Served | L | T | TR | L | TR | L | TR | L | |
| Stop Del/Veh (s) | | 0.1 | 0.1 | 3.3 | 0.3 | 28.9 | 6.9 | 26.2 | 3.4 |

## 20: Meridian Park Dr & Bent Grass Meadows Dr Performance by lane Interval #3 7:30

| Lane | EB | EB | WB | WB | NB | NB | SB | SB | All |
|---|---|---|---|---|---|---|---|---|---|
| Movements Served | T | TR | L | TR | L | TR | L | TR | |
| Stop Del/Veh (s) | 0.0 | 0.1 | 4.0 | 0.4 | 28.9 | 7.3 | 20.6 | | 3.6 |

## 20: Meridian Park Dr & Bent Grass Meadows Dr Performance by lane Interval #4 7:45

| Lane | EB | EB | WB | WB | NB | NB | SB | SB | All |
|---|---|---|---|---|---|---|---|---|---|
| Movements Served | T | TR | L | TR | L | TR | L | TR | |
| Stop Del/Veh (s) | 0.0 | 0.1 | 2.8 | 0.3 | 21.1 | 6.0 | 17.0 | | 2.8 |

## 20: Meridian Park Dr & Bent Grass Meadows Dr Performance by lane Entire Run

| Lane | EB | EB | EB | WB | WB | NB | NB | SB | SB | All |
|---|---|---|---|---|---|---|---|---|---|---|
| Movements Served | L | T | TR | L | TR | L | TR | L | TR | |
| Stop Del/Veh (s) | | 0.1 | 0.1 | 3.3 | 0.4 | 30.9 | 6.8 | 24.6 | 10.9 | 3.4 |

| Intersection | |
|---|---|
| Int Delay, s/veh | 18.4 |

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Vol, veh/h | 0 | 8 | 114 | 405 | 6 | 0 | 78 | 0 | 377 | 0 | 0 | 0 |
| Future Vol, veh/h | 0 | 8 | 114 | 405 | 6 | 0 | 78 | 0 | 377 | 0 | 0 | 0 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Stop | Stop | Stop | Stop | Free | Free | Free | Free | Free | Free |
| RT Channelized | - | - | None | - | - | None | - | - | Free | - | - | None |
| Storage Length | - | - | - | - | - | - | - | - | 0 | - | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 92 | 95 | 95 | 95 | 95 | 92 | 95 | 92 | 95 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 0 | 8 | 120 | 426 | 6 | 0 | 82 | 0 | 397 | 0 | 0 | 0 |

| Major/Minor | Minor2 | | | Minor1 | | | Major1 | | | Major2 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Conflicting Flow All | - | 165 | 1 | 229 | 165 | - | 1 | 0 | - | 0 | 0 | 0 |
| Stage 1 | - | 1 | - | 164 | 164 | - | - | - | - | - | - | - |
| Stage 2 | - | 164 | - | 65 | 1 | - | - | - | - | - | - | - |
| Critical Hdwy | - | 6.52 | 6.22 | 7.12 | 6.52 | - | 4.12 | - | - | 4.12 | - | - |
| Critical Hdwy Stg 1 | - | 5.52 | - | 6.12 | 5.52 | - | - | - | - | - | - | - |
| Critical Hdwy Stg 2 | - | 5.52 | - | 6.12 | 5.52 | - | - | - | - | - | - | - |
| Follow-up Hdwy | - | 4.018 | 3.318 | 3.518 | 4.018 | - | 2.218 | - | - | 2.218 | - | - |
| Pot Cap-1 Maneuver | 0 | 728 | 1084 | 726 | 728 | 0 | 1622 | - | 0 | - | - | - |
| Stage 1 | 0 | 895 | - | 838 | 762 | 0 | - | - | 0 | - | - | - |
| Stage 2 | 0 | 762 | - | 946 | 895 | 0 | - | - | 0 | - | - | - |
| Platoon blocked, % | | | | | | | | - | | | - | - |
| Mov Cap-1 Maneuver | - | 691 | 1084 | 615 | 691 | - | 1622 | - | - | - | - | - |
| Mov Cap-2 Maneuver | - | 691 | - | 615 | 691 | - | - | - | - | - | - | - |
| Stage 1 | - | 895 | - | 795 | 723 | - | - | - | - | - | - | - |
| Stage 2 | - | 723 | - | 833 | 895 | - | - | - | - | - | - | - |

| Approach | EB | WB | NB | SB |
|---|---|---|---|---|
| HCM Control Delay, s | 8.9 | 23.4 | 7.3 | 0 |
| HCM LOS | A | C | | |

| Minor Lane/Major Mvmt | NBL | NBT | EBLn1 | WBLn1 | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|
| Capacity (veh/h) | 1622 | - | 1045 | 616 | - | - | - |
| HCM Lane V/C Ratio | 0.051 | - | 0.123 | 0.702 | - | - | - |
| HCM Control Delay (s) | 7.3 | 0 | 8.9 | 23.4 | 0 | - | - |
| HCM Lane LOS | A | A | A | C | A | - | - |
| HCM 95th %tile Q(veh) | 0.2 | - | 0.4 | 5.7 | - | - | - |

| Intersection | |
|---|---|
| Int Delay, s/veh | 3.6 |

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Vol, veh/h | 80 | 0 | 1 | 1 | 0 | 36 | 1 | 98 | 1 | 38 | 79 | 97 |
| Future Vol, veh/h | 80 | 0 | 1 | 1 | 0 | 36 | 1 | 98 | 1 | 38 | 79 | 97 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Stop | Stop | Stop | Stop | Free | Free | Free | Free | Free | Free |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | - | - | - | - | - | - | 100 | - | - | 50 | - | 75 |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 95 | 95 | 95 | 95 | 95 | 95 | 95 | 95 | 95 | 95 | 95 | 95 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 84 | 0 | 1 | 1 | 0 | 38 | 1 | 103 | 1 | 40 | 83 | 102 |

| Major/Minor | Minor2 | | | Minor1 | | | Major1 | | | Major2 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Conflicting Flow All | 288 | 269 | 83 | 321 | 371 | 104 | 185 | 0 | 0 | 104 | 0 | 0 |
| Stage 1 | 163 | 163 | - | 106 | 106 | - | - | - | - | - | - | - |
| Stage 2 | 125 | 106 | - | 215 | 265 | - | - | - | - | - | - | - |
| Critical Hdwy | 7.12 | 6.52 | 6.22 | 7.12 | 6.52 | 6.22 | 4.12 | - | - | 4.12 | - | - |
| Critical Hdwy Stg 1 | 6.12 | 5.52 | - | 6.12 | 5.52 | - | - | - | - | - | - | - |
| Critical Hdwy Stg 2 | 6.12 | 5.52 | - | 6.12 | 5.52 | - | - | - | - | - | - | - |
| Follow-up Hdwy | 3.518 | 4.018 | 3.318 | 3.518 | 4.018 | 3.318 | 2.218 | - | - | 2.218 | - | - |
| Pot Cap-1 Maneuver | 664 | 637 | 976 | 632 | 559 | 951 | 1390 | - | - | 1488 | - | - |
| Stage 1 | 839 | 763 | - | 900 | 807 | - | - | - | - | - | - | - |
| Stage 2 | 879 | 807 | - | 787 | 689 | - | - | - | - | - | - | - |
| Platoon blocked, % | | | | | | | | - | - | | - | - |
| Mov Cap-1 Maneuver | 624 | 619 | 976 | 618 | 543 | 951 | 1390 | - | - | 1488 | - | - |
| Mov Cap-2 Maneuver | 624 | 619 | - | 618 | 543 | - | - | - | - | - | - | - |
| Stage 1 | 838 | 742 | - | 899 | 806 | - | - | - | - | - | - | - |
| Stage 2 | 843 | 806 | - | 765 | 670 | - | - | - | - | - | - | - |

