



COYOTE CREEK ELEMENTARY  
TO TRAILBLAZER ELEMENTARY  
CONSOLIDATION WITHOUT 6TH  
GRADE

Traffic Impact Study

Project Number: 1124175

Prepared For: Douglas County  
School District

March 21, 2025



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## Traffic Impact Study

Highlands Ranch, Colorado

Project Number: 1124175

Prepared For: Douglas County School District  
Planning and Construction  
2808 Highway 85, Building B  
Castle Rock, Colorado 80109

March 21, 2025



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## EXECUTIVE SUMMARY

Douglas County School District is considering options for consolidating schools in Highlands Ranch, Colorado. One option being considered is moving Coyote Creek Elementary into Trailblazer Elementary. In addition, the 6<sup>th</sup> grade students will be moved from the elementary schools to a middle school. This traffic impact study addresses existing traffic patterns and potential traffic challenges at Trailblazer Elementary, while considering the anticipated increase in traffic caused by the school consolidation.

Trailblazer has a parking area on the southeast side of the building, which is connected to a two-lane pick-up and drop-off access drive. There is also another drop-off and pick-up drive on the west side of the building. Two pedestrian crosswalks are located to the south of the school crossing Hackberry Street, and another two to the west, crossing the same street. School bus service is provided for individuals within Trailblazer's attendance boundary but is restricted to individuals living more than one mile from the school. This bus service will be expanded for Coyote Creek students who qualify after relocating to Trailblazer.

The projected 2028-2029 combined enrollment is 1,038 students without 6<sup>th</sup> Grade. These projected combined enrollment numbers are 106 percent more than the previous maximum Trailblazer enrollment. When the existing traffic is relocated to the new school, additional students will be eligible to take the bus. It is anticipated that about 1/3 of the Coyote Creek students will be newly eligible to take the bus to school. Students who currently walk to Coyote Creek are unlikely to walk to Trailblazer due to distance and crossing a major roadway, therefore, it is assumed that these students will now be driven to school and count as a new vehicular trip to Trailblazer. Taking the estimated street parking trips into account, the ingress/egress trips, pedestrians and bicyclists converted to vehicle trips, anticipated carpooling and the subtraction of new bus ridership, the resulting increase in trip demand for Trailblazer is about 269 trips during the morning peak hour and 249 trips during the afternoon peak hour.

Traffic will be increased with the additional enrollment, but additional bus service will be offered, limiting the impact of the increased enrollment. Consolidating school populations at Trailblazer would cause the school population to more than double its previous historical maximum enrollment. To address existing and potential future traffic challenges the following mitigation measures are recommended:

- Coordinate with Douglas County to modify signal timing at Highlands Ranch Parkway and Spring Hill Parkway. Douglas County has a robust signal timing program which optimizes timing for prevailing conditions.
- Coordinate with Douglas County to review and potentially convert the Hackberry Street and Spring Hill Parkway intersection to a 4-way stop. This modification would increase traffic flow during school drop-off and pick-up but reduce flow during normal conditions. Douglas County follows MUTCD standards for determining the proper intersection traffic control and would not add pavement markings or signage unless warranted.
- Add pavement markings and signage on Hackberry Street at Spring Hill Parkway to create a shared eastbound through/left-turn lane and a dedicated eastbound right-turn lane. The existing pavement width should accommodate the layout. Douglas County follows MUTCD standards for determining the proper intersection traffic control and would not add pavement markings or signage unless warranted.

# 1. INTRODUCTION

## 1.1 Study Purpose and Scope

The purpose of this Traffic Impact Study (TIS) is to discuss the existing traffic patterns at Trailblazer Elementary (Trailblazer) and potential mitigation measures for current traffic and potential increased traffic due to increased enrollment caused by school consolidations. A potential school consolidation option includes having Coyote Creek Elementary (Coyote Creek) consolidate into Trailblazer. In addition, the 6<sup>th</sup> grade students will be moved from the elementary schools to a middle school.

The scope of this TIS includes assessing school driveways, nearby intersections, school parking lots, school drop-off and pick-up locations, traffic flow, bicycle and pedestrian facilities, and general traffic challenges at Trailblazer.

## 1.2 Study Area

Trailblazer Elementary School is located at 9760 Hackberry Street in the western region of Highlands Ranch. This is near the intersection of Westridge Knolls Avenue at Timbervale Trail. The parcel number for the property is 222908424021. A vicinity map showing the school's location is provided as **Figure 1**.



**Figure 1: Vicinity Map**

The study area was determined through consultation with Douglas County School District (DCSD) ) and Douglas County and potentially impacted intersections were identified. Each school access and adjacent streets are included in the TIS study area as well as the following intersections:

- Highlands Ranch Parkway at Westridge Village Parkway
- Highlands Ranch Parkway at Wildcat Reserve Parkway/Spring Hill Parkway

Neighborhood local and collector streets are analyzed for safety challenges, bicycle and pedestrian facilities, parking availability, and queueing lengths. Larger intersections at arterial streets are analyzed for the same items, but also for accident history and traffic signal warrant criteria if a traffic signal is not present.

### 1.3 School Description

#### Trailblazer

Trailblazer has a start time of 8:30 AM and an end time of 3:30 PM. The school is located in the neighborhood to the northwest of the intersection of Wildcat Reserve Parkway at Highlands Ranch Parkway. Trailblazer has a parking area on the southeast side of the building, which is connected to a two-lane pick-up and drop-off access drive. There is also another drop-off and pick-up drive on the west side of the building. Two pedestrian crosswalks are located to the south of the school crossing Hackberry Street, and another two to the west, crossing the same street. Trailblazer has a maximum Capacity of 800 students but the largest enrollment since 2013 is 508 students.

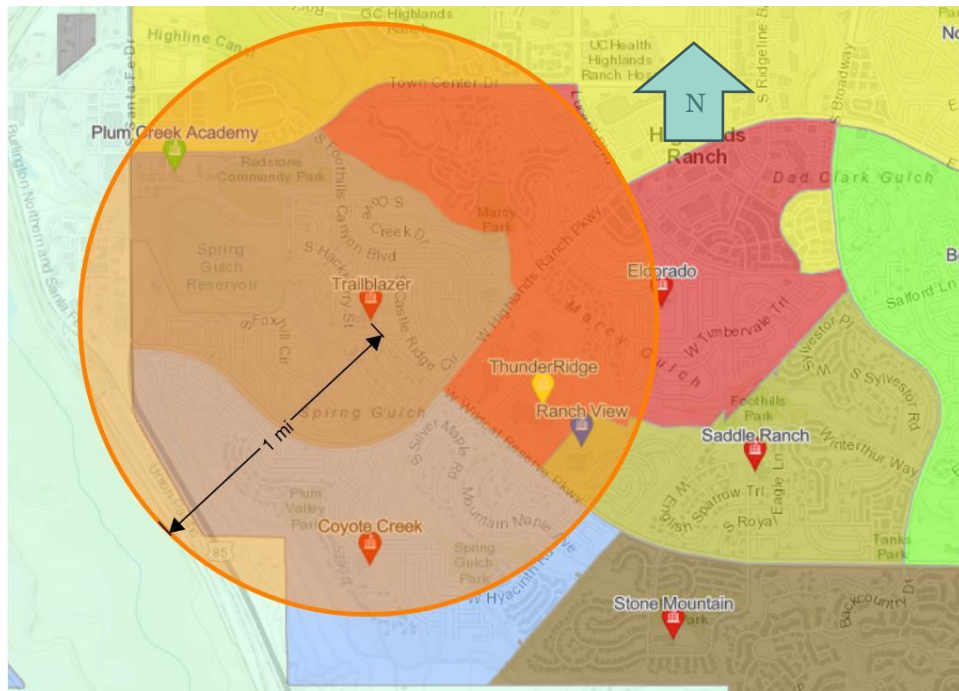
School bus service is provided for individuals within Trailblazer's attendance boundary but is restricted to individuals living more than one mile from the school. **Figure 2** depicts Trailblazer's local attendance boundary in grey with the orange circle representing the walking radius. As depicted, the entire local attendance boundary is within one mile, so no local bus service is provided. However, Trailblazer does serve a portion of the developing Sterling Ranch neighborhood to the southwest and one school bus route is provided from that neighborhood to Trailblazer. As of November 2024, 20 individuals are eligible to receive bus service, and 14 individuals have used the bus service which is a 70 percent rate.

#### Coyote Creek

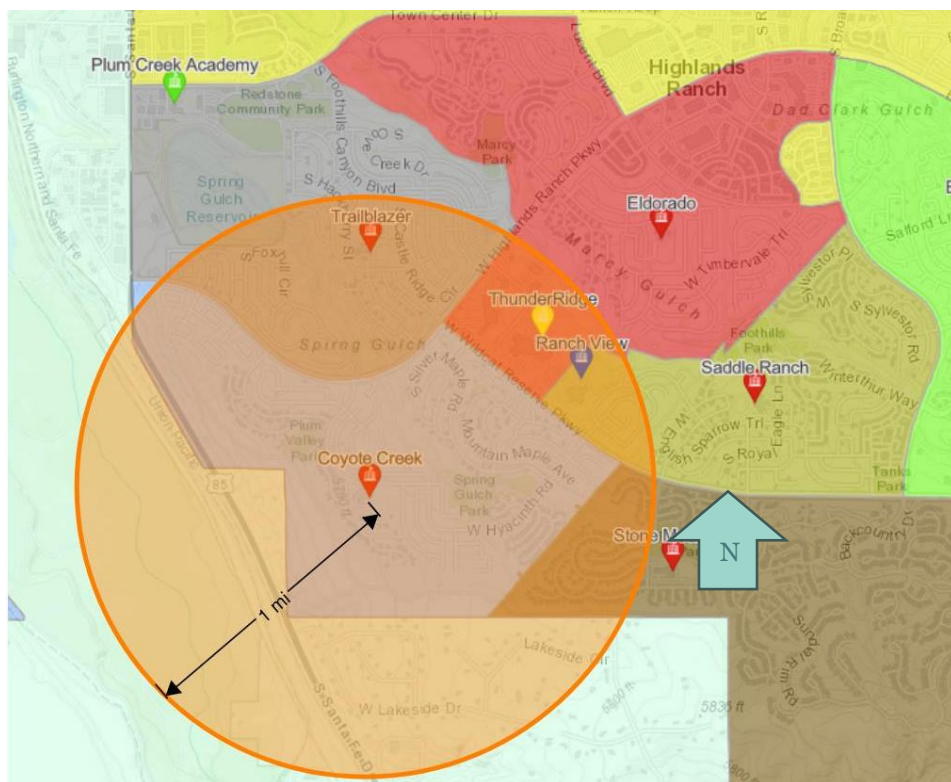
Coyote Creek has a start time of 8:40 AM and an end time of 3:30 PM. The school is located in the neighborhood to the south of the intersection of Highlands Ranch Parkway at Wildcat Reserve Parkway. Coyote Creek has a maximum Capacity of 800 students but the largest enrollment since 2013 is 502 students.

School bus service is provided for individuals within Coyote Creek's attendance boundary but is restricted to individuals living more than one mile from the school. **Figure 3** depicts Coyote Creek's local attendance boundary in blue with the orange circle representing the walking radius. As depicted, the entire local attendance boundary is within one mile, so no local bus service is provided. However, Coyote Creek does serve a portion of the developing Sterling Ranch neighborhood to the southwest and three school bus routes are provided from that neighborhood to Coyote Creek. As of November 2024, 169 individuals are eligible to receive bus service, and 141 individuals have used the bus service which is an 83 percent rate. Many of the students attending Coyote Creek do not live within 1 mile of Trailblazer. Therefore, they would qualify for bus service to Trailblazer.





**Figure 2: Trailblazer Bus Service Map**



**Figure 3: Coyote Creek Bus Service Map**

## 2. EXISTING CONDITIONS

### 2.1 Site Observation

A site observation was performed at Trailblazer on November 19, 2024. Field notes from the site observation are included in **Appendix A**. The morning site observation was conducted from 7:45 AM through 9:15 AM and the afternoon site observation was conducted from 2:45 PM through 4:00 PM. Key observations included:

- Increased Congestion on Hackberry Street and Spring Hill Parkway
- High volumes of pedestrians crossing Hackberry Street
- Sight visibility challenges while exiting the parking lot

### 2.2 Roadway Network

The Highlands Ranch roadway network is maintained by Douglas County. Trailblazer is situated within a built-out neighborhood and is surrounded by local and neighborhood collector streets. The main accesses to the neighborhood are from Highlands Ranch Parkway at Spring Hill Parkway and Highlands Ranch Parkway at Foothills Canyon Boulevard with Highlands Ranch Parkway being the main arterial street closest to the school. Spring Hill Parkway extends from the school entrance to a signalized intersection at Highlands Ranch Parkway. Additionally, a signalized intersection is present at Wildcat Reserve Parkway & Highlands Ranch Parkway.

Coyote Creek traffic driving to Trailblazer will mainly use Highlands Ranch Parkway from Westridge Village Parkway, or Wildcat Reserve Parkway. **Figure 4** depicts the most likely route that would be taken from Coyote Creek to Trailblazer.

School zone flashers operate from 8:10 to 8:50 AM and from 3:20 to 4:00 PM. Flashers are located on Hackberry Street, offset approximately 100 feet outside the school property line.



**Figure 4 – Route from Coyote Creek to Trailblazer**

### Highlands Ranch Parkway at Westridge Village Parkway

The intersection of Highlands Ranch Parkway at Westridge Village Parkway is signalized with protected/permissive left-turn lanes/phases for Highlands Ranch Parkway Traffic and permissive movements for Westridge Village Parkway. **Figure 5** shows an aerial of the intersection with the current intersection layout.

The Highlands Ranch Parkway left-turn lanes have approximately 100 feet of storage length and 100 feet of taper length before transitioning to a striped median. There are two through lanes and bike lanes provided for each direction of traffic with no dedicated right-turn lanes.

Westridge Village Parkway extends to the south and Deer Creek Street extends to the north. Deer Creek Street at the intersection does not widen, but striping is provided for a through/right-turn lane in each direction and a left-turn lane to eastbound Highlands Ranch Parkway. Westridge Village Parkway widens to provide a dedicated right-turn lane, through lane, and left-turn lane with approximately 100 feet of storage. Bike lanes are provided on Westridge Village Parkway, but merge with traffic prior to the intersection.





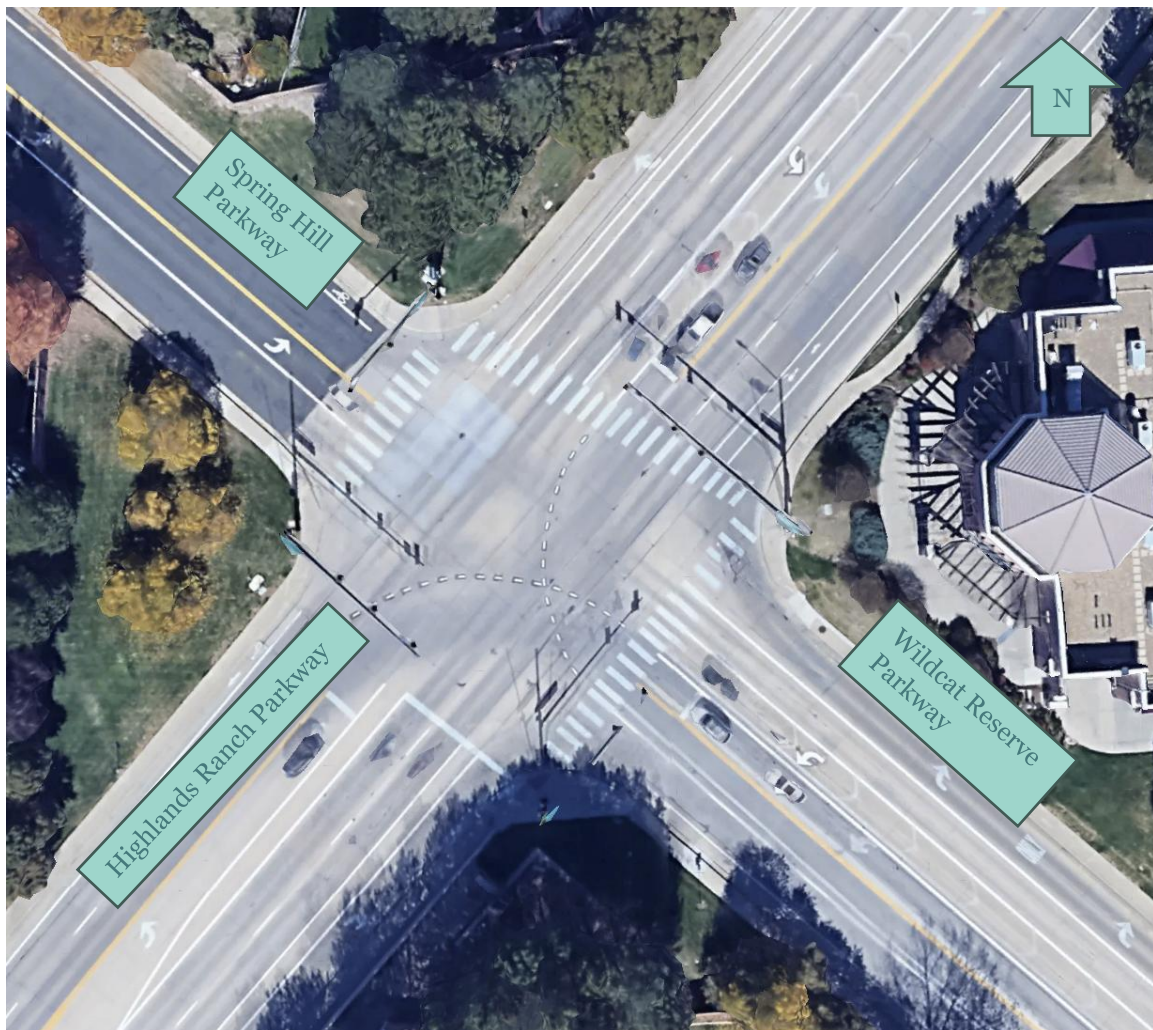
**Figure 5 – Highlands Ranch Parkway at Westridge Village Parkway**

### **Highlands Ranch Parkway at Wildcat Reserve Parkway/Spring Hill Parkway**

The intersection of Highlands Ranch Parkway at Wildcat Reserve Parkway and Spring Hill Parkway is signalized with protected/permissive left-turn lanes/phases for Highlands Ranch Parkway Traffic and protected/permissive movements for Wildcat Reserve Parkway and Spring Hill Parkway. **Figure 6** shows an aerial of the intersection with the current intersection layout.

Highlands Ranch Parkway left-turn lanes have approximately 125 feet of storage length and 75 feet of taper length for eastbound traffic, and approximately 220 feet of storage length and 80 feet of taper length for westbound traffic, before transitioning to a striped median. There are two through lanes and one bike lane provided for each direction of traffic with a dedicated right-turn lane in each direction. The westbound dedicated right-turn lane is a drop lane starting at Foothills Canyon Boulevard.

Wildcat Reserve Parkway extends to the southeast and Spring Hill Parkway extends to the northwest of the intersection. Each approach provides one through lane and a bike lane in each direction. Wildcat Reserve Parkway has dual dedicated left turn lanes, which combine to provide approximately 770 feet of storage, and a dedicated right turn lane. The left turn lane contains 140 feet of storage with a 90-foot taper.



**Figure 6: Highlands Ranch Parkway at Wildcat Reserve Parkway/Spring Hill Parkway**

### Roadway Characteristics

General features of the roadways along the route from Coyote Creek to Trailblazer are summarized in **Table 1**.

**Table 1 – Roadway Characteristics**

| Roadway                 | Westridge Village Parkway | Highlands Ranch Parkway | Spring Hill Parkway |
|-------------------------|---------------------------|-------------------------|---------------------|
| Speed Limit             | 25 mph                    | 45 mph                  | 25 mph              |
| Number of Through Lanes | 2                         | 4                       | 2                   |
| Lane Width              | 11 feet                   | 12 feet                 | 12 feet             |
| Bike Lane Width         | 5 feet                    | 5 feet                  | 5 feet              |
| Median                  | None                      | Striped                 | None                |
| On-Street Parking       | West side                 | None                    | None                |



## 2.3 Traffic Volumes

Traffic data collection was conducted by Rekor Systems (All Traffic Data) on Wednesday, November 13, 2024. Traffic volumes were collected at the following applicable intersections:

- Highlands Ranch Parkway at Westridge Village Parkway
- Highlands Ranch Parkway at Wildcat Reserve Parkway/Spring Hill Parkway
- Hackberry Street at east parking lot entrance
- Hackberry Street at west parking lot entrance
- Hackberry Street at south bus loop entrance
- Hackberry Street at north bus loop entrance

Traffic count data is summarized in **Table 2** and is included in **Appendix B**. The existing traffic is shown in **Figure 107**.

## 2.4 Existing Level of Service

The existing capacity analysis for the key intersections included in **Table 2** was evaluated using Synchro 11 Software (Synchro). The resulting level of service (LOS) and delay are summarized in **Table 9** provided in **Section 4** of this report for comparison to the future projected traffic capacity analysis.

Existing traffic signal timing plans provided by Douglas County are included in **Appendix C**.

Level of service reports from Synchro are included in **Appendix D**.

