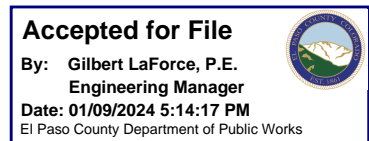


Traffic Impact Study
For
Bent Grass Plaza (Lots 1-3)
PCD File No. PPR23_42
Falcon, CO
11/16/2023

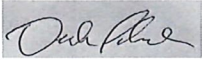
PREPARED FOR:
Copestone General Contractors
555 Amelia Street, Suite 100
Colorado Springs, CO 80915
Attn: Nathan Derwick, President

PREPARED BY:
Drexel, Barrell & Co.
1800 38th Street
Boulder, CO 80301
Contact:
Derek Schuler, P.E., PTOE
Drexel Barrell Project Number: 21814-00CSCV



Traffic Engineer's Statement

The attached traffic report and supporting information were prepared under my responsible charge and they comport with the standard of care. So far as is consistent with the standard of care, said report was prepared in general conformance with the criteria established by the County for traffic reports.



[Derek Schuler, Colorado P.E. #40125]

11/16/2023

Date



Developer's Statement

I, the Developer, have read and will comply with all commitments made on my behalf within this report.



Nathan Derwick, President

Copestone General Contractors

555 Amelia Street, Suite 100, Colorado Springs, CO 80915

11/17/2023

Date

1.0 Introduction

This report serves to analyze the traffic impacts of the proposed Bent Grass Plaza Development (site) on the adjacent roadway system. This study was conducted to determine the future traffic impacts on the surrounding transportation system and if the proposed development will cause any significant operational or safety problems.

A traffic impact study (TIS) is required per the El Paso County Engineering Criteria Manual, Appendix B (TIS Guidelines). An early assistance meeting (EA 23-074) was held on 8/13/23 and provided more specific guidance for this TIS. The TIS was intended be more in line with a conformance memo to the previously approved TIS (Bent Grass East Commercial, Filing No. 3, Updated Traffic Impact Analysis, PCD File No. SP2010, October 20, 2021 - LSC Transportation

Consultants, Inc.). However, the current application will propose higher trip generation which will not work with a conformance memo. This was clarified with a phone call to Ed Schoenheit on 9/26/23. The scope will be a full TIS update with reduced study area as shown in this report. The following existing intersections will be analyzed in this study:

1. Bent Grass Meadows Dr./Meridian Rd. (Signalized)
2. Bent Grass Meadows Dr./Meridian Park Dr.
3. Bent Grass Meadows Dr./Bent Grass Market View
4. Meridian Park Dr./Bent Grass Market View
5. Bent Grass Market View/Site Access

2.0 Area Conditions

The site is generally located near the southwest corner of Meridian Rd (four lane principal arterial) and Bent Grass Meadows Dr (non-residential collector). The intersection of these streets is now signalized with all planned auxiliary lanes constructed/stripped. Access to the site will be on the recently constructed Bent Grass Market View (private local). These street classifications are per the county's 2040 Major Transportation Corridors Plan.

The existing land use of the site is vacant but has adjacent small commercial uses. These are a veterinary center, dental office, and gas station. The areas to the east and west are existing single family residential neighborhoods. The areas to the north and south are either vacant or contain large lot residential.

New traffic counts were obtained to analyze the critical intersections and site access points. An average daily traffic (ADT) count was obtained on Bent Grass Meadows Drive between intersections 1 and 2. Peak hour turning movement counts (TMC) were obtained for intersection #'s 1 and 2. All recently collected traffic data is in the Appendix and summarized in **Figure 2**. Level of Service (LOS) Analysis is presented in **Table 3** later in the report. Traffic figures summarizing all traffic turning movements are in the Appendix.

The existing traffic conditions are summarized by the following. The ADT on Bent Grass Meadows Drive is 2,479 vehicles per day (vpd). The signalized intersection #1 currently operates at LOS A. Meridian Rd contains two through lanes in each direction plus separate right and left turn lanes. The eastbound right turns are received by a dedicated southbound acceleration lane. All other intersections are two-way stop controlled and operate at LOS A. There are existing sidewalks on the adjacent streets that will be connected to proposed sidewalks within the site.

3.0 Proposed Development

The roughly 1.9 acre commercial site is shown on conceptual site plan with vicinity map on **Figure 1** in the Appendix. The site is platted into lots 1-3. The following uses are proposed:

- 3 Fast Food Restaurants with drive thru = 5,100 SF
- Strip Retail Plaza (< 40 KSF) = 13,400 SF

In addition to lots 1-3, the planned uses for undeveloped lots 4-6 uses are also noted per the previous TIS:

- Shopping Center = 12,000 SF
- Business Park = 10,800 SF

Bent Grass Market View, a private local street, provides the site access as shown in **Figure 3**. Site access will be from this street only and there will be no additional access to any of the adjacent streets. The planned southbound right turn lane at intersection #4 was recently constructed. Sight distance and intersection spacing at the proposed connection points to existing streets (intersections 3 & 4) were verified with the previous TIS. Bent Grass Meadows Dr is posted at 35-mph. Meridian Park drive is unposted and assumed to be 25-mph.

4.0 Projected Traffic

Trip Generation:

Trip generation for the proposed land uses was determined using the Trip Generation Manual, 11th Edition (2021) published by the Institute of Transportation Engineers. See **Table 1** below for the calculation of site trips and a comparison with the previous TIS. This site (lots 1-3) is estimated to generate 3,114 weekday trips, which is 245 trips higher than the previous TIS. Per Table 1, the proposed site is anticipated to generate 259 trips (135 in/124 out) in the morning peak hour and 257 trips (132 in/125 out) in the evening peak hour. **Table 2** shows the planned trip generation for lots 4-6 (not part of this site) per the previous TIS. Table 2 will be used for future traffic projections if required. Both Tables 1 and 2 are also shown in the Appendix at larger size.

| Table 1 - Trip Generation Estimate for Bent Grass Plaza, Falcon, CO | | | | | | | | | | | | | | | | | | | | |
|--|-----|---------|-----------------------|---------|---------|-----------------------------|----------------------|-------|---------|-------|-------|----------------------|-------|---------|-------|----------------------------------|------------------------------|-------------------------------|------------------------------|-------|
| ITE Code / Land Use | | | Trip Generation Rates | | | Trips Generated | | | | | | | | | | External Trips | | | | |
| | | | | | | Average Weekday Trips | AM Peak-Hour (7 - 9) | | | | Total | PM Peak-Hour (4 - 6) | | | | Internal Capture % Reduced | External Weekday Trips | Pass-By Trips % Reduced | Adjusted Weekday Trips | |
| | | | Avg. Weekday | AM PEAK | PM PEAK | | % Trips | Trips | % Trips | Trips | | % Trips | Trips | % Trips | Trips | | | | | |
| Previous TIS: | | | | | | | | | | | | | | | | | | | | |
| #934 FF Restaurant w/ Drive Thru | 1 | 2.5 KSF | 470.95 | 40.19 | 32.67 | 1,177 | 51% | 51 | 49% | 49 | 100 | 52% | 42 | 48% | 39 | 82 | 5% | 1119 | 50% | 559 |
| #934 FF Restaurant w/ Drive Thru | 2 | 2.5 KSF | 470.95 | 40.19 | 32.67 | 1,177 | 51% | 51 | 49% | 49 | 100 | 52% | 42 | 48% | 39 | 82 | 5% | 1119 | 50% | 559 |
| #820 Shopping Center | 3 | 6.0 KSF | 85.72 | 5.20 | 7.40 | 514 | 62% | 19 | 38% | 12 | 31 | 48% | 21 | 52% | 23 | 44 | 5% | 489 | 34% | 322 |
| Proposed: | | | | | | | | | | | | | | | | | | | | |
| #8223 trip Retail Plaza (<40K) | 1-2 | 8.6 KSF | 54.45 | 2.36 | 6.59 | 468 | 60% | 12 | 40% | 8 | 20 | 50% | 28 | 50% | 28 | 57 | 5% | 445 | 0% | 445 |
| #934 FF Restaurant w/ Drive Thru | 1 | 1.7 KSF | 467.48 | 44.61 | 33.03 | 795 | 51% | 39 | 49% | 37 | 76 | 52% | 29 | 48% | 27 | 56 | 5% | 755 | 50% | 377 |
| #934 FF Restaurant w/ Drive Thru | 2 | 1.7 KSF | 467.48 | 44.61 | 33.03 | 795 | 51% | 39 | 49% | 37 | 76 | 52% | 29 | 48% | 27 | 56 | 5% | 755 | 50% | 377 |
| #8223 trip Retail Plaza (<40K) | 3 | 4.8 KSF | 54.45 | 2.36 | 6.59 | 261 | 60% | 7 | 40% | 5 | 11 | 50% | 16 | 50% | 16 | 32 | 5% | 248 | 0% | 248 |
| #934 FF Restaurant w/ Drive Thru | 3 | 1.7 KSF | 467.48 | 44.61 | 33.03 | 795 | 51% | 39 | 49% | 37 | 76 | 52% | 29 | 48% | 27 | 56 | 5% | 755 | 50% | 377 |
| Previous TIS Trips | | | | | | 2,869 | | 122 | | 110 | 232 | | 106 | | 101 | 208 | | | | 1,441 |
| Proposed Trips | | | | | | 3,114 | | 135 | | 124 | 259 | | 132 | | 125 | 257 | | | | 1,826 |
| Difference in Trips | | | | | | | | (245) | | (13) | (14) | (27) | | (25) | | (24) | (49) | | | (385) |

Source: "Bent Grass East Commercial, Filing No. 3, Updated Traffic Impact Analysis, PCD File No. SP2010, October 20, 2021 - LSC Transportation Consultants, Inc."

Source: "Trip Generation" Institute of Transportation Engineers, 11th Edition, 2021

| Table 2 - Trip Generation Estimate for Adjacent Lots 4-6 Bent Grass East Commercial Filing No. 3, Falcon, CO | | | | | | | | | | | | | | | | | | | | |
|---|---|----------|-----------------------|---------|---------|-----------------------------|----------------------|-------|---------|-------|-------|----------------------|-------|---------|-------|----------------------------------|------------------------------|-------------------------------|------------------------------|-----|
| ITE Code / Land Use | | | Trip Generation Rates | | | Trips Generated | | | | | | | | | | External Trips | | | | |
| | | | | | | Average Weekday Trips | AM Peak-Hour (7 - 9) | | | | Total | PM Peak-Hour (4 - 6) | | | | Internal Capture % Reduced | External Weekday Trips | Pass-By Trips % Reduced | Adjusted Weekday Trips | |
| | | | Avg. Weekday | AM PEAK | PM PEAK | | % Trips | Trips | % Trips | Trips | | % Trips | Trips | % Trips | Trips | | | | | |
| Previous TIS : | | | | | | | | | | | | | | | | | | | | |
| #820 Shopping Center | 4 | 6.0 KSF | 85.72 | 5.20 | 7.40 | 514 | 62% | 19 | 38% | 12 | 31 | 48% | 21 | 52% | 23 | 44 | 5% | 489 | 34% | 322 |
| #820 Shopping Center | 5 | 6.0 KSF | 85.72 | 5.20 | 7.40 | 514 | 62% | 19 | 38% | 12 | 31 | 48% | 21 | 52% | 23 | 44 | 5% | 489 | 34% | 322 |
| #770 Business Park | 6 | 10.8 KSF | 76.88 | 1.50 | 1.85 | 830 | 85% | 14 | 15% | 2 | 16 | 26% | 5 | 74% | 15 | 20 | 5% | 789 | 0% | 789 |
| Previous TIS Trips | | | | | | 1,859 | | 52 | | 26 | 79 | | 48 | | 61 | 109 | | | 1,434 | |

Source: "Bent Grass East Commercial, Filing No. 3, Updated Traffic Impact Analysis, PCD File No. SP2010, October 20, 2021 - LSC Transportation Consultants, Inc."

External Trips:

Reduction factors for internal capture and pass by were applied in a similar manner to the previous TIS. The proposed 5% internal capture rate is considered conservative for the proposed commercial uses. Pass-by reductions range from 0-50% depending on the use. The majority of pass-by trips occur on Meridian Rd, in which most site trips originate, as discussed in the next section.

Trip Distribution:

The projected distribution of site traffic is based on the previous TIS. 88% of trips come to/from Meridian Rd. More specifically, 45% will be to/from the north and 43% to/from the south. The remaining 12% will be to/from the west via the recently constructed extension of Bent Grass Meadows Dr to Woodmen Rd as discussed in the previous TIS. Traffic growth factors and forecasts for the 2040 traffic models were included in the previous TIS.

The site build out opening year is expected to be 2025 and an associated Synchro V11 Traffic Software Model (synchro) was created. Trip generation/distribution from the site was added to this model. Trips from a related TIS, "Bent Grass Dunkin' Donuts, PCD File No. PPR-22-027, SM Rocha, LLC, October 2022", were also added since they also affect the site's adjacent intersections. The resulting intersection LOS values are in a separate column in Table 2. "AM & PM" refer to the morning and afternoon peak hour periods. Traffic Figures and synchro reports for this model are included in the Appendix. 2040 models were presented in the previous TIS.

5.0 Traffic Analysis

The current background traffic was discussed in section 2.0. The site build out is expected by 2025. Therefore the opening year background traffic is not much different than existing conditions. The 2025 traffic conditions with site development have been analyzed in detail and LOS results presented in **Table 3**.