| Approach | EB | WB | NB | SB |
|---|---|---|---|---|
| HCM Control Delay, s | 11.6 | 9 | 0.1 | 1.3 |
| HCM LOS | B | A | | |

| Minor Lane/Major Mvmt | NBL | NBT | NBR | EBLn1 | WBLn1 | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|
| Capacity (veh/h) | 1390 | - | - | 627 | 937 | 1488 | - | - |
| HCM Lane V/C Ratio | 0.001 | - | - | 0.136 | 0.042 | 0.027 | - | - |
| HCM Control Delay (s) | 7.6 | - | - | 11.6 | 9 | 7.5 | - | - |
| HCM Lane LOS | A | - | - | B | A | A | - | - |
| HCM 95th %tile Q(veh) | 0 | - | - | 0.5 | 0.1 | 0.1 | - | - |

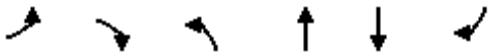
| Intersection | |
|---|---|
| Int Delay, s/veh | 4.3 |

| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 112 | 255 | 148 | 18 | 21 | 192 |
| Future Vol, veh/h | 112 | 255 | 148 | 18 | 21 | 192 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 155 | - | - | - | 155 | 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 | 122 | 277 | 161 | 20 | 23 | 209 |

| Major/Minor | Major1 | | Major2 | | Minor2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 181 | 0 | - | 0 | 692 | 171 |
| Stage 1 | - | - | - | - | 171 | - |
| Stage 2 | - | - | - | - | 521 | - |
| 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 | 1394 | - | - | - | 410 | 873 |
| Stage 1 | - | - | - | - | 859 | - |
| Stage 2 | - | - | - | - | 596 | - |
| Platoon blocked, % | | - | - | - | | |
| Mov Cap-1 Maneuver | 1394 | - | - | - | 374 | 873 |
| Mov Cap-2 Maneuver | - | - | - | - | 374 | - |
| Stage 1 | - | - | - | - | 783 | - |
| Stage 2 | - | - | - | - | 596 | - |

| Approach | EB | WB | SB |
|---|---|---|---|
| HCM Control Delay, s | 2.4 | 0 | 10.9 |
| HCM LOS | | | B |

| Minor Lane/Major Mvmt | EBL | EBT | WBT | WBR | SBLn1 | SBLn2 |
|---|---|---|---|---|---|---|
| Capacity (veh/h) | 1394 | - | - | - | 374 | 873 |
| HCM Lane V/C Ratio | 0.087 | - | - | - | 0.061 | 0.239 |
| HCM Control Delay (s) | 7.8 | - | - | - | 15.3 | 10.4 |
| HCM Lane LOS | A | - | - | - | C | B |
| HCM 95th %tile Q(veh) | 0.3 | - | - | - | 0.2 | 0.9 |



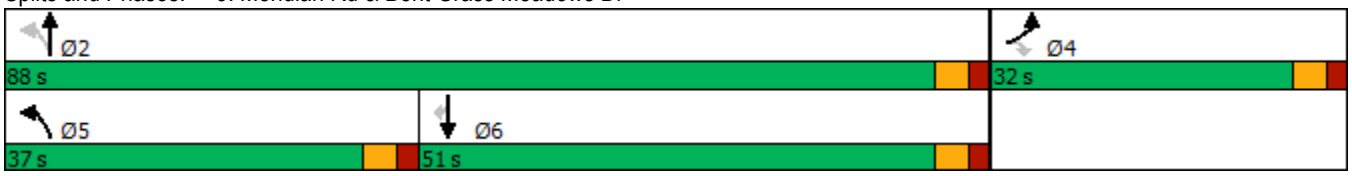
| Lane Group | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Traffic Volume (vph) | 549 | 356 | 338 | 1457 | 1137 | 280 |
| Future Volume (vph) | 549 | 356 | 338 | 1457 | 1137 | 280 |
| Confl. Peds. (#/hr) | | | | | | |
| Confl. Bikes (#/hr) | | | | | | |
| Peak Hour Factor | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 |
| Growth Factor | 100% | 100% | 100% | 100% | 100% | 100% |
| Heavy Vehicles (%) | 2% | 2% | 2% | 2% | 2% | 2% |
| Bus Blockages (#/hr) | 0 | 0 | 0 | 0 | 0 | 0 |
| Parking (#/hr) | | | | | | |
| Mid-Block Traffic (%) | 0% | | | 0% | 0% | |
| Adj. Flow (vph) | 578 | 375 | 356 | 1534 | 1197 | 295 |
| Shared Lane Traffic (%) | | | | | | |
| Lane Group Flow (vph) | 578 | 375 | 356 | 1534 | 1197 | 295 |

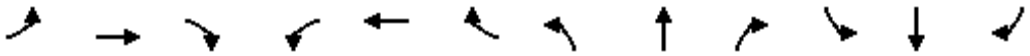
Intersection Summary

| Lane Group | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (vph) | 549 | 356 | 338 | 1457 | 1137 | 280 |
| Future Volume (vph) | 549 | 356 | 338 | 1457 | 1137 | 280 |
| Turn Type | Prot | Perm | pm+pt | NA | NA | Perm |
| Protected Phases | 4 | | 5 | 2 | 6 | |
| Permitted Phases | | 4 | 2 | | | 6 |
| Detector Phase | 4 | 4 | 5 | 2 | 6 | 6 |
| Switch Phase | | | | | | |
| Minimum Initial (s) | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 |
| Minimum Split (s) | 10.0 | 10.0 | 10.0 | 10.0 | 10.0 | 10.0 |
| Total Split (s) | 32.0 | 32.0 | 37.0 | 88.0 | 51.0 | 51.0 |
| Total Split (%) | 26.7% | 26.7% | 30.8% | 73.3% | 42.5% | 42.5% |
| 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 | None | None | None | Max | Max | Max |
| Act Effct Green (s) | 24.2 | 24.2 | 83.1 | 83.1 | 55.0 | 55.0 |
| Actuated g/C Ratio | 0.21 | 0.21 | 0.71 | 0.71 | 0.47 | 0.47 |
| v/c Ratio | 0.82 | 0.60 | 0.79 | 0.61 | 0.72 | 0.33 |
| Control Delay | 54.6 | 8.3 | 37.1 | 10.4 | 30.2 | 3.8 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 54.6 | 8.3 | 37.1 | 10.4 | 30.2 | 3.8 |
| LOS | D | A | D | B | C | A |
| Approach Delay | 36.4 | | | 15.5 | 25.0 | |
| Approach LOS | D | | | B | C | |

| Intersection Summary | |
|---|---|
| Cycle Length: 120 | |
| Actuated Cycle Length: 117.3 | |
| Natural Cycle: 65 | |
| Control Type: Semi Act-Uncoord | |
| Maximum v/c Ratio: 0.82 | |
| Intersection Signal Delay: 23.3 | Intersection LOS: C |
| Intersection Capacity Utilization 78.3% | ICU Level of Service D |
| Analysis Period (min) 15 | |