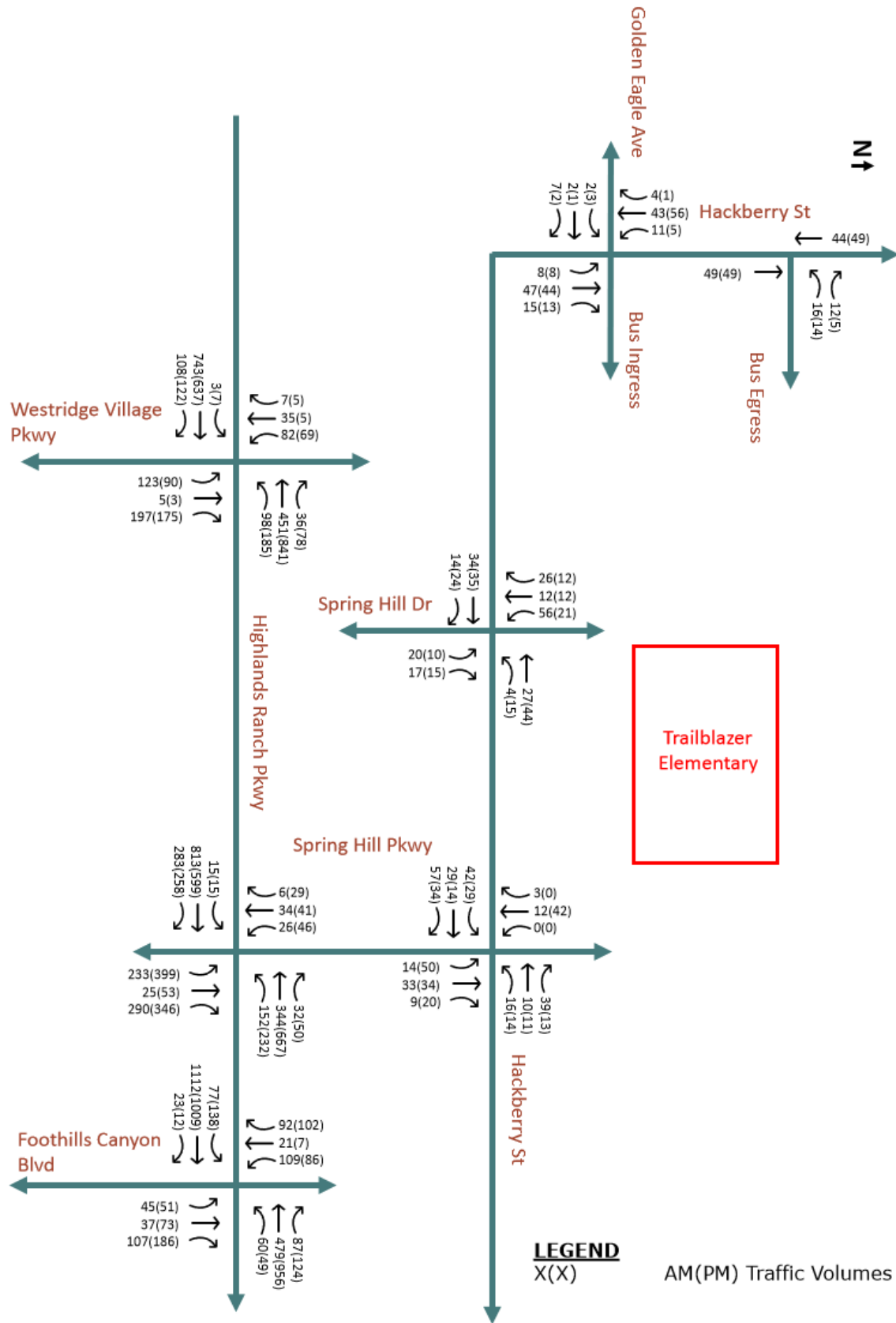


Figure 7 – Existing Traffic

**Table 2 – Traffic Volume Summary**

| Intersection                                 | Peak Hour | EBL | EBT  | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|----------------------------------------------|-----------|-----|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Hackberry St & Bus Egress                    | AM        | -   | -    | -   | 16  | -   | 12  | -   | 49  | -   | -   | 44  | -   |
|                                              | PM        | -   | -    | -   | 14  | -   | 5   | -   | 49  | -   | -   | 49  | -   |
| Hackberry St & Golden Eagle Ave/Bus Ingress  | AM        | 2   | 2    | 7   | -   | -   | -   | 8   | 47  | 15  | 11  | 43  | 4   |
|                                              | PM        | 3   | 1    | 2   | -   | -   | -   | 8   | 44  | 13  | 5   | 56  | 1   |
| Hackberry St & Spring Hill Dr                | AM        | -   | 34   | 14  | 4   | 27  | -   | 20  | -   | 17  | 56  | 12  | 26  |
|                                              | PM        | -   | 35   | 24  | 15  | 44  | -   | 10  | -   | 15  | 21  | 12  | 12  |
| Hackberry St & Spring Hill Pkwy              | AM        | 42  | 29   | 57  | 16  | 10  | 39  | 14  | 33  | 9   | 0   | 12  | 3   |
|                                              | PM        | 29  | 14   | 34  | 14  | 11  | 13  | 50  | 34  | 20  | 0   | 42  | 0   |
| Spring Hill Pkwy & Highlands Ranch Pkwy      | AM        | 15  | 813  | 283 | 152 | 344 | 32  | 233 | 25  | 290 | 26  | 34  | 6   |
|                                              | PM        | 15  | 599  | 258 | 232 | 667 | 50  | 399 | 53  | 346 | 46  | 41  | 29  |
| Westridge Village Pkwy & Highland Ranch Pkwy | AM        | 3   | 743  | 108 | 98  | 451 | 36  | 123 | 5   | 197 | 82  | 5   | 7   |
|                                              | PM        | 7   | 637  | 122 | 185 | 841 | 78  | 90  | 3   | 175 | 69  | 5   | 5   |
| Highlands Ranch Pkwy & Foothills Canyon Blvd | AM        | 77  | 1112 | 23  | 60  | 479 | 87  | 45  | 37  | 107 | 109 | 21  | 92  |
|                                              | PM        | 138 | 1009 | 12  | 49  | 956 | 124 | 51  | 73  | 186 | 86  | 7   | 102 |

## 2.5 Traffic Safety Analysis

### Intersection Crash Analysis

Crash history was reviewed at the intersections of Highlands Ranch Parkway at Westridge Village Parkway and Highlands Ranch Parkway at Wildcat Reserve Parkway. Crashes were reviewed for the period between 2019 and 2024. **Table 3** Summarizes the year-by-year crash data for the intersections.

Crash diagrams and a listing of crashes are provided in **Appendix E**.

#### Highlands Ranch Parkway and Westridge Village Parkway

There was a total of 18 crashes at Highlands Ranch Parkway and Wildcat Reserve Parkway over the course of the study period. Five of these involved injuries. It is not known how many of these accidents involved a left turn, how many were at night, or how many involved a 3<sup>rd</sup> vehicle or bicycle.

#### Highlands Ranch Parkway and Wildcat Reserve Parkway

There was a total of 42 crashes at Highlands Ranch Parkway and Wildcat Reserve Parkway over the course of the study period. Nine of these involved injuries. Of the 42 crashes, 22 involved a left turn, and 6 were at night. Two of these accidents involved a 3<sup>rd</sup> vehicle and one involved a bicycle.

**Table 3 – Annual Crash Summary**

| Year | Highlands Ranch Pkwy & Westridge Village Pkwy | Highlands Ranch Pkwy & Wildcat Reserve Parkway |
|------|-----------------------------------------------|------------------------------------------------|
| 2019 | 3                                             | 8                                              |
| 2020 | 2                                             | 5                                              |
| 2021 | 2                                             | 8                                              |
| 2022 | 4                                             | 10                                             |
| 2023 | 3                                             | 6                                              |
| 2024 | 4                                             | 5                                              |

### School Safety

Students are picked up and dropped off primarily via the parking lot to the southeast of the school building. A two-lane, one-way aisle facilitates traffic, with the right lane used to pick-up and drop-off students, and the left lane used to exit the queue. On-street parking is provided for both sides of Hackberry Street. Bike lanes are not present. In the morning hours, drivers exiting the parking lot appeared to have trouble turning right onto Hackberry, due to the low sun and the limited visibility from the on-street parking.

## 3. TRIP PROJECTIONS

### 3.1 Projected Traffic

Douglas County School District (DCSD) is considering a potential school consolidation option that would consolidate Coyote Creek Elementary into Trailblazer. The consolidation option includes moving 6<sup>th</sup> Grade to the separate middle school. **Table 4** provides data on student enrollment for Coyote Creek and Trailblazer with and without 6<sup>th</sup> Grade.

**Table 4 – School Enrollment**

| School       | Ideal Capacity per DCSD | Maximum Historic Enrollment | 2023-2024 Enrollment Count** | Projected 2028-2029 Enrollment** |
|--------------|-------------------------|-----------------------------|------------------------------|----------------------------------|
| Coyote Creek | 506                     | 502                         | 430                          | 693                              |
| Trailblazer  | 437                     | 508                         | 269                          | 345                              |
| Combined     | -                       | -                           | -                            | 1,038                            |

\*\*Enrollment values include Pre-School through 5<sup>th</sup> Grade. 6<sup>th</sup> Grade enrollment was assumed to 1/7 of Kindergarten through 6<sup>th</sup> Grade enrollment.

The projected 2028-2029 combined enrollment is 1,038 students without 6<sup>th</sup> Grade. These projected combined enrollment numbers are 106 percent more than the previous maximum Trailblazer enrollment.

### 3.2 Trip Generation

Trip generation calculations were calculated based on the number of additional students that will be transferring from Coyote Creek to Trailblazer. For the purposes of this report, it is assumed the existing 2024 Trailblazer traffic and enrollment will see negligible changes by the 2025-2026 school year. Therefore, the trip generation does not focus on the total future enrollment for Trailblazer with the addition of Coyote Creek students. The trip generation calculations are therefore only based on the existing Coyote Creek traffic and enrollment. The trip generation was calculated multiple ways to account for the transfer of Coyote Creek students to Trailblazer. First the Institute of Transportation Engineers (ITE) Trip Generation web-based application was used to calculate the trip generation for three different types of elementary schools or land use codes (LUC) as follows:

- Public Elementary School (LUC 520)
- Private School K-8 (LUC 530)
- Charter School (LUC 536)

The relocation of students from one elementary school to the other has similarities to each of the three land uses evaluated using the ITE Trip Generation approach, however, this is a unique scenario and therefore the three land uses are not entirely representative of this scenario. A unique approach was therefore evaluated using existing traffic data and field observations at Coyote Creek to understand the current traffic demand at the school and how that traffic demand is anticipated to change when relocated



to Trailblazer. The following considerations were taken into account to determine the anticipated number of trips added to Trailblazer for this scenario:

- Calculate the existing ingress and egress traffic for parent drop-off and pick-up in the designated parking areas (parking lot and bus areas) using the existing traffic data collected
- Field observations of street parking adjacent to the school for drop-off and pick-up of students
- Students walking or riding a bike to/from the school using the existing traffic data collected
- Current bus ridership
- New bus ridership eligibility (outside 1 mile radius)
- Anticipated number of students “carpooling” with siblings or classmates after subtracting trips accounted for with existing traffic data, bus ridership, pedestrians/bicyclists and estimated street parking drop-off/pick-up from the student population.
- Reduce enrollment by 1/7<sup>th</sup> and subtract the 6<sup>th</sup> grade traffic from the trip generation numbers

The results of these considerations are summarized in the following table:

**Table 5 – Coyote Creek Existing Traffic Considerations**

| Peak Hour | Enrollment | Existing Bus Riders | Traffic Data Ingress/Egress | Ped & Bike | Estimated Street Parking | Calculated Carpooling |
|-----------|------------|---------------------|-----------------------------|------------|--------------------------|-----------------------|
| AM        | 502        | 141                 | 171                         | 64         | 26                       | 100                   |
| PM        |            |                     | 99                          | 106        |                          | 130                   |

When the existing traffic is relocated to the new school, additional students will be eligible to take the bus. It is anticipated that about **1/3** of the Coyote Creek students will be newly eligible to take the bus to school. Assuming the ridership percentage remains the same as the current bus ridership, ridership for these newly eligible students will also be about **83%** which results in an additional **119** students riding the bus to school for a total of **260** students from Coyote Creek taking the bus to Trailblazer.

Students who currently walk to Coyote Creek are unlikely to walk to Trailblazer due to distance and crossing a major roadway, therefore, it is assumed that these students will now be driven to school and count as a new vehicular trip to Trailblazer. Taking the estimated street parking trips into account, the ingress/egress trips, pedestrians and bicyclists converted to vehicle trips, anticipated carpooling and the subtraction of new bus ridership, the resulting increase in trip demand for Trailblazer is about **269** trips during the morning peak hour and **249** trips during the afternoon peak hour.

A summary of the trip generation comparison is summarized in **Table 6**.

**Table 6 – Trip Generation Comparison**

| ITE LUC | Description                     | Units    | Quant | AM Peak - Generator Peak |         |        | PM Peak - Generator Peak |         |        |
|---------|---------------------------------|----------|-------|--------------------------|---------|--------|--------------------------|---------|--------|
|         |                                 |          |       | Total                    | Ingress | Egress | Total                    | Ingress | Egress |
| -       | Existing Data Based Calculation | Students | 430   | 269                      | 135     | 135    | 249                      | 124     | 124    |
| 520     | Public Elementary School        | Students | 430   | 323                      | 174     | 148    | 194                      | 89      | 105    |
| 530     | Private School (K-8)            | Students | 430   | 435                      | 243     | 191    | 258                      | 121     | 137    |
| 536     | Charter Elementary School       | Students | 430   | 460                      | 244     | 216    | 310                      | 152     | 158    |

### 3.3 Trip Distribution/Assignment

The trip distribution and assignment were evaluated by first reviewing the attendance boundaries for Coyote Creek to get an idea of the population density within the boundary limits. Then the distribution of traffic within the Coyote Creek boundary and the directions of approach for arriving at Trailblazer was estimated by percentage. The resulting Trip Distribution shown in **Figure 8**.

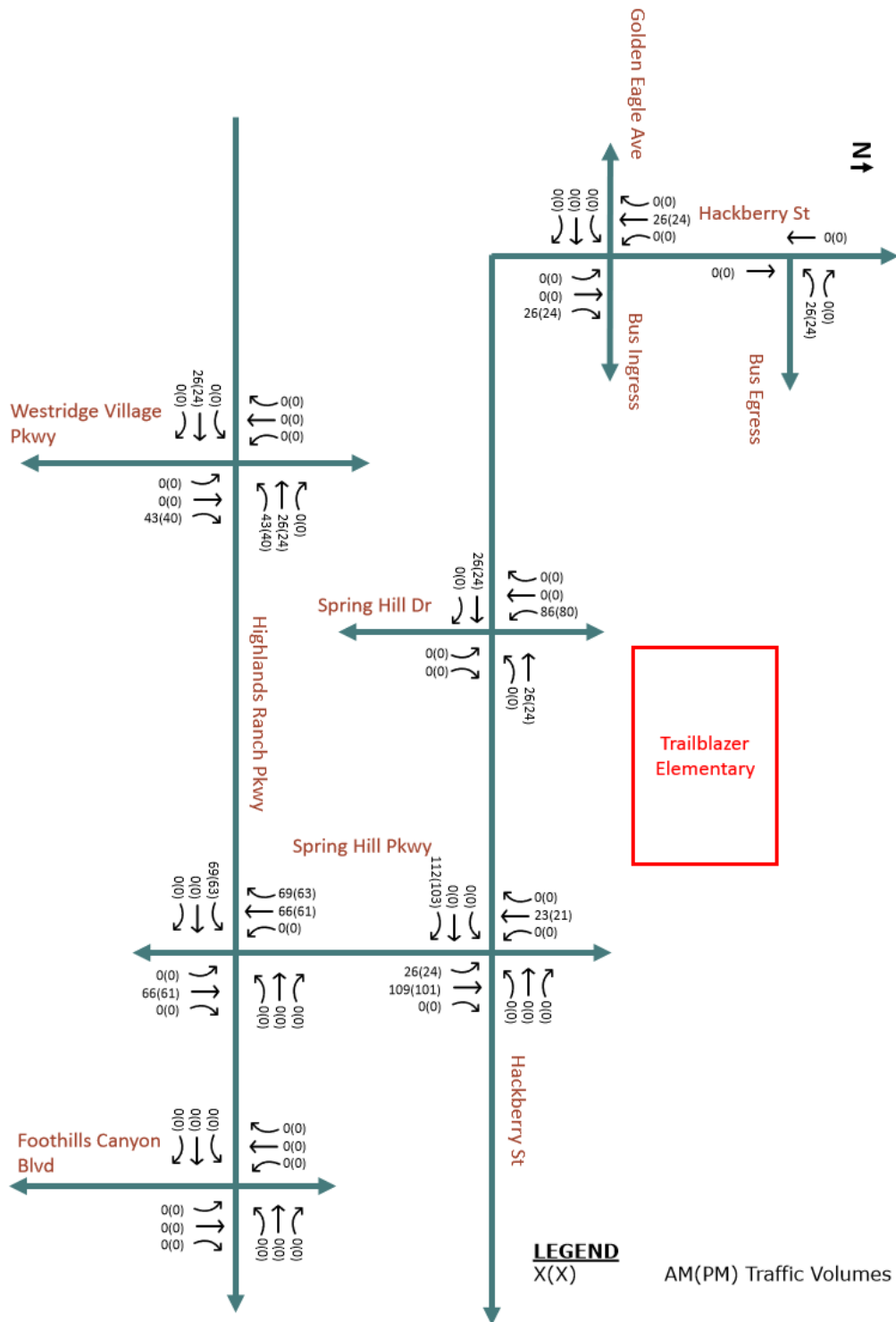


**Figure 8 – Trip Distribution**

Based on the Trip Distribution, the trips turning movements were then assigned to the key intersections evaluated in as a part of this TIS.

- Highlands Ranch Parkway at Westridge Village Parkway
- Highlands Ranch Parkway at Wildcat Reserve Parkway/Spring Hill Parkway
- Hackberry Street at east parking lot entrance
- Hackberry Street at west parking lot entrance
- Hackberry Street at south bus loop entrance
- Hackberry Street at north bus loop entrance

The resulting trip assignment is shown in **Figure 9**.



**Figure 9 – Trip Assignment**

In addition to the new anticipated trips for Coyote Creek students transferring to Trailblazer, the existing trips to Coyote Creek will also be removed for a few of the key intersections. Certain turning movements accounting for the current arrival of drivers to Coyote Creek would be reduced in this new scenario. Using the trip distribution and the existing distribution of ingress and egress trips for Coyote Creek, the estimated reduction for certain turning movements was estimated. The resulting reductions are summarized in **Table 7**.



**Table 7 – Trailblazer Turning Movement Reductions**

| Intersection                                 | Peak Hour | EBR | WBL | NBL | NBR |
|----------------------------------------------|-----------|-----|-----|-----|-----|
| Spring Hill Pkwy & Highlands Ranch Pkwy      | AM        | -33 | 0   | -33 | 0   |
|                                              | PM        | -21 | 0   | -21 | 0   |
| Westridge Village Pkwy & Highland Ranch Pkwy | AM        | -37 | -33 | -37 | -33 |
|                                              | PM        | -24 | -21 | -24 | -21 |

Additional turning movement reductions were estimated for the Trailblazer 6<sup>th</sup> grade traffic that travel to the middle school and no longer travel to Trailblazer. As with Coyote Creek, it is assumed that the 6<sup>th</sup> grade class accounts for 1/7<sup>th</sup> of the traffic. Therefore, the ingress traffic will be reduced by 28 trips during the morning peak and 17 during the afternoon peak while the egress traffic is anticipated to be reduced by 23 trips during the morning peak and 17 during the afternoon peak. These reductions were distributed across the intersections based on the anticipated trip distribution for the traffic within the existing Trailblazer boundaries. The resulting reductions are summarized in **Table 8**. These reductions were also incorporated into the Total traffic calculation.

**Table 8 – Trailblazer Turning Movement Reductions**

| Intersection                                 | Peak Hour | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|----------------------------------------------|-----------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Hackberry St & Bus Egress                    | AM        |     |     |     | -2  |     | -2  |     |     |     |     | -2  |     |
|                                              | PM        |     |     |     | -2  |     | -1  |     |     |     |     | -1  |     |
| Hackberry St & Golden Eagle Ave/Bus Ingress  | AM        |     |     |     |     |     |     |     |     | -2  | -2  | -2  |     |
|                                              | PM        |     |     |     |     |     |     |     |     | -2  | -1  | -2  |     |
| Hackberry St & Spring Hill Dr                | AM        | -5  |     |     |     | -2  |     |     |     |     | -8  | -2  | -4  |
|                                              | PM        | -4  |     |     |     | -2  |     |     |     |     | -3  | -2  | -2  |
| Hackberry St & Spring Hill Pkwy              | AM        | -6  | -4  | -9  |     |     | -6  | -2  | -5  |     |     | -2  | 0   |
|                                              | PM        | -4  | -1  | -6  |     |     | -2  | -2  | -5  |     |     | -6  | 0   |
| Spring Hill Pkwy & Highlands Ranch Pkwy      | AM        | -4  |     |     |     |     | -3  |     |     |     | -5  |     | -6  |
|                                              | PM        | -4  |     |     |     |     | -3  |     |     |     | -6  |     | -6  |
| Westridge Village Pkwy & Highland Ranch Pkwy | AM        | 0   | -2  |     |     | -3  | -3  |     |     |     | -2  |     | 0   |
|                                              | PM        | 0   | -2  |     |     | -3  | -3  |     |     |     | -2  |     | 0   |
| Highlands Ranch Pkwy & Foothills Canyon Blvd | AM        | -5  |     |     |     |     |     |     |     |     |     |     | -3  |
|                                              | PM        | -6  |     |     |     |     |     |     |     |     |     |     | -3  |

## 4. PROJECTED SITE TRAFFIC IMPACTS

### 4.1 Total Traffic (2028-2029 School Year)

The total anticipated future traffic for the 2028 to 2029 school year for Trailblazer with the addition of Coyote Creek students was calculated by adding the trip assignment to the existing Trailblazer traffic data and then subtracting the anticipated turning movement reductions. The resulting total traffic is shown in **Figure 10**.

## 4.2 Projected Level of Service

The capacity analysis for the total projected traffic from the transfer of Coyote Creek students to Trailblazer was evaluated using the Synchro. The resulting LOS and delay are summarized in **Table 9** for both the existing conditions (without Coyote Creek traffic) and for the total traffic conditions (with Coyote Creek traffic). Project level of service reports from Synchro are included in **Appendix F**.