The key focus is on impacts to the Meridian Rd/Bent Grass Meadows Dr signalized intersection. 88% of site outbound trips use the eastbound approach to this intersection. This approach contains dual left turn lanes and there is a southbound acceleration lane to assist the eastbound right turn movement. The northbound left turn lane is controlled by protected/permissive phasing. The remaining 12% of site traffic is to/from the west via the extension of Bent Grass Meadows Dr extension to Woodmen Rd frontage road. The resulting 2025 total traffic turning movements are shown in **Figure 4**.

| Table 3 | | | | | | |
|---|---------------------|-------------------|----------------|----------------|-----------------|----------------|
| Level of Service Analysis / Average Delay in Seconds | | | | | | |
| Intersection | Approach | Control | 2023 | | 2025 | |
| | | | Existing | | Total Traffic | |
| | | | AM | PM | AM | PM |
| Meridian Rd / Bent Grass Meadows Dr | Intersection | Signalized | A / 7.8 | A / 6.3 | B / 11.9 | A / 8.8 |
| | EBL | Yield | D / 35.5 | D / 36.3 | D / 36.3 | D / 36.3 |
| | EBR | | B / 12.6 | B / 11.8 | B / 11.1 | B / 10.1 |
| | NBL | | A / 5.9 | A / 3.9 | C / 22.8 | A / 6.9 |
| | NBT | | A / 2.9 | A / 5.3 | A / 2.7 | A / 5.2 |
| | SBT | | B / 12.1 | A / 8.9 | B / 11.7 | B / 8.3 |
| | SBR | | A / 1.6 | A / 1.8 | A / 7.0 | A / 6.6 |
| Private Rd / Bent Grass Meadows Dr | Intersection | STOP | A / 0.0 | A / 0.0 | A / 1.3 | A / 1.6 |
| | EB | Stop | A / 0.0 | A / 0.0 | A / 0.0 | A / 0.0 |
| | WBL | | A / 0.0 | A / 0.0 | A / 1.1 | A / 1.3 |
| | NB | | A / 0.0 | A / 0.0 | B / 10.1 | B / 10.1 |
| Meridian Park Dr / Bent Grass Meadows Dr | Intersection | STOP | A / 4.3 | A / 4.8 | A / 7.6 | A / 7.4 |
| | EBR | Stop | A / 0.0 | A / 0.0 | A / 0.0 | A / 0.0 |
| | WBL | | A / 4.1 | A / 4.2 | A / 8.5 | A / 8.3 |
| | NB | | A / 9.9 | A / 9.8 | B / 13.2 | B / 12.4 |

The existing intersection #'s 1-3 all have acceptable LOS in all columns of **Table 2**. All movements are LOS C or better except for the EBL in intersection #1(it is at LOS D in both 2023 and 2025). This is further discussed in the next section.

6.0 Intersection and Auxiliary Lane Analysis

An analysis of auxiliary lanes is presented below and with volume/capacity ratios in **Table 4**.

Meridian Rd / Bent Grass Meadows Dr: The existing striped 160' eastbound dual left turn lanes will offer adequate capacity in 2025. The existing auxiliary lanes for both directions of Meridian Rd will also remain under capacity. The 2025 total traffic conditions include only minor increases in delay and a few changes in the LOS rating compared with existing conditions. The traffic signal was modeled with parameters included in the previous TIS.

| Table 4 Volume to Capacity Ratio | | | | | | | |
|--|--------------|------------|----------|------|---------------|------|-------------------------|
| Intersection | Approach | Control | 2023 | | 2025 | | Storage Lengths (ft) |
| | | | Existing | | Total Traffic | | |
| | | | AM | PM | AM | PM | |
| | | | | | | | |
| Meridian Rd / Bent Grass Meadows Dr | Intersection | Signalized | | | | | |
| | EBL | Yield | 0.33 | 0.62 | 0.69 | 0.71 | 2 x 160 |
| | EBR | | 0.45 | 0.41 | 0.53 | 0.52 | |
| | NBL | | 0.30 | 0.2 | 0.78 | 0.49 | 700 |
| | NBT | | 0.23 | 0.57 | 0.24 | 0.61 | |
| | SBT | | 0.67 | 0.44 | 0.74 | 0.48 | |
| | SBR | | 0.14 | 0.1 | 0.31 | 0.22 | 330 |
| Meridian Park Dr / Bent Grass Meadows Dr | Intersection | STOP | | | | | |
| | WBL | STOP | 0.14 | 0.18 | 0.27 | 0.22 | 150 |
| | EBR | | - | - | - | - | 150 |
| | NB | | 0.09 | 0.08 | 0.44 | 0.43 | |

Meridian Park Dr / Bent Grass Meadows Dr: Per tables 3 and 4, the auxiliary lanes and single lane NB approach will have LOS B or better and adequate capacity. The existing lane striping along Bent Grass Meadows Drive is adequate.

The intersections with Bent Grass Market View (private street) provide access to this site (Lots 1-3) and future Lots 4-6 only. These intersections will operate with all movements at LOS B or better. The existing striped two way left turn lane on Bent Grass Meadows Drive at the private

street intersection is adequate to handle the relatively lower volume of turning traffic (Figure 4). The associated synchro model reports for all intersections analyzed are in the Appendix.

7.0 Conclusions and Recommendations

This report was intended to be only a conformance memo for the previous TIS, but additional data collection and traffic analyses was performed. The proposed condition includes slightly higher trip generation. All planned roadway and signalization area improvements have been constructed as presented in the previous TIS. The signalized intersection of Meridian Rd/Bent Grass Meadows Drive will operate acceptably after site build-out in 2025. Only the eastbound left turn movement will operate at LOS less than C (it is at LOS D in both 2023 and 2025). The striped dual left turn lanes offer adequate capacity. All other intersections operate at LOS A in 2025 and have adequate capacity in the existing striped turn lanes. These findings have been determined to present adequate conformance with the previous TIS and no further improvements are recommended.

APPENDIX

1. Trip Generation Tables
2. Traffic Figures
3. Traffic Counts
4. Synchro Reports

| Table 1 - Trip Generation Estimate for Bent Grass Plaza, Falcon, CO | | | | | | | | | | | | | | | | | | | | | |
|--|-----|-----|-----------------------|---------|---------|-----------------------------|----------------------|-------|---------|-------|-------|----------------------|-------|---------|-------|-------|----------------------------------|------------------------------|-------------------------------|------------------------------|---------|
| ITE Code / Land Use Lot Size | | | Trip Generation Rates | | | Trips Generated | | | | | | | | | | | External Trips | | | | |
| | | | | | | Average Weekday Trips | AM Peak-Hour (7 - 9) | | | | Total | PM Peak-Hour (4 - 6) | | | | Total | Internal Capture % Reduced | External Weekday Trips | Pass-By Trips % Reduced | Adjusted Weekday Trips | |
| | | | Avg. Weekday | AM PEAK | PM PEAK | | % Trips | Trips | % Trips | Trips | | % Trips | Trips | % Trips | Trips | | | | | | % Trips |
| Previous TIS ¹ : | | | | | | | | | | | | | | | | | | | | | |
| #934 FF Restaurant w/ Drive Thru | 1 | 2.5 | K S F | 470.95 | 40.19 | 32.67 | 1,177 | 51% | 51 | 49% | 49 | 100 | 52% | 42 | 48% | 39 | 82 | 5% | 1119 | 50% | 559 |
| #934 FF Restaurant w/ Drive Thru | 2 | 2.5 | K S F | 470.95 | 40.19 | 32.67 | 1,177 | 51% | 51 | 49% | 49 | 100 | 52% | 42 | 48% | 39 | 82 | 5% | 1119 | 50% | 559 |
| #820 Shopping Center | 3 | 6.0 | K S F | 85.72 | 5.20 | 7.40 | 514 | 62% | 19 | 38% | 12 | 31 | 48% | 21 | 52% | 23 | 44 | 5% | 489 | 34% | 322 |
| Proposed ² : | | | | | | | | | | | | | | | | | | | | | |
| #822 Strip Retail Plaza (<40K) | 1-2 | 8.6 | K S F | 54.45 | 2.36 | 6.59 | 468 | 60% | 12 | 40% | 8 | 20 | 50% | 28 | 50% | 28 | 57 | 5% | 445 | 0% | 445 |
| #934 FF Restaurant w/ Drive Thru | 1 | 1.7 | K S F | 467.48 | 44.61 | 33.03 | 795 | 51% | 39 | 49% | 37 | 76 | 52% | 29 | 48% | 27 | 56 | 5% | 755 | 50% | 377 |
| #934 FF Restaurant w/ Drive Thru | 2 | 1.7 | K S F | 467.48 | 44.61 | 33.03 | 795 | 51% | 39 | 49% | 37 | 76 | 52% | 29 | 48% | 27 | 56 | 5% | 755 | 50% | 377 |
| #822 Strip Retail Plaza (<40K) | 3 | 4.8 | K S F | 54.45 | 2.36 | 6.59 | 261 | 60% | 7 | 40% | 5 | 11 | 50% | 16 | 50% | 16 | 32 | 5% | 248 | 0% | 248 |
| #934 FF Restaurant w/ Drive Thru | 3 | 1.7 | K S F | 467.48 | 44.61 | 33.03 | 795 | 51% | 39 | 49% | 37 | 76 | 52% | 29 | 48% | 27 | 56 | 5% | 755 | 50% | 377 |
| Previous TIS Trips | | | | | | | 2,869 | | 122 | | 110 | 232 | | 106 | | 101 | 208 | | | 1,441 | |
| Proposed Trips | | | | | | | 3,114 | | 135 | | 124 | 259 | | 132 | | 125 | 257 | | | 1,826 | |
| Difference in Trips | | | | | | | (245) | | (13) | | (14) | (27) | | (25) | | (24) | (49) | | | (385) | |

¹Source: "Bent Grass East Commercial, Filing No. 3, Updated Traffic Impact Analysis, PCD File No. SP2010, October 20, 2021 - LSC Transportation Consultants, Inc."

²Source: "Trip Generation" Institute of Transportation Engineers, 11th Edition, 2021

| Table 2 - Trip Generation Estimate for Adjacent Lots 4-6 Bent Grass East Commercial Filing No. 3, Falcon, CO | | | | | | | | | | | | | | | | | | | | |
|---|---|------------|-----------------------|---------|---------|-----------------------------|----------------------|-------|---------|-------|-------|----------------------|-------|---------|-------|-------|----------------------------------|------------------------------|-------------------------------|------------------------------|
| ITE Code / Land Use Lot Size | | | Trip Generation Rates | | | Trips Generated | | | | | | | | | | | External Trips | | | |
| | | | | | | Average Weekday Trips | AM Peak-Hour (7 - 9) | | | | Total | PM Peak-Hour (4 - 6) | | | | Total | Internal Capture % Reduced | External Weekday Trips | Pass-By Trips % Reduced | Adjusted Weekday Trips |
| | | | Avg. Weekday | AM PEAK | PM PEAK | | % Trips | Trips | % Trips | Trips | | % Trips | Trips | % Trips | Trips | | | | | |
| | | | | | | | | | | | | | | | | | | | | |
| Previous TIS ¹ : | | | | | | | | | | | | | | | | | | | | |
| #820 Shopping Center | 4 | 6.0 K S F | 85.72 | 5.20 | 7.40 | 514 | 62% | 19 | 38% | 12 | 31 | 48% | 21 | 52% | 23 | 44 | 5% | 489 | 34% | 322 |
| #820 Shopping Center | 5 | 6.0 K S F | 85.72 | 5.20 | 7.40 | 514 | 62% | 19 | 38% | 12 | 31 | 48% | 21 | 52% | 23 | 44 | 5% | 489 | 34% | 322 |
| #770 Business Park | 6 | 10.8 K S F | 76.88 | 1.50 | 1.85 | 830 | 85% | 14 | 15% | 2 | 16 | 26% | 5 | 74% | 15 | 20 | 5% | 789 | 0% | 789 |
| Previous TIS Trips | | | | | | 1,859 | | 52 | | 26 | 79 | | 48 | | 61 | 109 | | | | 1,434 |

¹Source: "Bent Grass East Commercial, Filing No. 3, Updated Traffic Impact Analysis, PCD File No. SP2010, October 20, 2021 - LSC Transportation Consultants, Inc."

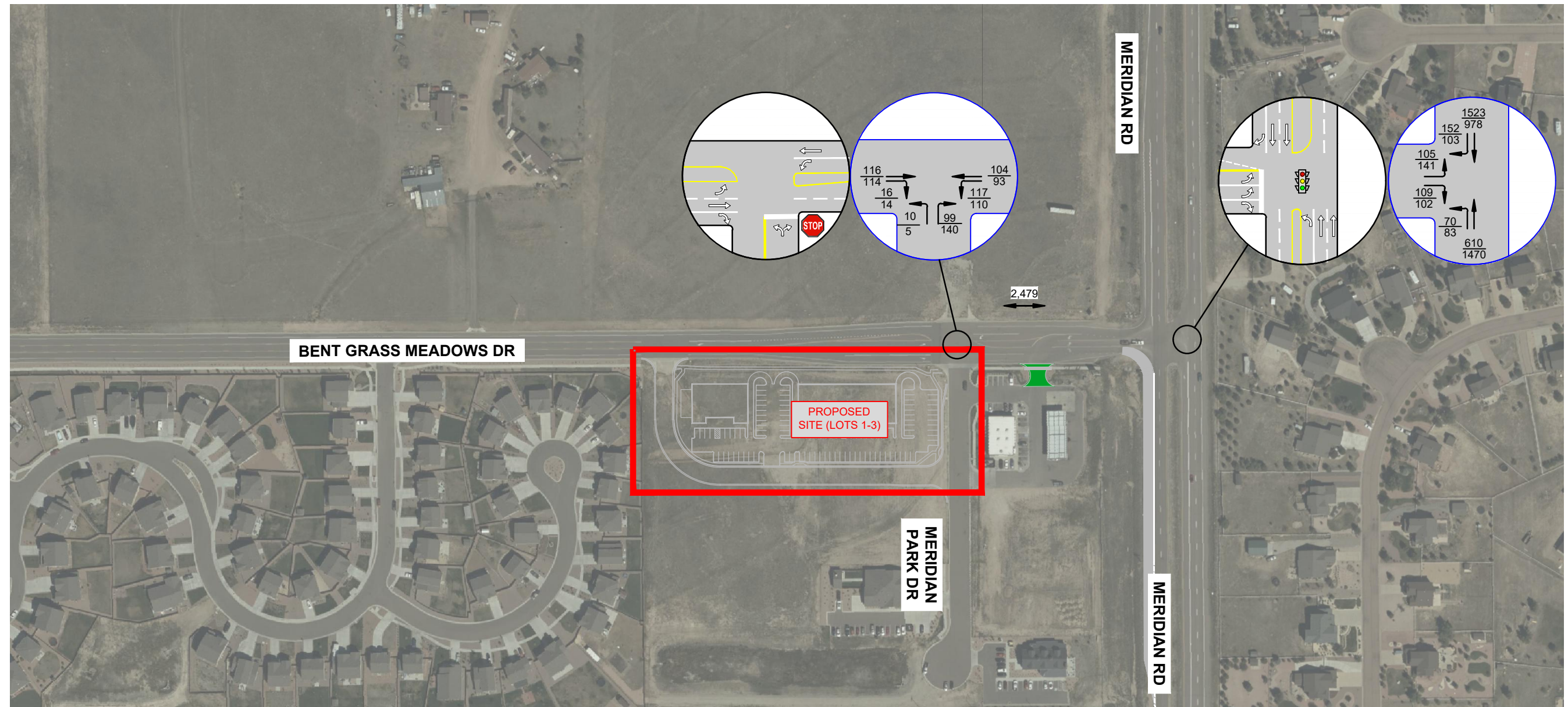


OVERALL STUDY AREA / VICINITY MAP
BENT GRASS PLAZA
FALCON, COLORADO

Drexel, Barrell & Co.
Engineers•Surveyors

DATE:
11/17/2023
JOB NO:
21814-01

DWG. NO:
FIGURE 1



NOTES:
TRAFFIC COUNTS WERE CONDUCTED ON THURS,
SEPT 28, 2023 BY ALL TRAFFIC DATA SERVICES (ATD).