Splits and Phases: 3: Meridian Rd & Bent Grass Meadows Dr





| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Traffic Volume (vph) | 451 | 1644 | 78 | 86 | 1100 | 121 | 178 | 40 | 72 | 136 | 21 | 393 |
| Future Volume (vph) | 451 | 1644 | 78 | 86 | 1100 | 121 | 178 | 40 | 72 | 136 | 21 | 393 |
| Confl. Peds. (#/hr) | | | | | | | | | | | | |
| Confl. Bikes (#/hr) | | | | | | | | | | | | |
| Peak Hour Factor | 0.95 | 0.98 | 0.95 | 0.95 | 0.98 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 |
| Growth Factor | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% |
| Heavy Vehicles (%) | 2% | 2% | 2% | 2% | 2% | 2% | 2% | 2% | 2% | 2% | 2% | 2% |
| Bus Blockages (#/hr) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Parking (#/hr) | | | | | | | | | | | | |
| Mid-Block Traffic (%) | | 0% | | | 0% | | | 0% | | | 0% | |
| Adj. Flow (vph) | 475 | 1678 | 82 | 91 | 1122 | 127 | 187 | 42 | 76 | 143 | 22 | 414 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 475 | 1678 | 82 | 91 | 1122 | 127 | 187 | 42 | 76 | 143 | 22 | 414 |

| Intersection Summary |
|---|

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 451 | 1644 | 78 | 86 | 1100 | 121 | 178 | 40 | 72 | 136 | 21 | 393 |
| Future Volume (vph) | 451 | 1644 | 78 | 86 | 1100 | 121 | 178 | 40 | 72 | 136 | 21 | 393 |
| Turn Type | Prot | NA | Perm | pm+pt | NA | Perm | pm+pt | NA | Perm | pm+pt | NA | Free |
| Protected Phases | 5 | 2 | | 1 | 6 | | 3 | 8 | | 7 | 4 | |
| Permitted Phases | | | 2 | 6 | | 6 | 8 | | 8 | 4 | | Free |
| Detector Phase | 5 | 2 | 2 | 1 | 6 | 6 | 3 | 8 | 8 | 7 | 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 | |
| Minimum Split (s) | 10.0 | 12.0 | 12.0 | 10.0 | 12.0 | 12.0 | 10.0 | 10.0 | 10.0 | 10.0 | 10.0 | |
| Total Split (s) | 23.0 | 64.0 | 64.0 | 10.0 | 51.0 | 51.0 | 31.0 | 15.0 | 15.0 | 31.0 | 15.0 | |
| Total Split (%) | 19.2% | 53.3% | 53.3% | 8.3% | 42.5% | 42.5% | 25.8% | 12.5% | 12.5% | 25.8% | 12.5% | |
| Yellow Time (s) | 3.0 | 5.0 | 5.0 | 3.0 | 5.0 | 5.0 | 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 | 2.0 | 2.0 | 2.0 | |
| Lost Time Adjust (s) | -1.0 | -1.0 | -1.0 | -1.0 | -1.0 | -1.0 | -1.0 | -1.0 | -1.0 | -1.0 | -1.0 | |
| Total Lost Time (s) | 4.0 | 6.0 | 6.0 | 4.0 | 6.0 | 6.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | |
| Lead/Lag | Lead | Lag | Lag | Lead | Lag | Lag | Lead | Lag | Lag | Lead | Lag | |
| Lead-Lag Optimize? | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | |
| Recall Mode | None | Min | Min | None | Min | Min | None | None | None | None | None | |
| Act Effct Green (s) | 18.6 | 56.3 | 56.3 | 49.2 | 40.9 | 40.9 | 24.5 | 9.4 | 9.4 | 17.6 | 8.0 | 98.9 |
| Actuated g/C Ratio | 0.19 | 0.57 | 0.57 | 0.50 | 0.41 | 0.41 | 0.25 | 0.10 | 0.10 | 0.18 | 0.08 | 1.00 |
| v/c Ratio | 0.74 | 0.83 | 0.09 | 0.49 | 0.77 | 0.17 | 0.47 | 0.24 | 0.25 | 0.45 | 0.15 | 0.26 |
| Control Delay | 48.2 | 24.7 | 1.5 | 23.0 | 29.9 | 2.6 | 35.5 | 48.8 | 1.9 | 39.4 | 49.5 | 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 | 48.2 | 24.7 | 1.5 | 23.0 | 29.9 | 2.6 | 35.5 | 48.8 | 1.9 | 39.4 | 49.5 | 0.4 |
| LOS | D | C | A | C | C | A | D | D | A | D | D | A |
| Approach Delay | | 28.8 | | | 26.9 | | | 29.0 | | | 11.9 | |
| Approach LOS | | C | | | C | | | C | | | B | |

| Intersection Summary | |
|---|---|
| Cycle Length: 120 | |
| Actuated Cycle Length: 98.9 | |
| Natural Cycle: 70 | |
| Control Type: Semi Act-Uncoord | |
| Maximum v/c Ratio: 0.83 | |
| Intersection Signal Delay: 26.0 | Intersection LOS: C |
| Intersection Capacity Utilization 78.4% | ICU Level of Service D |
| Analysis Period (min) 15 | |

Splits and Phases: 25: Golden Sage Rd & Woodmen Rd

| Intersection | |
|---|---|
| Int Delay, s/veh | 4.3 |

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Vol, veh/h | 1 | 181 | 6 | 54 | 222 | 52 | 6 | 2 | 56 | 94 | 2 | 4 |
| Future Vol, veh/h | 1 | 181 | 6 | 54 | 222 | 52 | 6 | 2 | 56 | 94 | 2 | 4 |
| 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 | 155 | - | - | 110 | - | - | - | - | - | - | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 95 | 95 | 95 | 95 | 95 | 95 | 95 | 95 | 95 | 95 | 95 | 95 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 1 | 191 | 6 | 57 | 234 | 55 | 6 | 2 | 59 | 99 | 2 | 4 |

| Major/Minor | Major1 | | | Major2 | | | Minor1 | | | Minor2 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Conflicting Flow All | 289 | 0 | 0 | 197 | 0 | 0 | 575 | 599 | 194 | 603 | 575 | 262 |
| Stage 1 | - | - | - | - | - | - | 196 | 196 | - | 376 | 376 | - |
| Stage 2 | - | - | - | - | - | - | 379 | 403 | - | 227 | 199 | - |
| 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 | 1273 | - | - | 1376 | - | - | 429 | 415 | 847 | 411 | 429 | 777 |
| Stage 1 | - | - | - | - | - | - | 806 | 739 | - | 645 | 616 | - |
| Stage 2 | - | - | - | - | - | - | 643 | 600 | - | 776 | 736 | - |
| Platoon blocked, % | | - | - | | - | - | | | | | | |
| Mov Cap-1 Maneuver | 1273 | - | - | 1376 | - | - | 411 | 398 | 847 | 369 | 411 | 777 |
| Mov Cap-2 Maneuver | - | - | - | - | - | - | 411 | 398 | - | 369 | 411 | - |
| Stage 1 | - | - | - | - | - | - | 805 | 738 | - | 644 | 591 | - |
| Stage 2 | - | - | - | - | - | - | 611 | 575 | - | 719 | 735 | - |

| Approach | EB | WB | NB | SB |
|---|---|---|---|---|
| HCM Control Delay, s | 0 | 1.3 | 10.3 | 18.2 |
| HCM LOS | | | B | C |