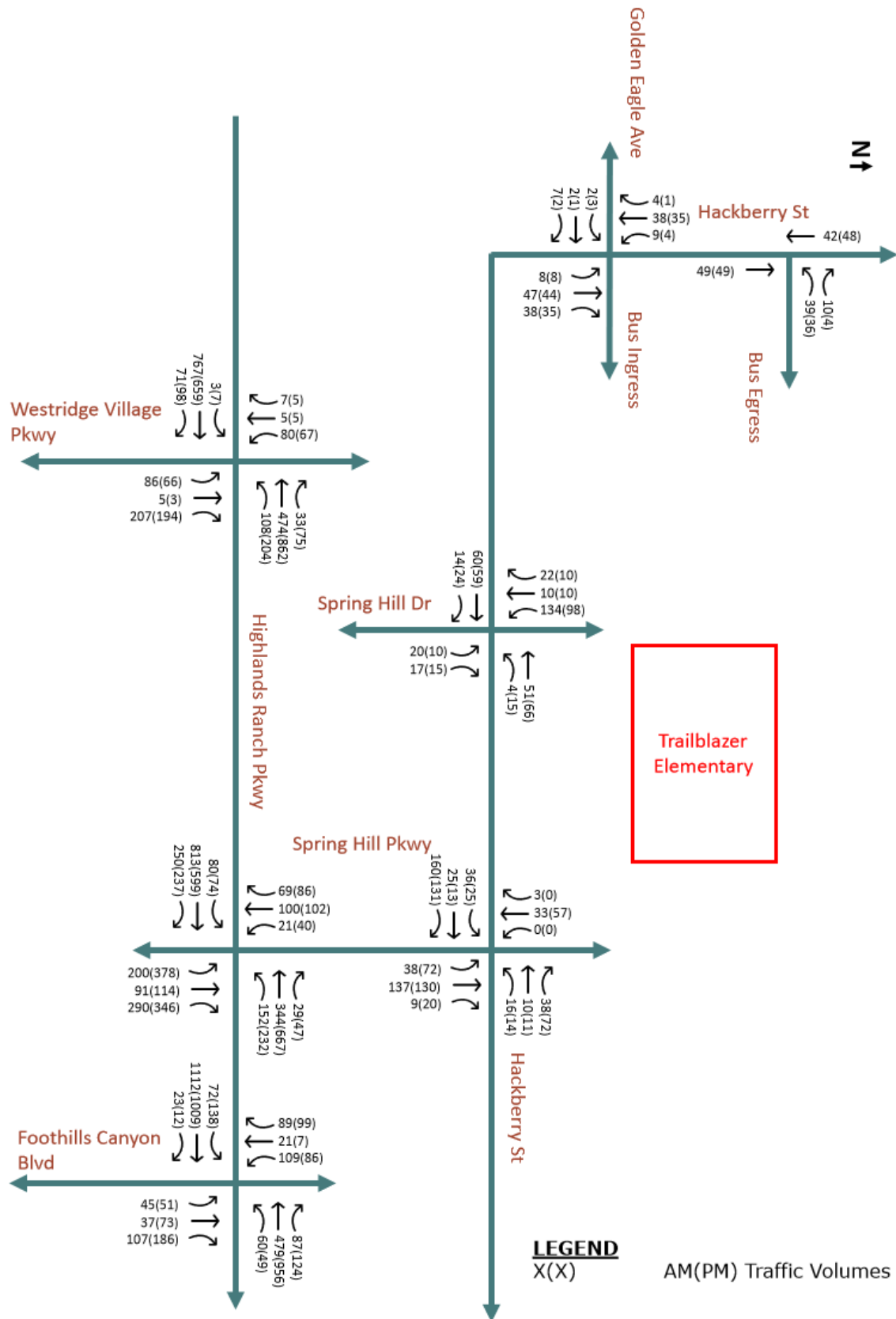


Figure 10 – Total Traffic

Table 9 – LOS and Delay Results

| Intersection                                  | Control                     | Movement | Existing |    |           |      |                   |     | Total Traffic |    |           |       |                 |        |                   |     |
|-----------------------------------------------|-----------------------------|----------|----------|----|-----------|------|-------------------|-----|---------------|----|-----------|-------|-----------------|--------|-------------------|-----|
|                                               |                             |          | LOS      |    | Delay (s) |      | Queue Length (ft) |     | LOS           |    | Delay (s) |       | Delay Delta (s) |        | Queue Length (ft) |     |
|                                               |                             |          | AM       | PM | AM        | PM   | AM                | PM  | AM            | PM | AM        | PM    | AM              | PM     | AM                | PM  |
| Highlands Ranch Pkwy & Westridge Village Pkwy | Signal                      | Overall  | C        | B  | 20.1      | 19.0 | -                 | -   | B             | B  | 19.8      | 19.6  | -0.3            | +0.6   | -                 | -   |
|                                               |                             | NBL      | D        | C  | 36.7      | 30.2 | 95                | 72  | C             | C  | 30.2      | 27.7  | -6.5            | -2.5   | 69                | 56  |
|                                               |                             | NBT      | C        | C  | 22.8      | 22.7 | 9                 | 6   | C             | C  | 22.8      | 22.7  | 0.0             | 0.0    | 9                 | 6   |
|                                               |                             | NBR      | A        | A  | 9.1       | 6.2  | 1                 | 0   | B             | A  | 10.5      | 6.3   | +1.4            | +0.1   | 7                 | 0   |
|                                               |                             | SBL      | C        | C  | 27.0      | 27.2 | 74                | 54  | C             | C  | 26.9      | 27.0  | -0.1            | -0.2   | 72                | 59  |
|                                               |                             | SBT      | B        | B  | 16.2      | 17.0 | 15                | 7   | B             | B  | 16.2      | 17.0  | 0.0             | 0.0    | 15                | 12  |
|                                               |                             | SBR      | C        | B  | 26.2      | 17.0 | 15                | 7   | B             | B  | 16.2      | 17.0  | -10.0           | 0.0    | 15                | 12  |
|                                               |                             | EBL      | A        | A  | 5.3       | 5.6  | 3                 | 6   | A             | A  | 5.3       | 5.6   | 0.0             | 0.0    | 3                 | 6   |
|                                               |                             | EBT      | C        | B  | 22.7      | 19.3 | 244               | 212 | C             | B  | 22.5      | 19.3  | -0.2            | 0.0    | 241               | 214 |
|                                               |                             | EBR      | C        | B  | 22.7      | 19.3 | 244               | 212 | C             | B  | 22.5      | 19.3  | -0.2            | 0.0    | 241               | 214 |
|                                               |                             | WBL      | A        | A  | 8.3       | 9.9  | 36                | 64  | A             | B  | 8.6       | 10.8  | +0.3            | +0.9   | 39                | 71  |
|                                               |                             | WBT      | B        | C  | 16.8      | 21.8 | 129               | 279 | B             | C  | 17.0      | 22.2  | +0.2            | +0.4   | 135               | 287 |
|                                               |                             | WBR      | B        | C  | 16.8      | 21.8 | 129               | 279 | B             | C  | 17.0      | 22.2  | +0.2            | +0.4   | 135               | 287 |
| Highlands Ranch Pkwy & Springhill Pkwy        | Signal                      | Overall  | A        | A  |           |      | -                 | -   | B             | B  | 15.6      | 15.8  | +15.6           | +15.8  | -                 | -   |
|                                               |                             | NBL      | C        | C  | 21.5      | 23.1 | 87                | 151 | C             | C  | 21.4      | 23.5  | -0.1            | +0.4   | 75                | 143 |
|                                               |                             | NBT      | C        | C  | 29.8      | 30.5 | 36                | 65  | C             | C  | 32.1      | 32.4  | +2.3            | +1.9   | 98                | 124 |
|                                               |                             | NBR      | A        | A  | 5.4       | 6.4  | 1                 | 45  | A             | A  | 5.3       | 6.1   | -0.1            | -0.3   | 0                 | 42  |
|                                               |                             | SBL      | C        | C  | 24.4      | 25.3 | 26                | 43  | C             | C  | 24.1      | 25.0  | -0.3            | -0.3   | 22                | 38  |
|                                               |                             | SBT      | D        | D  | 50.8      | 46.6 | 54                | 80  | F             | F  | 241.2     | 158.2 | +190.4          | +111.6 | 188               | 233 |
|                                               |                             | SBR      | D        | D  | 50.8      | 46.6 | 54                | 7   | F             | F  | 241.2     | 158.2 | +190.4          | +111.6 | 188               | 233 |
|                                               |                             | EBL      | C        | C  | 20.3      | 20.5 | 21                | 21  | C             | C  | 22.4      | 23.6  | +2.1            | +3.1   | 74                | 68  |
|                                               |                             | EBT      | F        | D  | 83.6      | 48.5 | 541               | 325 | F             | D  | 83.6      | 48.5  | 0.0             | 0.0    | 541               | 325 |
|                                               |                             | EBR      | C        | B  | 20.8      | 10.9 | 178               | 105 | B             | B  | 16.7      | 10.8  | -4.1            | -0.1   | 139               | 99  |
|                                               |                             | WBL      | C        | C  | 20.8      | 21.9 | 60                | 91  | C             | C  | 20.8      | 21.9  | 0.0             | 0.0    | 60                | 91  |
|                                               |                             | WBT      | C        | D  | 33.1      | 39.4 | 164               | 343 | C             | D  | 33.1      | 39.4  | 0.0             | 0.0    | 164               | 343 |
|                                               |                             | WBR      | A        | A  | 0.2       | 0.3  | 0                 | 0   | A             | A  | 0.1       | 0.3   | -0.1            | 0.0    | 0                 | 0   |
| Hackberry St & Spring Hill Pkwy               | Unsignalized (TWSC or AWSC) | Overall  |          |    | -         | -    | -                 | -   |               |    | -         | -     | -               | -      | -                 | -   |
|                                               |                             | NBL      | B        | B  | 13.8      | 12.5 | 12                | 18  | E             | C  | 36.6      | 20.6  | +22.8           | +8.1   | 118               | 72  |
|                                               |                             | NBT      | B        | B  | 13.8      | 12.5 | 12                | 18  | E             | C  | 36.6      | 20.6  | -               | -      | 118               | 72  |
|                                               |                             | NBR      | B        | B  | 13.8      | 12.5 | 12                | 18  | E             | C  | 36.6      | 20.6  | +22.8           | +8.1   | 118               | 72  |
|                                               |                             | SBL      | -        | -  | -         | -    | -                 | -   | -             | -  | -         | -     | -               | -      | -                 | -   |
|                                               |                             | SBT      | B        | B  | 13.2      | 12.2 | 8                 | 10  | C             | B  | 21.0      | 14.9  | -               | -      | 34                | 20  |
|                                               |                             | SBR      | B        | B  | 13.2      | 12.2 | 8                 | 10  | C             | B  | 21.0      | 14.9  | -               | -      | 34                | 20  |
|                                               |                             | EBL      | A        | A  | 7.5       | 7.4  | 4                 | 2   | A             | A  | 7.5       | 7.4   | -               | -      | 4                 | 2   |
|                                               |                             | EBT      | A        | A  | 0.0       | 0.0  | 0                 | 0   | A             | A  | 0.0       | 0.0   | 0.0             | 0.0    | 0                 | 0   |
|                                               |                             | EBR      | A        | A  | 0.0       | 0.0  | 0                 | 0   | A             | A  | 0.0       | 0.0   | -               | -      | 0                 | 0   |
|                                               |                             | WBL      | A        | A  | 7.7       | 7.4  | 2                 | 2   | A             | A  | 8.2       | 7.9   | -               | -      | 2                 | 2   |
|                                               |                             | WBT      | A        | A  | 0.0       | 0.0  | 0                 | 0   | A             | A  | 0.0       | 0.0   | 0.0             | 0.0    | 0                 | 0   |
|                                               |                             | WBR      | A        | A  | 0.0       | 0.0  | 0                 | 0   | A             | A  | 0.0       | 0.0   | -               | -      | 0                 | 0   |



| Intersection                                | Control                     | Movement | Existing |    |           |      |                   |    | Total Traffic |    |           |      |                 |      |                   |    |
|---------------------------------------------|-----------------------------|----------|----------|----|-----------|------|-------------------|----|---------------|----|-----------|------|-----------------|------|-------------------|----|
|                                             |                             |          | LOS      |    | Delay (s) |      | Queue Length (ft) |    | LOS           |    | Delay (s) |      | Delay Delta (s) |      | Queue Length (ft) |    |
|                                             |                             |          | AM       | PM | AM        | PM   | AM                | PM | AM            | PM | AM        | PM   | AM              | PM   | AM                | PM |
| Hackberry St & Spring Hill Dr               | Unsignalized (TWSC or AWSC) | Overall  |          |    | -         | -    | -                 | -  |               |    | -         | -    | -               | -    | -                 | -  |
|                                             |                             | NBL      | A        | A  | 9.5       | 9.4  | 2                 | 2  | B             | A  | 10.0      | 9.7  | +0.5            | +0.3 | 4                 | 2  |
|                                             |                             | NBT      | -        | -  | -         | -    | -                 | -  | B             | A  | 10.0      | 9.7  | -               | -    | 4                 | 2  |
|                                             |                             | NBR      | A        | A  | 9.5       | 9.4  | 2                 | 2  | B             | A  | 10.0      | 9.7  | +0.5            | +0.3 | 4                 | 2  |
|                                             |                             | SBL      | B        | B  | 10.1      | 10.2 | 4                 | 2  | B             | B  | 13.0      | 12.8 | +2.9            | +2.6 | 36                | 26 |
|                                             |                             | SBT      | A        | A  | 9.3       | 9.7  | 2                 | 2  | A             | B  | 9.5       | 10.0 | +0.2            | +0.3 | 4                 | 4  |
|                                             |                             | SBR      | A        | A  | 9.3       | 9.7  | 2                 | 2  | A             | B  | 9.5       | 10.0 | +0.2            | +0.3 | 4                 | 4  |
|                                             |                             | EBL      | -        | -  | -         | -    | -                 | -  | -             | -  | -         | -    | -               | -    | -                 | -  |
|                                             |                             | EBT      | A        | A  | 0.0       | 0.0  | 0                 | 0  | A             | A  | 0.0       | 0.0  | 0.0             | 0.0  | 0                 | 0  |
|                                             |                             | EBR      | A        | A  | 0.0       | 0.0  | 0                 | 0  | A             | A  | 0.0       | 0.0  | 0.0             | 0.0  | 0                 | 0  |
|                                             |                             | WBL      | A        | A  | 7.4       | 7.4  | 0                 | 0  | A             | A  | 7.5       | 7.5  | +0.1            | +0.1 | 0                 | 0  |
|                                             |                             | WBT      | A        | A  | 0.0       | 0.0  | 0                 | 0  | A             | A  | 0.0       | 0.0  | 0.0             | 0.0  | 0                 | 0  |
|                                             |                             | WBR      | -        | -  | -         | -    | -                 | -  | -             | -  | -         | -    | -               | -    | -                 | -  |
| Hackberry St & Bus Egress                   | Unsignalized (TWSC or AWSC) | Overall  |          |    | -         | -    | -                 | -  |               |    | -         | -    | -               | -    | -                 | -  |
|                                             |                             | NBL      | -        | -  | -         | -    | -                 | -  | -             | -  | -         | -    | -               | -    | -                 | -  |
|                                             |                             | NBT      | A        | A  | 0.0       | 0.0  | 0                 | 0  | A             | A  | 0.0       | 0.0  | 0.0             | 0.0  | 0                 | 0  |
|                                             |                             | NBR      | -        | -  | -         | -    | -                 | -  | -             | -  | -         | -    | -               | -    | -                 | -  |
|                                             |                             | SBL      | -        | -  | -         | -    | -                 | -  | -             | -  | -         | -    | -               | -    | -                 | -  |
|                                             |                             | SBT      | A        | A  | 0.0       | 0.0  | 0                 | 0  | A             | A  | 0.0       | 0.0  | 0.0             | 0.0  | 0                 | 0  |
|                                             |                             | SBR      | A        | A  | 0.0       | 0.0  | 0                 | 0  | A             | A  | 0.0       | 0.0  | 0.0             | 0.0  | 0                 | 0  |
|                                             |                             | EBL      | -        | -  | -         | -    | -                 | -  | -             | -  | -         | -    | -               | -    | -                 | -  |
|                                             |                             | EBT      | -        | -  | -         | -    | -                 | -  | -             | -  | -         | -    | -               | -    | -                 | -  |
|                                             |                             | EBR      | -        | -  | -         | -    | -                 | -  | -             | -  | -         | -    | -               | -    | -                 | -  |
|                                             |                             | WBL      | A        | A  | 9.5       | 9.3  | 2                 | 2  | A             | A  | 10.0      | 9.7  | +0.5            | +0.4 | 10                | 10 |
|                                             |                             | WBT      | -        | -  | -         | -    | -                 | -  | -             | -  | -         | -    | -               | -    | -                 | -  |
|                                             |                             | WBR      | A        | A  | 9.5       | 9.3  | 2                 | 2  | A             | A  | 10.0      | 9.7  | +0.5            | +0.4 | 10                | 10 |
| Hackberry St & Bus Ingress/Golden Eagle Ave | Unsignalized (TWSC or AWSC) | Overall  |          |    | -         | -    | -                 | -  |               |    | -         | -    | -               | -    | -                 | -  |
|                                             |                             | NBL      | A        | A  | 7.4       | 7.4  | 0                 | 0  | A             | A  | 7.5       | 7.5  | +0.1            | +0.1 | 0                 | 0  |
|                                             |                             | NBT      | A        | A  | 0.0       | 0.0  | 0                 | 0  | A             | A  | 0.0       | 0.0  | 0.0             | 0.0  | 0                 | 0  |
|                                             |                             | NBR      | A        | A  | 0.0       | 0.0  | 0                 | 0  | A             | A  | 0.0       | 0.0  | 0.0             | 0.0  | 0                 | 0  |
|                                             |                             | SBL      | A        | A  | 7.5       | 7.3  | 0                 | 0  | A             | A  | 7.6       | 7.4  | +0.1            | +0.1 | 0                 | 0  |
|                                             |                             | SBT      | A        | A  | 0.0       | 0.0  | 0                 | 0  | A             | A  | 0.0       | 0.0  | 0.0             | 0.0  | 0                 | 0  |
|                                             |                             | SBR      | A        | A  | 0.0       | 0.0  | 0                 | 0  | A             | A  | 0.0       | 0.0  | 0.0             | 0.0  | 0                 | 0  |
|                                             |                             | EBL      | A        | A  | 9.0       | 9.2  | 2                 | 0  | A             | A  | 9.3       | 9.5  | +0.3            | +0.3 | 2                 | 0  |
|                                             |                             | EBT      | A        | A  | 9.0       | 9.2  | 2                 | 0  | A             | A  | 9.3       | 9.5  | +0.3            | +0.3 | 2                 | 0  |
|                                             |                             | EBR      | A        | A  | 9.0       | 9.2  | 2                 | 0  | A             | A  | 9.3       | 9.5  | +0.3            | +0.3 | 2                 | 0  |
|                                             |                             | WBL      | -        | -  | -         | -    | -                 | -  | -             | -  | -         | -    | -               | -    | -                 | -  |
|                                             |                             | WBT      | -        | -  | -         | -    | -                 | -  | -             | -  | -         | -    | -               | -    | -                 | -  |
|                                             |                             | WBR      | -        | -  | -         | -    | -                 | -  | -             | -  | -         | -    | -               | -    | -                 | -  |

Table 10 – Mitigation LOS and Delay Results

| Intersection                           | Control                     | Movement | Total Traffic |     |           |       |                 |        |                   |     | Total Traffic - Mitigation |     |           |      |                 |        |                   |     | Mitigation                                                                               |
|----------------------------------------|-----------------------------|----------|---------------|-----|-----------|-------|-----------------|--------|-------------------|-----|----------------------------|-----|-----------|------|-----------------|--------|-------------------|-----|------------------------------------------------------------------------------------------|
|                                        |                             |          | LOS           |     | Delay (s) |       | Delay Delta (s) |        | Queue Length (ft) |     | LOS                        |     | Delay (s) |      | Delay Delta (s) |        | Queue Length (ft) |     |                                                                                          |
|                                        |                             |          | AM            | PM  | AM        | PM    | AM              | PM     | AM                | PM  | AM                         | PM  | AM        | PM   | AM              | PM     | AM                | PM  |                                                                                          |
| Highlands Ranch Pkwy & Springhill Pkwy | Signal                      | Overall  | B             | B   | 15.6      | 15.8  | +15.6           | +15.8  | -                 | -   | D                          | C   | 42.8      | 31.9 | +27.2           | +16.1  | -                 | -   | Reduce northbound left time to match SBL in order to provide more green time for SBT/SBR |
|                                        |                             | NBL      | C             | C   | 21.4      | 23.5  | -0.1            | +0.4   | 75                | 143 | C                          | C   | 22.7      | 26.9 | +1.3            | +3.4   | 75                | 143 |                                                                                          |
|                                        |                             | NBT      | C             | C   | 32.1      | 32.4  | +2.3            | +1.9   | 98                | 124 | C                          | C   | 32.1      | 32.4 | 0.0             | 0.0    | 109               | 124 |                                                                                          |
|                                        |                             | NBR      | A             | A   | 5.3       | 6.1   | -0.1            | -0.3   | 0                 | 42  | A                          | A   | 5.3       | 5.4  | 0.0             | -0.7   | 0                 | 33  |                                                                                          |
|                                        |                             | SBL      | C             | C   | 24.1      | 25.0  | -0.3            | -0.3   | 22                | 38  | B                          | C   | 20.0      | 20.4 | -4.1            | -4.6   | 26                | 38  |                                                                                          |
|                                        |                             | SBT      | F             | F   | 241.2     | 158.2 | +190.4          | +111.6 | 188               | 233 | D                          | C   | 38.7      | 34.7 | -202.5          | -123.5 | 163               | 162 |                                                                                          |
|                                        |                             | SBR      | F             | F   | 241.2     | 158.2 | +190.4          | +111.6 | 188               | 233 | D                          | C   | 38.7      | 34.7 | -202.5          | -123.5 | 163               | 162 |                                                                                          |
|                                        |                             | EBL      | C             | C   | 22.4      | 23.6  | +2.1            | +3.1   | 74                | 68  | C                          | C   | 22.4      | 23.6 | 0.0             | 0.0    | 85                | 68  |                                                                                          |
|                                        |                             | EBT      | F             | D   | 83.6      | 48.5  | 0.0             | 0.0    | 541               | 325 | F                          | D   | 83.6      | 48.5 | 0.0             | 0.0    | 541               | 325 |                                                                                          |
|                                        |                             | EBR      | B             | B   | 16.7      | 10.8  | -4.1            | -0.1   | 139               | 99  | C                          | B   | 21.3      | 10.8 | +4.6            | 0.0    | 167               | 99  |                                                                                          |
|                                        |                             | WBL      | C             | C   | 20.8      | 21.9  | 0.0             | 0.0    | 60                | 91  | C                          | C   | 20.8      | 21.9 | 0.0             | 0.0    | 60                | 91  |                                                                                          |
|                                        |                             | WBT      | C             | D   | 33.1      | 39.4  | 0.0             | 0.0    | 164               | 343 | C                          | D   | 33.1      | 39.4 | 0.0             | 0.0    | 164               | 343 |                                                                                          |
| WBR                                    | A                           | A        | 0.1           | 0.3 | -0.1      | 0.0   | 0               | 0      | A                 | A   | 0.2                        | 0.3 | +0.1      | 0.0  | 0               | 0      |                   |     |                                                                                          |
| Hackberry St & Springhill Pkwy         | Unsignalized (TWSC or AWSC) | Overall  |               |     | -         | -     | -               | -      | -                 | -   |                            |     | -         | -    | -               | -      | -                 | -   | Make intersection an all-way stop                                                        |
|                                        |                             | NBL      | E             | C   | 36.6      | 20.6  | +22.8           | +8.1   | 118               | 72  | B                          | B   | 14.2      | 12.3 | -22.4           | -8.3   | 50                | 46  |                                                                                          |
|                                        |                             | NBT      | E             | C   | 36.6      | 20.6  | -               | -      | 118               | 72  | B                          | B   | 14.2      | 12.3 | -22.4           | -8.3   | 50                | 46  |                                                                                          |
|                                        |                             | NBR      | E             | C   | 36.6      | 20.6  | +22.8           | +8.1   | 118               | 72  | B                          | B   | 14.2      | 12.3 | -22.4           | -8.3   | 50                | 46  |                                                                                          |
|                                        |                             | SBL      | -             | -   | -         | -     | -               | -      | -                 | -   | -                          | -   | -         | -    | -               | -      | -                 | -   |                                                                                          |
|                                        |                             | SBT      | C             | B   | 21.0      | 14.9  | -               | -      | 34                | 20  | B                          | B   | 11.5      | 10.1 | -9.5            | -4.8   | 18                | 14  |                                                                                          |
|                                        |                             | SBR      | C             | B   | 21.0      | 14.9  | -               | -      | 34                | 20  | B                          | B   | 11.5      | 10.1 | -9.5            | -4.8   | 18                | 14  |                                                                                          |
|                                        |                             | EBL      | A             | A   | 7.5       | 7.4   | -               | -      | 4                 | 2   | C                          | B   | 18.7      | 11.0 | +11.2           | +3.6   | 114               | 38  |                                                                                          |
|                                        |                             | EBT      | A             | A   | 0.0       | 0.0   | 0.0             | 0.0    | 0                 | 0   | C                          | B   | 18.7      | 11.0 | +18.7           | +11.0  | 114               | 38  |                                                                                          |
|                                        |                             | EBR      | A             | A   | 0.0       | 0.0   | -               | -      | 0                 | 0   | C                          | B   | 18.7      | 11.0 | +18.7           | +11.0  | 114               | 38  |                                                                                          |
|                                        |                             | WBL      | A             | A   | 8.2       | 7.9   | -               | -      | 2                 | 2   | A                          | A   | 9.9       | 9.2  | +1.7            | +1.3   | 10                | 8   |                                                                                          |
|                                        |                             | WBT      | A             | A   | 0.0       | 0.0   | 0.0             | 0.0    | 0                 | 0   | A                          | A   | 9.9       | 9.2  | +9.9            | +9.2   | 10                | 8   |                                                                                          |
| WBR                                    | A                           | A        | 0.0           | 0.0 | -         | -     | 0               | 0      | A                 | A   | 9.9                        | 9.2 | +9.9      | +9.2 | 10              | 8      |                   |     |                                                                                          |

## 4.3 Mitigation

### Capacity Analysis

The capacity analysis results show that the relocation of Coyote Creek to Trailblazer causes an increase in delay and an undesirable level of service for certain turning movements at the following intersections.