LEGEND:

X,XXX = 24 HOUR TRAFFIC VOLUME

← = LANE MOVEMENT

XXX
XXX = WEEKDAY AM/PM
PEAK-HOUR TRAFFIC

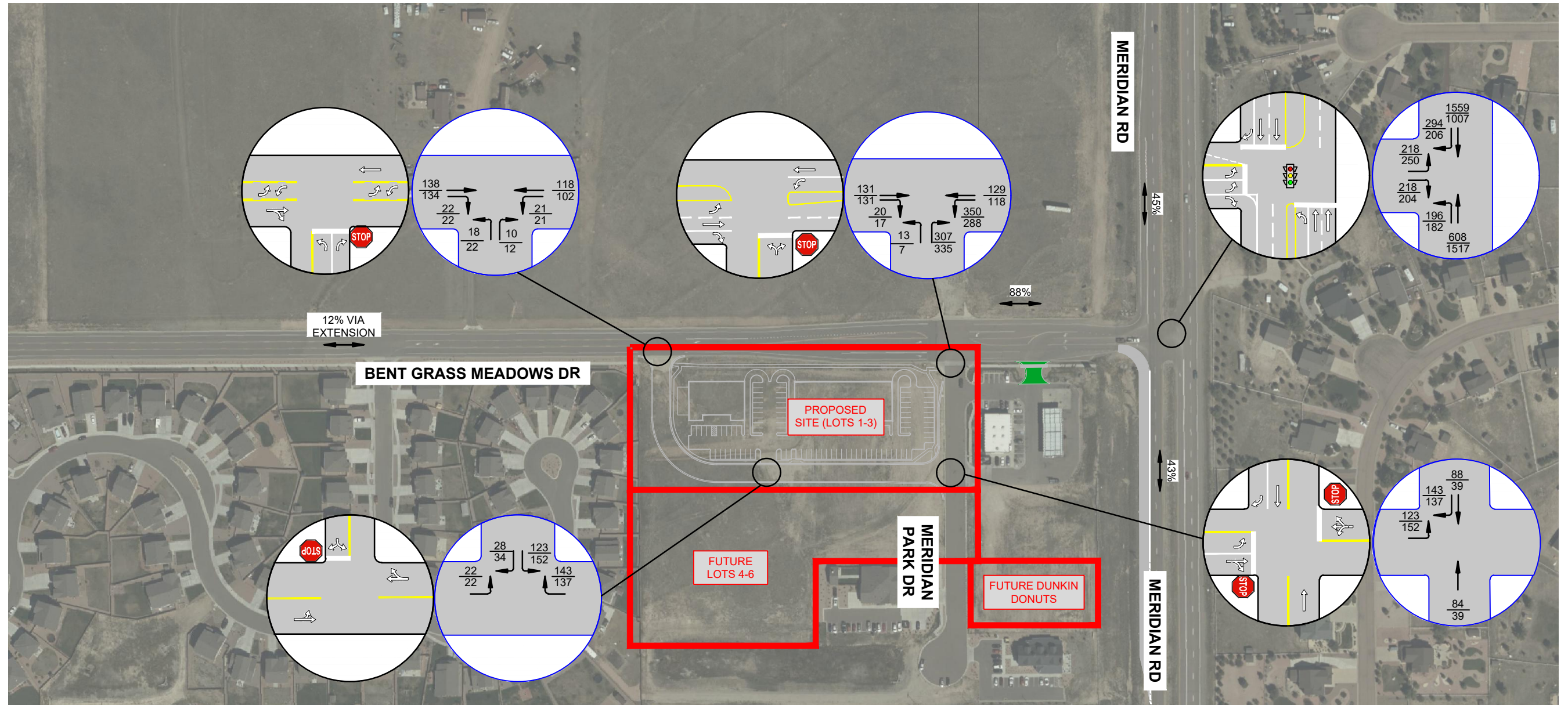
STOP = STOP SIGN

⬇ = TRAFFIC SIGNAL



2023 EXISTING CONDITIONS
BENT GRASS PLAZA
FALCON, COLORADO

| | |
|--|----------------------|
| Drexel, Barrell & Co. Engineers•Surveyors | |
| DATE: 11/17/2023 | DWG. NO: FIGURE 2 |
| JOB NO: 21814-01 | |



LEGEND:

- XX% = SITE DISTRIBUTION
- ↔ = LANE MOVEMENT
- ← = WEEKDAY AM/PM PEAK-HOUR TRAFFIC
- STOP = STOP SIGN
- 🚦 = TRAFFIC SIGNAL



2025 TOTAL TRAFFIC
BENT GRASS PLAZA
FALCON, COLORADO

| | |
|--|----------------------|
| Drexel, Barrell & Co. Engineers•Surveyors | |
| DATE: 11/17/2023 | DWG. NO: FIGURE 4 |
| JOB NO: 21814-01 | |

9660 W 44th Ave
Wheat Ridge, CO 80033
www.alltrafficdata.net

Site Code: 3

Station ID:

BENT GRASS MEADOWS DR W.O. MERIDIAN RD

| Start Time | 28-Sep-23 | EB | WB | | | | | | | | Total |
|-------------|-----------|-----------|------------|---|---|---|---|---|---|-------|-------|
| 12:00 AM | | 2 | 2 | | | | | | | | 4 |
| 01:00 | | 2 | 2 | | | | | | | | 4 |
| 02:00 | | 1 | 0 | | | | | | | | 1 |
| 03:00 | | 3 | 2 | | | | | | | | 5 |
| 04:00 | | 6 | 4 | | | | | | | | 10 |
| 05:00 | | 19 | 33 | | | | | | | | 52 |
| 06:00 | | 86 | 49 | | | | | | | | 135 |
| 07:00 | | 132 | 114 | | | | | | | | 246 |
| 08:00 | | 70 | 73 | | | | | | | | 143 |
| 09:00 | | 64 | 62 | | | | | | | | 126 |
| 10:00 | | 72 | 49 | | | | | | | | 121 |
| 11:00 | | 68 | 50 | | | | | | | | 118 |
| 12:00 PM | | 58 | 63 | | | | | | | | 121 |
| 01:00 | | 75 | 87 | | | | | | | | 162 |
| 02:00 | | 117 | 50 | | | | | | | | 167 |
| 03:00 | | 104 | 128 | | | | | | | | 232 |
| 04:00 | | 128 | 98 | | | | | | | | 226 |
| 05:00 | | 131 | 96 | | | | | | | | 227 |
| 06:00 | | 65 | 69 | | | | | | | | 134 |
| 07:00 | | 52 | 45 | | | | | | | | 97 |
| 08:00 | | 38 | 27 | | | | | | | | 65 |
| 09:00 | | 25 | 20 | | | | | | | | 45 |
| 10:00 | | 8 | 15 | | | | | | | | 23 |
| 11:00 | | 5 | 10 | | | | | | | | 15 |
| Total | | 1331 | 1148 | | | | | | | | 2479 |
| Percent | | 53.7% | 46.3% | | | | | | | | |
| AM Peak | - | 07:00 | 07:00 | - | - | - | - | - | - | 07:00 | |
| Vol. | - | 132 | 114 | - | - | - | - | - | - | 246 | |
| PM Peak | - | 17:00 | 15:00 | - | - | - | - | - | - | 15:00 | |
| Vol. | - | 131 | 128 | - | - | - | - | - | - | 232 | |
| Grand Total | | 1331 | 1148 | | | | | | | | 2479 |
| Percent | | 53.7% | 46.3% | | | | | | | | |
| ADT | | ADT 2,479 | AADT 2,479 | | | | | | | | |



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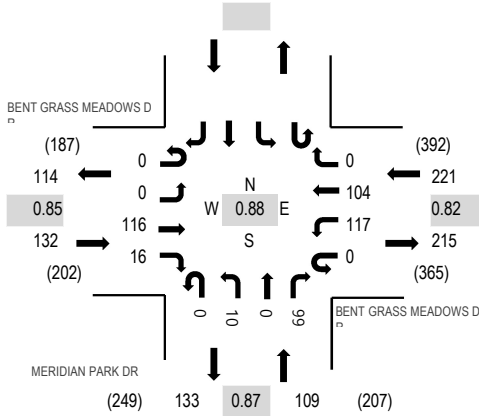
Location: 1 MERIDIAN PARK DR & BENT GRASS MEADOWS DR AM

Date: Thursday, September 28, 2023

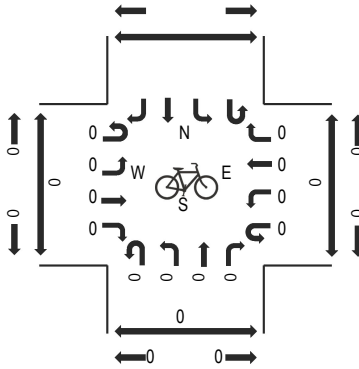
Peak Hour: 07:00 AM - 08:00 AM

Peak 15-Minutes: 07:45 AM - 08:00 AM

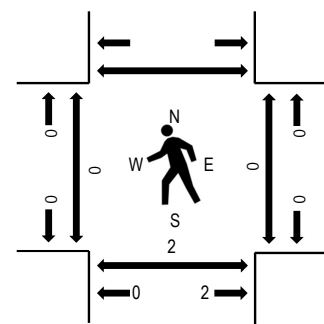
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts - Motorized Vehicles

| Interval Start Time | BENT GRASS MEADOWS DR Eastbound | | | | BENT GRASS MEADOWS DR Westbound | | | | MERIDIAN PARK DR Northbound | | | | MERIDIAN PARK DR Southbound | | | | Total | Rolling Hour | Pedestrian Crossings | | | |
|------------------------|---------------------------------|------|------|-------|---------------------------------|------|------|-------|-----------------------------|------|------|-------|-----------------------------|------|------|-------|-------|-----------------|----------------------|------|-------|-------|
| | U-Turn Left Thru Right | | | | U-Turn Left Thru Right | | | | U-Turn Left Thru Right | | | | U-Turn Left Thru Right | | | | | | West | East | South | North |
| | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | | | | | | |
| 7:00 AM | 0 | 0 | 28 | 5 | 0 | 24 | 17 | 0 | 0 | 1 | 0 | 20 | | | | | 95 | 462 | 0 | 0 | 0 | |
| 7:15 AM | 0 | 0 | 28 | 3 | 0 | 26 | 31 | 0 | 0 | 2 | 0 | 28 | | | | | 118 | 455 | 0 | 0 | 0 | |
| 7:30 AM | 0 | 0 | 35 | 4 | 0 | 26 | 27 | 0 | 0 | 1 | 0 | 24 | | | | | 117 | 434 | 0 | 0 | 0 | |
| 7:45 AM | 0 | 0 | 25 | 4 | 0 | 41 | 29 | 0 | 0 | 6 | 0 | 27 | | | | | 132 | 395 | 0 | 0 | 2 | |
| 8:00 AM | 0 | 0 | 13 | 2 | 0 | 33 | 16 | 0 | 0 | 0 | 0 | 24 | | | | | 88 | 339 | 0 | 0 | 0 | |
| 8:15 AM | 0 | 0 | 13 | 3 | 0 | 34 | 19 | 0 | 0 | 4 | 0 | 24 | | | | | 97 | | 0 | 0 | 2 | |
| 8:30 AM | 0 | 0 | 15 | 2 | 0 | 18 | 13 | 0 | 0 | 4 | 0 | 26 | | | | | 78 | | 0 | 0 | 0 | |
| 8:45 AM | 0 | 0 | 22 | 0 | 0 | 24 | 14 | 0 | 0 | 3 | 0 | 13 | | | | | 76 | | 0 | 0 | 0 | |
| Count Total | 0 | 0 | 179 | 23 | 0 | 226 | 166 | 0 | 0 | 21 | 0 | 186 | | | | | 801 | | 0 | 0 | 4 | |
| Peak Hour | 0 | 0 | 116 | 16 | 0 | 117 | 104 | 0 | 0 | 10 | 0 | 99 | | | | | 462 | | 0 | 0 | 2 | |



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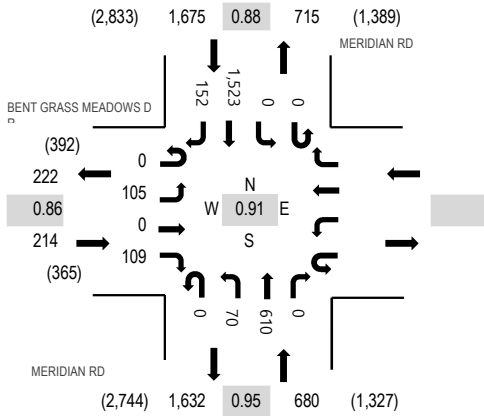
Location: 2 MERIDIAN RD & BENT GRASS MEADOWS DR AM