| Minor Lane/Major Mvmt | NBLn1 | EBL | EBT | EBR | WBL | WBT | WBR | SBLn1 |
|---|---|---|---|---|---|---|---|---|
| Capacity (veh/h) | 746 | 1273 | - | - | 1376 | - | - | 378 |
| HCM Lane V/C Ratio | 0.09 | 0.001 | - | - | 0.041 | - | - | 0.278 |
| HCM Control Delay (s) | 10.3 | 7.8 | - | - | 7.7 | - | - | 18.2 |
| HCM Lane LOS | B | A | - | - | A | - | - | C |
| HCM 95th %tile Q(veh) | 0.3 | 0 | - | - | 0.1 | - | - | 1.1 |

| Intersection | |
|---|---|
| Int Delay, s/veh | 22.7 |

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Vol, veh/h | 1 | 321 | 10 | 257 | 303 | 58 | 23 | 3 | 517 | 67 | 3 | 1 |
| Future Vol, veh/h | 1 | 321 | 10 | 257 | 303 | 58 | 23 | 3 | 517 | 67 | 3 | 1 |
| 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 | 150 | - | - | 0 | - | - | 100 | - | - | 0 | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 1 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 95 | 95 | 95 | 95 | 95 | 95 | 95 | 95 | 95 | 95 | 95 | 95 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 1 | 338 | 11 | 271 | 319 | 61 | 24 | 3 | 544 | 71 | 3 | 1 |

| Major/Minor | Major1 | | | Major2 | | | Minor1 | | | Minor2 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Conflicting Flow All | 380 | 0 | 0 | 349 | 0 | 0 | 1240 | 1268 | 175 | 1065 | 1243 | 350 |
| Stage 1 | - | - | - | - | - | - | 346 | 346 | - | 892 | 892 | - |
| Stage 2 | - | - | - | - | - | - | 894 | 922 | - | 173 | 351 | - |
| Critical Hdwy | 4.13 | - | - | 4.13 | - | - | 7.33 | 6.53 | 6.93 | 7.33 | 6.53 | 6.23 |
| Critical Hdwy Stg 1 | - | - | - | - | - | - | 6.53 | 5.53 | - | 6.13 | 5.53 | - |
| Critical Hdwy Stg 2 | - | - | - | - | - | - | 6.13 | 5.53 | - | 6.53 | 5.53 | - |
| Follow-up Hdwy | 2.219 | - | - | 2.219 | - | - | 3.519 | 4.019 | 3.319 | 3.519 | 4.019 | 3.319 |
| Pot Cap-1 Maneuver | 1177 | - | - | 1208 | - | - | 141 | 168 | 839 | 188 | 174 | 693 |
| Stage 1 | - | - | - | - | - | - | 644 | 635 | - | 336 | 359 | - |
| Stage 2 | - | - | - | - | - | - | 335 | 348 | - | 812 | 631 | - |
| Platoon blocked, % | | - | - | | - | - | | | | | | |
| Mov Cap-1 Maneuver | 1177 | - | - | 1208 | - | - | 114 | 130 | 839 | ~ 54 | 135 | 693 |
| Mov Cap-2 Maneuver | - | - | - | - | - | - | 206 | 218 | - | ~ 54 | 135 | - |
| Stage 1 | - | - | - | - | - | - | 643 | 634 | - | 336 | 279 | - |
| Stage 2 | - | - | - | - | - | - | 257 | 270 | - | 284 | 630 | - |

| Approach | EB | WB | NB | SB |
|---|---|---|---|---|
| HCM Control Delay, s | 0 | 3.7 | 17.8 | $ 331.9 |
| HCM LOS | | | C | F |

| Minor Lane/Major Mvmt | NBLn1 | NBLn2 | EBL | EBT | EBR | WBL | WBT | WBR | SBLn1 | SBLn2 |
|---|---|---|---|---|---|---|---|---|---|---|
| Capacity (veh/h) | 206 | 825 | 1177 | - | - | 1208 | - | - | 54 | 169 |
| HCM Lane V/C Ratio | 0.118 | 0.663 | 0.001 | - | - | 0.224 | - | - | 1.306 | 0.025 |
| HCM Control Delay (s) | 24.8 | 17.5 | 8.1 | - | - | 8.8 | - | - | $ 350.1 | 26.8 |
| HCM Lane LOS | C | C | A | - | - | A | - | - | F | D |
| HCM 95th %tile Q(veh) | 0.4 | 5.2 | 0 | - | - | 0.9 | - | - | 6.3 | 0.1 |

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

## 20: Meridian Park Dr & Bent Grass Meadows Dr Performance by lane Interval #1 5:00

| Lane | EB | EB | WB | WB | NB | NB | SB | SB | All |
|---|---|---|---|---|---|---|---|---|---|
| Movements Served | T | TR | L | TR | L | TR | L | TR | |
| Stop Del/Veh (s) | 0.1 | 0.3 | 2.5 | 0.3 | 12.0 | 14.0 | 25.9 | 13.5 | 6.7 |

## 20: Meridian Park Dr & Bent Grass Meadows Dr Performance by lane Interval #2 5:15

| Lane | EB | EB | WB | WB | NB | NB | SB | SB | All |
|---|---|---|---|---|---|---|---|---|---|
| Movements Served | T | TR | L | TR | L | TR | L | TR | |
| Stop Del/Veh (s) | 0.2 | 0.3 | 3.4 | 0.3 | 19.4 | 19.3 | 28.1 | 25.8 | 8.5 |

## 20: Meridian Park Dr & Bent Grass Meadows Dr Performance by lane Interval #3 5:30

| Lane | EB | EB | EB | WB | WB | NB | NB | SB | SB | All |
|---|---|---|---|---|---|---|---|---|---|---|
| Movements Served | L | T | TR | L | TR | L | TR | L | TR | |
| Stop Del/Veh (s) | | 0.2 | 0.3 | 2.9 | 0.3 | 11.5 | 17.8 | 20.7 | 5.1 | 7.6 |

## 20: Meridian Park Dr & Bent Grass Meadows Dr Performance by lane Interval #4 5:45

| Lane | EB | EB | EB | WB | WB | NB | NB | SB | SB | All |
|---|---|---|---|---|---|---|---|---|---|---|
| Movements Served | L | T | TR | L | TR | L | TR | L | TR | |
| Stop Del/Veh (s) | | 0.2 | 0.3 | 3.5 | 0.3 | 31.1 | 22.0 | 27.8 | 7.4 | 9.8 |

## 20: Meridian Park Dr & Bent Grass Meadows Dr Performance by lane Entire Run

| Lane | EB | EB | EB | WB | WB | NB | NB | SB | SB | All |
|---|---|---|---|---|---|---|---|---|---|---|
| Movements Served | L | T | TR | L | TR | L | TR | L | TR | |
| Stop Del/Veh (s) | | 0.2 | 0.3 | 3.2 | 0.3 | 17.0 | 18.8 | 26.3 | 13.0 | 8.3 |

| Intersection | |
|---|---|
| Int Delay, s/veh | 41 |

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Vol, veh/h | 0 | 11 | 101 | 450 | 13 | 0 | 134 | 0 | 479 | 0 | 0 | 0 |
| Future Vol, veh/h | 0 | 11 | 101 | 450 | 13 | 0 | 134 | 0 | 479 | 0 | 0 | 0 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Stop | Stop | Stop | Stop | Free | Free | Free | Free | Free | Free |
| RT Channelized | - | - | None | - | - | None | - | - | Free | - | - | None |
| Storage Length | - | - | - | - | - | - | - | - | 0 | - | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 92 | 95 | 95 | 95 | 95 | 92 | 95 | 92 | 95 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 0 | 12 | 106 | 474 | 14 | 0 | 141 | 0 | 504 | 0 | 0 | 0 |