- Highlands Ranch Parkway at Springhill Parkway (SBT/SBR turning movements)
- Hackberry Street at Springhill Parkway (NBL/NBT/NBR turning movements)

Three mitigation options were evaluated in an effort to improve level of service and delay as follows.

For Highlands Ranch Parkway at Springhill Parkway the signal timing was adjusted to provide more green time for the southbound through/right turning movements. To achieve this, the protected phase for the northbound left turn was reduced to match the protected phasing time for the southbound left turn. This change only impacts the signal timing for the NBL turning movement and the SBT/SBR turning movements, but the overall timeframe for the northbound and southbound approaches remains the same, overall cycle length remains the same and the signal timing for the eastbound and westbound approaches remains the same. As shown in **Table 10**, the signal timing change mitigates the issue without a significant impact on any other turning movements at the intersection.

For Hackberry Street at Springhill Parkway, two mitigation options were evaluated. The first is changing the intersection from a two-way stop to an all-way stop controlled intersection. As shown in **Table 10**, this mitigates the issues for the northbound turning movements, however, it causes the eastbound turning movements to have an undesirable level of service, however, this delay is 100 seconds less than the delay the northbound turning movements were reflecting. To mitigate the eastbound turning movements with the change to an all-way stop controlled intersection, an additional mitigation was evaluated. This option included both changing the intersection to an all-way stop controlled intersection and adding pavement markings to allow for a shared EBL/EBT turn lane and a dedicated EBR turn lane. The roadway width would need to be confirmed to determine if this lane configuration is feasible. This mitigation option does prove to mitigate all undesirable level of services issues for the intersection.

### Signal Warrant Analysis

The intersections of Hackberry Street at Spring Hill Drive and Hackberry Street at Spring Hill Parkway were analyzed for potential signal needs. Warrants 3 (Peak Hour) and 7 (Crash experience) from the Manual on Uniform Traffic Control Devices (MUTCD) were used for this study.

Based on the analysis, neither of these intersections met either warrant for signal installation.

### Auxiliary Lane Analysis

Right turn lanes were evaluated for the intersections of Highlands Ranch Parkway at Wildcat Reserve Parkway/Spring Hill Parkway, Highlands Ranch Parkway at Westridge Village Parkway, and Highlands Ranch Parkway at Foothills Canyon Boulevard. Douglas County Roadway Design Standards refer to the Code of Colorado Regulations, State Highway Access Code for the design and installation recommendations. A right-turn lane is recommended when a threshold of 25 right turning vehicles is exceeded on a Non-Rural Arterial roadway with a posted speed limit greater than 40 miles per hour.

Projected traffic data shows that the westbound approach of Highlands Ranch Parkway at Westridge Village Parkway has 36 right turns during the morning peak hour and 78 during the afternoon peak hour while the eastbound approach has 71 right turns during the morning peak and 98 during the afternoon peak. Therefore, right turn lanes are warranted for each direction of Highlands Ranch Parkway at Westridge Village Parkway. However, no new traffic is being added to the westbound or eastbound approach and the intersection appears to operate efficiently. Therefore, right-turn lanes are not recommended.



### Site Analysis

Based on site observations, Trailblazer faces the following challenges:

- Congestion on Hackberry Street

There are no recommended improvements for the Trailblazer site based on queuing analysis and safety. While congestion occurs on Westridge Village Parkway at times, it is not significant to warrant any improvements. There are no significant safety concerns that require attention.

## 5. CONCLUSIONS/RECOMMENDATIONS

This traffic impact study addresses existing traffic patterns and potential traffic challenges at Trailblazer Elementary School, while considering the anticipated increase in traffic due to possible consolidations with Coyote Creek Elementary while moving 6<sup>th</sup> grade students to a middle school.

Traffic will be increased with the additional enrollment, but additional bus service will be offered, limiting the impact of the increased enrollment. Consolidating school populations at Trailblazer would cause the school population to more than double its previous historical maximum enrollment. To address existing and potential future traffic challenges the following mitigation measures are recommended:

- Coordinate with Douglas County to modify signal timing at Highlands Ranch Parkway and Spring Hill Parkway. Douglas County has a robust signal timing program which optimizes timing for prevailing conditions.
- Coordinate with Douglas County to convert the Hackberry Street and Spring Hill Parkway intersection to a 4-way stop. This modification would increase traffic flow during school drop-off and pick-up but reduce flow during normal conditions. Douglas County follows MUTCD standards for determining the proper intersection traffic control and would not add pavement markings or signage unless warranted.
- Add pavement markings and signage on Hackberry Street at Spring Hill Parkway to create a shared eastbound through/left-turn lane and a dedicated eastbound right-turn lane. The existing pavement width should accommodate the layout. Douglas County follows MUTCD standards for determining the proper intersection traffic control and would not add pavement markings or signage unless warranted.



## **Appendix A    Site Observation Notes**





## TRAFFIC OBSERVATION REPORT

|              |                                |             |          |
|--------------|--------------------------------|-------------|----------|
| Project Name | DCSD HR TIS                    | Project No. | 1124175  |
| Observer     | Derek Williams, EI             |             |          |
| Location     | Coyote Creek Elementary School |             |          |
| Time         | 8:00 - 9:30                    | AM          |          |
| DATE         |                                | 11/12/2024  |          |
| M            | T                              | W           | Th F S S |

### Queueing Data

**Start Time:** 8:25 AM

**End Time:** 8:50 AM

**Maximum Queueing Length:** 300 feet (Main Loop), 500 feet (Bus Lane)

**Total Storage Length Available:** 650 feet (Main Loop), 300 ft (Bus Lane)

**Comments:**

### On-Street Parking Locations and Availability

**Comments:**

On-street parking is available on Baneberry Court except near intersections. Parking is not permitted along Westridge Village Parkway, however a designated parking lane is provided on this street in front of the school. Additionally vehicles were observed dropping students off on Woodrose Way across from the bus lane entrance. Students and parents utilized a crosswalk at this location to cross Westridge Village Parkway.

### Crosswalk Locations and Usage

**Comments:**

Crosswalks are located at the school parking lot entrance and crossing Baneberry Court at Westridge Village Parkway. Another crosswalk crosses Westridge Village Parkway near the bus lane entrance. Button activated flashing beacons are provided at this crosswalk. A crossing guard was stationed at this location during the drop-off time.



### Roadway Characteristics

**Speed Limit(s) and Location(s):**

Both Westridge Village Parkway and Baneberry Court have posted speed limits of 25 mph. A reduced speed of 15 mph in the school zone is used when flashers are on.

**Signage:**

No parking signs along Westridge Village Parkway. Reduced speed flashers located on Baneberry Court and Westridge Village Parkway. Bus lane signed as one-way. No U-turn in school zone signs located on Baneberry Court.

**Bike Lanes:**

Bike lanes are located along both sides of Westridge Village Parkway.

**Other Comments:**

No additional comments to note.

### Sight Visibility Challenges

**Comments:**

No potential sight visibility conflicts are noted.

### Congestion Areas

**Comments:**

Some congestion occurred on Westridge Village Parkway at the bus lane entrance when queueing backed-up to the road. A times vehicles were unable to turn into the bus lane until the queue shortened. No more than 5 vehicles in either direction were observed to be queued on Westridge Village Parkway at any time. This did not have an affect on traffic coming from Baneberry Court or prevent vehicles from exiting the bus lane.

### General Traffic Observations

**Comments:**

Many parents utilized the parking lane on Westridge Village parkway to drop the students off at the school. One vehicle was parked in the bike lane in front of the bus lane.



## TRAFFIC OBSERVATION REPORT

|                     |                                |                    |                                      |
|---------------------|--------------------------------|--------------------|--------------------------------------|
| <b>Project Name</b> | DCSD HR TIS                    | <b>Project No.</b> | 1124175                              |
| <b>Observer</b>     | Derek Williams, EI             |                    |                                      |
| <b>Location</b>     | Coyote Creek Elementary School |                    |                                      |
| <b>Time</b>         | 2:45-3:30                      | <b>PM</b>          |                                      |
| <b>DATE</b>         |                                | 11/12/2024         |                                      |
| <b>M</b>            | <b>T</b>                       | <b>W</b>           | <b>Th</b> <b>F</b> <b>S</b> <b>S</b> |

### Queueing Data

**Start Time:** 3:00 PM

**End Time:** 3:40 PM

**Maximum Queueing Length:** 400 feet (Loop), 300 feet (Bus Lane)

**Total Storage Length Available:** 650 feet (Main Loop), 300 ft (Bus Lane)

**Comments:**

Queueing in both the drop-off loop and bus lane began approximately at 3:00. By 3:15 the bus lane reached it's queueing capacity. The drop-off loop did not reach queueing capacity during pick-up.

### On-Street Parking Locations and Availability

**Comments:**

Most parents used on-street parking on Baneberry Court, Woodrose Way, and the parking lane on Westridge Village Parkway. Many vehicles were parked in the bike lanes on Westridge Village Parkway during pick-up.

### Crosswalk Locations and Usage

**Comments:**

Crosswalks on Baneberry Court and Westridge Village parkway were used by parents and students. The school placed crossing guards at the crosswalks on Westridge Village Court and at the parking lot/loop entrance.



### Roadway Characteristics

**Speed Limit(s) and Location(s):**

Both Westridge Village Parkway and Baneberry Court have posted speed limits of 25 mph. A reduced speed of 15 mph in the school zone is used when flashers are on.

**Signage:**

No parking signs along Westridge Village Parkway. Reduced speed flashers located on Baneberry Court and Westridge Village Parkway. Bus lane signed as one-way. No U-turn in school zone signs located on Baneberry Court.

**Bike Lanes:**

Bike lanes are located along both sides of Westridge Village Parkway.

**Other Comments:**

No additional comments to note.

### Sight Visibility Challenges

**Comments:**

Vehicles parked in the bike lanes on Westridge Village Parkway create potential sight visibility challenges for vehicles exiting the bus lane.

### Congestion Areas

**Comments:**

No congestion areas noted.

### General Traffic Observations

**Comments:**

Vehicles seemed to flow in and out of the drop-off loop and bus lane smoothly. Buses have a designated pick-up lane in the drop-off loop and did not use the bus lane. Talked with the school Principle while observing traffic, she said that there were only three buses running today and I was observing a day with heavier vehicle traffic.



## TRAFFIC OBSERVATION REPORT

|                     |                               |                    |                     |
|---------------------|-------------------------------|--------------------|---------------------|
| <b>Project Name</b> | DCSD Traffic Study            | <b>Project No.</b> | 1124175             |
| <b>Observer</b>     | Nate Hittle                   |                    |                     |
| <b>Location</b>     | Trailblazer Elementary School |                    |                     |
| <b>Time</b>         | 7:45 - 9:15 AM                | <b>AM / PM</b>     |                     |
|                     |                               | <b>DATE</b>        | <b>###</b>          |
|                     |                               | <b>M</b>           | <b>T W Th F S S</b> |

### Queueing Data

**Start Time:** 8:05 AM

**End Time:** 8:39 AM

**Maximum Queueing Length:** 550 ft

**Total Storage Length Available:** 430 ft

#### Comments:

The main drop-off point was the parking lot to the southeast of the building, on the north side of S Hackberry St. This parking lot contains a two-lane, one-way, drop-off aisle. The right lane is intended for drop-off and pick-up, while the left lane is intended for through traffic. The first vehicles were observed entering the queue at 8:05 AM. By 8:22 AM, a steady stream of traffic was entering the lot. The queue reached its maximum length around 8:35 AM. At this time there were three cars waiting to turn left into the parking lot from S Hackberry St.

### On-Street Parking Locations and Availability

#### Comments:

Street parking is available on both sides of S Hackberry St. Parking on the north and east sides of the street was mostly full by 8:10 AM. Parking on the south and west sides was utilized during drop-off by. Some parents parked on the street with their hazards on and walked the students across the street. Street parking is available on the nearby side streets but was seldom used.

### Crosswalk Locations and Usage

#### Comments:

There are four locations within the immediate vicinity of the school to cross S Hackberry St. These are located at S Spring Hill Pkwy, Spring Hill Dr, Golden Eagle Ave, and at the northern access of the bus loop. There are also crosswalks across the parking lot and two across the drop-off aisle. Crossing guards were present at several of these crosswalks. Crosswalks were generally used appropriately to cross S Hackberry St. However, one crossing guard stated that the crosswalks across the drop-off aisle are often not used.





## Roadway Characteristics

### Speed Limit(s) and Location(s):

The speed limit on S Hackberry St is 25 mph. Two school zone speed limit signs are present, with a flasher that operates from 8:10 to 8:50 AM. The school zone speed limit is 20 mph.

### Signage:

Signage present on the public roads includes speed limit signs, school zone speed limit signs, stop signs, No Parking signs, and school crossing signs. Signs in the drop-off aisle indicate how the lanes are intended to be used.

### Bike Lanes:

Bike lanes are not present on S Hackberry St.

### Other Comments:

There is a bus drop-off zone to the west of the school. Standard passenger cars are not permitted here.

## Sight Visibility Challenges

### Comments:

Drivers exiting the parking lot were observed shielding their eyes from the sun, as they were required to look east to be able to make a turn. Adjacent parking also obstructs the sight line looking east.

## Congestion Areas

### Comments:

The intersection of S Hackberry St and S Spring Hill Pkwy, at the entrance of the parking lot, experienced mild congestions. Queues formed on eastbound S Hackberry St, on northbound S Spring Hill Pkwy, consisting of vehicles waiting to enter the parking lot.

## General Traffic Observations

### Comments:



## TRAFFIC OBSERVATION REPORT

|                     |                               |                    |                     |
|---------------------|-------------------------------|--------------------|---------------------|
| <b>Project Name</b> | DCSD Traffic Study            | <b>Project No.</b> | 1124175             |
| <b>Observer</b>     | Nick Westphal                 |                    |                     |
| <b>Location</b>     | Trailblazer Elementary School |                    |                     |
| <b>Time</b>         | 2:45 - 4:00 PM                | <b>AM / PM</b>     |                     |
|                     |                               | <b>DATE</b>        | 19-Nov-24           |
|                     |                               | <b>M</b>           | <b>T W Th F S S</b> |

### Queueing Data

**Start Time:** 3:05 PM

**End Time:** 3:37 AM

**Maximum Queueing Length:** 500 ft

**Total Storage Length Available:** 430 ft

#### Comments:

The main drop-off point was the parking lot to the southeast of the building, on the north side of S Hackberry St. This parking lot contains a two-lane, one-way, drop-off aisle. The right lane is intended for drop-off and pick-up, while the left lane is intended for through traffic. The first vehicles were observed entering the queue at 3:05. The pickup lane became full at 3:32, just after the bell rang. More vehicles park on the street and walk to pickup their students at the door than drive through the pick-up lane. There is also a bus loop that is signed as student pick-up. This is not as heavily used, but some pick-up at this location.

### On-Street Parking Locations and Availability

#### Comments:

Street parking is available on both sides of S Hackberry St. Parking on the north and east sides of the street was mostly full by 3:30, but there was still parking available.

### Crosswalk Locations and Usage

#### Comments:

There are four locations within the immediate vicinity of the school to cross S Hackberry St. These are located at S Spring Hill Pkwy, Spring Hill Dr, Golden Eagle Ave, and at the northern access of the bus loop. There are also crosswalks across the parking lot and two across the drop-off aisle. Crossing guards were present at the west exit from the parking lot and at the entrance to the bus loop. Most people used the crosswalks, but some crossed the street at unmarked locations. A crossing guard was also present at the internal crosswalk across the drop off loop.

## Roadway Characteristics

### Speed Limit(s) and Location(s):

The speed limit on S Hackberry St is 25 mph. Two school zone speed limit signs are present, with a flasher that operates from 8:10 to 8:50 AM. The school zone speed limit is 20 mph.

### Signage:

Signage present on the public roads includes speed limit signs, school zone speed limit signs, stop signs, No Parking signs, and school crossing signs. Signs in the drop-off aisle indicate how the lanes are intended to be used.

### Bike Lanes:

Bike lanes are not present on S Hackberry St.

### Other Comments:

There is a bus drop-off zone to the west of the school. This appears to be signed for student drop off and pick-up as well.

## Sight Visibility Challenges

### Comments:

No major sight visibility issues were observed in the afternoon.

## Congestion Areas

### Comments:

There was some back up on Spring Hill Parkway at the stop sign, presumably from the Wildcat intersection. Most of the congestion was after the pick-up lane started exiting at the west exit of the parking lot. The main congestion lasted about 5 minutes.

## General Traffic Observations

### Comments:

More vehicles appear to park on the street than use the pick-up lane. There appears to be plenty of parking and queueing capacity with good sight lines. The sidewalk and curb ramps adjacent to school property appear to be fairly new. It was noted that high school/middle school students use the school property as a cut through rather than staying on the roadway sidewalk.



## **Appendix B    Traffic Volume Counts**



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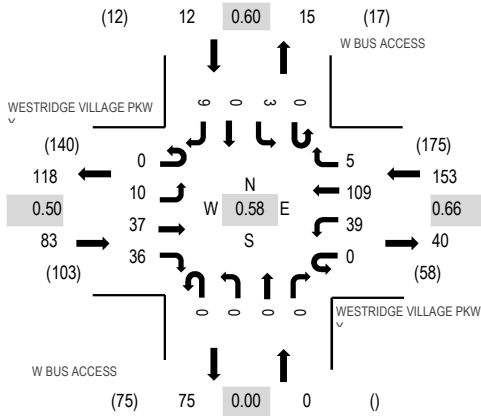
Location: 37 W BUS ACCESS & WESTRIDGE VILLAGE PKWY AM

Date: Wednesday, November 13, 2024

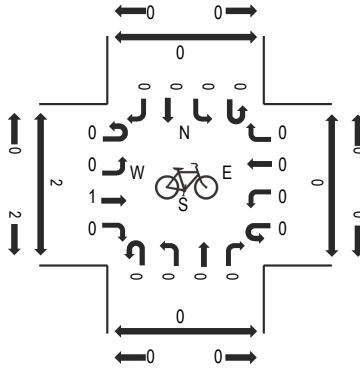
Peak Hour: 08:00 AM - 09:00 AM

Peak 15-Minutes: 08:30 AM - 08:45 AM

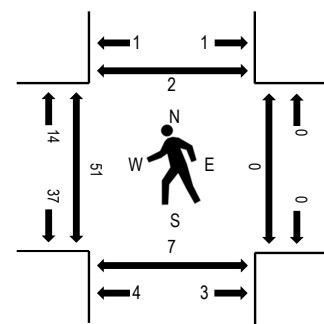
### Peak Hour - Motorized Vehicles



### Peak Hour - Bicycles



### Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

### Traffic Counts - Motorized Vehicles

| Interval<br>Start Time | WESTRIDGE VILLAGE Pkwy Eastbound |      |      |       | WESTRIDGE VILLAGE Pkwy Westbound |      |      |       | W BUS ACCESS Northbound |      |      |       | W BUS ACCESS Southbound |      |      |       | Total | Rolling<br>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 |
| 8:00 AM                | 0                                | 1    | 5    | 0     | 0                                | 1    | 23   | 0     | 0                       | 0    | 0    | 0     | 0                       | 0    | 0    | 1     | 31    | 248             | 0                    | 0    | 0     | 0     |
| 8:15 AM                | 0                                | 2    | 10   | 14    | 0                                | 27   | 29   | 1     | 0                       | 0    | 0    | 0     | 0                       | 0    | 0    | 3     | 86    | 235             | 30                   | 0    | 2     | 0     |
| 8:30 AM                | 0                                | 6    | 15   | 22    | 0                                | 11   | 43   | 4     | 0                       | 0    | 0    | 0     | 0                       | 1    | 0    | 4     | 106   | 173             | 20                   | 0    | 1     | 2     |
| 8:45 AM                | 0                                | 1    | 7    | 0     | 0                                | 0    | 14   | 0     | 0                       | 0    | 0    | 0     | 0                       | 2    | 0    | 1     | 25    |                 | 1                    | 0    | 4     | 0     |
| 9:00 AM                | 0                                | 1    | 8    | 0     | 0                                | 0    | 9    | 0     | 0                       | 0    | 0    | 0     | 0                       | 0    | 0    | 0     | 18    |                 | 0                    | 0    | 1     | 0     |
| 9:15 AM                | 0                                | 1    | 10   | 0     | 0                                | 0    | 13   | 0     | 0                       | 0    | 0    | 0     | 0                       | 0    | 0    | 0     | 24    |                 | 0                    | 0    | 0     | 0     |
| Count Total            | 0                                | 12   | 55   | 36    | 0                                | 39   | 131  | 5     | 0                       | 0    | 0    | 0     | 0                       | 3    | 0    | 9     | 290   |                 | 51                   | 0    | 8     | 2     |
| Peak Hour              | 0                                | 10   | 37   | 36    | 0                                | 39   | 109  | 5     | 0                       | 0    | 0    | 0     | 0                       | 3    | 0    | 9     | 248   |                 | 51                   | 0    | 7     | 2     |



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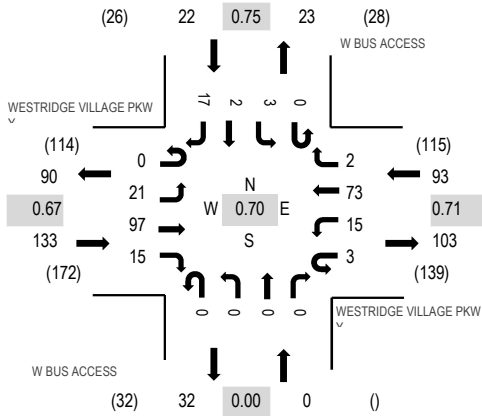
Location: 37 W BUS ACCESS & WESTRIDGE VILLAGE PKWY PM

Date: Wednesday, November 13, 2024

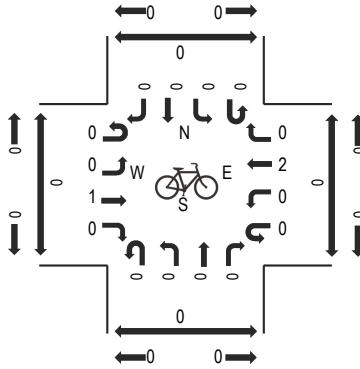
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Peak 15-Minutes: 03:30 PM - 03:45 PM