Date: Thursday, September 28, 2023

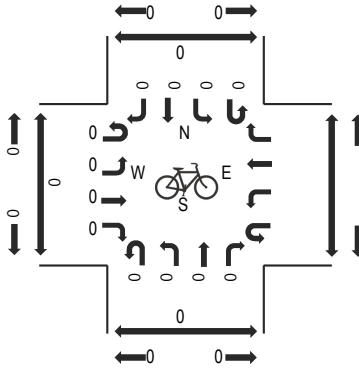
Peak Hour: 07:00 AM - 08:00 AM

Peak 15-Minutes: 07:15 AM - 07:30 AM

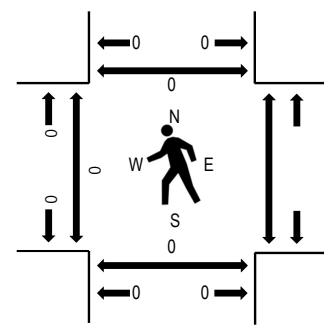
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts - Motorized Vehicles

| Interval Start Time | BENT GRASS MEADOWS DR Eastbound | | | | Westbound | | | | MERIDIAN RD Northbound | | | | MERIDIAN RD Southbound | | | | Total | Rolling Hour | Pedestrian Crossings | | | |
|------------------------|------------------------------------|------|------|-------|-----------|------|------|-------|---------------------------|------|-------|-------|---------------------------|------|-------|-------|-------|-----------------|----------------------|------|-------|-------|
| | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | | | West | East | South | North |
| 7:00 AM | 0 | 21 | 0 | 26 | | | | | 0 | 18 | 121 | 0 | 0 | 0 | 399 | 24 | 609 | 2,569 | 0 | 0 | 0 | 0 |
| 7:15 AM | 0 | 26 | 0 | 30 | | | | | 0 | 10 | 166 | 0 | 0 | 0 | 429 | 46 | 707 | 2,474 | 0 | 0 | 0 | 0 |
| 7:30 AM | 0 | 29 | 0 | 33 | | | | | 0 | 23 | 167 | 0 | 0 | 0 | 359 | 32 | 643 | 2,302 | 0 | 0 | 0 | 0 |
| 7:45 AM | 0 | 29 | 0 | 20 | | | | | 0 | 19 | 156 | 0 | 0 | 0 | 336 | 50 | 610 | 2,123 | 0 | 0 | 0 | 0 |
| 8:00 AM | 0 | 28 | 0 | 10 | | | | | 0 | 17 | 163 | 0 | 0 | 0 | 265 | 31 | 514 | 1,956 | 0 | 0 | 0 | 0 |
| 8:15 AM | 0 | 20 | 0 | 17 | | | | | 0 | 15 | 141 | 0 | 0 | 0 | 302 | 40 | 535 | | 0 | 0 | 0 | 0 |
| 8:30 AM | 0 | 20 | 0 | 24 | | | | | 0 | 8 | 131 | 0 | 0 | 0 | 260 | 21 | 464 | | 0 | 0 | 0 | 0 |
| 8:45 AM | 0 | 14 | 0 | 18 | | | | | 0 | 15 | 157 | 0 | 0 | 0 | 216 | 23 | 443 | | 0 | 0 | 0 | 0 |
| Count Total | 0 | 187 | 0 | 178 | | | | | 0 | 125 | 1,202 | 0 | 0 | 0 | 2,566 | 267 | 4,525 | | 0 | 0 | 0 | 0 |
| Peak Hour | 0 | 105 | 0 | 109 | | | | | 0 | 70 | 610 | 0 | 0 | 0 | 1,523 | 152 | 2,569 | | 0 | 0 | 0 | 0 |



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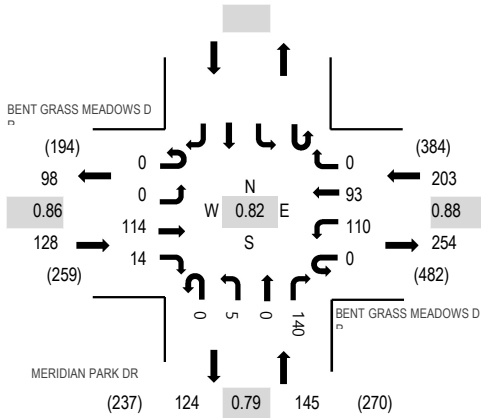
Location: 1 MERIDIAN PARK DR & BENT GRASS MEADOWS DR PM

Date: Thursday, September 28, 2023

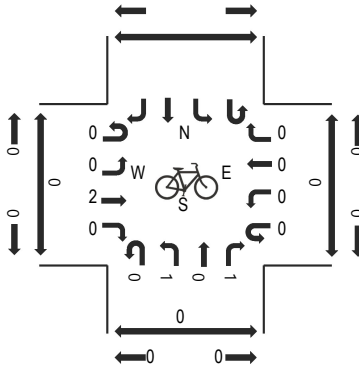
Peak Hour: 04:00 PM - 05:00 PM

Peak 15-Minutes: 04:00 PM - 04:15 PM

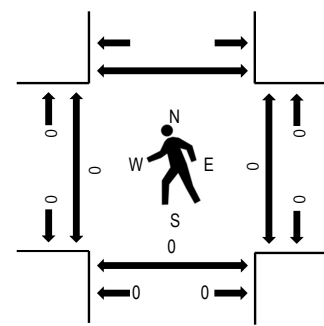
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts - Motorized Vehicles

| Interval Start Time | BENT GRASS MEADOWS DR Eastbound | | | | | | | | BENT GRASS MEADOWS DR Westbound | | | | MERIDIAN PARK DR Northbound | | | | MERIDIAN PARK DR Southbound | | | | Total | Rolling Hour | Pedestrian Crossings | | | |
|------------------------|---------------------------------|------|------|-------|-----------|------|------|-------|---------------------------------|------|------|-------|-----------------------------|------|------|-------|-----------------------------|------|-------|-------|-------|-----------------|----------------------|--|--|--|
| | Eastbound | | | | Westbound | | | | Northbound | | | | Southbound | | | | Pedestrian Crossings | | | | | | | | | |
| | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | West | East | South | North | | | | | | |
| 4:00 PM | 0 | 0 | 34 | 7 | 0 | 36 | 22 | 0 | 0 | 1 | 0 | 45 | | | | | 145 | 476 | 0 | 0 | 0 | | | | | |
| 4:15 PM | 0 | 0 | 21 | 4 | 0 | 26 | 25 | 0 | 0 | 1 | 0 | 38 | | | | | 115 | 444 | 0 | 0 | 0 | | | | | |
| 4:30 PM | 0 | 0 | 23 | 1 | 0 | 20 | 28 | 0 | 0 | 0 | 0 | 32 | | | | | 104 | 451 | 0 | 0 | 0 | | | | | |
| 4:45 PM | 0 | 0 | 36 | 2 | 0 | 28 | 18 | 0 | 0 | 3 | 0 | 25 | | | | | 112 | 459 | 0 | 0 | 0 | | | | | |
| 5:00 PM | 0 | 0 | 31 | 3 | 0 | 22 | 23 | 0 | 0 | 2 | 0 | 32 | | | | | 113 | 437 | 0 | 0 | 0 | | | | | |
| 5:15 PM | 0 | 0 | 34 | 7 | 1 | 27 | 23 | 0 | 0 | 3 | 0 | 27 | | | | | 122 | | 0 | 0 | 0 | | | | | |
| 5:30 PM | 0 | 0 | 24 | 4 | 0 | 26 | 20 | 0 | 0 | 4 | 0 | 34 | | | | | 112 | | 0 | 0 | 0 | | | | | |
| 5:45 PM | 0 | 0 | 24 | 4 | 0 | 20 | 19 | 0 | 0 | 2 | 0 | 21 | | | | | 90 | | 0 | 0 | 0 | | | | | |
| Count Total | 0 | 0 | 227 | 32 | 1 | 205 | 178 | 0 | 0 | 16 | 0 | 254 | | | | | 913 | | 0 | 0 | 0 | | | | | |
| Peak Hour | 0 | 0 | 114 | 14 | 0 | 110 | 93 | 0 | 0 | 5 | 0 | 140 | | | | | 476 | | 0 | 0 | 0 | | | | | |



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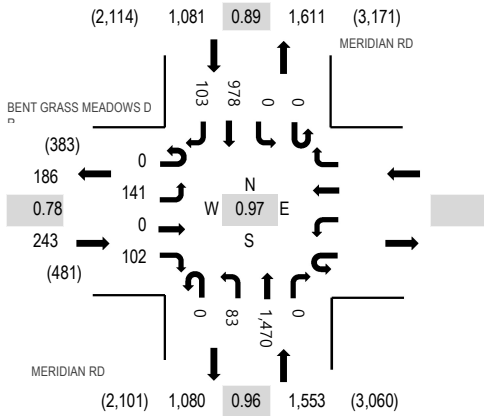
Location: 2 MERIDIAN RD & BENT GRASS MEADOWS DR PM

Date: Thursday, September 28, 2023

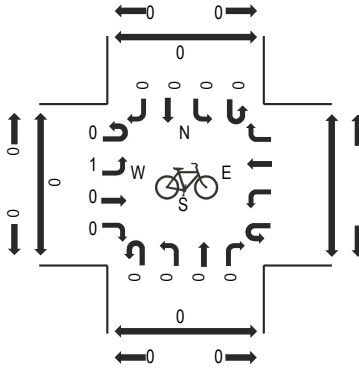
Peak Hour: 04:45 PM - 05:45 PM

Peak 15-Minutes: 05:15 PM - 05:30 PM

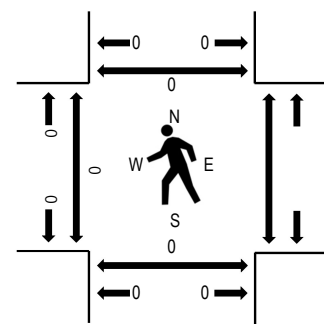
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians









Note: Total study counts contained in parentheses.

Traffic Counts - Motorized Vehicles

| Interval Start Time | BENT GRASS MEADOWS DR Eastbound | | | | Westbound | | | | MERIDIAN RD Northbound | | | | MERIDIAN RD Southbound | | | | Total | Rolling Hour | Pedestrian Crossings | | | |
|------------------------|------------------------------------|------|------|-------|-----------|------|------|-------|---------------------------|------|-------|-------|---------------------------|------|-------|-------|-------|-----------------|----------------------|------|-------|-------|
| | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | U-Turn | Left | Thru | Right | | | West | East | South | North |
| 4:00 PM | 0 | 43 | 0 | 38 | | | | | 0 | 24 | 357 | 0 | 0 | 0 | 249 | 34 | 745 | 2,876 | 0 | 0 | 0 | 0 |
| 4:15 PM | 0 | 34 | 0 | 23 | | | | | 0 | 23 | 361 | 0 | 0 | 0 | 226 | 28 | 695 | 2,825 | 0 | 0 | 0 | 0 |
| 4:30 PM | 0 | 39 | 0 | 18 | | | | | 0 | 18 | 364 | 0 | 0 | 0 | 239 | 31 | 709 | 2,873 | 0 | 0 | 0 | 0 |
| 4:45 PM | 0 | 34 | 0 | 23 | | | | | 0 | 17 | 338 | 0 | 0 | 0 | 285 | 30 | 727 | 2,877 | 0 | 0 | 0 | 0 |
| 5:00 PM | 0 | 35 | 0 | 31 | | | | | 0 | 21 | 372 | 0 | 0 | 0 | 214 | 21 | 694 | 2,779 | 0 | 0 | 0 | 0 |
| 5:15 PM | 0 | 33 | 0 | 26 | | | | | 0 | 24 | 382 | 0 | 0 | 0 | 251 | 27 | 743 | | 0 | 0 | 0 | 0 |
| 5:30 PM | 0 | 39 | 0 | 22 | | | | | 0 | 21 | 378 | 0 | 0 | 0 | 228 | 25 | 713 | | 0 | 0 | 0 | 0 |
| 5:45 PM | 0 | 22 | 0 | 21 | | | | | 0 | 20 | 340 | 0 | 0 | 0 | 207 | 19 | 629 | | 0 | 0 | 0 | 0 |
| Count Total | 0 | 279 | 0 | 202 | | | | | 0 | 168 | 2,892 | 0 | 0 | 0 | 1,899 | 215 | 5,655 | | 0 | 0 | 0 | 0 |
| Peak Hour | 0 | 141 | 0 | 102 | | | | | 0 | 83 | 1,470 | 0 | 0 | 0 | 978 | 103 | 2,877 | | 0 | 0 | 0 | 0 |

Volume
2: MERIDIAN RD & BENT GRASS MEADOWS DR
















AM Peak Existing
11/16/2023

| |  |  |  |  |  |  |
|-------------------------|---|---|---|---|---|---|
| Lane Group | EBL | EBR | NBL | NBT | SBT | SBR |
| Traffic Volume (vph) | 105 | 109 | 70 | 610 | 1523 | 152 |
| Future Volume (vph) | 105 | 109 | 70 | 610 | 1523 | 152 |
| Confl. Peds. (#/hr) | | | | | | |
| Confl. Bikes (#/hr) | | | | | | |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| 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) | 114 | 118 | 76 | 663 | 1655 | 165 |
| Shared Lane Traffic (%) | | | | | | |
| Lane Group Flow (vph) | 114 | 118 | 76 | 663 | 1655 | 165 |
| Intersection Summary | | | | | | |

Timings 2: MERIDIAN RD & BENT GRASS MEADOWS DR

AM Peak Existing

11/16/2023

| |  |  |  |  |  |  |
|----------------------|---|---|---|---|---|---|
| Lane Group | EBL | EBR | NBL | NBT | SBT | SBR |
| Lane Configurations |   |  |  |   |   |  |
| Traffic Volume (vph) | 105 | 109 | 70 | 610 | 1523 | 152 |
| Future Volume (vph) | 105 | 109 | 70 | 610 | 1523 | 152 |
| Turn Type | Prot | Perm | pm+pt | NA | NA | Perm |
| Protected Phases | 3 | | 5 | 2 | 6 | |
| Permitted Phases | | 7 | 2 | | | 6 |
| Detector Phase | 3 | 7 | 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 Effect Green (s) | 8.0 | 7.9 | 63.0 | 64.0 | 54.7 | 54.7 |
| Actuated g/C Ratio | 0.10 | 0.10 | 0.80 | 0.81 | 0.69 | 0.69 |
| v/c Ratio | 0.33 | 0.45 | 0.30 | 0.23 | 0.67 | 0.14 |
| Control Delay | 35.1 | 12.7 | 5.4 | 2.6 | 11.4 | 1.5 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 35.1 | 12.7 | 5.4 | 2.6 | 11.4 | 1.5 |
| LOS | D | B | A | A | B | A |
| Approach Delay | 23.7 | | | 2.9 | 10.5 | |
| Approach LOS | C | | | A | B | |