| Major/Minor | Minor2 | | | Minor1 | | | Major1 | | | Major2 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Conflicting Flow All | - | 283 | 1 | 342 | 283 | - | 1 | 0 | - | 0 | 0 | 0 |
| Stage 1 | - | 1 | - | 282 | 282 | - | - | - | - | - | - | - |
| Stage 2 | - | 282 | - | 60 | 1 | - | - | - | - | - | - | - |
| Critical Hdwy | - | 6.52 | 6.22 | 7.12 | 6.52 | - | 4.12 | - | - | 4.12 | - | - |
| Critical Hdwy Stg 1 | - | 5.52 | - | 6.12 | 5.52 | - | - | - | - | - | - | - |
| Critical Hdwy Stg 2 | - | 5.52 | - | 6.12 | 5.52 | - | - | - | - | - | - | - |
| Follow-up Hdwy | - | 4.018 | 3.318 | 3.518 | 4.018 | - | 2.218 | - | - | 2.218 | - | - |
| Pot Cap-1 Maneuver | 0 | 626 | 1084 | 612 | 626 | 0 | 1622 | - | 0 | - | - | - |
| Stage 1 | 0 | 895 | - | 725 | 678 | 0 | - | - | 0 | - | - | - |
| Stage 2 | 0 | 678 | - | 951 | 895 | 0 | - | - | 0 | - | - | - |
| Platoon blocked, % | | | | | | | | - | | | - | - |
| Mov Cap-1 Maneuver | - | 572 | 1084 | 507 | 572 | - | 1622 | - | - | - | - | - |
| Mov Cap-2 Maneuver | - | 572 | - | 507 | 572 | - | - | - | - | - | - | - |
| Stage 1 | - | 895 | - | 662 | 619 | - | - | - | - | - | - | - |
| Stage 2 | - | 619 | - | 847 | 895 | - | - | - | - | - | - | - |

| Approach | EB | WB | NB | SB |
|---|---|---|---|---|
| HCM Control Delay, s | 9.1 | 58.5 | 7.4 | 0 |
| HCM LOS | A | F | | |

| Minor Lane/Major Mvmt | NBL | NBT | EBLn1 | WBLn1 | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|
| Capacity (veh/h) | 1622 | - | 996 | 509 | - | - | - |
| HCM Lane V/C Ratio | 0.087 | - | 0.118 | 0.958 | - | - | - |
| HCM Control Delay (s) | 7.4 | 0 | 9.1 | 58.5 | 0 | - | - |
| HCM Lane LOS | A | A | A | F | A | - | - |
| HCM 95th %tile Q(veh) | 0.3 | - | 0.4 | 12.2 | - | - | - |

| Intersection | |
|---|---|
| Int Delay, s/veh | 3 |

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Vol, veh/h | 93 | 0 | 1 | 2 | 0 | 29 | 1 | 333 | 2 | 27 | 76 | 88 |
| Future Vol, veh/h | 93 | 0 | 1 | 2 | 0 | 29 | 1 | 333 | 2 | 27 | 76 | 88 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Stop | Stop | Stop | Stop | Free | Free | Free | Free | Free | Free |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | - | - | - | - | - | - | 100 | - | - | 50 | - | 75 |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 95 | 95 | 95 | 95 | 95 | 95 | 95 | 95 | 95 | 95 | 95 | 95 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 98 | 0 | 1 | 2 | 0 | 31 | 1 | 351 | 2 | 28 | 80 | 93 |

| Major/Minor | Minor2 | | | Minor1 | | | Major1 | | | Major2 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Conflicting Flow All | 506 | 491 | 80 | 537 | 583 | 352 | 173 | 0 | 0 | 353 | 0 | 0 |
| Stage 1 | 136 | 136 | - | 354 | 354 | - | - | - | - | - | - | - |
| Stage 2 | 370 | 355 | - | 183 | 229 | - | - | - | - | - | - | - |
| Critical Hdwy | 7.12 | 6.52 | 6.22 | 7.12 | 6.52 | 6.22 | 4.12 | - | - | 4.12 | - | - |
| Critical Hdwy Stg 1 | 6.12 | 5.52 | - | 6.12 | 5.52 | - | - | - | - | - | - | - |
| Critical Hdwy Stg 2 | 6.12 | 5.52 | - | 6.12 | 5.52 | - | - | - | - | - | - | - |
| Follow-up Hdwy | 3.518 | 4.018 | 3.318 | 3.518 | 4.018 | 3.318 | 2.218 | - | - | 2.218 | - | - |
| Pot Cap-1 Maneuver | 477 | 478 | 980 | 455 | 424 | 692 | 1404 | - | - | 1206 | - | - |
| Stage 1 | 867 | 784 | - | 663 | 630 | - | - | - | - | - | - | - |
| Stage 2 | 650 | 630 | - | 819 | 715 | - | - | - | - | - | - | - |
| Platoon blocked, % | | | | | | | | - | - | | - | - |
| Mov Cap-1 Maneuver | 447 | 467 | 980 | 446 | 414 | 692 | 1404 | - | - | 1206 | - | - |
| Mov Cap-2 Maneuver | 447 | 467 | - | 446 | 414 | - | - | - | - | - | - | - |
| Stage 1 | 866 | 766 | - | 662 | 629 | - | - | - | - | - | - | - |
| Stage 2 | 621 | 629 | - | 799 | 699 | - | - | - | - | - | - | - |

| Approach | EB | WB | NB | SB |
|---|---|---|---|---|
| HCM Control Delay, s | 15.2 | 10.7 | 0 | 1.1 |
| HCM LOS | C | B | | |

| Minor Lane/Major Mvmt | NBL | NBT | NBR | EBLn1 | WBLn1 | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|
| Capacity (veh/h) | 1404 | - | - | 450 | 668 | 1206 | - | - |
| HCM Lane V/C Ratio | 0.001 | - | - | 0.22 | 0.049 | 0.024 | - | - |
| HCM Control Delay (s) | 7.6 | - | - | 15.2 | 10.7 | 8.1 | - | - |
| HCM Lane LOS | A | - | - | C | B | A | - | - |
| HCM 95th %tile Q(veh) | 0 | - | - | 0.8 | 0.2 | 0.1 | - | - |

| Intersection | |
|---|---|
| Int Delay, s/veh | 4.5 |

| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 198 | 199 | 239 | 49 | 12 | 171 |
| Future Vol, veh/h | 198 | 199 | 239 | 49 | 12 | 171 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 155 | - | - | - | 155 | 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 | 215 | 216 | 260 | 53 | 13 | 186 |

| Major/Minor | Major1 | | Major2 | | Minor2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 313 | 0 | - | 0 | 933 | 287 |
| Stage 1 | - | - | - | - | 287 | - |
| Stage 2 | - | - | - | - | 646 | - |
| 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 | 1247 | - | - | - | 295 | 752 |
| Stage 1 | - | - | - | - | 762 | - |
| Stage 2 | - | - | - | - | 522 | - |
| Platoon blocked, % | | - | - | - | | |
| Mov Cap-1 Maneuver | 1247 | - | - | - | 244 | 752 |
| Mov Cap-2 Maneuver | - | - | - | - | 244 | - |
| Stage 1 | - | - | - | - | 631 | - |
| Stage 2 | - | - | - | - | 522 | - |