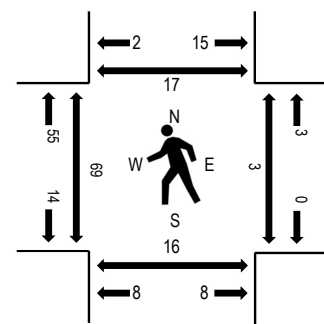
### Peak Hour - Motorized Vehicles



### Peak Hour - Bicycles



### Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

### Traffic Counts - Motorized Vehicles

| Interval<br>Start Time | WESTRIDGE VILLAGE Pkwy Eastbound |      |      |       | WESTRIDGE VILLAGE Pkwy Westbound |      |      |       | W BUS ACCESS Northbound |      |      |       | W BUS ACCESS Southbound |      |      |       | Total | Rolling<br>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 |
| 2:45 PM                | 0                                | 3    | 16   | 0     | 0                                | 0    | 14   | 0     | 0                       | 0    | 0    | 0     | 0                       | 1    | 0    | 0     | 34    | 236             | 1                    | 2    | 0     | 0     |
| 3:00 PM                | 0                                | 4    | 19   | 1     | 0                                | 0    | 14   | 0     | 0                       | 0    | 0    | 0     | 0                       | 1    | 0    | 0     | 39    | 248             | 0                    | 3    | 3     | 2     |
| 3:15 PM                | 0                                | 5    | 22   | 6     | 3                                | 9    | 19   | 2     | 0                       | 0    | 0    | 0     | 0                       | 1    | 2    | 5     | 74    | 240             | 17                   | 0    | 9     | 2     |
| 3:30 PM                | 0                                | 8    | 35   | 7     | 0                                | 5    | 28   | 0     | 0                       | 0    | 0    | 0     | 0                       | 0    | 0    | 6     | 89    |                 | 47                   | 0    | 4     | 12    |
| 3:45 PM                | 0                                | 4    | 21   | 1     | 0                                | 1    | 12   | 0     | 0                       | 0    | 0    | 0     | 0                       | 1    | 0    | 6     | 46    |                 | 5                    | 0    | 0     | 1     |
| 4:00 PM                | 0                                | 2    | 18   | 0     | 0                                | 0    | 8    | 0     | 0                       | 0    | 0    | 0     | 0                       | 1    | 0    | 2     | 31    |                 | 0                    | 0    | 0     | 0     |
| Count Total            | 0                                | 26   | 131  | 15    | 3                                | 15   | 95   | 2     | 0                       | 0    | 0    | 0     | 0                       | 5    | 2    | 19    | 313   |                 | 70                   | 5    | 16    | 17    |
| Peak Hour              | 0                                | 21   | 97   | 15    | 3                                | 15   | 73   | 2     | 0                       | 0    | 0    | 0     | 0                       | 3    | 2    | 17    | 248   |                 | 69                   | 3    | 16    | 17    |





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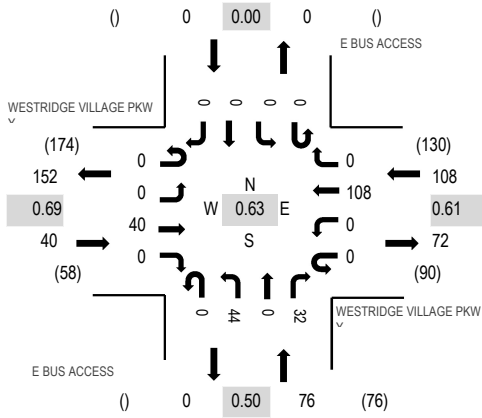
Location: 38 E BUS ACCESS & WESTRIDGE VILLAGE PKWY AM

Date: Wednesday, November 13, 2024

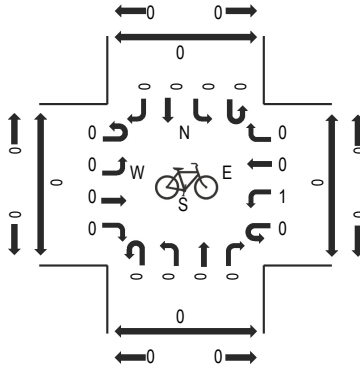
Peak Hour: 08:00 AM - 09:00 AM

Peak 15-Minutes: 08:15 AM - 08:30 AM

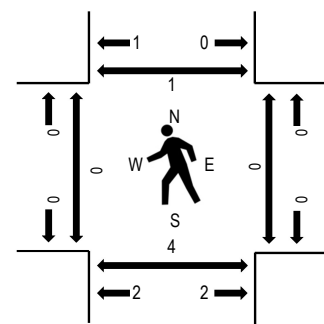
### Peak Hour - Motorized Vehicles



### Peak Hour - Bicycles



### Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

### Traffic Counts - Motorized Vehicles

| Interval<br>Start Time | WESTRIDGE VILLAGE Pkwy Eastbound |      |      |       | WESTRIDGE VILLAGE Pkwy Westbound |      |      |       | E BUS ACCESS Northbound |      |      |       | E BUS ACCESS Southbound |      |      |       | Total | Rolling<br>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 |
| 8:00 AM                | 0                                | 0    | 5    | 0     | 0                                | 0    | 23   | 0     | 0                       | 1    | 0    | 0     | 0                       | 0    | 0    | 0     | 29    | 224             | 0                    | 0    | 0     | 0     |
| 8:15 AM                | 0                                | 0    | 9    | 0     | 0                                | 0    | 44   | 0     | 0                       | 17   | 0    | 19    | 0                       | 0    | 0    | 0     | 89    | 212             | 0                    | 0    | 0     | 0     |
| 8:30 AM                | 0                                | 0    | 16   | 0     | 0                                | 0    | 29   | 0     | 0                       | 25   | 0    | 13    | 0                       | 0    | 0    | 0     | 83    | 146             | 0                    | 0    | 1     | 1     |
| 8:45 AM                | 0                                | 0    | 10   | 0     | 0                                | 0    | 12   | 0     | 0                       | 1    | 0    | 0     | 0                       | 0    | 0    | 0     | 23    |                 | 0                    | 0    | 3     | 0     |
| 9:00 AM                | 0                                | 0    | 8    | 0     | 0                                | 0    | 9    | 0     | 0                       | 0    | 0    | 0     | 0                       | 0    | 0    | 0     | 17    |                 | 0                    | 0    | 1     | 0     |
| 9:15 AM                | 0                                | 0    | 10   | 0     | 0                                | 0    | 13   | 0     | 0                       | 0    | 0    | 0     | 0                       | 0    | 0    | 0     | 23    |                 | 0                    | 0    | 0     | 0     |
| Count Total            | 0                                | 0    | 58   | 0     | 0                                | 0    | 130  | 0     | 0                       | 44   | 0    | 32    | 0                       | 0    | 0    | 0     | 264   |                 | 0                    | 0    | 5     | 1     |
| Peak Hour              | 0                                | 0    | 40   | 0     | 0                                | 0    | 108  | 0     | 0                       | 44   | 0    | 32    | 0                       | 0    | 0    | 0     | 224   |                 | 0                    | 0    | 4     | 1     |



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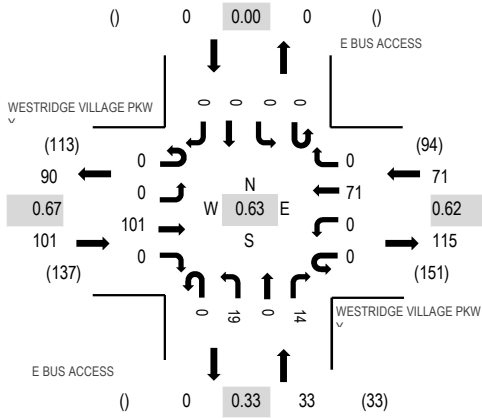
Location: 38 E BUS ACCESS & WESTRIDGE VILLAGE PKWY PM

Date: Wednesday, November 13, 2024

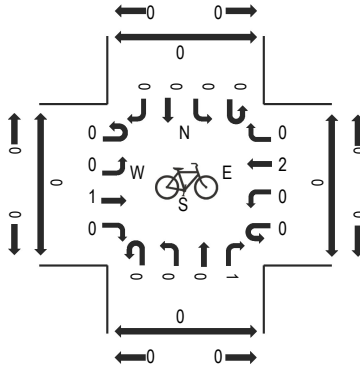
Peak Hour: 03:00 PM - 04:00 PM

Peak 15-Minutes: 03:30 PM - 03:45 PM

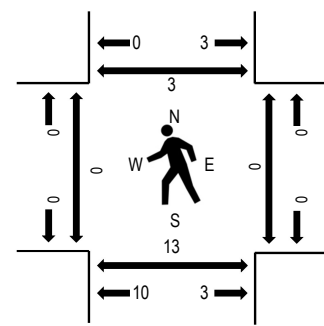
### Peak Hour - Motorized Vehicles



### Peak Hour - Bicycles



### Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

### Traffic Counts - Motorized Vehicles

| Interval<br>Start Time | WESTRIDGE VILLAGE<br>Eastbound |      |      |       | WESTRIDGE VILLAGE<br>Westbound |      |      |       | E BUS ACCESS<br>Northbound |      |      |       | E BUS ACCESS<br>Southbound |      |      |       | Total | Rolling<br>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 |
| 2:45 PM                | 0                              | 0    | 17   | 0     | 0                              | 0    | 15   | 0     | 0                          | 0    | 0    | 0     | 0                          | 0    | 0    | 0     | 32    | 201             | 0                    | 0    | 3     | 0     |
| 3:00 PM                | 0                              | 0    | 16   | 0     | 0                              | 0    | 12   | 0     | 0                          | 0    | 0    | 0     | 0                          | 0    | 0    | 0     | 28    | 205             | 0                    | 0    | 9     | 2     |
| 3:15 PM                | 0                              | 0    | 24   | 0     | 0                              | 0    | 30   | 0     | 0                          | 2    | 0    | 4     | 0                          | 0    | 0    | 0     | 60    | 204             | 0                    | 0    | 3     | 0     |
| 3:30 PM                | 0                              | 0    | 39   | 0     | 0                              | 0    | 17   | 0     | 0                          | 16   | 0    | 9     | 0                          | 0    | 0    | 0     | 81    |                 | 0                    | 0    | 1     | 0     |
| 3:45 PM                | 0                              | 0    | 22   | 0     | 0                              | 0    | 12   | 0     | 0                          | 1    | 0    | 1     | 0                          | 0    | 0    | 0     | 36    |                 | 0                    | 0    | 0     | 1     |
| 4:00 PM                | 0                              | 0    | 19   | 0     | 0                              | 0    | 8    | 0     | 0                          | 0    | 0    | 0     | 0                          | 0    | 0    | 0     | 27    |                 | 0                    | 0    | 0     | 0     |
| Count Total            | 0                              | 0    | 137  | 0     | 0                              | 0    | 94   | 0     | 0                          | 19   | 0    | 14    | 0                          | 0    | 0    | 0     | 264   |                 | 0                    | 0    | 16    | 3     |
| Peak Hour              | 0                              | 0    | 101  | 0     | 0                              | 0    | 71   | 0     | 0                          | 19   | 0    | 14    | 0                          | 0    | 0    | 0     | 205   |                 | 0                    | 0    | 13    | 3     |



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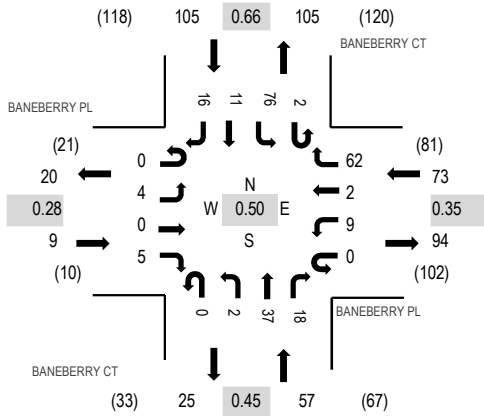
Location: 39 BANE BERRY CT & BANE BERRY PL AM

Date: Wednesday, November 13, 2024

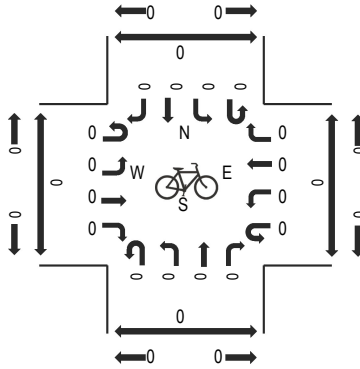
Peak Hour: 08:00 AM - 09:00 AM

Peak 15-Minutes: 08:30 AM - 08:45 AM

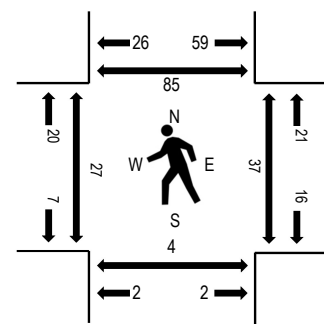
### Peak Hour - Motorized Vehicles



### Peak Hour - Bicycles



### Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

### Traffic Counts - Motorized Vehicles

| Interval<br>Start Time | BANE BERRY PL<br>Eastbound |      |      |       | BANE BERRY PL<br>Westbound |      |      |       | BANE BERRY CT<br>Northbound |      |      |       | BANE BERRY CT<br>Southbound |      |      |       | Total | Rolling<br>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 |
| 8:00 AM                | 0                          | 0    | 0    | 0     | 0                          | 1    | 0    | 3     | 0                           | 0    | 6    | 0     | 1                           | 26   | 4    | 0     | 41    | 244             | 0                    | 0    | 0     | 0     |
| 8:15 AM                | 0                          | 0    | 0    | 1     | 0                          | 1    | 0    | 11    | 0                           | 2    | 9    | 4     | 0                           | 28   | 5    | 7     | 68    | 223             | 9                    | 6    | 0     | 35    |
| 8:30 AM                | 0                          | 4    | 0    | 4     | 0                          | 7    | 2    | 43    | 0                           | 0    | 18   | 14    | 1                           | 20   | 1    | 9     | 123   | 167             | 16                   | 31   | 4     | 47    |
| 8:45 AM                | 0                          | 0    | 0    | 0     | 0                          | 0    | 0    | 5     | 0                           | 0    | 4    | 0     | 0                           | 2    | 1    | 0     | 12    |                 | 2                    | 0    | 0     | 3     |
| 9:00 AM                | 0                          | 0    | 0    | 0     | 0                          | 0    | 1    | 2     | 0                           | 0    | 6    | 1     | 0                           | 5    | 5    | 0     | 20    |                 | 0                    | 0    | 0     | 1     |
| 9:15 AM                | 0                          | 0    | 1    | 0     | 0                          | 1    | 0    | 4     | 0                           | 0    | 3    | 0     | 0                           | 1    | 2    | 0     | 12    |                 | 0                    | 0    | 0     | 0     |
| Count Total            | 0                          | 4    | 1    | 5     | 0                          | 10   | 3    | 68    | 0                           | 2    | 46   | 19    | 2                           | 82   | 18   | 16    | 276   |                 | 27                   | 37   | 4     | 86    |
| Peak Hour              | 0                          | 4    | 0    | 5     | 0                          | 9    | 2    | 62    | 0                           | 2    | 37   | 18    | 2                           | 76   | 11   | 16    | 244   |                 | 27                   | 37   | 4     | 85    |



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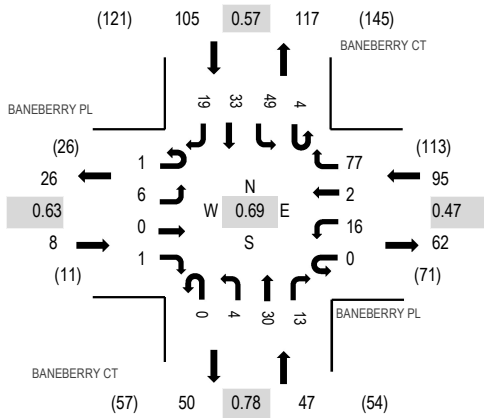
Location: 39 BANE BERRY CT & BANE BERRY PL PM

Date: Wednesday, November 13, 2024

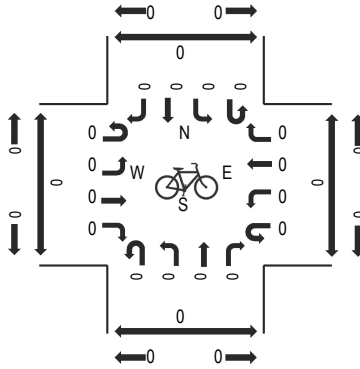
Peak Hour: 03:00 PM - 04:00 PM

Peak 15-Minutes: 03:30 PM - 03:45 PM

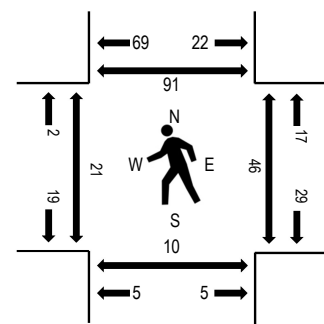
### Peak Hour - Motorized Vehicles



### Peak Hour - Bicycles



### Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

### Traffic Counts - Motorized Vehicles

| Interval<br>Start Time | BANE BERRY PL<br>Eastbound |      |      |       | BANE BERRY PL<br>Westbound |      |      |       | BANE BERRY CT<br>Northbound |      |      |       | BANE BERRY CT<br>Southbound |      |      |       | Total | Rolling<br>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 |
| 2:45 PM                | 0                          | 2    | 0    | 0     | 0                          | 0    | 0    | 4     | 0                           | 0    | 3    | 0     | 0                           | 5    | 5    | 0     | 19    | 231             | 1                    | 0    | 0     | 1     |
| 3:00 PM                | 0                          | 2    | 0    | 0     | 0                          | 0    | 0    | 5     | 0                           | 1    | 5    | 6     | 2                           | 16   | 7    | 3     | 47    | 255             | 1                    | 0    | 1     | 0     |
| 3:15 PM                | 1                          | 0    | 0    | 1     | 0                          | 3    | 0    | 8     | 0                           | 0    | 8    | 6     | 2                           | 26   | 12   | 6     | 73    | 233             | 3                    | 20   | 6     | 29    |
| 3:30 PM                | 0                          | 4    | 0    | 0     | 0                          | 12   | 2    | 41    | 0                           | 3    | 12   | 0     | 0                           | 3    | 8    | 7     | 92    |                 | 17                   | 24   | 3     | 62    |
| 3:45 PM                | 0                          | 0    | 0    | 0     | 0                          | 1    | 0    | 23    | 0                           | 0    | 5    | 1     | 0                           | 4    | 6    | 3     | 43    |                 | 0                    | 2    | 0     | 0     |
| 4:00 PM                | 0                          | 1    | 0    | 0     | 0                          | 0    | 0    | 14    | 0                           | 0    | 4    | 0     | 0                           | 4    | 2    | 0     | 25    |                 | 2                    | 2    | 1     | 2     |
| Count Total            | 1                          | 9    | 0    | 1     | 0                          | 16   | 2    | 95    | 0                           | 4    | 37   | 13    | 4                           | 58   | 40   | 19    | 299   |                 | 24                   | 48   | 11    | 94    |
| Peak Hour              | 1                          | 6    | 0    | 1     | 0                          | 16   | 2    | 77    | 0                           | 4    | 30   | 13    | 4                           | 49   | 33   | 19    | 255   |                 | 21                   | 46   | 10    | 91    |



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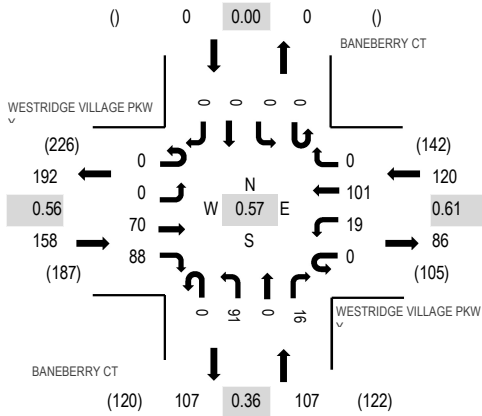
Location: 40 BANE BERRY CT & WESTRIDGE VILLAGE PKWY AM

Date: Wednesday, November 13, 2024

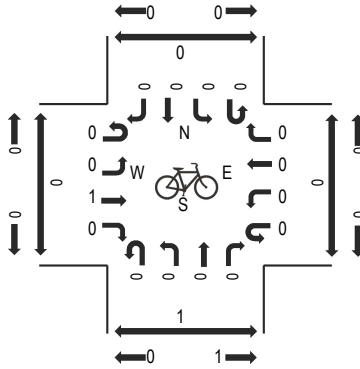
Peak Hour: 08:00 AM - 09:00 AM

Peak 15-Minutes: 08:30 AM - 08:45 AM

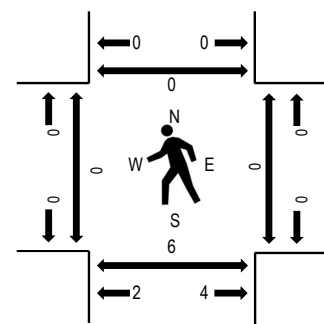
### Peak Hour - Motorized Vehicles



### Peak Hour - Bicycles



### Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

### Traffic Counts - Motorized Vehicles

| Interval<br>Start Time | WESTRIDGE VILLAGE Pkwy Eastbound |      |      |       | WESTRIDGE VILLAGE Pkwy Westbound |      |      |       | BANE BERRY CT Northbound |      |      |       | BANE BERRY CT Southbound |      |      |       | Total | Rolling<br>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 |
| 8:00 AM                | 0                                | 0    | 8    | 24    | 0                                | 10   | 15   | 0     | 0                        | 8    | 0    | 0     | 0                        | 0    | 0    | 0     | 65    | 385             | 0                    | 0    | 0     | 0     |
| 8:15 AM                | 0                                | 0    | 28   | 43    | 0                                | 3    | 28   | 0     | 0                        | 14   | 0    | 1     | 0                        | 0    | 0    | 0     | 117   | 352             | 0                    | 0    | 3     | 0     |
| 8:30 AM                | 0                                | 0    | 26   | 19    | 0                                | 6    | 43   | 0     | 0                        | 59   | 0    | 15    | 0                        | 0    | 0    | 0     | 168   | 269             | 0                    | 0    | 2     | 0     |
| 8:45 AM                | 0                                | 0    | 8    | 2     | 0                                | 0    | 15   | 0     | 0                        | 10   | 0    | 0     | 0                        | 0    | 0    | 0     | 35    |                 | 0                    | 0    | 1     | 0     |
| 9:00 AM                | 0                                | 0    | 6    | 9     | 0                                | 1    | 8    | 0     | 0                        | 6    | 0    | 2     | 0                        | 0    | 0    | 0     | 32    |                 | 0                    | 0    | 0     | 0     |
| 9:15 AM                | 0                                | 0    | 11   | 3     | 0                                | 0    | 13   | 0     | 0                        | 7    | 0    | 0     | 0                        | 0    | 0    | 0     | 34    |                 | 0                    | 0    | 0     | 0     |
| Count Total            | 0                                | 0    | 87   | 100   | 0                                | 20   | 122  | 0     | 0                        | 104  | 0    | 18    | 0                        | 0    | 0    | 0     | 451   |                 | 0                    | 0    | 6     | 0     |
| Peak Hour              | 0                                | 0    | 70   | 88    | 0                                | 19   | 101  | 0     | 0                        | 91   | 0    | 16    | 0                        | 0    | 0    | 0     | 385   |                 | 0                    | 0    | 6     | 0     |



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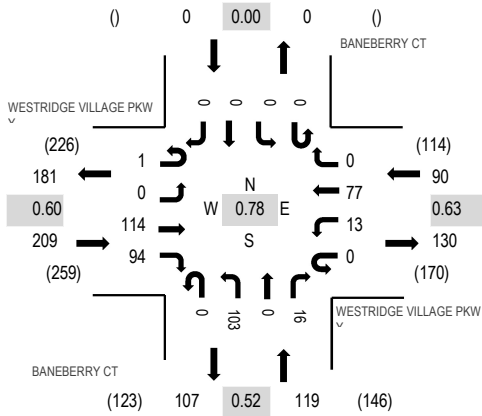
Location: 40 BANE BERRY CT & WESTRIDGE VILLAGE PKWY PM