Intersection Summary

Cycle Length: 90

Actuated Cycle Length: 78.8

Natural Cycle: 75

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.67

Intersection Signal Delay: 9.6

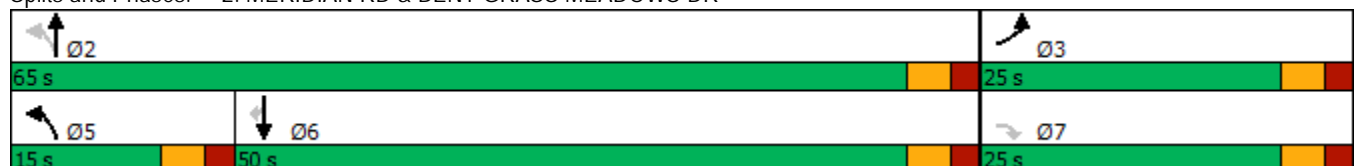
Intersection LOS: A

Intersection Capacity Utilization 62.9%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 2: MERIDIAN RD & BENT GRASS MEADOWS DR



HCM 6th Signalized Intersection Summary

2: MERIDIAN RD & BENT GRASS MEADOWS DR

AM Peak Existing

11/16/2023



| Movement | EBL | EBR | NBL | NBT | SBT | SBR |
|------------------------------|------|------|------|------|------|------|
| Lane Configurations | ←← | → | ← | ↑↑ | ↑↑ | ↔ |
| Traffic Volume (veh/h) | 105 | 109 | 70 | 610 | 1523 | 152 |
| Future Volume (veh/h) | 105 | 109 | 70 | 610 | 1523 | 152 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | 1.00 | 1.00 | | | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach | No | | | No | No | |
| Adj Sat Flow, veh/h/ln | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h | 114 | 0 | 76 | 663 | 1655 | 165 |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 210 | | 297 | 2861 | 2434 | 1085 |
| Arrive On Green | 0.06 | 0.00 | 0.05 | 0.81 | 0.68 | 0.68 |
| Sat Flow, veh/h | 3456 | 1585 | 1781 | 3647 | 3647 | 1585 |
| Grp Volume(v), veh/h | 114 | 0 | 76 | 663 | 1655 | 165 |
| Grp Sat Flow(s),veh/h/ln | 1728 | 1585 | 1781 | 1777 | 1777 | 1585 |
| Q Serve(g_s), s | 2.4 | 0.0 | 0.8 | 3.3 | 20.5 | 2.7 |
| Cycle Q Clear(g_c), s | 2.4 | 0.0 | 0.8 | 3.3 | 20.5 | 2.7 |
| Prop In Lane | 1.00 | 1.00 | 1.00 | | | 1.00 |
| Lane Grp Cap(c), veh/h | 210 | | 297 | 2861 | 2434 | 1085 |
| V/C Ratio(X) | 0.54 | | 0.26 | 0.23 | 0.68 | 0.15 |
| Avail Cap(c_a), veh/h | 927 | | 441 | 2861 | 2434 | 1085 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(l) | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 34.0 | 0.0 | 7.0 | 1.7 | 6.9 | 4.1 |
| Incr Delay (d2), s/veh | 2.2 | 0.0 | 0.5 | 0.2 | 1.6 | 0.3 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 1.0 | 0.0 | 0.3 | 0.1 | 4.4 | 0.5 |
| Unsig. Movement Delay, s/veh | | | | | | |
| LnGrp Delay(d),s/veh | 36.2 | 0.0 | 7.4 | 1.9 | 8.5 | 4.4 |
| LnGrp LOS | D | | A | A | A | A |
| Approach Vol, veh/h | 114 | | | 739 | 1820 | |
| Approach Delay, s/veh | 36.2 | | | 2.5 | 8.1 | |
| Approach LOS | D | | | A | A | |
| Timer - Assigned Phs | 2 | | 5 | | 6 | 8 |
| Phs Duration (G+Y+Rc), s | 65.0 | | 9.0 | | 56.0 | 9.5 |
| Change Period (Y+Rc), s | 5.0 | | 5.0 | | 5.0 | 5.0 |
| Max Green Setting (Gmax), s | 60.0 | | 10.0 | | 45.0 | 20.0 |
| Max Q Clear Time (g_c+I1), s | 5.3 | | 2.8 | | 22.5 | 4.4 |
| Green Ext Time (p_c), s | 4.3 | | 0.1 | | 12.8 | 0.3 |

Intersection Summary













| | |
|--------------------|-----|
| HCM 6th Ctrl Delay | 7.8 |
| HCM 6th LOS | A |

Notes

Unsignalized Delay for [EBR] is excluded from calculations of the approach delay and intersection delay.







Volume
5: PRIVATE DR & BENT GRASS MEADOWS DR

AM Peak Existing
11/16/2023

| |  |  |  |  |  |  |  |  |  |  |  |  |
|-------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Traffic Volume (vph) | 0 | 132 | 0 | 0 | 114 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Future Volume (vph) | 0 | 132 | 0 | 0 | 114 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Confl. Peds. (#/hr) | | | | | | | | | | | | |
| Confl. Bikes (#/hr) | | | | | | | | | | | | |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| 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) | 0 | 143 | 0 | 0 | 124 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 0 | 143 | 0 | 0 | 124 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Intersection Summary | | | | | | | | | | | | |

HCM 6th TWSC
5: PRIVATE DR & BENT GRASS MEADOWS DR

AM Peak Existing
11/16/2023

| Intersection | | | | | | | | | | | | |
|--------------------------|---|---|------|---|---|------|---|------|---|------|------|------|
| Int Delay, s/veh | 0 | | | | | | | | | | | |
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  |  | |  |  | |  | |  | | | |
| Traffic Vol, veh/h | 0 | 132 | 0 | 0 | 114 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Future Vol, veh/h | 0 | 132 | 0 | 0 | 114 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Free | Free | Stop | Stop | Stop | Stop | Stop | Stop |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | 100 | - | - | 100 | - | - | 100 | - | 0 | - | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 0 | 143 | 0 | 0 | 124 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |













| Major/Minor | Major1 | | | Major2 | | | Minor1 | | |
|----------------------|--------|---|---|--------|---|---|--------|---|-------|
| Conflicting Flow All | 124 | 0 | - | 143 | 0 | 0 | 267 | - | 143 |
| Stage 1 | - | - | - | - | - | - | 143 | - | - |
| Stage 2 | - | - | - | - | - | - | 124 | - | - |
| Critical Hdwy | 4.12 | - | - | 4.12 | - | - | 6.42 | - | 6.22 |
| Critical Hdwy Stg 1 | - | - | - | - | - | - | 5.42 | - | - |
| Critical Hdwy Stg 2 | - | - | - | - | - | - | 5.42 | - | - |
| Follow-up Hdwy | 2.218 | - | - | 2.218 | - | - | 3.518 | - | 3.318 |
| Pot Cap-1 Maneuver | 1463 | - | 0 | 1440 | - | 0 | 722 | 0 | 905 |
| Stage 1 | - | - | 0 | - | - | 0 | 884 | 0 | - |
| Stage 2 | - | - | 0 | - | - | 0 | 902 | 0 | - |
| Platoon blocked, % | - | | | - | | | | | |
| Mov Cap-1 Maneuver | 1463 | - | - | 1440 | - | - | 722 | 0 | 905 |
| Mov Cap-2 Maneuver | - | - | - | - | - | - | 722 | 0 | - |
| Stage 1 | - | - | - | - | - | - | 884 | 0 | - |
| Stage 2 | - | - | - | - | - | - | 902 | 0 | - |

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

| Minor Lane/Major Mvmt | NBLn1 | NBLn2 | EBL | EBT | WBL | WBT |
|-----------------------|-------|-------|------|-----|------|-----|
| Capacity (veh/h) | - | - | 1463 | - | 1440 | - |
| HCM Lane V/C Ratio | - | - | - | - | - | - |
| HCM Control Delay (s) | 0 | 0 | 0 | - | 0 | - |
| HCM Lane LOS | A | A | A | - | A | - |
| HCM 95th %tile Q(veh) | - | - | 0 | - | 0 | - |







7: MERIDIAN PARK DR & BENT GRASS MEADOWS DR

11/16/2023

| |  |  |  |  |  |  |  |  |  |  |  |  |
|-------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Traffic Volume (vph) | 0 | 116 | 16 | 117 | 104 | 0 | 10 | 0 | 99 | 0 | 0 | 0 |
| Future Volume (vph) | 0 | 116 | 16 | 117 | 104 | 0 | 10 | 0 | 99 | 0 | 0 | 0 |
| Confl. Peds. (#/hr) | | | | | | | | | | | | |
| Confl. Bikes (#/hr) | | | | | | | | | | | | |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| 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) | 0 | 126 | 17 | 127 | 113 | 0 | 11 | 0 | 108 | 0 | 0 | 0 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 0 | 126 | 17 | 127 | 113 | 0 | 0 | 119 | 0 | 0 | 0 | 0 |
| Intersection Summary | | | | | | | | | | | | |

HCM 6th TWSC
7: MERIDIAN PARK DR & BENT GRASS MEADOWS DR

AM Peak Existing
11/16/2023

| 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 | 0 | 116 | 16 | 117 | 104 | 0 | 10 | 0 | 99 | 0 | 0 | 0 |
| Future Vol, veh/h | 0 | 116 | 16 | 117 | 104 | 0 | 10 | 0 | 99 | 0 | 0 | 0 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Free | Free | Stop | Stop | Stop | Stop | Stop | Stop |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | 150 | - | 150 | 150 | - | - | - | - | - | - | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 0 | 126 | 17 | 127 | 113 | 0 | 11 | 0 | 108 | 0 | 0 | 0 |

| Major/Minor | Major1 | | | Major2 | | | Minor1 | | |
|----------------------|--------|---|---|--------|---|---|--------|-------|-------|
| Conflicting Flow All | 113 | 0 | 0 | 143 | 0 | 0 | 493 | 493 | 126 |
| Stage 1 | - | - | - | - | - | - | 126 | 126 | - |
| Stage 2 | - | - | - | - | - | - | 367 | 367 | - |
| Critical Hdwy | 4.12 | - | - | 4.12 | - | - | 6.42 | 6.52 | 6.22 |
| Critical Hdwy Stg 1 | - | - | - | - | - | - | 5.42 | 5.52 | - |
| Critical Hdwy Stg 2 | - | - | - | - | - | - | 5.42 | 5.52 | - |
| Follow-up Hdwy | 2.218 | - | - | 2.218 | - | - | 3.518 | 4.018 | 3.318 |
| Pot Cap-1 Maneuver | 1476 | - | - | 1440 | - | 0 | 535 | 477 | 924 |
| Stage 1 | - | - | - | - | - | 0 | 900 | 792 | - |
| Stage 2 | - | - | - | - | - | 0 | 701 | 622 | - |
| Platoon blocked, % | - | - | - | - | - | - | - | - | - |
| Mov Cap-1 Maneuver | 1476 | - | - | 1440 | - | - | 488 | 0 | 924 |
| Mov Cap-2 Maneuver | - | - | - | - | - | - | 488 | 0 | - |
| Stage 1 | - | - | - | - | - | - | 900 | 0 | - |
| Stage 2 | - | - | - | - | - | - | 639 | 0 | - |

| Approach | EB | WB | NB |
|----------------------|----|-----|-----|
| HCM Control Delay, s | 0 | 4.1 | 9.9 |
| HCM LOS | | | A |

| Minor Lane/Major Mvmt | NBLn1 | EBL | EBT | EBR | WBL | WBT |
|-----------------------|-------|------|-----|-----|-------|-----|
| Capacity (veh/h) | 854 | 1476 | - | - | 1440 | - |
| HCM Lane V/C Ratio | 0.139 | - | - | - | 0.088 | - |
| HCM Control Delay (s) | 9.9 | 0 | - | - | 7.7 | - |
| HCM Lane LOS | A | A | - | - | A | - |
| HCM 95th %tile Q(veh) | 0.5 | 0 | - | - | 0.3 | - |

Volume
2: MERIDIAN RD & BENT GRASS MEADOWS DR

PM Peak Existing
11/16/2023


















| Lane Group | EBL | EBR | NBL | NBT | SBT | SBR |
|-------------------------|------|------|------|------|------|------|
| Traffic Volume (vph) | 141 | 102 | 83 | 1470 | 978 | 103 |
| Future Volume (vph) | 141 | 102 | 83 | 1470 | 978 | 103 |
| Confl. Peds. (#/hr) | | | | | | |
| Confl. Bikes (#/hr) | | | | | | |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| 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) | 153 | 111 | 90 | 1598 | 1063 | 112 |
| Shared Lane Traffic (%) | | | | | | |
| Lane Group Flow (vph) | 153 | 111 | 90 | 1598 | 1063 | 112 |
| Intersection Summary | | | | | | |

Timings 2: MERIDIAN RD & BENT GRASS MEADOWS DR

PM Peak Existing

11/16/2023

| |  |  |  |  |  |  |
|----------------------|---|---|---|---|---|---|
| Lane Group | EBL | EBR | NBL | NBT | SBT | SBR |
| Lane Configurations |   |  |  |   |   |  |
| Traffic Volume (vph) | 141 | 102 | 83 | 1470 | 978 | 103 |
| Future Volume (vph) | 141 | 102 | 83 | 1470 | 978 | 103 |
| Turn Type | Prot | Perm | pm+pt | NA | NA | Perm |
| Protected Phases | 3 | | 5 | 2 | 6 | |
| Permitted Phases | | 4 | 2 | | | 6 |
| Detector Phase | 3 | 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 (%) | 21.7% | 21.7% | 13.0% | 56.5% | 43.5% | 43.5% |
| 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 | Lead | | Lag | Lag |
| Lead-Lag Optimize? | Yes | Yes | Yes | | Yes | Yes |
| Recall Mode | None | None | None | Max | Max | Max |
| Act Effect Green (s) | 9.4 | 6.8 | 60.8 | 60.8 | 50.7 | 50.7 |
| Actuated g/C Ratio | 0.10 | 0.07 | 0.66 | 0.66 | 0.55 | 0.55 |
| v/c Ratio | 0.44 | 0.50 | 0.27 | 0.68 | 0.55 | 0.12 |
| Control Delay | 42.8 | 16.7 | 8.4 | 12.2 | 16.1 | 3.1 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 42.8 | 16.7 | 8.4 | 12.2 | 16.1 | 3.1 |
| LOS | D | B | A | B | B | A |
| Approach Delay | 31.8 | | | 12.0 | 14.9 | |
| Approach LOS | C | | | B | B | |