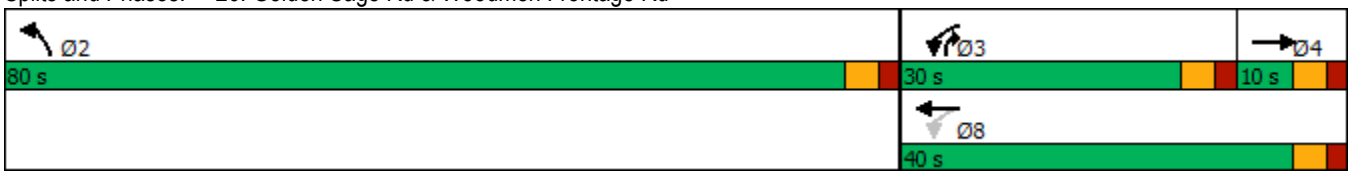
| Approach | EB | WB | SB |
|---|---|---|---|
| HCM Control Delay, s | 4.2 | 0 | 12 |
| HCM LOS | | | B |

| Minor Lane/Major Mvmt | EBL | EBT | WBT | WBR | SBLn1 | SBLn2 |
|---|---|---|---|---|---|---|
| Capacity (veh/h) | 1247 | - | - | - | 244 | 752 |
| HCM Lane V/C Ratio | 0.173 | - | - | - | 0.053 | 0.247 |
| HCM Control Delay (s) | 8.5 | - | - | - | 20.6 | 11.4 |
| HCM Lane LOS | A | - | - | - | C | B |
| HCM 95th %tile Q(veh) | 0.6 | - | - | - | 0.2 | 1 |

| Lane Group | EBT | WBL | WBT | NBL | NBR |
|---|---|---|---|---|---|
| Lane Configurations | | | | | |
| Traffic Volume (vph) | 8 | 405 | 6 | 78 | 377 |
| Future Volume (vph) | 8 | 405 | 6 | 78 | 377 |
| Turn Type | NA | pm+pt | NA | Prot | Over |
| Protected Phases | 4 | 3 | 8 | 2 | 3 |
| Permitted Phases | | 8 | | | |
| Detector Phase | 4 | 3 | 8 | 2 | 3 |
| Switch Phase | | | | | |
| Minimum Initial (s) | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 |
| Minimum Split (s) | 10.0 | 10.0 | 10.0 | 10.0 | 10.0 |
| Total Split (s) | 10.0 | 30.0 | 40.0 | 80.0 | 30.0 |
| Total Split (%) | 8.3% | 25.0% | 33.3% | 66.7% | 25.0% |
| Yellow Time (s) | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 |
| All-Red Time (s) | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 |
| Lost Time Adjust (s) | -1.0 | | -1.0 | -1.0 | -1.0 |
| Total Lost Time (s) | 4.0 | | 4.0 | 4.0 | 4.0 |
| Lead/Lag | Lag | Lead | | | Lead |
| Lead-Lag Optimize? | Yes | Yes | | | Yes |
| Recall Mode | None | None | None | Min | None |
| Act Effct Green (s) | 20.3 | | 36.1 | 9.5 | 13.9 |
| Actuated g/C Ratio | 0.38 | | 0.67 | 0.18 | 0.26 |
| v/c Ratio | 0.19 | | 0.50 | 0.58 | 0.42 |
| Control Delay | 3.9 | | 6.5 | 13.5 | 6.4 |
| Queue Delay | 0.0 | | 0.0 | 0.0 | 0.0 |
| Total Delay | 3.9 | | 6.5 | 13.5 | 6.4 |
| LOS | A | | A | B | A |
| Approach Delay | 3.9 | | 6.5 | 10.0 | |
| Approach LOS | A | | A | A | |

| Intersection Summary | |
|---|---|
| Cycle Length: 120 | |
| Actuated Cycle Length: 53.6 | |
| Natural Cycle: 45 | |
| Control Type: Semi Act-Uncoord | |
| Maximum v/c Ratio: 0.58 | |
| Intersection Signal Delay: 7.8 | Intersection LOS: A |
| Intersection Capacity Utilization 52.3% | ICU Level of Service A |
| Analysis Period (min) 15 | |

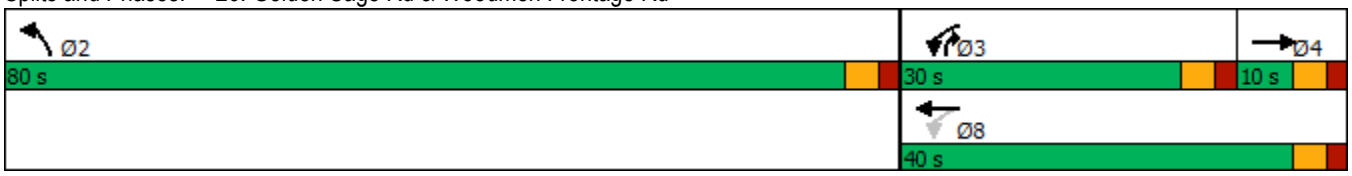
Splits and Phases: 26: Golden Sage Rd & Woodmen Frontage Rd



| Lane Group | EBT | WBL | WBT | NBL | NBR |
|---|---|---|---|---|---|
| Lane Configurations | | | | | |
| Traffic Volume (vph) | 8 | 405 | 6 | 78 | 377 |
| Future Volume (vph) | 8 | 405 | 6 | 78 | 377 |
| Turn Type | NA | pm+pt | NA | Prot | Over |
| Protected Phases | 4 | 3 | 8 | 2 | 3 |
| Permitted Phases | | 8 | | | |
| Detector Phase | 4 | 3 | 8 | 2 | 3 |
| Switch Phase | | | | | |
| Minimum Initial (s) | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 |
| Minimum Split (s) | 10.0 | 10.0 | 10.0 | 10.0 | 10.0 |
| Total Split (s) | 10.0 | 30.0 | 40.0 | 80.0 | 30.0 |
| Total Split (%) | 8.3% | 25.0% | 33.3% | 66.7% | 25.0% |
| Yellow Time (s) | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 |
| All-Red Time (s) | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 |
| Lost Time Adjust (s) | -1.0 | | -1.0 | -1.0 | -1.0 |
| Total Lost Time (s) | 4.0 | | 4.0 | 4.0 | 4.0 |
| Lead/Lag | Lag | Lead | | | Lead |
| Lead-Lag Optimize? | Yes | Yes | | | Yes |
| Recall Mode | None | None | None | Min | None |
| Act Effct Green (s) | 20.0 | | 36.0 | 8.8 | 14.1 |
| Actuated g/C Ratio | 0.38 | | 0.68 | 0.17 | 0.27 |
| v/c Ratio | 0.19 | | 0.49 | 0.28 | 0.56 |
| Control Delay | 3.8 | | 5.9 | 21.8 | 6.2 |
| Queue Delay | 0.0 | | 0.0 | 0.0 | 0.0 |
| Total Delay | 3.8 | | 5.9 | 21.8 | 6.2 |
| LOS | A | | A | C | A |
| Approach Delay | 3.8 | | 5.9 | 8.8 | |
| Approach LOS | A | | A | A | |

| Intersection Summary | |
|---|---|
| Cycle Length: 120 | |
| Actuated Cycle Length: 52.8 | |
| Natural Cycle: 40 | |
| Control Type: Semi Act-Uncoord | |
| Maximum v/c Ratio: 0.56 | |
| Intersection Signal Delay: 7.0 | Intersection LOS: A |
| Intersection Capacity Utilization 44.5% | ICU Level of Service A |
| Analysis Period (min) 15 | |