Date: Wednesday, November 13, 2024

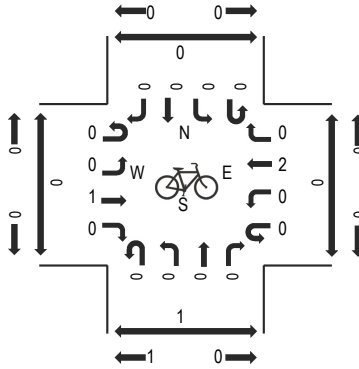
Peak Hour: 03:00 PM - 04:00 PM

Peak 15-Minutes: 03:30 PM - 03:45 PM

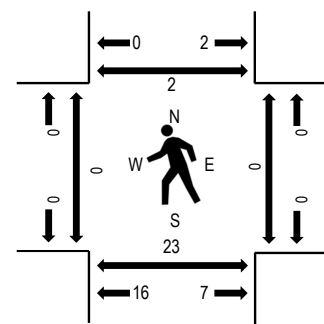
### Peak Hour - Motorized Vehicles



### Peak Hour - Bicycles



### Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

### Traffic Counts - Motorized Vehicles

| Interval<br>Start Time | WESTRIDGE VILLAGE<br>Eastbound |      |      |       | WESTRIDGE VILLAGE<br>Westbound |      |      |       | BANE BERRY CT<br>Northbound |      |      |       | BANE BERRY CT<br>Southbound |      |      |       | Total | Rolling<br>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 |
| 2:45 PM                | 0                              | 0    | 20   | 9     | 0                              | 1    | 13   | 0     | 0                           | 7    | 0    | 0     | 0                           | 0    | 0    | 0     | 50    | 391             | 0                    | 0    | 0     | 0     |
| 3:00 PM                | 0                              | 0    | 29   | 26    | 0                              | 6    | 8    | 0     | 0                           | 9    | 0    | 1     | 0                           | 0    | 0    | 0     | 79    | 418             | 0                    | 0    | 3     | 2     |
| 3:15 PM                | 1                              | 0    | 40   | 46    | 0                              | 5    | 18   | 0     | 0                           | 16   | 0    | 2     | 0                           | 0    | 0    | 0     | 128   | 390             | 0                    | 0    | 12    | 0     |
| 3:30 PM                | 0                              | 0    | 25   | 11    | 0                              | 2    | 34   | 0     | 0                           | 54   | 0    | 8     | 0                           | 0    | 0    | 0     | 134   |                 | 0                    | 0    | 5     | 0     |
| 3:45 PM                | 0                              | 0    | 20   | 11    | 0                              | 0    | 17   | 0     | 0                           | 24   | 0    | 5     | 0                           | 0    | 0    | 0     | 77    |                 | 0                    | 0    | 3     | 0     |
| 4:00 PM                | 0                              | 0    | 15   | 6     | 0                              | 0    | 10   | 0     | 0                           | 15   | 0    | 5     | 0                           | 0    | 0    | 0     | 51    |                 | 0                    | 0    | 0     | 0     |
| Count Total            | 1                              | 0    | 149  | 109   | 0                              | 14   | 100  | 0     | 0                           | 125  | 0    | 21    | 0                           | 0    | 0    | 0     | 519   |                 | 0                    | 0    | 23    | 2     |
| Peak Hour              | 1                              | 0    | 114  | 94    | 0                              | 13   | 77   | 0     | 0                           | 103  | 0    | 16    | 0                           | 0    | 0    | 0     | 418   |                 | 0                    | 0    | 23    | 2     |





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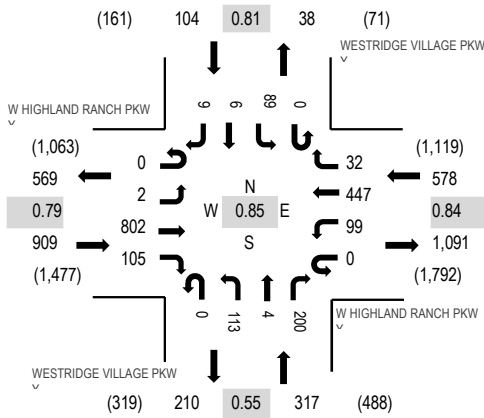
Location: 41 WESTRIDGE VILLAGE PKWY & W HIGHLAND RANCH PKWY AM

Date: Wednesday, November 13, 2024

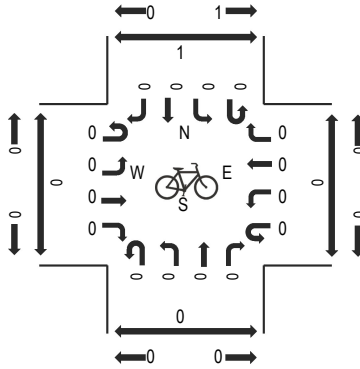
Peak Hour: 07:45 AM - 08:45 AM

Peak 15-Minutes: 08:30 AM - 08:45 AM

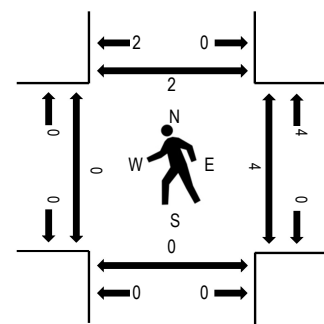
### Peak Hour - Motorized Vehicles



### Peak Hour - Bicycles



### Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

### Traffic Counts - Motorized Vehicles

| Interval<br>Start Time | W HIGHLAND RANCH PKWY Eastbound |      |       |       | W HIGHLAND RANCH PKWY Westbound |      |      |       | WESTRIDGE VILLAGE PKWY Northbound |      |      |       | WESTRIDGE VILLAGE PKWY Southbound |      |      |       | Total | Rolling<br>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 |
|                        |                                 |      |       |       |                                 |      |      |       |                                   |      |      |       |                                   |      |      |       |       |                 |                      |      |       |       |
| 7:45 AM                | 0                               | 0    | 227   | 7     | 0                               | 19   | 116  | 4     | 0                                 | 12   | 0    | 34    | 0                                 | 22   | 1    | 2     | 444   | 1,908           | 0                    | 0    | 0     | 0     |
| 8:00 AM                | 0                               | 1    | 171   | 16    | 0                               | 20   | 87   | 2     | 0                                 | 15   | 0    | 36    | 0                                 | 15   | 1    | 2     | 366   | 1,858           | 0                    | 2    | 0     | 2     |
| 8:15 AM                | 0                               | 1    | 223   | 62    | 0                               | 33   | 105  | 10    | 0                                 | 21   | 1    | 49    | 0                                 | 29   | 1    | 2     | 537   | 1,819           | 0                    | 0    | 0     | 0     |
| 8:30 AM                | 0                               | 0    | 181   | 20    | 0                               | 27   | 139  | 16    | 0                                 | 65   | 3    | 81    | 0                                 | 23   | 3    | 3     | 561   | 1,601           | 0                    | 2    | 0     | 0     |
| 8:45 AM                | 0                               | 1    | 168   | 10    | 0                               | 18   | 120  | 8     | 0                                 | 22   | 1    | 31    | 0                                 | 15   | 0    | 0     | 394   | 1,337           | 0                    | 0    | 0     | 0     |
| 9:00 AM                | 0                               | 2    | 130   | 7     | 1                               | 25   | 100  | 7     | 0                                 | 10   | 0    | 32    | 0                                 | 12   | 0    | 1     | 327   |                 | 0                    | 0    | 1     | 0     |
| 9:15 AM                | 0                               | 0    | 115   | 6     | 0                               | 17   | 122  | 6     | 0                                 | 15   | 0    | 26    | 0                                 | 11   | 0    | 1     | 319   |                 | 0                    | 3    | 0     | 0     |
| 9:30 AM                | 0                               | 1    | 117   | 11    | 0                               | 13   | 97   | 7     | 0                                 | 6    | 0    | 28    | 0                                 | 15   | 2    | 0     | 297   |                 | 0                    | 0    | 0     | 0     |
| Count Total            | 0                               | 6    | 1,332 | 139   | 1                               | 172  | 886  | 60    | 0                                 | 166  | 5    | 317   | 0                                 | 142  | 8    | 11    | 3,245 |                 | 0                    | 7    | 1     | 2     |
| Peak Hour              | 0                               | 2    | 802   | 105   | 0                               | 99   | 447  | 32    | 0                                 | 113  | 4    | 200   | 0                                 | 89   | 6    | 9     | 1,908 |                 | 0                    | 4    | 0     | 2     |



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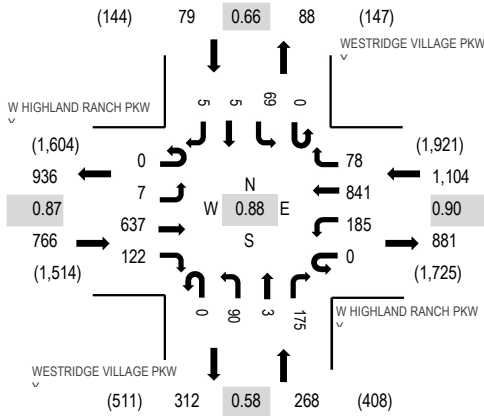
Location: 41 WESTRIDGE VILLAGE PKWY &amp; W HIGHLAND RANCH PKWY PM

Date: Wednesday, November 13, 2024

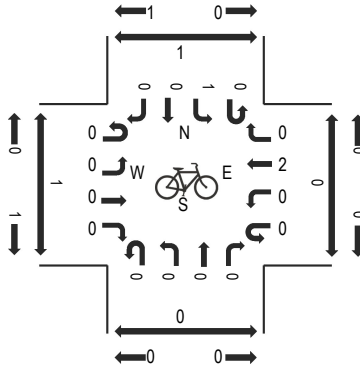
Peak Hour: 03:00 PM - 04:00 PM

Peak 15-Minutes: 03:30 PM - 03:45 PM

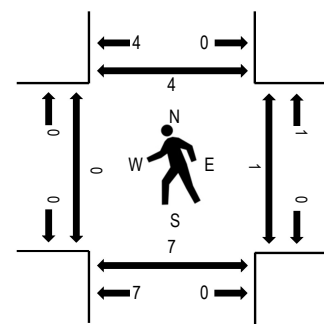
## Peak Hour - Motorized Vehicles



## Peak Hour - Bicycles



## Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

## Traffic Counts - Motorized Vehicles

| Interval<br>Start Time | W HIGHLAND RANCH PKWY Eastbound |      |       |       | W HIGHLAND RANCH PKWY Westbound |      |       |       | WESTRIDGE VILLAGE PKWY Northbound |      |      |       | WESTRIDGE VILLAGE PKWY Southbound |      |      |       | Total | Rolling<br>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 |
|                        |                                 |      |       |       |                                 |      |       |       |                                   |      |      |       |                                   |      |      |       |       |                 |                      |      |       |       |
| 2:30 PM                | 0                               | 0    | 166   | 12    | 0                               | 32   | 121   | 8     | 0                                 | 7    | 1    | 26    | 0                                 | 12   | 1    | 1     | 387   | 1,908           | 1                    | 0    | 1     | 1     |
| 2:45 PM                | 0                               | 1    | 166   | 17    | 0                               | 40   | 164   | 15    | 0                                 | 8    | 1    | 23    | 0                                 | 14   | 0    | 1     | 450   | 2,150           | 0                    | 3    | 0     | 0     |
| 3:00 PM                | 0                               | 1    | 159   | 32    | 0                               | 58   | 220   | 11    | 0                                 | 6    | 0    | 28    | 0                                 | 14   | 2    | 1     | 532   | 2,217           | 0                    | 1    | 5     | 3     |
| 3:15 PM                | 0                               | 2    | 171   | 56    | 0                               | 49   | 173   | 16    | 0                                 | 9    | 0    | 33    | 0                                 | 26   | 3    | 1     | 539   | 2,162           | 0                    | 0    | 0     | 0     |
| 3:30 PM                | 0                               | 3    | 168   | 17    | 0                               | 36   | 236   | 34    | 0                                 | 51   | 2    | 69    | 0                                 | 13   | 0    | 0     | 629   | 2,079           | 0                    | 0    | 2     | 0     |
| 3:45 PM                | 0                               | 1    | 139   | 17    | 0                               | 42   | 212   | 17    | 0                                 | 24   | 1    | 45    | 0                                 | 16   | 0    | 3     | 517   |                 | 0                    | 0    | 0     | 1     |
| 4:00 PM                | 0                               | 1    | 186   | 16    | 0                               | 30   | 169   | 14    | 0                                 | 13   | 1    | 35    | 0                                 | 10   | 0    | 2     | 477   |                 | 0                    | 0    | 0     | 1     |
| 4:15 PM                | 0                               | 2    | 166   | 15    | 0                               | 36   | 173   | 15    | 0                                 | 8    | 0    | 17    | 0                                 | 23   | 0    | 1     | 456   |                 | 0                    | 0    | 1     | 0     |
| Count Total            | 0                               | 11   | 1,321 | 182   | 0                               | 323  | 1,468 | 130   | 0                                 | 126  | 6    | 276   | 0                                 | 128  | 6    | 10    | 3,987 |                 | 1                    | 4    | 9     | 6     |
| Peak Hour              | 0                               | 7    | 637   | 122   | 0                               | 185  | 841   | 78    | 0                                 | 90   | 3    | 175   | 0                                 | 69   | 5    | 5     | 2,217 |                 | 0                    | 1    | 7     | 4     |



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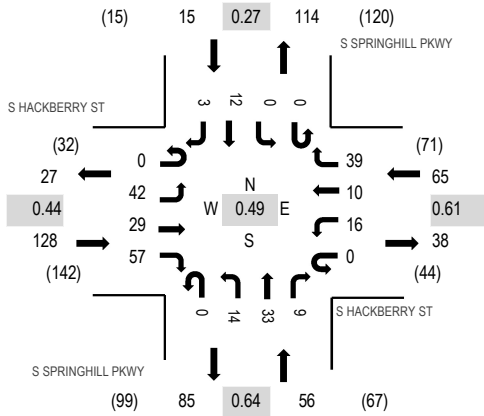
Location: 42 S SPRINGHILL PKWY & S HACKBERRY ST AM

Date: Wednesday, November 13, 2024

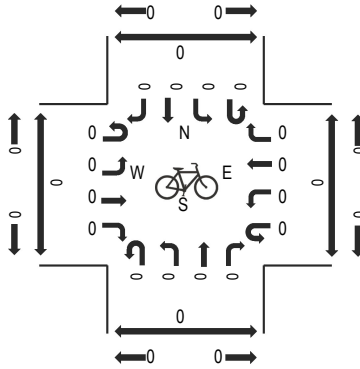
Peak Hour: 08:00 AM - 09:00 AM

Peak 15-Minutes: 08:30 AM - 08:45 AM

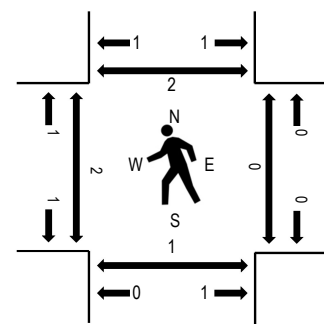
### Peak Hour - Motorized Vehicles



### Peak Hour - Bicycles



### Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

### Traffic Counts - Motorized Vehicles

| Interval<br>Start Time | S HACKBERRY ST<br>Eastbound |      |      |       | S HACKBERRY ST<br>Westbound |      |      |       | S SPRINGHILL PKWY<br>Northbound |      |      |       | S SPRINGHILL PKWY<br>Southbound |      |      |       | Total | Rolling<br>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 |
| 7:45 AM                | 0                           | 0    | 0    | 6     | 0                           | 3    | 0    | 1     | 0                               | 3    | 2    | 2     | 0                               | 0    | 0    | 0     | 17    | 260             | 0                    | 0    | 0     | 1     |
| 8:00 AM                | 0                           | 2    | 1    | 6     | 0                           | 7    | 1    | 2     | 0                               | 3    | 6    | 2     | 0                               | 0    | 0    | 0     | 30    | 264             | 1                    | 0    | 0     | 1     |
| 8:15 AM                | 0                           | 20   | 5    | 11    | 0                           | 2    | 3    | 22    | 0                               | 2    | 14   | 0     | 0                               | 0    | 0    | 0     | 79    | 248             | 0                    | 0    | 1     | 0     |
| 8:30 AM                | 0                           | 19   | 19   | 35    | 0                           | 5    | 6    | 14    | 0                               | 7    | 10   | 5     | 0                               | 0    | 11   | 3     | 134   |                 | 0                    | 0    | 0     | 1     |
| 8:45 AM                | 0                           | 1    | 4    | 5     | 0                           | 2    | 0    | 1     | 0                               | 2    | 3    | 2     | 0                               | 0    | 1    | 0     | 21    |                 | 1                    | 0    | 0     | 0     |
| 9:00 AM                | 0                           | 1    | 3    | 4     | 0                           | 1    | 0    | 1     | 0                               | 2    | 1    | 1     | 0                               | 0    | 0    | 0     | 14    |                 | 0                    | 0    | 0     | 1     |
| Count Total            | 0                           | 43   | 32   | 67    | 0                           | 20   | 10   | 41    | 0                               | 19   | 36   | 12    | 0                               | 0    | 12   | 3     | 295   |                 | 2                    | 0    | 1     | 4     |
| Peak Hour              | 0                           | 42   | 29   | 57    | 0                           | 16   | 10   | 39    | 0                               | 14   | 33   | 9     | 0                               | 0    | 12   | 3     | 264   |                 | 2                    | 0    | 1     | 2     |



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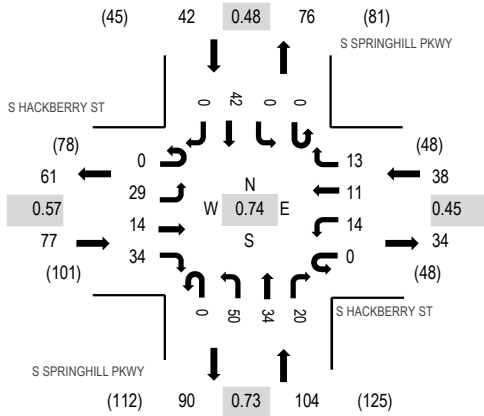
Location: 42 S SPRINGHILL PKWY & S HACKBERRY ST PM

Date: Wednesday, November 13, 2024

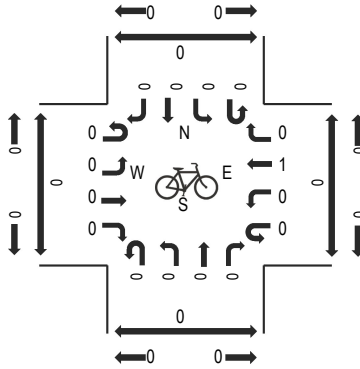
Peak Hour: 03:00 PM - 04:00 PM

Peak 15-Minutes: 03:30 PM - 03:45 PM

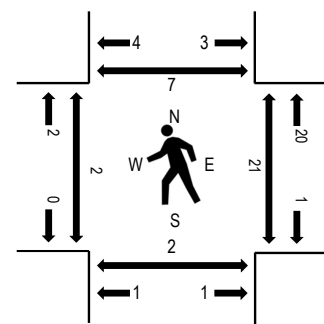
### Peak Hour - Motorized Vehicles



### Peak Hour - Bicycles



### Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

### Traffic Counts - Motorized Vehicles

| Interval<br>Start Time | S HACKBERRY ST<br>Eastbound |      |      |       | S HACKBERRY ST<br>Westbound |      |      |       | S SPRINGHILL PKWY<br>Northbound |      |      |       | S SPRINGHILL PKWY<br>Southbound |      |      |       | Total | Rolling<br>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 |
| 2:45 PM                | 0                           | 1    | 2    | 4     | 0                           | 4    | 2    | 0     | 0                               | 7    | 0    | 6     | 0                               | 0    | 0    | 0     | 26    | 249             | 0                    | 1    | 3     | 0     |
| 3:00 PM                | 0                           | 5    | 1    | 3     | 0                           | 2    | 2    | 1     | 0                               | 18   | 11   | 7     | 0                               | 0    | 1    | 0     | 51    | 261             | 0                    | 16   | 2     | 4     |
| 3:15 PM                | 0                           | 19   | 2    | 6     | 0                           | 5    | 7    | 10    | 0                               | 16   | 16   | 3     | 0                               | 0    | 0    | 0     | 84    | 242             | 2                    | 4    | 0     | 2     |
| 3:30 PM                | 0                           | 5    | 10   | 22    | 0                           | 4    | 1    | 2     | 0                               | 9    | 6    | 6     | 0                               | 0    | 23   | 0     | 88    |                 | 0                    | 1    | 0     | 0     |
| 3:45 PM                | 0                           | 0    | 1    | 3     | 0                           | 3    | 1    | 0     | 0                               | 7    | 1    | 4     | 0                               | 0    | 18   | 0     | 38    |                 | 0                    | 0    | 0     | 1     |
| 4:00 PM                | 0                           | 1    | 6    | 10    | 0                           | 1    | 2    | 1     | 0                               | 6    | 2    | 0     | 0                               | 0    | 3    | 0     | 32    |                 | 0                    | 0    | 0     | 3     |
| Count Total            | 0                           | 31   | 22   | 48    | 0                           | 19   | 15   | 14    | 0                               | 63   | 36   | 26    | 0                               | 0    | 45   | 0     | 319   |                 | 2                    | 22   | 5     | 10    |
| Peak Hour              | 0                           | 29   | 14   | 34    | 0                           | 14   | 11   | 13    | 0                               | 50   | 34   | 20    | 0                               | 0    | 42   | 0     | 261   |                 | 2                    | 21   | 2     | 7     |



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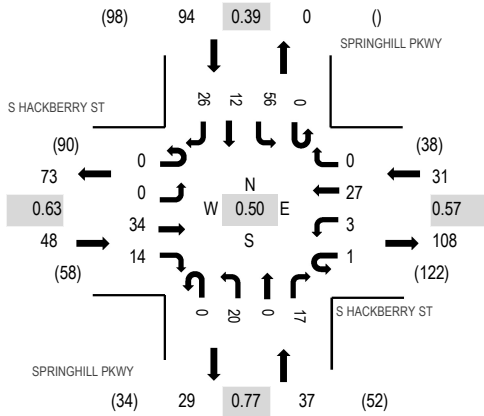
Location: 43 SPRINGHILL PKWY & S HACKBERRY ST AM