Intersection Summary

Cycle Length: 115

Actuated Cycle Length: 92

Natural Cycle: 90

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.68

Intersection Signal Delay: 14.7

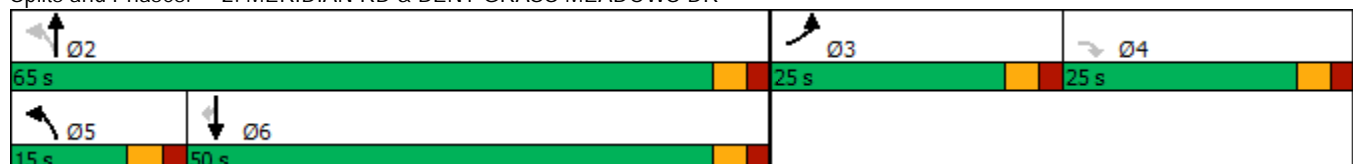
Intersection LOS: B

Intersection Capacity Utilization 53.1%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 2: MERIDIAN RD & BENT GRASS MEADOWS DR



HCM 6th Signalized Intersection Summary

2: MERIDIAN RD & BENT GRASS MEADOWS DR

PM Peak Existing

11/16/2023



| Movement | EBL | EBR | NBL | NBT | SBT | SBR |
|------------------------------|------|------|------|------|------|------|
| Lane Configurations | ←← | → | ← | ↑↑ | ↑↑ | ↖ |
| Traffic Volume (veh/h) | 141 | 102 | 83 | 1470 | 978 | 103 |
| Future Volume (veh/h) | 141 | 102 | 83 | 1470 | 978 | 103 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | 1.00 | 1.00 | | | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach | No | | | No | No | |
| Adj Sat Flow, veh/h/ln | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h | 153 | 0 | 90 | 1598 | 1063 | 112 |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 248 | | 450 | 2828 | 2392 | 1067 |
| Arrive On Green | 0.07 | 0.00 | 0.06 | 0.80 | 0.67 | 0.67 |
| Sat Flow, veh/h | 3456 | 1585 | 1781 | 3647 | 3647 | 1585 |
| Grp Volume(v), veh/h | 153 | 0 | 90 | 1598 | 1063 | 112 |
| Grp Sat Flow(s),veh/h/ln | 1728 | 1585 | 1781 | 1777 | 1777 | 1585 |
| Q Serve(g_s), s | 3.2 | 0.0 | 1.0 | 12.6 | 10.5 | 1.9 |
| Cycle Q Clear(g_c), s | 3.2 | 0.0 | 1.0 | 12.6 | 10.5 | 1.9 |
| Prop In Lane | 1.00 | 1.00 | 1.00 | | | 1.00 |
| Lane Grp Cap(c), veh/h | 248 | | 450 | 2828 | 2392 | 1067 |
| V/C Ratio(X) | 0.62 | | 0.20 | 0.57 | 0.44 | 0.10 |
| Avail Cap(c_a), veh/h | 917 | | 586 | 2828 | 2392 | 1067 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 34.0 | 0.0 | 3.6 | 2.9 | 5.7 | 4.3 |
| Incr Delay (d2), s/veh | 2.5 | 0.0 | 0.2 | 0.8 | 0.6 | 0.2 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 1.4 | 0.0 | 0.1 | 0.7 | 2.3 | 0.4 |
| Unsig. Movement Delay, s/veh | | | | | | |
| LnGrp Delay(d),s/veh | 36.5 | 0.0 | 3.9 | 3.7 | 6.3 | 4.5 |
| LnGrp LOS | D | | A | A | A | A |
| Approach Vol, veh/h | 153 | | | 1688 | 1175 | |
| Approach Delay, s/veh | 36.5 | | | 3.7 | 6.2 | |
| Approach LOS | D | | | A | A | |
| Timer - Assigned Phs | 2 | | 5 | | 6 | 8 |
| Phs Duration (G+Y+Rc), s | 65.0 | | 9.2 | | 55.8 | 10.4 |
| Change Period (Y+Rc), s | 5.0 | | 5.0 | | 5.0 | 5.0 |
| Max Green Setting (Gmax), s | 60.0 | | 10.0 | | 45.0 | 20.0 |
| Max Q Clear Time (g_c+I1), s | 14.6 | | 3.0 | | 12.5 | 5.2 |
| Green Ext Time (p_c), s | 15.6 | | 0.1 | | 8.1 | 0.4 |

Intersection Summary













| | |
|--------------------|-----|
| HCM 6th Ctrl Delay | 6.3 |
| HCM 6th LOS | A |

Notes

Unsignalized Delay for [EBR] is excluded from calculations of the approach delay and intersection delay.







Volume
5: PRIVATE DR & BENT GRASS MEADOWS DR

PM Peak Existing
11/16/2023

| |  |  |  |  |  |  |  |  |  |  |  |  |
|-------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Traffic Volume (vph) | 0 | 128 | 0 | 0 | 98 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Future Volume (vph) | 0 | 128 | 0 | 0 | 98 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Confl. Peds. (#/hr) | | | | | | | | | | | | |
| Confl. Bikes (#/hr) | | | | | | | | | | | | |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| 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) | 0 | 139 | 0 | 0 | 107 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 0 | 139 | 0 | 0 | 107 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Intersection Summary | | | | | | | | | | | | |

HCM 6th TWSC
5: PRIVATE DR & BENT GRASS MEADOWS DR

PM Peak Existing
11/16/2023

| Intersection | | | | | | | | | | | | |
|--------------------------|---|---|------|---|---|------|---|------|---|------|------|------|
| Int Delay, s/veh | 0 | | | | | | | | | | | |
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  |  | |  |  | |  | |  | | | |
| Traffic Vol, veh/h | 0 | 128 | 0 | 0 | 98 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Future Vol, veh/h | 0 | 128 | 0 | 0 | 98 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Free | Free | Stop | Stop | Stop | Stop | Stop | Stop |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | 100 | - | - | 100 | - | - | 100 | - | 0 | - | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 0 | 139 | 0 | 0 | 107 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

| Major/Minor | Major1 | | | Major2 | | | Minor1 | | |
|----------------------|--------|---|---|--------|---|---|--------|---|-------|
| Conflicting Flow All | 107 | 0 | - | 139 | 0 | 0 | 246 | - | 139 |
| Stage 1 | - | - | - | - | - | - | 139 | - | - |
| Stage 2 | - | - | - | - | - | - | 107 | - | - |
| Critical Hdwy | 4.12 | - | - | 4.12 | - | - | 6.42 | - | 6.22 |
| Critical Hdwy Stg 1 | - | - | - | - | - | - | 5.42 | - | - |
| Critical Hdwy Stg 2 | - | - | - | - | - | - | 5.42 | - | - |
| Follow-up Hdwy | 2.218 | - | - | 2.218 | - | - | 3.518 | - | 3.318 |
| Pot Cap-1 Maneuver | 1484 | - | 0 | 1445 | - | 0 | 742 | 0 | 909 |
| Stage 1 | - | - | 0 | - | - | 0 | 888 | 0 | - |
| Stage 2 | - | - | 0 | - | - | 0 | 917 | 0 | - |
| Platoon blocked, % | - | | | - | | | | | |
| Mov Cap-1 Maneuver | 1484 | - | - | 1445 | - | - | 742 | 0 | 909 |
| Mov Cap-2 Maneuver | - | - | - | - | - | - | 742 | 0 | - |
| Stage 1 | - | - | - | - | - | - | 888 | 0 | - |
| Stage 2 | - | - | - | - | - | - | 917 | 0 | - |

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













| Minor Lane/Major Mvmt | NBLn1 | NBLn2 | EBL | EBT | WBL | WBT |
|-----------------------|-------|-------|------|-----|------|-----|
| Capacity (veh/h) | - | - | 1484 | - | 1445 | - |
| HCM Lane V/C Ratio | - | - | - | - | - | - |
| HCM Control Delay (s) | 0 | 0 | 0 | - | 0 | - |
| HCM Lane LOS | A | A | A | - | A | - |
| HCM 95th %tile Q(veh) | - | - | 0 | - | 0 | - |

Volume

PM Peak Existing







7: MERIDIAN PARK DR & BENT GRASS MEADOWS DR

11/16/2023

| |  |  |  |  |  |  |  |  |  |  |  |  |
|-------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Traffic Volume (vph) | 0 | 114 | 14 | 110 | 93 | 0 | 5 | 0 | 140 | 0 | 0 | 0 |
| Future Volume (vph) | 0 | 114 | 14 | 110 | 93 | 0 | 5 | 0 | 140 | 0 | 0 | 0 |
| Confl. Peds. (#/hr) | | | | | | | | | | | | |
| Confl. Bikes (#/hr) | | | | | | | | | | | | |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| 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) | 0 | 124 | 15 | 120 | 101 | 0 | 5 | 0 | 152 | 0 | 0 | 0 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 0 | 124 | 15 | 120 | 101 | 0 | 0 | 157 | 0 | 0 | 0 | 0 |
| Intersection Summary | | | | | | | | | | | | |

HCM 6th TWSC
7: MERIDIAN PARK DR & BENT GRASS MEADOWS DR

PM Peak Existing
11/16/2023

| Intersection | | | | | | | | | | | | |
|--------------------------|---|---|---|---|---|------|------|---|------|------|------|------|
| Int Delay, s/veh | 4.8 | | | | | | | | | | | |
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  |  |  |  |  | | |  | | | | |
| Traffic Vol, veh/h | 0 | 114 | 14 | 110 | 93 | 0 | 5 | 0 | 140 | 0 | 0 | 0 |
| Future Vol, veh/h | 0 | 114 | 14 | 110 | 93 | 0 | 5 | 0 | 140 | 0 | 0 | 0 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Free | Free | Stop | Stop | Stop | Stop | Stop | Stop |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | 150 | - | 150 | 150 | - | - | - | - | - | - | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 0 | 124 | 15 | 120 | 101 | 0 | 5 | 0 | 152 | 0 | 0 | 0 |

| Major/Minor | Major1 | | | Major2 | | | Minor1 | | |
|----------------------|--------|---|---|--------|---|---|--------|-------|-------|
| Conflicting Flow All | 101 | 0 | 0 | 139 | 0 | 0 | 465 | 465 | 124 |
| Stage 1 | - | - | - | - | - | - | 124 | 124 | - |
| Stage 2 | - | - | - | - | - | - | 341 | 341 | - |
| Critical Hdwy | 4.12 | - | - | 4.12 | - | - | 6.42 | 6.52 | 6.22 |
| Critical Hdwy Stg 1 | - | - | - | - | - | - | 5.42 | 5.52 | - |
| Critical Hdwy Stg 2 | - | - | - | - | - | - | 5.42 | 5.52 | - |
| Follow-up Hdwy | 2.218 | - | - | 2.218 | - | - | 3.518 | 4.018 | 3.318 |
| Pot Cap-1 Maneuver | 1491 | - | - | 1445 | - | 0 | 556 | 495 | 927 |
| Stage 1 | - | - | - | - | - | 0 | 902 | 793 | - |
| Stage 2 | - | - | - | - | - | 0 | 720 | 639 | - |
| Platoon blocked, % | - | - | - | - | - | - | - | - | - |
| Mov Cap-1 Maneuver | 1491 | - | - | 1445 | - | - | 510 | 0 | 927 |
| Mov Cap-2 Maneuver | - | - | - | - | - | - | 510 | 0 | - |
| Stage 1 | - | - | - | - | - | - | 902 | 0 | - |
| Stage 2 | - | - | - | - | - | - | 660 | 0 | - |

| Approach | EB | WB | NB |
|----------------------|----|-----|-----|
| HCM Control Delay, s | 0 | 4.2 | 9.8 |
| HCM LOS | | | A |

| Minor Lane/Major Mvmt | NBLn1 | EBL | EBT | EBR | WBL | WBT |
|-----------------------|-------|------|-----|-----|-------|-----|
| Capacity (veh/h) | 902 | 1491 | - | - | 1445 | - |
| HCM Lane V/C Ratio | 0.175 | - | - | - | 0.083 | - |
| HCM Control Delay (s) | 9.8 | 0 | - | - | 7.7 | - |
| HCM Lane LOS | A | A | - | - | A | - |
| HCM 95th %tile Q(veh) | 0.6 | 0 | - | - | 0.3 | - |

Volume
2: MERIDIAN RD & BENT GRASS MEADOWS DR

2025 Total AM
11/16/2023



| Lane Group | EBL | EBR | NBL | NBT | SBT | SBR |
|-------------------------|------|------|------|------|------|------|
| Traffic Volume (vph) | 218 | 218 | 196 | 608 | 1559 | 294 |
| Future Volume (vph) | 218 | 218 | 196 | 608 | 1559 | 294 |
| Confl. Peds. (#/hr) | | | | | | |
| Confl. Bikes (#/hr) | | | | | | |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| 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) | 237 | 237 | 213 | 661 | 1695 | 320 |
| Shared Lane Traffic (%) | | | | | | |
| Lane Group Flow (vph) | 237 | 237 | 213 | 661 | 1695 | 320 |
| Intersection Summary | | | | | | |

Timings 2: MERIDIAN RD & BENT GRASS MEADOWS DR

2025 Total AM
11/16/2023



| Lane Group | EBL | EBR | NBL | NBT | SBT | SBR |
|----------------------|-------|-------|-------|-------|-------|-------|
| Lane Configurations | | | | | | |
| Traffic Volume (vph) | 218 | 218 | 196 | 608 | 1559 | 294 |
| Future Volume (vph) | 218 | 218 | 196 | 608 | 1559 | 294 |
| Turn Type | Prot | Perm | pm+pt | NA | NA | Perm |
| Protected Phases | 3 | | 5 | 2 | 6 | |
| Permitted Phases | | 7 | 2 | | | 6 |
| Detector Phase | 3 | 7 | 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 Effect Green (s) | 11.0 | 11.0 | 60.0 | 60.0 | 45.9 | 45.9 |
| Actuated g/C Ratio | 0.14 | 0.14 | 0.74 | 0.74 | 0.57 | 0.57 |
| v/c Ratio | 0.51 | 0.60 | 0.73 | 0.25 | 0.85 | 0.31 |
| Control Delay | 36.4 | 14.2 | 30.9 | 3.8 | 20.7 | 2.1 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 36.4 | 14.2 | 30.9 | 3.8 | 20.7 | 2.1 |
| LOS | D | B | C | A | C | A |
| Approach Delay | 25.3 | | | 10.4 | 17.8 | |
| Approach LOS | C | | | B | B | |