Splits and Phases: 26: Golden Sage Rd & Woodmen Frontage Rd



| Intersection | |
|---|---|
| Intersection Delay, s/veh | 3.5 |
| Intersection LOS | A |

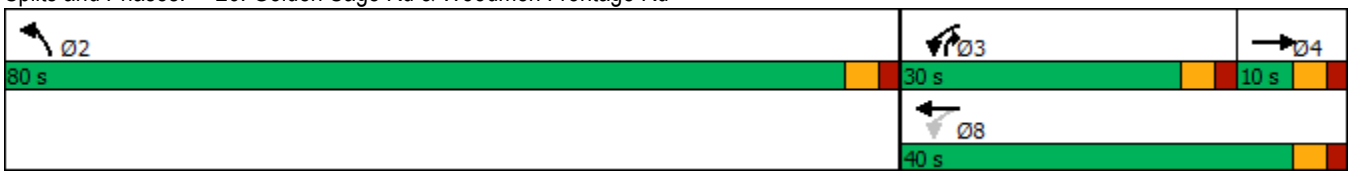
| Approach | EB | WB | NB |
|---|---|---|---|
| Entry Lanes | 1 | 1 | 1 |
| Conflicting Circle Lanes | 1 | 1 | 1 |
| Adj Approach Flow, veh/h | 128 | 432 | 479 |
| Demand Flow Rate, veh/h | 130 | 441 | 489 |
| Vehicles Circulating, veh/h | 435 | 84 | 8 |
| Vehicles Exiting, veh/h | 90 | 8 | 557 |
| Ped Vol Crossing Leg, #/h | 0 | 0 | 0 |
| Ped Cap Adj | 1.000 | 1.000 | 1.000 |
| Approach Delay, s/veh | 5.6 | 6.2 | 0.5 |
| Approach LOS | A | A | A |

| Lane | Left | Left | Left | Bypass |
|---|---|---|---|---|
| Designated Moves | TR | LT | L | R |
| Assumed Moves | TR | LT | L | R |
| RT Channelized | | | | Free |
| Lane Util | 1.000 | 1.000 | 1.000 | |
| Follow-Up Headway, s | 2.609 | 2.609 | 2.609 | |
| Critical Headway, s | 4.976 | 4.976 | 4.976 | 405 |
| Entry Flow, veh/h | 130 | 441 | 84 | 1938 |
| Cap Entry Lane, veh/h | 885 | 1267 | 1369 | 0.980 |
| Entry HV Adj Factor | 0.983 | 0.979 | 0.976 | 397 |
| Flow Entry, veh/h | 128 | 432 | 82 | 1900 |
| Cap Entry, veh/h | 871 | 1240 | 1336 | 0.209 |
| V/C Ratio | 0.147 | 0.348 | 0.061 | 0.0 |
| Control Delay, s/veh | 5.6 | 6.2 | 3.2 | A |
| LOS | A | A | A | 1 |
| 95th %tile Queue, veh | 1 | 2 | 0 | |

| Lane Group | EBT | WBL | WBT | NBL | NBR |
|---|---|---|---|---|---|
| Lane Configurations | | | | | |
| Traffic Volume (vph) | 11 | 450 | 13 | 134 | 479 |
| Future Volume (vph) | 11 | 450 | 13 | 134 | 479 |
| Turn Type | NA | pm+pt | NA | Prot | Over |
| Protected Phases | 4 | 3 | 8 | 2 | 3 |
| Permitted Phases | | 8 | | | |
| Detector Phase | 4 | 3 | 8 | 2 | 3 |
| Switch Phase | | | | | |
| Minimum Initial (s) | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 |
| Minimum Split (s) | 10.0 | 10.0 | 10.0 | 10.0 | 10.0 |
| Total Split (s) | 10.0 | 30.0 | 40.0 | 80.0 | 30.0 |
| Total Split (%) | 8.3% | 25.0% | 33.3% | 66.7% | 25.0% |
| Yellow Time (s) | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 |
| All-Red Time (s) | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 |
| Lost Time Adjust (s) | -1.0 | | -1.0 | -1.0 | -1.0 |
| Total Lost Time (s) | 4.0 | | 4.0 | 4.0 | 4.0 |
| Lead/Lag | Lag | Lead | | | Lead |
| Lead-Lag Optimize? | Yes | Yes | | | Yes |
| Recall Mode | None | None | None | Min | None |
| Act Effct Green (s) | 19.8 | | 36.1 | 14.4 | 14.5 |
| Actuated g/C Ratio | 0.34 | | 0.62 | 0.25 | 0.25 |
| v/c Ratio | 0.19 | | 0.61 | 0.67 | 0.51 |
| Control Delay | 5.4 | | 10.8 | 20.2 | 6.9 |
| Queue Delay | 0.0 | | 0.0 | 0.0 | 0.0 |
| Total Delay | 5.4 | | 10.8 | 20.2 | 6.9 |
| LOS | A | | B | C | A |
| Approach Delay | 5.4 | | 10.8 | 13.8 | |
| Approach LOS | A | | B | B | |

| Intersection Summary | |
|---|---|
| Cycle Length: 120 | |
| Actuated Cycle Length: 58.6 | |
| Natural Cycle: 45 | |
| Control Type: Semi Act-Uncoord | |
| Maximum v/c Ratio: 0.67 | |
| Intersection Signal Delay: 11.8 | Intersection LOS: B |
| Intersection Capacity Utilization 56.2% | ICU Level of Service B |
| Analysis Period (min) 15 | |

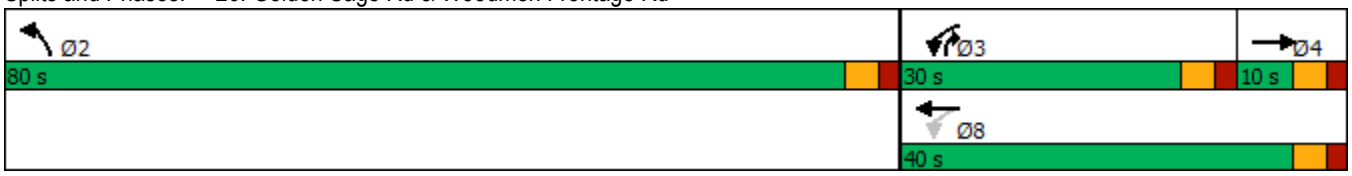
Splits and Phases: 26: Golden Sage Rd & Woodmen Frontage Rd



| Lane Group | EBT | WBL | WBT | NBL | NBR |
|---|---|---|---|---|---|
| Lane Configurations | | | | | |
| Traffic Volume (vph) | 11 | 450 | 13 | 134 | 479 |
| Future Volume (vph) | 11 | 450 | 13 | 134 | 479 |
| Turn Type | NA | pm+pt | NA | Prot | Over |
| Protected Phases | 4 | 3 | 8 | 2 | 3 |
| Permitted Phases | | 8 | | | |
| Detector Phase | 4 | 3 | 8 | 2 | 3 |
| Switch Phase | | | | | |
| Minimum Initial (s) | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 |
| Minimum Split (s) | 10.0 | 10.0 | 10.0 | 10.0 | 10.0 |
| Total Split (s) | 10.0 | 30.0 | 40.0 | 80.0 | 30.0 |
| Total Split (%) | 8.3% | 25.0% | 33.3% | 66.7% | 25.0% |
| Yellow Time (s) | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 |
| All-Red Time (s) | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 |
| Lost Time Adjust (s) | -1.0 | | -1.0 | -1.0 | -1.0 |
| Total Lost Time (s) | 4.0 | | 4.0 | 4.0 | 4.0 |
| Lead/Lag | Lag | Lead | | | Lead |
| Lead-Lag Optimize? | Yes | Yes | | | Yes |
| Recall Mode | None | None | None | Min | None |
| Act Effct Green (s) | 19.6 | | 36.0 | 10.6 | 14.5 |
| Actuated g/C Ratio | 0.36 | | 0.66 | 0.19 | 0.27 |
| v/c Ratio | 0.18 | | 0.57 | 0.41 | 0.64 |
| Control Delay | 4.7 | | 7.7 | 23.1 | 6.7 |
| Queue Delay | 0.0 | | 0.0 | 0.0 | 0.0 |
| Total Delay | 4.7 | | 7.7 | 23.1 | 6.7 |
| LOS | A | | A | C | A |
| Approach Delay | 4.7 | | 7.7 | 10.3 | |
| Approach LOS | A | | A | B | |