Date: Wednesday, November 13, 2024

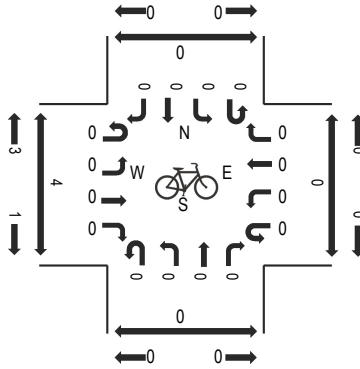
Peak Hour: 08:00 AM - 09:00 AM

Peak 15-Minutes: 08:30 AM - 08:45 AM

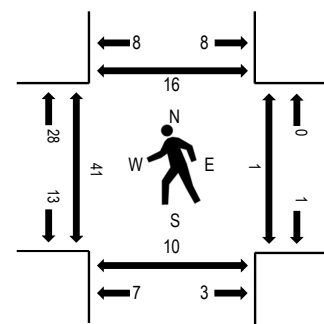
### Peak Hour - Motorized Vehicles



### Peak Hour - Bicycles



### Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

### Traffic Counts - Motorized Vehicles

| Interval<br>Start Time | S HACKBERRY ST<br>Eastbound |      |      |       | S HACKBERRY ST<br>Westbound |      |      |       | SPRINGHILL PKWY<br>Northbound |      |      |       | SPRINGHILL PKWY<br>Southbound |      |      |       | Total | Rolling<br>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 |
| 7:45 AM                | 0                           | 0    | 5    | 1     | 0                           | 1    | 3    | 0     | 0                             | 3    | 0    | 3     | 0                             | 0    | 0    | 1     | 17    | 208             | 0                    | 0    | 0     | 2     |
| 8:00 AM                | 0                           | 0    | 5    | 2     | 0                           | 0    | 4    | 0     | 0                             | 5    | 0    | 1     | 0                             | 3    | 1    | 0     | 21    | 210             | 0                    | 0    | 0     | 0     |
| 8:15 AM                | 0                           | 0    | 15   | 5     | 0                           | 1    | 9    | 0     | 0                             | 7    | 0    | 5     | 0                             | 16   | 1    | 6     | 65    | 208             | 10                   | 1    | 4     | 3     |
| 8:30 AM                | 0                           | 0    | 12   | 5     | 1                           | 2    | 11   | 0     | 0                             | 4    | 0    | 9     | 0                             | 34   | 9    | 18    | 105   |                 | 31                   | 0    | 6     | 12    |
| 8:45 AM                | 0                           | 0    | 2    | 2     | 0                           | 0    | 3    | 0     | 0                             | 4    | 0    | 2     | 0                             | 3    | 1    | 2     | 19    |                 | 0                    | 0    | 0     | 1     |
| 9:00 AM                | 0                           | 0    | 3    | 1     | 0                           | 1    | 2    | 0     | 0                             | 6    | 0    | 3     | 0                             | 0    | 1    | 2     | 19    |                 | 0                    | 0    | 0     | 1     |
| Count Total            | 0                           | 0    | 42   | 16    | 1                           | 5    | 32   | 0     | 0                             | 29   | 0    | 23    | 0                             | 56   | 13   | 29    | 246   |                 | 41                   | 1    | 10    | 19    |
| Peak Hour              | 0                           | 0    | 34   | 14    | 1                           | 3    | 27   | 0     | 0                             | 20   | 0    | 17    | 0                             | 56   | 12   | 26    | 210   |                 | 41                   | 1    | 10    | 16    |



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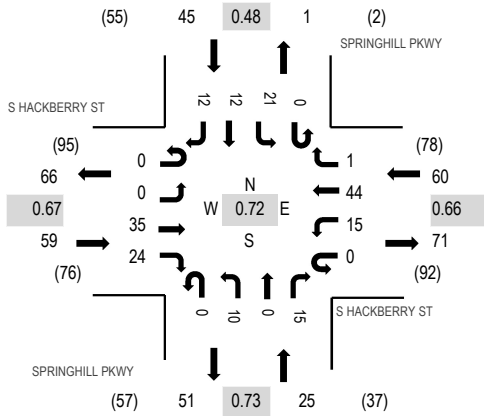
Location: 43 SPRINGHILL PKWY & S HACKBERRY ST PM

Date: Wednesday, November 13, 2024

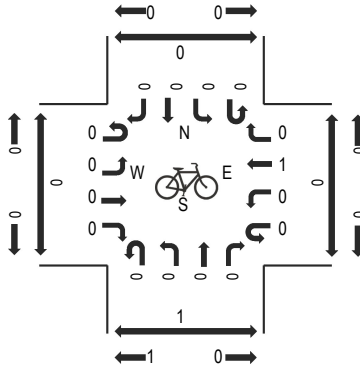
Peak Hour: 03:00 PM - 04:00 PM

Peak 15-Minutes: 03:30 PM - 03:45 PM

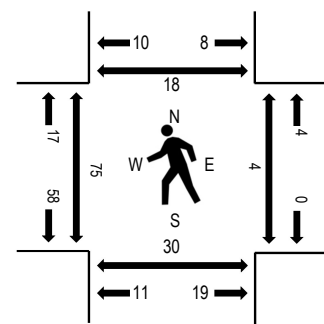
### Peak Hour - Motorized Vehicles



### Peak Hour - Bicycles



### Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

### Traffic Counts - Motorized Vehicles

| Interval<br>Start Time | S HACKBERRY ST<br>Eastbound |      |      |       | S HACKBERRY ST<br>Westbound |      |      |       | SPRINGHILL PKWY<br>Northbound |      |      |       | SPRINGHILL PKWY<br>Southbound |      |      |       | Total | Rolling<br>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 |
| 2:45 PM                | 0                           | 0    | 7    | 0     | 0                           | 0    | 10   | 0     | 1                             | 4    | 1    | 1     | 0                             | 1    | 0    | 1     | 26    | 183             | 2                    | 1    | 2     | 2     |
| 3:00 PM                | 0                           | 0    | 5    | 5     | 0                           | 2    | 14   | 1     | 0                             | 3    | 0    | 3     | 0                             | 1    | 1    | 1     | 36    | 189             | 3                    | 0    | 7     | 5     |
| 3:15 PM                | 0                           | 0    | 8    | 3     | 0                           | 4    | 20   | 0     | 0                             | 4    | 0    | 6     | 0                             | 5    | 4    | 1     | 55    | 184             | 26                   | 2    | 7     | 4     |
| 3:30 PM                | 0                           | 0    | 18   | 4     | 0                           | 6    | 6    | 0     | 0                             | 1    | 0    | 5     | 0                             | 14   | 6    | 6     | 66    |                 | 41                   | 1    | 14    | 5     |
| 3:45 PM                | 0                           | 0    | 4    | 12    | 0                           | 3    | 4    | 0     | 0                             | 2    | 0    | 1     | 0                             | 1    | 1    | 4     | 32    |                 | 5                    | 1    | 2     | 4     |
| 4:00 PM                | 0                           | 0    | 7    | 3     | 0                           | 2    | 6    | 0     | 0                             | 3    | 0    | 2     | 0                             | 3    | 0    | 5     | 31    |                 | 2                    | 1    | 3     | 4     |
| Count Total            | 0                           | 0    | 49   | 27    | 0                           | 17   | 60   | 1     | 1                             | 17   | 1    | 18    | 0                             | 25   | 12   | 18    | 246   |                 | 79                   | 6    | 35    | 24    |
| Peak Hour              | 0                           | 0    | 35   | 24    | 0                           | 15   | 44   | 1     | 0                             | 10   | 0    | 15    | 0                             | 21   | 12   | 12    | 189   |                 | 75                   | 4    | 30    | 18    |



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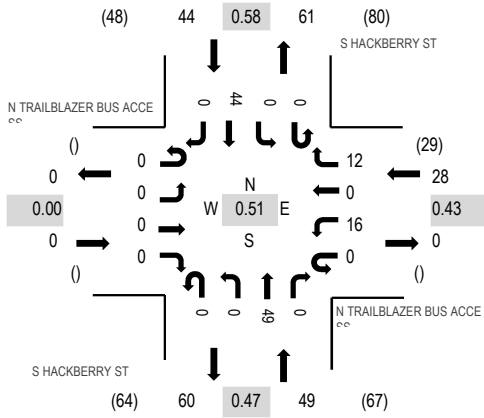
Location: 44 S HACKBERRY ST & N TRAILBLAZER BUS ACCESS AM

Date: Wednesday, November 13, 2024

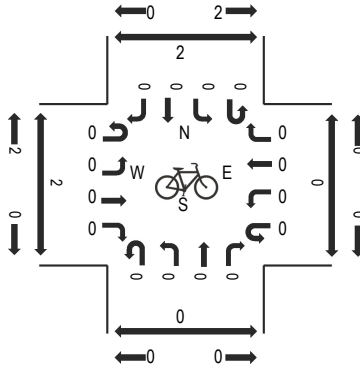
Peak Hour: 07:45 AM - 08:45 AM

Peak 15-Minutes: 08:30 AM - 08:45 AM

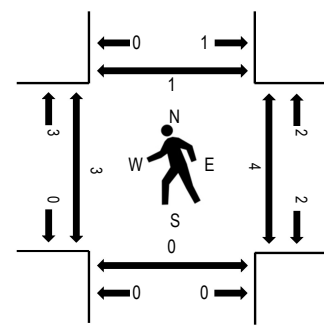
### Peak Hour - Motorized Vehicles



### Peak Hour - Bicycles



### Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

### Traffic Counts - Motorized Vehicles

| Interval<br>Start Time | N TRAILBLAZER BUS ACCESS Eastbound |      |      |       | N TRAILBLAZER BUS ACCESS Westbound |      |      |       | S HACKBERRY ST Northbound |      |      |       | S HACKBERRY ST Southbound |      |      |       | Total | Rolling<br>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 |
| 7:45 AM                | 0                                  | 0    | 0    | 0     | 0                                  | 0    | 0    | 0     | 0                         | 0    | 6    | 0     | 0                         | 0    | 7    | 0     | 13    | 121             | 1                    | 2    | 0     | 0     |
| 8:00 AM                | 0                                  | 0    | 0    | 0     | 0                                  | 1    | 0    | 0     | 0                         | 0    | 6    | 0     | 0                         | 0    | 5    | 0     | 12    | 120             | 0                    | 0    | 0     | 0     |
| 8:15 AM                | 0                                  | 0    | 0    | 0     | 0                                  | 6    | 0    | 4     | 0                         | 0    | 8    | 0     | 0                         | 0    | 19   | 0     | 37    | 119             | 0                    | 1    | 0     | 0     |
| 8:30 AM                | 0                                  | 0    | 0    | 0     | 0                                  | 9    | 0    | 8     | 0                         | 0    | 29   | 0     | 0                         | 0    | 13   | 0     | 59    |                 | 2                    | 1    | 0     | 1     |
| 8:45 AM                | 0                                  | 0    | 0    | 0     | 0                                  | 0    | 0    | 1     | 0                         | 0    | 9    | 0     | 0                         | 0    | 2    | 0     | 12    |                 | 1                    | 0    | 0     | 0     |
| 9:00 AM                | 0                                  | 0    | 0    | 0     | 0                                  | 0    | 0    | 0     | 0                         | 0    | 9    | 0     | 0                         | 0    | 2    | 0     | 11    |                 | 0                    | 0    | 0     | 0     |
| Count Total            | 0                                  | 0    | 0    | 0     | 0                                  | 16   | 0    | 13    | 0                         | 0    | 67   | 0     | 0                         | 0    | 48   | 0     | 144   |                 | 4                    | 4    | 0     | 1     |
| Peak Hour              | 0                                  | 0    | 0    | 0     | 0                                  | 16   | 0    | 12    | 0                         | 0    | 49   | 0     | 0                         | 0    | 44   | 0     | 121   |                 | 3                    | 4    | 0     | 1     |



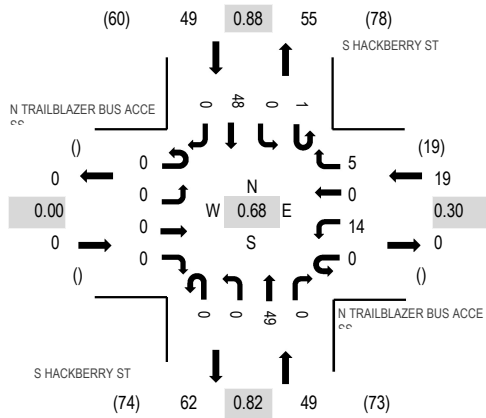
**Location:** 44 S HACKBERRY ST & N TRAILBLAZER BUS ACCESS PM

**Date:** Wednesday, November 13, 2024

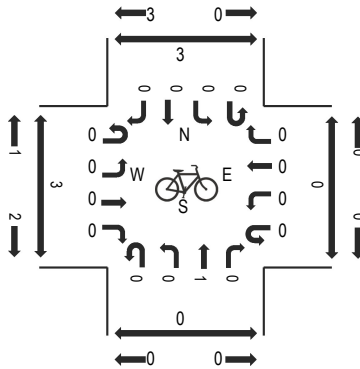
**Peak Hour:** 03:00 PM - 04:00 PM

**Peak 15-Minutes:** 03:30 PM - 03:45 PM

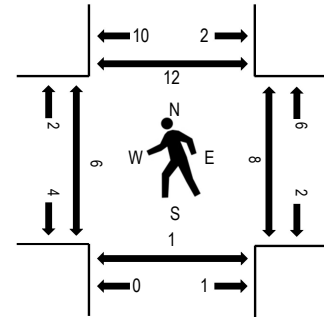
### Peak Hour - Motorized Vehicles



### Peak Hour - Bicycles



### Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

### Traffic Counts - Motorized Vehicles

| Interval<br>Start Time | N TRAILBLAZER BUS ACCESS Eastbound |      |      |       | N TRAILBLAZER BUS ACCESS Westbound |      |      |       | S HACKBERRY ST Northbound |      |      |       | S HACKBERRY ST Southbound |      |      |       | Total | Rolling<br>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 |
| 2:45 PM                | 0                                  | 0    | 0    | 0     | 0                                  | 0    | 0    | 0     | 0                         | 0    | 13   | 0     | 0                         | 0    | 5    | 0     | 18    | 106             | 1                    | 1    | 0     | 0     |
| 3:00 PM                | 0                                  | 0    | 0    | 0     | 0                                  | 0    | 0    | 0     | 0                         | 0    | 14   | 0     | 0                         | 0    | 9    | 0     | 23    | 117             | 0                    | 3    | 0     | 0     |
| 3:15 PM                | 0                                  | 0    | 0    | 0     | 0                                  | 2    | 0    | 0     | 0                         | 0    | 6    | 0     | 1                         | 0    | 13   | 0     | 22    | 111             | 2                    | 3    | 1     | 2     |
| 3:30 PM                | 0                                  | 0    | 0    | 0     | 0                                  | 11   | 0    | 5     | 0                         | 0    | 15   | 0     | 0                         | 0    | 12   | 0     | 43    |                 | 4                    | 2    | 0     | 10    |
| 3:45 PM                | 0                                  | 0    | 0    | 0     | 0                                  | 1    | 0    | 0     | 0                         | 0    | 14   | 0     | 0                         | 0    | 14   | 0     | 29    |                 | 0                    | 0    | 0     | 0     |
| 4:00 PM                | 0                                  | 0    | 0    | 0     | 0                                  | 0    | 0    | 0     | 1                         | 0    | 10   | 0     | 0                         | 0    | 6    | 0     | 17    |                 | 1                    | 2    | 0     | 1     |
| Count Total            | 0                                  | 0    | 0    | 0     | 0                                  | 14   | 0    | 5     | 1                         | 0    | 72   | 0     | 1                         | 0    | 59   | 0     | 152   |                 | 8                    | 11   | 1     | 13    |
| Peak Hour              | 0                                  | 0    | 0    | 0     | 0                                  | 14   | 0    | 5     | 0                         | 0    | 49   | 0     | 1                         | 0    | 48   | 0     | 117   |                 | 6                    | 8    | 1     | 12    |



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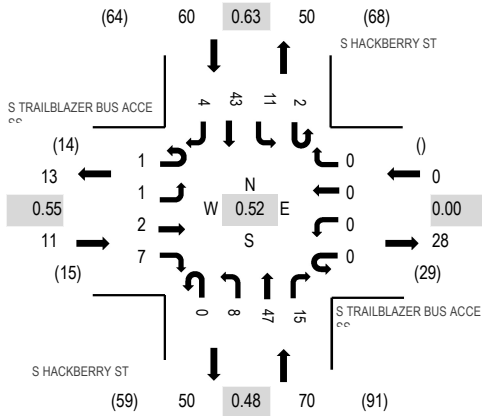
Location: 45 S HACKBERRY ST & S TRAILBLAZER BUS ACCESS AM

Date: Wednesday, November 13, 2024

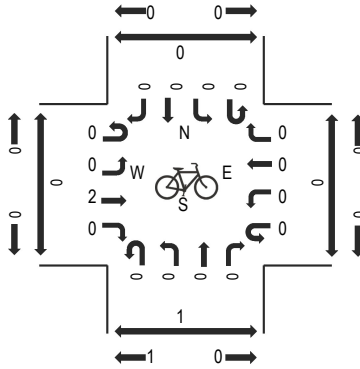
Peak Hour: 07:45 AM - 08:45 AM

Peak 15-Minutes: 08:30 AM - 08:45 AM

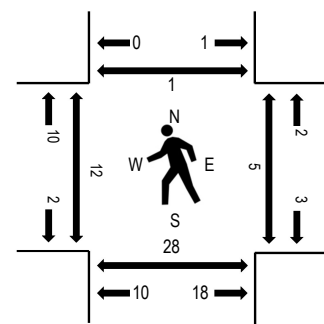
### Peak Hour - Motorized Vehicles



### Peak Hour - Bicycles



### Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

### Traffic Counts - Motorized Vehicles

| Interval<br>Start Time | S TRAILBLAZER BUS ACCESS Eastbound |      |      |       | S TRAILBLAZER BUS ACCESS Westbound |      |      |       | S HACKBERRY ST Northbound |      |      |       | S HACKBERRY ST Southbound |      |      |       | Total | Rolling<br>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 |
| 7:45 AM                | 0                                  | 0    | 0    | 2     | 0                                  | 0    | 0    | 0     | 0                         | 1    | 5    | 0     | 2                         | 0    | 4    | 1     | 15    | 141             | 1                    | 2    | 2     | 0     |
| 8:00 AM                | 1                                  | 0    | 0    | 1     | 0                                  | 0    | 0    | 0     | 0                         | 2    | 6    | 1     | 0                         | 0    | 6    | 0     | 17    | 141             | 0                    | 2    | 1     | 0     |
| 8:15 AM                | 0                                  | 0    | 1    | 1     | 0                                  | 0    | 0    | 0     | 0                         | 0    | 8    | 7     | 0                         | 5    | 19   | 0     | 41    | 138             | 0                    | 0    | 7     | 1     |
| 8:30 AM                | 0                                  | 1    | 1    | 3     | 0                                  | 0    | 0    | 0     | 0                         | 5    | 28   | 7     | 0                         | 6    | 14   | 3     | 68    |                 | 11                   | 1    | 18    | 0     |
| 8:45 AM                | 0                                  | 0    | 0    | 2     | 0                                  | 0    | 0    | 0     | 0                         | 1    | 9    | 1     | 0                         | 0    | 2    | 0     | 15    |                 | 1                    | 0    | 0     | 0     |
| 9:00 AM                | 0                                  | 0    | 0    | 2     | 0                                  | 0    | 0    | 0     | 1                         | 0    | 9    | 0     | 0                         | 0    | 2    | 0     | 14    |                 | 0                    | 0    | 0     | 0     |
| Count Total            | 1                                  | 1    | 2    | 11    | 0                                  | 0    | 0    | 0     | 1                         | 9    | 65   | 16    | 2                         | 11   | 47   | 4     | 170   |                 | 13                   | 5    | 28    | 1     |
| Peak Hour              | 1                                  | 1    | 2    | 7     | 0                                  | 0    | 0    | 0     | 0                         | 8    | 47   | 15    | 2                         | 11   | 43   | 4     | 141   |                 | 12                   | 5    | 28    | 1     |



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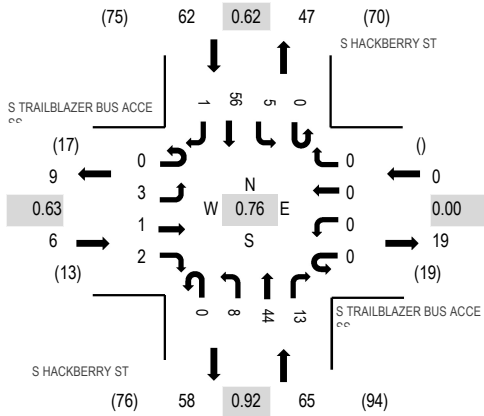
Location: 45 S HACKBERRY ST & S TRAILBLAZER BUS ACCESS PM

Date: Wednesday, November 13, 2024

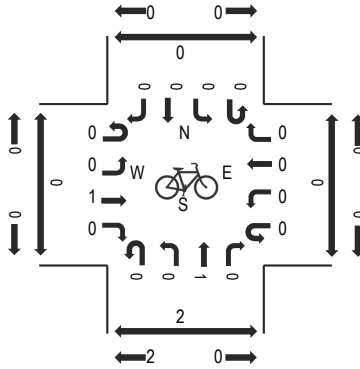
Peak Hour: 03:00 PM - 04:00 PM

Peak 15-Minutes: 03:30 PM - 03:45 PM

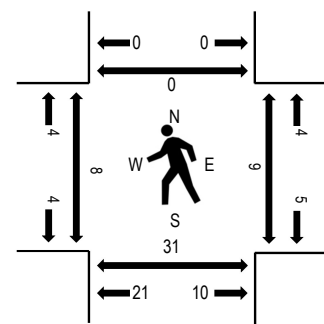
### Peak Hour - Motorized Vehicles



### Peak Hour - Bicycles



### Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

### Traffic Counts - Motorized Vehicles

| Interval<br>Start Time | S TRAILBLAZER BUS<br>Access Eastbound |      |      |       | S TRAILBLAZER BUS<br>Access Westbound |      |      |       | S HACKBERRY ST<br>Northbound |      |      |       | S HACKBERRY ST<br>Southbound |      |      |       | Total | Rolling<br>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 |
| 2:45 PM                | 0                                     | 1    | 0    | 2     | 0                                     | 0    | 0    | 0     | 0                            | 4    | 11   | 0     | 0                            | 0    | 6    | 0     | 24    | 128             | 1                    | 1    | 1     | 0     |
| 3:00 PM                | 0                                     | 0    | 0    | 0     | 0                                     | 0    | 0    | 0     | 0                            | 3    | 14   | 1     | 0                            | 0    | 9    | 0     | 27    | 133             | 1                    | 0    | 3     | 0     |
| 3:15 PM                | 0                                     | 0    | 1    | 1     | 0                                     | 0    | 0    | 0     | 0                            | 2    | 6    | 10    | 0                            | 1    | 12   | 0     | 33    | 131             | 2                    | 4    | 9     | 0     |
| 3:30 PM                | 0                                     | 0    | 0    | 0     | 0                                     | 0    | 0    | 0     | 0                            | 3    | 15   | 1     | 0                            | 4    | 20   | 1     | 44    |                 | 5                    | 5    | 16    | 0     |
| 3:45 PM                | 0                                     | 3    | 0    | 1     | 0                                     | 0    | 0    | 0     | 0                            | 0    | 9    | 1     | 0                            | 0    | 15   | 0     | 29    |                 | 0                    | 0    | 3     | 0     |
| 4:00 PM                | 0                                     | 0    | 0    | 4     | 0                                     | 0    | 0    | 0     | 0                            | 3    | 11   | 0     | 0                            | 0    | 6    | 1     | 25    |                 | 1                    | 2    | 3     | 0     |
| Count Total            | 0                                     | 4    | 1    | 8     | 0                                     | 0    | 0    | 0     | 0                            | 15   | 66   | 13    | 0                            | 5    | 68   | 2     | 182   |                 | 10                   | 12   | 35    | 0     |
| Peak Hour              | 0                                     | 3    | 1    | 2     | 0                                     | 0    | 0    | 0     | 0                            | 8    | 44   | 13    | 0                            | 5    | 56   | 1     | 133   |                 | 8                    | 9    | 31    | 0     |



## **Appendix C   Existing Traffic Signal Timing Plans**

Station : 19 - HR Pkwy &amp; WR Pkwy/Springhill Pkwy ( Standard File )