Intersection Summary

Cycle Length: 90

Actuated Cycle Length: 81

Natural Cycle: 80

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.85

Intersection Signal Delay: 16.9

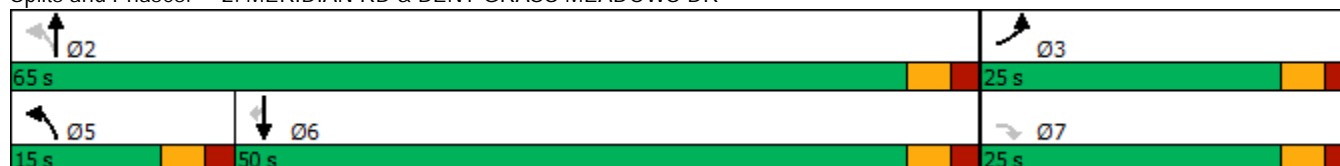
Intersection LOS: B

Intersection Capacity Utilization 72.7%

ICU Level of Service C

Analysis Period (min) 15

Splits and Phases: 2: MERIDIAN RD & BENT GRASS MEADOWS DR



HCM 6th Signalized Intersection Summary

2: MERIDIAN RD & BENT GRASS MEADOWS DR

2025 Total AM

11/16/2023



| Movement | EBL | EBR | NBL | NBT | SBT | SBR |
|------------------------------|------|------|------|------|------|------|
| Lane Configurations | ←← | → | ← | ↑↑ | ↑↑ | ↔ |
| Traffic Volume (veh/h) | 218 | 218 | 196 | 608 | 1559 | 294 |
| Future Volume (veh/h) | 218 | 218 | 196 | 608 | 1559 | 294 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | 1.00 | 1.00 | | | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach | No | | | No | No | |
| Adj Sat Flow, veh/h/ln | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h | 237 | 0 | 213 | 661 | 1695 | 320 |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 344 | | 275 | 2743 | 2285 | 1019 |
| Arrive On Green | 0.10 | 0.00 | 0.06 | 0.77 | 0.64 | 0.64 |
| Sat Flow, veh/h | 3456 | 1585 | 1781 | 3647 | 3647 | 1585 |
| Grp Volume(v), veh/h | 237 | 0 | 213 | 661 | 1695 | 320 |
| Grp Sat Flow(s),veh/h/ln | 1728 | 1585 | 1781 | 1777 | 1777 | 1585 |
| Q Serve(g_s), s | 5.2 | 0.0 | 2.8 | 4.1 | 25.3 | 7.0 |
| Cycle Q Clear(g_c), s | 5.2 | 0.0 | 2.8 | 4.1 | 25.3 | 7.0 |
| Prop In Lane | 1.00 | 1.00 | 1.00 | | | 1.00 |
| Lane Grp Cap(c), veh/h | 344 | | 275 | 2743 | 2285 | 1019 |
| V/C Ratio(X) | 0.69 | | 0.78 | 0.24 | 0.74 | 0.31 |
| Avail Cap(c_a), veh/h | 889 | | 389 | 2743 | 2285 | 1019 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 33.8 | 0.0 | 16.6 | 2.5 | 9.5 | 6.2 |
| Incr Delay (d2), s/veh | 2.5 | 0.0 | 6.2 | 0.2 | 2.2 | 0.8 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 2.2 | 0.0 | 2.7 | 0.4 | 6.7 | 1.7 |
| Unsig. Movement Delay, s/veh | | | | | | |
| LnGrp Delay(d),s/veh | 36.3 | 0.0 | 22.8 | 2.7 | 11.7 | 7.0 |
| LnGrp LOS | D | | C | A | B | A |
| Approach Vol, veh/h | 237 | | | 874 | 2015 | |
| Approach Delay, s/veh | 36.3 | | | 7.6 | 10.9 | |
| Approach LOS | D | | | A | B | |
| Timer - Assigned Phs | 2 | | 5 | | 6 | 8 |
| Phs Duration (G+Y+Rc), s | 65.0 | | 10.0 | | 55.0 | 12.7 |
| Change Period (Y+Rc), s | 5.0 | | 5.0 | | 5.0 | 5.0 |
| Max Green Setting (Gmax), s | 60.0 | | 10.0 | | 45.0 | 20.0 |
| Max Q Clear Time (g_c+I1), s | 6.1 | | 4.8 | | 27.3 | 7.2 |
| Green Ext Time (p_c), s | 4.3 | | 0.2 | | 11.7 | 0.6 |

Intersection Summary













| | |
|--------------------|------|
| HCM 6th Ctrl Delay | 11.9 |
| HCM 6th LOS | B |

Notes

Unsignalized Delay for [EBR] is excluded from calculations of the approach delay and intersection delay.







Volume
5: PRIVATE DR & BENT GRASS MEADOWS DR

2025 Total AM
11/16/2023

| |  |  |  |  |  |  |  |  |  |  |  |  |
|-------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Traffic Volume (vph) | 0 | 138 | 22 | 21 | 118 | 0 | 18 | 0 | 10 | 0 | 0 | 0 |
| Future Volume (vph) | 0 | 138 | 22 | 21 | 118 | 0 | 18 | 0 | 10 | 0 | 0 | 0 |
| Confl. Peds. (#/hr) | | | | | | | | | | | | |
| Confl. Bikes (#/hr) | | | | | | | | | | | | |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| 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) | 0 | 150 | 24 | 23 | 128 | 0 | 20 | 0 | 11 | 0 | 0 | 0 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 0 | 174 | 0 | 23 | 128 | 0 | 20 | 0 | 11 | 0 | 0 | 0 |
| Intersection Summary | | | | | | | | | | | | |

HCM 6th TWSC
5: PRIVATE DR & BENT GRASS MEADOWS DR

2025 Total AM
11/16/2023

| Intersection | | | | | | | | | | | | |
|--------------------------|---|---|------|---|---|------|---|------|---|------|------|------|
| Int Delay, s/veh | 1.3 | | | | | | | | | | | |
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  |  | |  |  | |  | |  | | | |
| Traffic Vol, veh/h | 0 | 138 | 22 | 21 | 118 | 0 | 18 | 0 | 10 | 0 | 0 | 0 |
| Future Vol, veh/h | 0 | 138 | 22 | 21 | 118 | 0 | 18 | 0 | 10 | 0 | 0 | 0 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Free | Free | Stop | Stop | Stop | Stop | Stop | Stop |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | 100 | - | - | 100 | - | - | 100 | - | 0 | - | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 0 | 150 | 24 | 23 | 128 | 0 | 20 | 0 | 11 | 0 | 0 | 0 |













| Major/Minor | Major1 | | | Major2 | | | Minor1 | | |
|----------------------|--------|---|---|--------|---|---|--------|---|-------|
| Conflicting Flow All | 128 | 0 | 0 | 174 | 0 | 0 | 336 | - | 162 |
| Stage 1 | - | - | - | - | - | - | 162 | - | - |
| Stage 2 | - | - | - | - | - | - | 174 | - | - |
| Critical Hdwy | 4.12 | - | - | 4.12 | - | - | 6.42 | - | 6.22 |
| Critical Hdwy Stg 1 | - | - | - | - | - | - | 5.42 | - | - |
| Critical Hdwy Stg 2 | - | - | - | - | - | - | 5.42 | - | - |
| Follow-up Hdwy | 2.218 | - | - | 2.218 | - | - | 3.518 | - | 3.318 |
| Pot Cap-1 Maneuver | 1458 | - | - | 1403 | - | 0 | 659 | 0 | 883 |
| Stage 1 | - | - | - | - | - | 0 | 867 | 0 | - |
| Stage 2 | - | - | - | - | - | 0 | 856 | 0 | - |
| Platoon blocked, % | | - | - | | - | | | | |
| Mov Cap-1 Maneuver | 1458 | - | - | 1403 | - | - | 648 | 0 | 883 |
| Mov Cap-2 Maneuver | - | - | - | - | - | - | 648 | 0 | - |
| Stage 1 | - | - | - | - | - | - | 867 | 0 | - |
| Stage 2 | - | - | - | - | - | - | 842 | 0 | - |

| Approach | EB | WB | NB |
|----------------------|----|-----|------|
| HCM Control Delay, s | 0 | 1.1 | 10.1 |
| HCM LOS | | | B |

| Minor Lane/Major Mvmt | NBLn1 | NBLn2 | EBL | EBT | EBR | WBL | WBT |
|-----------------------|-------|-------|------|-----|-----|-------|-----|
| Capacity (veh/h) | 648 | 883 | 1458 | - | - | 1403 | - |
| HCM Lane V/C Ratio | 0.03 | 0.012 | - | - | - | 0.016 | - |
| HCM Control Delay (s) | 10.7 | 9.1 | 0 | - | - | 7.6 | - |
| HCM Lane LOS | B | A | A | - | - | A | - |
| HCM 95th %tile Q(veh) | 0.1 | 0 | 0 | - | - | 0.1 | - |







7: MERIDIAN PARK DR & BENT GRASS MEADOWS DR

11/16/2023

| |  |  |  |  |  |  |  |  |  |  |  |  |
|-------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Traffic Volume (vph) | 0 | 131 | 20 | 350 | 129 | 0 | 13 | 0 | 307 | 0 | 0 | 0 |
| Future Volume (vph) | 0 | 131 | 20 | 350 | 129 | 0 | 13 | 0 | 307 | 0 | 0 | 0 |
| Confl. Peds. (#/hr) | | | | | | | | | | | | |
| Confl. Bikes (#/hr) | | | | | | | | | | | | |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| 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) | 0 | 142 | 22 | 380 | 140 | 0 | 14 | 0 | 334 | 0 | 0 | 0 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 0 | 142 | 22 | 380 | 140 | 0 | 0 | 348 | 0 | 0 | 0 | 0 |
| Intersection Summary | | | | | | | | | | | | |

HCM 6th TWSC
7: MERIDIAN PARK DR & BENT GRASS MEADOWS DR

2025 Total AM
11/16/2023

| Intersection | | | | | | | | | | | | |
|--------------------------|---|---|---|---|---|------|------|---|------|------|------|------|
| Int Delay, s/veh | 7.6 | | | | | | | | | | | |
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  |  |  |  |  | | |  | | | | |
| Traffic Vol, veh/h | 0 | 131 | 20 | 350 | 129 | 0 | 13 | 0 | 307 | 0 | 0 | 0 |
| Future Vol, veh/h | 0 | 131 | 20 | 350 | 129 | 0 | 13 | 0 | 307 | 0 | 0 | 0 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Free | Free | Stop | Stop | Stop | Stop | Stop | Stop |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | 150 | - | 150 | 150 | - | - | - | - | - | - | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 0 | 142 | 22 | 380 | 140 | 0 | 14 | 0 | 334 | 0 | 0 | 0 |

| Major/Minor | Major1 | | | Major2 | | | Minor1 | | |
|----------------------|--------|---|---|--------|---|---|--------|-------|-------|
| Conflicting Flow All | 140 | 0 | 0 | 164 | 0 | 0 | 1042 | 1042 | 142 |
| Stage 1 | - | - | - | - | - | - | 142 | 142 | - |
| Stage 2 | - | - | - | - | - | - | 900 | 900 | - |
| Critical Hdwy | 4.12 | - | - | 4.12 | - | - | 6.42 | 6.52 | 6.22 |
| Critical Hdwy Stg 1 | - | - | - | - | - | - | 5.42 | 5.52 | - |
| Critical Hdwy Stg 2 | - | - | - | - | - | - | 5.42 | 5.52 | - |
| Follow-up Hdwy | 2.218 | - | - | 2.218 | - | - | 3.518 | 4.018 | 3.318 |
| Pot Cap-1 Maneuver | 1443 | - | - | 1414 | - | 0 | 254 | 230 | 906 |
| Stage 1 | - | - | - | - | - | 0 | 885 | 779 | - |
| Stage 2 | - | - | - | - | - | 0 | 397 | 357 | - |
| Platoon blocked, % | - | - | - | - | - | - | - | - | - |
| Mov Cap-1 Maneuver | 1443 | - | - | 1414 | - | - | 186 | 0 | 906 |
| Mov Cap-2 Maneuver | - | - | - | - | - | - | 186 | 0 | - |
| Stage 1 | - | - | - | - | - | - | 885 | 0 | - |
| Stage 2 | - | - | - | - | - | - | 290 | 0 | - |

| Approach | EB | WB | NB |
|----------------------|----|-----|------|
| HCM Control Delay, s | 0 | 6.2 | 13.2 |
| HCM LOS | | | B |

| Minor Lane/Major Mvmt | NBLn1 | EBL | EBT | EBR | WBL | WBT |
|-----------------------|-------|------|-----|-----|-------|-----|
| Capacity (veh/h) | 783 | 1443 | - | - | 1414 | - |
| HCM Lane V/C Ratio | 0.444 | - | - | - | 0.269 | - |
| HCM Control Delay (s) | 13.2 | 0 | - | - | 8.5 | - |
| HCM Lane LOS | B | A | - | - | A | - |
| HCM 95th %tile Q(veh) | 2.3 | 0 | - | - | 1.1 | - |

Volume
2: MERIDIAN RD & BENT GRASS MEADOWS DR

2025 Total PM
11/16/2023



| Lane Group | EBL | EBR | NBL | NBT | SBT | SBR |
|-------------------------|------|------|------|------|------|------|
| Traffic Volume (vph) | 250 | 204 | 182 | 1517 | 1007 | 206 |
| Future Volume (vph) | 250 | 204 | 182 | 1517 | 1007 | 206 |
| Confl. Peds. (#/hr) | | | | | | |
| Confl. Bikes (#/hr) | | | | | | |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| 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) | 272 | 222 | 198 | 1649 | 1095 | 224 |
| Shared Lane Traffic (%) | | | | | | |
| Lane Group Flow (vph) | 272 | 222 | 198 | 1649 | 1095 | 224 |
| Intersection Summary | | | | | | |