| Intersection Summary | |
|---|---|
| Cycle Length: 120 | |
| Actuated Cycle Length: 54.6 | |
| Natural Cycle: 45 | |
| Control Type: Semi Act-Uncoord | |
| Maximum v/c Ratio: 0.64 | |
| Intersection Signal Delay: 8.7 | Intersection LOS: A |
| Intersection Capacity Utilization 46.4% | ICU Level of Service A |
| Analysis Period (min) 15 | |

Splits and Phases: 26: Golden Sage Rd & Woodmen Frontage Rd



| Intersection | |
|---|---|
| Intersection Delay, s/veh | 3.8 |
| Intersection LOS | A |

| Approach | EB | WB | NB |
|---|---|---|---|
| Entry Lanes | 1 | 1 | 1 |
| Conflicting Circle Lanes | 1 | 1 | 1 |
| Adj Approach Flow, veh/h | 118 | 488 | 645 |
| Demand Flow Rate, veh/h | 120 | 497 | 658 |
| Vehicles Circulating, veh/h | 483 | 144 | 12 |
| Vehicles Exiting, veh/h | 158 | 12 | 591 |
| Ped Vol Crossing Leg, #/h | 0 | 0 | 0 |
| Ped Cap Adj | 1.000 | 1.000 | 1.000 |
| Approach Delay, s/veh | 5.8 | 7.4 | 0.8 |
| Approach LOS | A | A | A |

| Lane | Left | Left | Left | Bypass |
|---|---|---|---|---|
| Designated Moves | TR | LT | L | R |
| Assumed Moves | TR | LT | L | R |
| RT Channelized | | | | Free |
| Lane Util | 1.000 | 1.000 | 1.000 | |
| Follow-Up Headway, s | 2.609 | 2.609 | 2.609 | |
| Critical Headway, s | 4.976 | 4.976 | 4.976 | 514 |
| Entry Flow, veh/h | 120 | 497 | 144 | 1938 |
| Cap Entry Lane, veh/h | 843 | 1191 | 1363 | 0.980 |
| Entry HV Adj Factor | 0.981 | 0.981 | 0.979 | 504 |
| Flow Entry, veh/h | 118 | 488 | 141 | 1900 |
| Cap Entry, veh/h | 827 | 1169 | 1335 | 0.265 |
| V/C Ratio | 0.142 | 0.417 | 0.106 | 0.0 |
| Control Delay, s/veh | 5.8 | 7.4 | 3.5 | A |
| LOS | A | A | A | 1 |
| 95th %tile Queue, veh | 0 | 2 | 0 | |

# Queuing Reports

TRANSPORTATION
CONSULTANTS, INC.

# Queuing and Blocking Report

## Intersection: 19: West Site Access/Future Access & Bent Grass Meadows Dr

| Movement | EB | WB | NB | SB |
|---|---|---|---|---|
| Directions Served | L | L | LTR | LTR |
| Maximum Queue (ft) | 6 | 44 | 72 | 48 |
| Average Queue (ft) | 0 | 12 | 26 | 19 |
| 95th Queue (ft) | 5 | 37 | 52 | 46 |
| Link Distance (ft) | | | 253 | 287 |
| Upstream Blk Time (%) | | | | |
| Queuing Penalty (veh) | | | | |
| Storage Bay Dist (ft) | 155 | 110 | | |
| Storage Blk Time (%) | | | | |
| Queuing Penalty (veh) | | | | |

## Intersection: 20: Meridian Park Dr & Bent Grass Meadows Dr

| Movement | EB | EB | EB | WB | WB | NB | NB | SB | SB |
|---|---|---|---|---|---|---|---|---|---|
| Directions Served | L | T | TR | L | TR | L | TR | L | TR |
| Maximum Queue (ft) | 6 | 6 | 17 | 157 | 10 | 48 | 142 | 75 | 19 |
| Average Queue (ft) | 0 | 0 | 2 | 65 | 0 | 17 | 71 | 27 | 1 |
| 95th Queue (ft) | 0 | 4 | 11 | 123 | 7 | 46 | 116 | 60 | 11 |
| Link Distance (ft) | | 327 | 327 | 341 | 341 | 160 | 160 | 260 | 260 |
| Upstream Blk Time (%) | | | | | | | 0 | | |
| Queuing Penalty (veh) | | | | | | | 0 | | |
| Storage Bay Dist (ft) | 150 | | | | | | | | |
| Storage Blk Time (%) | | | | | | | | | |
| Queuing Penalty (veh) | | | | | | | | | |

## Zone Summary

Zone wide Queuing Penalty: 0

# Queuing and Blocking Report

## Intersection: 19: West Site Access/Future Access & Bent Grass Meadows Dr

| Movement | EB | WB | NB | SB |
|---|---|---|---|---|
| Directions Served | L | L | LTR | LTR |
| Maximum Queue (ft) | 6 | 46 | 58 | 80 |
| Average Queue (ft) | 0 | 8 | 26 | 37 |
| 95th Queue (ft) | 4 | 31 | 46 | 64 |
| Link Distance (ft) | | | 253 | 287 |
| Upstream Blk Time (%) | | | | |
| Queuing Penalty (veh) | | | | |
| Storage Bay Dist (ft) | 155 | 110 | | |
| Storage Blk Time (%) | | | | |
| Queuing Penalty (veh) | | | | |

## Intersection: 20: Meridian Park Dr & Bent Grass Meadows Dr

| Movement | EB | EB | EB | WB | WB | NB | NB | SB | SB |
|---|---|---|---|---|---|---|---|---|---|
| Directions Served | L | T | TR | L | TR | L | TR | L | TR |
| Maximum Queue (ft) | 6 | 16 | 12 | 150 | 6 | 124 | 191 | 114 | 24 |
| Average Queue (ft) | 0 | 1 | 1 | 57 | 0 | 30 | 130 | 42 | 4 |
| 95th Queue (ft) | 5 | 7 | 6 | 110 | 4 | 100 | 209 | 85 | 20 |
| Link Distance (ft) | | 480 | 480 | 271 | 271 | | 182 | 259 | 259 |
| Upstream Blk Time (%) | | | | | | | 5 | | |
| Queuing Penalty (veh) | | | | | | | 21 | | |
| Storage Bay Dist (ft) | 150 | | | | | 100 | | | |
| Storage Blk Time (%) | | | | | | 0 | 41 | | |
| Queuing Penalty (veh) | | | | | | 0 | 10 | | |

## Zone Summary

Zone wide Queuing Penalty: 30