Timings 2: MERIDIAN RD & BENT GRASS MEADOWS DR

2025 Total PM
11/16/2023



| Lane Group | EBL | EBR | NBL | NBT | SBT | SBR |
|----------------------|-------|-------|-------|-------|-------|-------|
| Lane Configurations | | | | | | |
| Traffic Volume (vph) | 250 | 204 | 182 | 1517 | 1007 | 206 |
| Future Volume (vph) | 250 | 204 | 182 | 1517 | 1007 | 206 |
| Turn Type | Prot | Perm | pm+pt | NA | NA | Perm |
| Protected Phases | 3 | | 5 | 2 | 6 | |
| Permitted Phases | | 4 | 2 | | | 6 |
| Detector Phase | 3 | 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 (%) | 21.7% | 21.7% | 13.0% | 56.5% | 43.5% | 43.5% |
| 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 | Lead | | Lag | Lag |
| Lead-Lag Optimize? | Yes | Yes | Yes | | Yes | Yes |
| Recall Mode | None | None | None | Max | Max | Max |
| Act Effect Green (s) | 12.8 | 7.6 | 60.2 | 60.2 | 45.3 | 45.3 |
| Actuated g/C Ratio | 0.13 | 0.08 | 0.63 | 0.63 | 0.47 | 0.47 |
| v/c Ratio | 0.59 | 0.67 | 0.62 | 0.74 | 0.65 | 0.26 |
| Control Delay | 44.9 | 16.8 | 19.3 | 15.9 | 22.4 | 3.3 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 44.9 | 16.8 | 19.3 | 15.9 | 22.4 | 3.3 |
| LOS | D | B | B | B | C | A |
| Approach Delay | 32.2 | | | 16.3 | 19.2 | |
| Approach LOS | C | | | B | B | |

Intersection Summary

Cycle Length: 115

Actuated Cycle Length: 95.7

Natural Cycle: 90

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.74

Intersection Signal Delay: 19.5

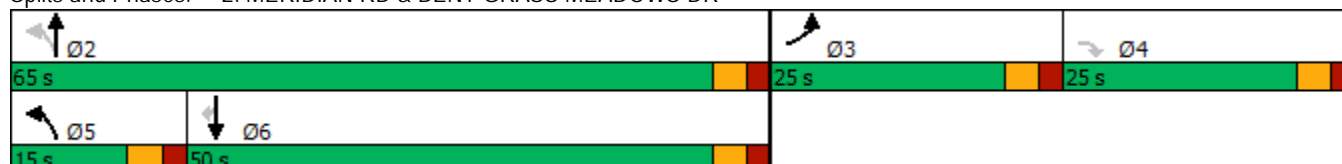
Intersection LOS: B

Intersection Capacity Utilization 57.6%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 2: MERIDIAN RD & BENT GRASS MEADOWS DR



HCM 6th Signalized Intersection Summary

2: MERIDIAN RD & BENT GRASS MEADOWS DR

2025 Total PM

11/16/2023



| Movement | EBL | EBR | NBL | NBT | SBT | SBR |
|------------------------------|------|------|------|------|------|------|
| Lane Configurations | ↰↱ | ↱ | ↰ | ↰↱ | ↰↱ | ↱ |
| Traffic Volume (veh/h) | 250 | 204 | 182 | 1517 | 1007 | 206 |
| Future Volume (veh/h) | 250 | 204 | 182 | 1517 | 1007 | 206 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | 1.00 | 1.00 | | | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach | No | | | No | No | |
| Adj Sat Flow, veh/h/ln | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h | 272 | 0 | 198 | 1649 | 1095 | 224 |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 381 | | 401 | 2710 | 2261 | 1009 |
| Arrive On Green | 0.11 | 0.00 | 0.06 | 0.76 | 0.64 | 0.64 |
| Sat Flow, veh/h | 3456 | 1585 | 1781 | 3647 | 3647 | 1585 |
| Grp Volume(v), veh/h | 272 | 0 | 198 | 1649 | 1095 | 224 |
| Grp Sat Flow(s),veh/h/ln | 1728 | 1585 | 1781 | 1777 | 1777 | 1585 |
| Q Serve(g_s), s | 6.0 | 0.0 | 2.7 | 16.2 | 12.7 | 4.7 |
| Cycle Q Clear(g_c), s | 6.0 | 0.0 | 2.7 | 16.2 | 12.7 | 4.7 |
| Prop In Lane | 1.00 | 1.00 | 1.00 | | | 1.00 |
| Lane Grp Cap(c), veh/h | 381 | | 401 | 2710 | 2261 | 1009 |
| V/C Ratio(X) | 0.71 | | 0.49 | 0.61 | 0.48 | 0.22 |
| Avail Cap(c_a), veh/h | 878 | | 515 | 2710 | 2261 | 1009 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 33.8 | 0.0 | 6.0 | 4.1 | 7.5 | 6.1 |
| Incr Delay (d2), s/veh | 2.5 | 0.0 | 0.9 | 1.0 | 0.7 | 0.5 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 2.6 | 0.0 | 0.6 | 2.2 | 3.4 | 1.2 |
| Unsig. Movement Delay, s/veh | | | | | | |
| LnGrp Delay(d),s/veh | 36.3 | 0.0 | 6.9 | 5.2 | 8.3 | 6.6 |
| LnGrp LOS | D | | A | A | A | A |
| Approach Vol, veh/h | 272 | | | 1847 | 1319 | |
| Approach Delay, s/veh | 36.3 | | | 5.4 | 8.0 | |
| Approach LOS | D | | | A | A | |
| Timer - Assigned Phs | 2 | | 5 | | 6 | 8 |
| Phs Duration (G+Y+Rc), s | 65.0 | | 9.9 | | 55.1 | 13.7 |
| Change Period (Y+Rc), s | 5.0 | | 5.0 | | 5.0 | 5.0 |
| Max Green Setting (Gmax), s | 60.0 | | 10.0 | | 45.0 | 20.0 |
| Max Q Clear Time (g_c+I1), s | 18.2 | | 4.7 | | 14.7 | 8.0 |
| Green Ext Time (p_c), s | 16.1 | | 0.2 | | 8.8 | 0.7 |

Intersection Summary













| | |
|--------------------|-----|
| HCM 6th Ctrl Delay | 8.8 |
| HCM 6th LOS | A |

Notes

Unsignalized Delay for [EBR] is excluded from calculations of the approach delay and intersection delay.







Volume
5: PRIVATE DR & BENT GRASS MEADOWS DR

2025 Total PM
11/16/2023

| |  |  |  |  |  |  |  |  |  |  |  |  |
|-------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Traffic Volume (vph) | 0 | 134 | 22 | 21 | 102 | 0 | 22 | 0 | 12 | 0 | 0 | 0 |
| Future Volume (vph) | 0 | 134 | 22 | 21 | 102 | 0 | 22 | 0 | 12 | 0 | 0 | 0 |
| Confl. Peds. (#/hr) | | | | | | | | | | | | |
| Confl. Bikes (#/hr) | | | | | | | | | | | | |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| 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) | 0 | 146 | 24 | 23 | 111 | 0 | 24 | 0 | 13 | 0 | 0 | 0 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 0 | 170 | 0 | 23 | 111 | 0 | 24 | 0 | 13 | 0 | 0 | 0 |
| Intersection Summary | | | | | | | | | | | | |

HCM 6th TWSC
5: PRIVATE DR & BENT GRASS MEADOWS DR

2025 Total PM
11/16/2023

| Intersection | | | | | | | | | | | | |
|--------------------------|---|---|------|---|---|------|---|------|---|------|------|------|
| Int Delay, s/veh | 1.6 | | | | | | | | | | | |
| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  |  | |  |  | |  | |  | | | |
| Traffic Vol, veh/h | 0 | 134 | 22 | 21 | 102 | 0 | 22 | 0 | 12 | 0 | 0 | 0 |
| Future Vol, veh/h | 0 | 134 | 22 | 21 | 102 | 0 | 22 | 0 | 12 | 0 | 0 | 0 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Free | Free | Stop | Stop | Stop | Stop | Stop | Stop |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | 100 | - | - | 100 | - | - | 100 | - | 0 | - | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 0 | 146 | 24 | 23 | 111 | 0 | 24 | 0 | 13 | 0 | 0 | 0 |













| Major/Minor | Major1 | | | Major2 | | | Minor1 | | |
|----------------------|--------|---|---|--------|---|---|--------|---|-------|
| Conflicting Flow All | 111 | 0 | 0 | 170 | 0 | 0 | 315 | - | 158 |
| Stage 1 | - | - | - | - | - | - | 158 | - | - |
| Stage 2 | - | - | - | - | - | - | 157 | - | - |
| Critical Hdwy | 4.12 | - | - | 4.12 | - | - | 6.42 | - | 6.22 |
| Critical Hdwy Stg 1 | - | - | - | - | - | - | 5.42 | - | - |
| Critical Hdwy Stg 2 | - | - | - | - | - | - | 5.42 | - | - |
| Follow-up Hdwy | 2.218 | - | - | 2.218 | - | - | 3.518 | - | 3.318 |
| Pot Cap-1 Maneuver | 1479 | - | - | 1407 | - | 0 | 678 | 0 | 887 |
| Stage 1 | - | - | - | - | - | 0 | 871 | 0 | - |
| Stage 2 | - | - | - | - | - | 0 | 871 | 0 | - |
| Platoon blocked, % | - | - | - | - | - | - | - | - | - |
| Mov Cap-1 Maneuver | 1479 | - | - | 1407 | - | - | 667 | 0 | 887 |
| Mov Cap-2 Maneuver | - | - | - | - | - | - | 667 | 0 | - |
| Stage 1 | - | - | - | - | - | - | 871 | 0 | - |
| Stage 2 | - | - | - | - | - | - | 857 | 0 | - |

| Approach | EB | WB | NB |
|----------------------|----|-----|------|
| HCM Control Delay, s | 0 | 1.3 | 10.1 |
| HCM LOS | | | B |

| Minor Lane/Major Mvmt | NBLn1 | NBLn2 | EBL | EBT | EBR | WBL | WBT |
|-----------------------|-------|-------|------|-----|-----|-------|-----|
| Capacity (veh/h) | 667 | 887 | 1479 | - | - | 1407 | - |
| HCM Lane V/C Ratio | 0.036 | 0.015 | - | - | - | 0.016 | - |
| HCM Control Delay (s) | 10.6 | 9.1 | 0 | - | - | 7.6 | - |
| HCM Lane LOS | B | A | A | - | - | A | - |
| HCM 95th %tile Q(veh) | 0.1 | 0 | 0 | - | - | 0 | - |







7: MERIDIAN PARK DR & BENT GRASS MEADOWS DR

11/16/2023

| |  |  |  |  |  |  |  |  |  |  |  |  |
|-------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Traffic Volume (vph) | 0 | 131 | 17 | 288 | 118 | 0 | 7 | 0 | 335 | 0 | 0 | 0 |
| Future Volume (vph) | 0 | 131 | 17 | 288 | 118 | 0 | 7 | 0 | 335 | 0 | 0 | 0 |
| Confl. Peds. (#/hr) | | | | | | | | | | | | |
| Confl. Bikes (#/hr) | | | | | | | | | | | | |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| 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) | 0 | 142 | 18 | 313 | 128 | 0 | 8 | 0 | 364 | 0 | 0 | 0 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 0 | 142 | 18 | 313 | 128 | 0 | 0 | 372 | 0 | 0 | 0 | 0 |
| Intersection Summary | | | | | | | | | | | | |

HCM 6th TWSC
7: MERIDIAN PARK DR & BENT GRASS MEADOWS DR

2025 Total PM
11/16/2023

| 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 | 131 | 17 | 288 | 118 | 0 | 7 | 0 | 335 | 0 | 0 | 0 |
| Future Vol, veh/h | 0 | 131 | 17 | 288 | 118 | 0 | 7 | 0 | 335 | 0 | 0 | 0 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Free | Free | Stop | Stop | Stop | Stop | Stop | Stop |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | 150 | - | 150 | 150 | - | - | - | - | - | - | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 0 | 142 | 18 | 313 | 128 | 0 | 8 | 0 | 364 | 0 | 0 | 0 |

| Major/Minor | Major1 | | | Major2 | | | Minor1 | | |
|----------------------|--------|---|---|--------|---|---|--------|-------|-------|
| Conflicting Flow All | 128 | 0 | 0 | 160 | 0 | 0 | 896 | 896 | 142 |
| Stage 1 | - | - | - | - | - | - | 142 | 142 | - |
| Stage 2 | - | - | - | - | - | - | 754 | 754 | - |
| Critical Hdwy | 4.12 | - | - | 4.12 | - | - | 6.42 | 6.52 | 6.22 |
| Critical Hdwy Stg 1 | - | - | - | - | - | - | 5.42 | 5.52 | - |
| Critical Hdwy Stg 2 | - | - | - | - | - | - | 5.42 | 5.52 | - |
| Follow-up Hdwy | 2.218 | - | - | 2.218 | - | - | 3.518 | 4.018 | 3.318 |
| Pot Cap-1 Maneuver | 1458 | - | - | 1419 | - | 0 | 311 | 280 | 906 |
| Stage 1 | - | - | - | - | - | 0 | 885 | 779 | - |
| Stage 2 | - | - | - | - | - | 0 | 465 | 417 | - |
| Platoon blocked, % | - | - | - | - | - | - | - | - | - |
| Mov Cap-1 Maneuver | 1458 | - | - | 1419 | - | - | 242 | 0 | 906 |
| Mov Cap-2 Maneuver | - | - | - | - | - | - | 242 | 0 | - |
| Stage 1 | - | - | - | - | - | - | 885 | 0 | - |
| Stage 2 | - | - | - | - | - | - | 362 | 0 | - |

| Approach | EB | WB | NB |
|----------------------|----|-----|------|
| HCM Control Delay, s | 0 | 5.9 | 12.4 |
| HCM LOS | | | B |

| Minor Lane/Major Mvmt | NBLn1 | EBL | EBT | EBR | WBL | WBT |
|-----------------------|-------|------|-----|-----|-------|-----|
| Capacity (veh/h) | 858 | 1458 | - | - | 1419 | - |
| HCM Lane V/C Ratio | 0.433 | - | - | - | 0.221 | - |
| HCM Control Delay (s) | 12.4 | 0 | - | - | 8.3 | - |
| HCM Lane LOS | B | A | - | - | A | - |
| HCM 95th %tile Q(veh) | 2.2 | 0 | - | - | 0.8 | - |