## Phase [1.1.1]

|                    | φ1<br>(SWL) | φ2<br>(NET) | φ3<br>(NWL) | φ4<br>(SET) | φ5<br>(NEL) | φ6<br>(SWT) | φ7  | φ8<br>(NWT) | φ9 | φ10 | φ11 | φ12 | φ13 | φ14 | φ15 | φ16 |
|--------------------|-------------|-------------|-------------|-------------|-------------|-------------|-----|-------------|----|-----|-----|-----|-----|-----|-----|-----|
| Walk               | 0           | 5           | 0           | 0           | 0           | 5           | 0   | 5           | 0  | 0   | 0   | 0   | 0   | 0   | 0   | 0   |
| Ped Clearance      | 0           | 19          | 0           | 0           | 0           | 20          | 0   | 27          | 0  | 0   | 0   | 0   | 0   | 0   | 0   | 0   |
| Min Green          | 5           | 15          | 5           | 13          | 5           | 15          | 5   | 13          | 0  | 0   | 0   | 0   | 0   | 0   | 0   | 0   |
| Gap Ext            | 1.5         | 3           | 2.5         | 2.5         | 1.5         | 3           | 1.5 | 2.5         | 0  | 0   | 0   | 0   | 0   | 0   | 0   | 0   |
| Max1               | 25          | 40          | 40          | 25          | 15          | 40          | 15  | 40          | 0  | 0   | 0   | 0   | 0   | 0   | 0   | 0   |
| Max2               | 0           | 0           | 0           | 0           | 0           | 0           | 0   | 0           | 0  | 0   | 0   | 0   | 0   | 0   | 0   | 0   |
| Yellow Clr         | 3           | 4.5         | 3           | 4.5         | 3           | 4.5         | 3   | 4.5         | 3  | 3   | 3   | 3   | 3   | 3   | 3   | 3   |
| Red Clr            | 2           | 2           | 2           | 2           | 2           | 2           | 2   | 2           | 2  | 2   | 2   | 2   | 2   | 2   | 2   | 2   |
| Red Revert         | 0           | 5           | 0           | 5           | 0           | 5           | 0   | 5           | 0  | 0   | 0   | 0   | 0   | 0   | 0   | 0   |
| Added Initial      | 0           | 0           | 0           | 0           | 0           | 0           | 0   | 0           | 0  | 0   | 0   | 0   | 0   | 0   | 0   | 0   |
| Max Initial        | 0           | 0           | 0           | 0           | 0           | 0           | 0   | 0           | 0  | 0   | 0   | 0   | 0   | 0   | 0   | 0   |
| Time Before Reduce | 0           | 0           | 0           | 0           | 0           | 0           | 0   | 0           | 0  | 0   | 0   | 0   | 0   | 0   | 0   | 0   |
| Cars Before Reduce | 0           | 0           | 0           | 0           | 0           | 0           | 0   | 0           | 0  | 0   | 0   | 0   | 0   | 0   | 0   | 0   |
| Time To Reduce     | 0           | 0           | 0           | 0           | 0           | 0           | 0   | 0           | 0  | 0   | 0   | 0   | 0   | 0   | 0   | 0   |
| Reduce By          | 0           | 0           | 0           | 0           | 0           | 0           | 0   | 0           | 0  | 0   | 0   | 0   | 0   | 0   | 0   | 0   |
| Min Gap            | 0           | 0           | 0           | 0           | 0           | 0           | 0   | 0           | 0  | 0   | 0   | 0   | 0   | 0   | 0   | 0   |
| Dynamic Max Limit  | 0           | 0           | 0           | 0           | 0           | 0           | 0   | 0           | 0  | 0   | 0   | 0   | 0   | 0   | 0   | 0   |
| Dynamic Max Step   | 0           | 0           | 0           | 0           | 0           | 0           | 0   | 0           | 0  | 0   | 0   | 0   | 0   | 0   | 0   | 0   |
| Auto Flash Entry   |             |             |             | ON          |             |             |     | ON          |    |     |     |     |     |     |     |     |
| Auto Flash Exit    |             | ON          |             |             |             | ON          |     |             |    |     |     |     |     |     |     |     |
| Non-Actuated 1     |             |             |             |             |             |             |     |             |    |     |     |     |     |     |     |     |
| Non-Actuated 2     |             |             |             |             |             |             |     |             |    |     |     |     |     |     |     |     |

## Phase Option [1.1.2]

|                | φ1<br>(SWL) | φ2<br>(NET) | φ3<br>(NWL) | φ4<br>(SET) | φ5<br>(NEL) | φ6<br>(SWT) | φ7 | φ8<br>(NWT) | φ9 | φ10 | φ11 | φ12 | φ13 | φ14 | φ15 | φ16 |
|----------------|-------------|-------------|-------------|-------------|-------------|-------------|----|-------------|----|-----|-----|-----|-----|-----|-----|-----|
| Enable         | ON          | ON          | ON          | ON          | ON          | ON          | ON | ON          |    |     |     |     |     |     |     |     |
| Lock Call      |             |             |             |             |             |             |    |             | ON | ON  | ON  | ON  | ON  | ON  | ON  | ON  |
| Min Recall     |             | ON          |             |             |             | ON          |    |             |    |     |     |     |     |     |     |     |
| Max Recall     |             |             |             |             |             |             |    |             |    |     |     |     |     |     |     |     |
| Ped Recall     |             |             |             |             |             |             |    |             |    |     |     |     |     |     |     |     |
| Soft Recall    |             |             |             |             |             |             |    |             |    |     |     |     |     |     |     |     |
| Dual Entry     |             | ON          |             | ON          |             | ON          |    | ON          |    |     |     |     |     |     |     |     |
| Sim Gap Enable | ON          | ON          | ON          | ON          | ON          | ON          | ON | ON          | ON | ON  | ON  | ON  | ON  | ON  | ON  | ON  |
| Guar Passage   |             |             |             |             |             |             |    |             |    |     |     |     |     |     |     |     |
| Rest In Walk   |             |             |             |             |             |             |    |             |    |     |     |     |     |     |     |     |
| Cond Service   |             |             |             |             |             |             |    |             |    |     |     |     |     |     |     |     |
| Add Init Calc  |             |             |             |             |             |             |    |             |    |     |     |     |     |     |     |     |

## Phase Option+ [1.1.3]/[1.1.5]

|                         | φ1 | φ2 | φ3 | φ4 | φ5 | φ6 | φ7 | φ8 | φ9 | φ10 | φ11 | φ12 | φ13 | φ14 | φ15 | φ16 |
|-------------------------|----|----|----|----|----|----|----|----|----|-----|-----|-----|-----|-----|-----|-----|
| Reservice               |    |    |    |    |    |    |    |    |    |     |     |     |     |     |     |     |
| Ped Clr Thru Yellow     |    |    |    |    |    |    |    |    |    |     |     |     |     |     |     |     |
| Skip Red-NoCall         |    |    |    |    |    |    |    |    |    |     |     |     |     |     |     |     |
| Red Rest                |    |    |    |    |    |    |    |    |    |     |     |     |     |     |     |     |
| Max 2                   |    |    |    |    |    |    |    |    |    |     |     |     |     |     |     |     |
| Max Inhibit             |    |    |    |    |    |    |    |    |    |     |     |     |     |     |     |     |
| Ped Delay               |    |    |    |    |    |    |    |    |    |     |     |     |     |     |     |     |
| Red Rest On Gap         |    |    |    |    |    |    |    |    |    |     |     |     |     |     |     |     |
| Conflicting P           |    |    |    |    |    |    |    |    |    |     |     |     |     |     |     |     |
| Green Ped Delay Time    |    | 5  |    |    |    | 5  |    | 5  |    |     |     |     |     |     |     |     |
| Omit Yel                |    |    |    |    |    |    |    |    |    |     |     |     |     |     |     |     |
| Ped Out                 |    |    |    |    |    |    |    |    |    |     |     |     |     |     |     |     |
| Start Yel               |    |    |    |    |    |    |    |    |    |     |     |     |     |     |     |     |
| Inhibit P1              |    |    |    |    |    |    |    |    |    |     |     |     |     |     |     |     |
| Inhibit P2              |    |    |    |    |    |    |    |    |    |     |     |     |     |     |     |     |
| Inhibit P3              |    |    |    |    |    |    |    |    |    |     |     |     |     |     |     |     |
| Inhibit P4              |    |    |    |    |    |    |    |    |    |     |     |     |     |     |     |     |
| Inhibit P5              |    |    |    |    |    |    |    |    |    |     |     |     |     |     |     |     |
| Inhibit P6              |    |    |    |    |    |    |    |    |    |     |     |     |     |     |     |     |
| Inhibit P7              |    |    |    |    |    |    |    |    |    |     |     |     |     |     |     |     |
| Inhibit P8              |    |    |    |    |    |    |    |    |    |     |     |     |     |     |     |     |
| Call Phs1               |    |    |    |    |    |    |    |    |    |     |     |     |     |     |     |     |
| Call Phs2               |    |    |    |    |    |    |    |    |    |     |     |     |     |     |     |     |
| Redirect P Calls From 1 |    |    |    |    |    |    |    |    |    |     |     |     |     |     |     |     |
| Redirect P Calls To 1   |    |    |    |    |    |    |    |    |    |     |     |     |     |     |     |     |
| Redirect P Calls From 2 |    |    |    |    |    |    |    |    |    |     |     |     |     |     |     |     |
| Redirect P Calls To 2   |    |    |    |    |    |    |    |    |    |     |     |     |     |     |     |     |
| Redirect P Calls From 3 |    |    |    |    |    |    |    |    |    |     |     |     |     |     |     |     |
| Redirect P Calls To 3   |    |    |    |    |    |    |    |    |    |     |     |     |     |     |     |     |
| Redirect P Calls From 4 |    |    |    |    |    |    |    |    |    |     |     |     |     |     |     |     |
| Redirect P Calls To 4   |    |    |    |    |    |    |    |    |    |     |     |     |     |     |     |     |

Prepared By / Date

Reviewed By / Date



Station : 19 - HR Pkwy &amp; WR Pkwy/Springhill Pkwy ( Standard File )

## Ring Sequence [1.2.4]

| Ring   | P1 | P2 | P3 | P4 | P5 | P6 | P7 | P8 |
|--------|----|----|----|----|----|----|----|----|
| Ring 1 | 1  | 2  | 3  | 4  |    |    |    |    |
| Ring 2 | 5  | 6  | 7  | 8  |    |    |    |    |
| Ring 3 |    |    |    |    |    |    |    |    |
| Ring 4 |    |    |    |    |    |    |    |    |

## Unit Parameters [1.2.1]

| StartUp Flash | Auto Ped Clear | Red Revert | Local Flash Start | Allow < 3 sec Yel | Allow Skip Yel | MCE Timeout | Enable Run | Start Red Time | Phase Mode | Startup Calls | Diamond Mode | Stop Time Over Preempt | Free Ring Sequence | Clearance Decide | Min Ped Clear Time | RingAlgo |  |  |  |
|---------------|----------------|------------|-------------------|-------------------|----------------|-------------|------------|----------------|------------|---------------|--------------|------------------------|--------------------|------------------|--------------------|----------|--|--|--|
|               | OFF            | 5          | RST               | OFF               | OFF            |             | ON         | 6              | STD8       | OFF           | 4PH          | OFF                    | 1                  | OFF              | OFF                |          |  |  |  |

## Alarms, Parameters [1.4.1]

## Auto Flash Parameter

| Yellow | Red | Mode | Source |
|--------|-----|------|--------|
|        | 60  |      |        |

## Detector, Vehicle Parameters 1-16 [5.1]

| Detector #    | 1  | 2  | 3  | 4  | 5  | 6  | 7  | 8  | 9  | 10 | 11 | 12 | 13 | 14 | 15 | 16 |
|---------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| Yellow Lock   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| Red Lock      |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| Extend        | ON | ON | ON | ON | ON |    | ON | ON | ON | ON | ON |    | ON | ON | ON | ON |
| Added Initial | ON | ON | ON | ON | ON | ON |    | ON | ON | ON | ON | ON |    | ON | ON | ON |
| Call          | ON | ON | ON | ON |    | ON | ON | ON | ON | ON |    | ON | ON | ON | ON | ON |
| Call Phase    | 1  | 2  | 2  | 2  | 2  | 2  | 3  | 4  | 4  | 4  | 4  | 4  | 1  | 3  | 5  | 6  |
| Switch Phase  | 0  | 0  | 0  | 0  | 0  | 0  | 8  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| Delay Time    | 0  | 0  | 0  | 0  | 0  | 0  | 3  | 0  | 12 | 0  | 0  | 0  | 0  | 0  | 0  | 0  |

## Detector, Vehicle Parameters 17-32 [5.1]

| Detector #    | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 | 32 |
|---------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| Yellow Lock   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| Red Lock      |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| Extend        | ON | ON | ON |    | ON | ON | ON | ON | ON |    | ON | ON |    |    |    |    |
| Added Initial | ON | ON | ON |    | ON | ON | ON | ON | ON |    | ON | ON |    |    |    |    |
| Call          | ON | ON |    | ON | ON | ON | ON | ON |    | ON | ON | ON |    |    |    |    |
| Call Phase    | 6  | 6  | 6  | 6  | 7  | 8  | 8  | 8  | 8  | 8  | 5  | 7  | 0  | 0  | 0  | 0  |
| Switch Phase  | 0  | 0  | 0  | 0  | 8  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| Delay Time    | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 12 | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |

## Detector, Ped Detectors 1-16 [5.4]

| Detector     | 1  | 2  | 3  | 4  | 5  | 6  | 7  | 8  | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 |
|--------------|----|----|----|----|----|----|----|----|---|----|----|----|----|----|----|----|
| Call Phase   | 0  | 2  | 0  | 4  | 0  | 6  | 0  | 8  |   |    |    |    |    |    |    |    |
| No Activity  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |   |    |    |    |    |    |    |    |
| Max Presence | 15 | 15 | 15 | 15 | 15 | 15 | 15 | 15 |   |    |    |    |    |    |    |    |
| Erratic Cnt  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |   |    |    |    |    |    |    |    |



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### Channels/SDLC, Assign to Phases [1.8.1]

### Channel/SDLC +, Assign to Phases [1.8.4]

### Overlap General Parameters [1.5.1]

### Overlap Program Parameters [1.5.2.1]

### Overlap Conflict Parameters+ [1.5.2.2]

### Overlap Program Parameters+ [1.5.2.3]

[illegible]

[illegible]

Station : 19 - HR Pkwy &amp; WR Pkwy/Springhill Pkwy ( Standard File )

## Preemption Times[3.1]/Phases[3.2]/Options[3.3]

| Channel                 | 1  | 2  | 3   | 4   | 5   | 6   |
|-------------------------|----|----|-----|-----|-----|-----|
| Lock Input              | ON | ON | ON  | ON  | ON  | ON  |
| Override Auto Flash     | ON | ON |     |     |     |     |
| Override Higher Preempt | ON | ON |     |     |     |     |
| Flash in Dwell          |    |    |     |     |     |     |
| Link to Preempt         | 0  | 0  | 0   | 0   | 0   | 0   |
| Delay                   | 0  | 0  | 0   | 0   | 0   | 0   |
| Min Duration            | 0  | 0  | 5   | 5   | 5   | 5   |
| Min Green               | 0  | 0  | 5   | 5   | 5   | 5   |
| Min Walk                | 0  | 0  | 0   | 0   | 0   | 0   |
| Ped Clear               | 0  | 0  | 3   | 3   | 3   | 3   |
| Track Green             | 0  | 0  | 0   | 0   | 0   | 0   |
| Min Dwell               | 0  | 0  | 0   | 0   | 0   | 0   |
| Max Presence            | 0  | 0  | 120 | 120 | 120 | 120 |
| Track Veh 1             | 0  | 0  | 0   | 0   | 0   | 0   |
| Track Veh 2             | 0  | 0  | 0   | 0   | 0   | 0   |
| Track Veh 3             | 0  | 0  | 0   | 0   | 0   | 0   |
| Track Veh 4             | 0  | 0  | 0   | 0   | 0   | 0   |
| Dwell Cyc Veh 1         | 0  | 0  | 2   | 4   | 1   | 3   |
| Dwell Cyc Veh 2         | 0  | 0  | 5   | 7   | 6   | 8   |
| Dwell Cyc Veh 3         | 0  | 0  | 0   | 0   | 0   | 0   |
| Dwell Cyc Veh 4         | 0  | 0  | 0   | 0   | 0   | 0   |
| Dwell Cyc Veh 5         | 0  | 0  | 0   | 0   | 0   | 0   |
| Dwell Cyc Veh 6         | 0  | 0  | 0   | 0   | 0   | 0   |
| Dwell Cyc Veh 7         | 0  | 0  | 0   | 0   | 0   | 0   |
| Dwell Cyc Veh 8         | 0  | 0  | 0   | 0   | 0   | 0   |
| Dwell Cyc Veh 9         | 0  | 0  | 0   | 0   | 0   | 0   |
| Dwell Cyc Veh 10        | 0  | 0  | 0   | 0   | 0   | 0   |
| Dwell Cyc Veh 11        | 0  | 0  | 0   | 0   | 0   | 0   |
| Dwell Cyc Veh 12        | 0  | 0  | 0   | 0   | 0   | 0   |
| Dwell Cyc Ped1          | 0  | 0  | 0   | 0   | 0   | 0   |
| Dwell Cyc Ped2          | 0  | 0  | 0   | 0   | 0   | 0   |
| Dwell Cyc Ped3          | 0  | 0  | 0   | 0   | 0   | 0   |
| Dwell Cyc Ped4          | 0  | 0  | 0   | 0   | 0   | 0   |
| Dwell Cyc Ped5          | 0  | 0  | 0   | 0   | 0   | 0   |
| Dwell Cyc Ped6          | 0  | 0  | 0   | 0   | 0   | 0   |
| Dwell vPed7             | 0  | 0  | 0   | 0   | 0   | 0   |
| Dwell Cyc Ped8          | 0  | 0  | 0   | 0   | 0   | 0   |
| Exit 1                  | 0  | 0  | 4   | 4   | 4   | 4   |
| Exit 2                  | 0  | 0  | 7   | 7   | 7   | 7   |
| Exit 3                  | 0  | 0  | 0   | 0   | 0   | 0   |
| Exit 4                  | 0  | 0  | 0   | 0   | 0   | 0   |

## Preemption Times+[3.4]/Overlaps+[3.5]/Options+[3.6]

| Preempt          | 1    | 2    | 3     | 4     | 5     | 6     |
|------------------|------|------|-------|-------|-------|-------|
| Enable           |      |      | ON    | ON    | ON    | ON    |
| Type             | RAIL | RAIL | EMERG | EMERG | EMERG | EMERG |
| Skip Track       |      |      |       |       |       |       |
| Volt Mon Flash   |      |      |       |       |       |       |
| Coord in Preempt |      |      |       |       |       |       |
| Return Max/Min   | MAX  | MAX  | MAX   | MAX   | MAX   | MAX   |
| Extend Dwell     | 0    | 0    | 0     | 0     | 0     | 0     |
| Pattern          | 0    | 0    | 0     | 0     | 0     | 0     |
| Output Mode      | TS2  | TS2  | TS2   | TS2   | TS2   | TS2   |
| Track Over 1     | 0    | 0    | 0     | 0     | 0     | 0     |
| Track Over 2     | 0    | 0    | 0     | 0     | 0     | 0     |
| Track Over 3     | 0    | 0    | 0     | 0     | 0     | 0     |
| Track Over 4     | 0    | 0    | 0     | 0     | 0     | 0     |
| Track Over 5     | 0    | 0    | 0     | 0     | 0     | 0     |
| Track Over 6     | 0    | 0    | 0     | 0     | 0     | 0     |
| Track Over 7     | 0    | 0    | 0     | 0     | 0     | 0     |
| Track Over 8     | 0    | 0    | 0     | 0     | 0     | 0     |
| Track Over 9     | 0    | 0    | 0     | 0     | 0     | 0     |
| Track Over 10    | 0    | 0    | 0     | 0     | 0     | 0     |
| Track Over 11    | 0    | 0    | 0     | 0     | 0     | 0     |
| Track Over 12    | 0    | 0    | 0     | 0     | 0     | 0     |
| DwellCyc Over 1  | 0    | 0    | 1     | 1     | 1     | 1     |
| DwellCyc Over 2  | 0    | 0    | 2     | 2     | 2     | 2     |
| DwellCyc Over 3  | 0    | 0    | 3     | 3     | 3     | 3     |
| DwellCyc Over 4  | 0    | 0    | 4     | 4     | 4     | 4     |
| DwellCyc Over 5  | 0    | 0    | 0     | 0     | 0     | 0     |
| DwellCyc Over 6  | 0    | 0    | 0     | 0     | 0     | 0     |
| DwellCyc Over 7  | 0    | 0    | 0     | 0     | 0     | 0     |
| DwellCyc Over 8  | 0    | 0    | 0     | 0     | 0     | 0     |
| DwellCyc Over 9  | 0    | 0    | 0     | 0     | 0     | 0     |
| DwellCyc Over 10 | 0    | 0    | 0     | 0     | 0     | 0     |
| DwellCyc Over 11 | 0    | 0    | 0     | 0     | 0     | 0     |
| DwellCyc Over 12 | 0    | 0    | 0     | 0     | 0     | 0     |
| Ped Clear        | 0    | 0    | 0     | 0     | 0     | 0     |
| Yellow           | 0    | 0    | 0     | 0     | 0     | 0     |
| Red              | 0    | 0    | 0     | 0     | 0     | 0     |
| Return Max       | 0    | 0    | 0     | 0     | 0     | 0     |

## Preemption Adv Times[3.8]/Init Dwell [3.9]

| Preempt                  | 1    | 2    | 3    | 4    | 5    | 6    |
|--------------------------|------|------|------|------|------|------|
| All Red B4 Preempt       |      |      |      |      |      |      |
| Reset Ext Dwell          |      |      |      |      |      |      |
| Reservice Preempt        |      |      |      |      |      |      |
| End Dwell                |      |      |      |      |      |      |
| DsblDwellCalls           |      |      |      |      |      |      |
| Enter Yellow Change      | 25.5 | 25.5 | 25.5 | 25.5 | 25.5 | 25.5 |
| Enter Red Clear          | 25.5 | 25.5 | 25.5 | 25.5 | 25.5 | 25.5 |
| Track Yellow Change      | 25.5 | 25.5 | 25.5 | 25.5 | 25.5 | 25.5 |
| Track Red Clear          | 25.5 | 25.5 | 25.5 | 25.5 | 25.5 | 25.5 |
| Dynamic Exit Threshold   | 0    | 0    | 0    | 0    | 0    | 0    |
| Initial Dwell Phase 1    | 0    | 0    | 0    | 0    | 0    | 0    |
| Initial Dwell Phase 2    | 0    | 0    | 0    | 0    | 0    | 0    |
| Initial Dwell Phase 3    | 0    | 0    | 0    | 0    | 0    | 0    |
| Initial Dwell Phase 4    | 0    | 0    | 0    | 0    | 0    | 0    |
| Ped 1                    | 0    | 0    | 0    | 0    | 0    | 0    |
| Ped 2                    | 0    | 0    | 0    | 0    | 0    | 0    |
| Ped 3                    | 0    | 0    | 0    | 0    | 0    | 0    |
| Ped 4                    | 0    | 0    | 0    | 0    | 0    | 0    |
| Initial Dwell Overlap 1  | 0    | 0    | 0    | 0    | 0    | 0    |
| Initial Dwell Overlap 2  | 0    | 0    | 0    | 0    | 0    | 0    |
| Initial Dwell Overlap 3  | 0    | 0    | 0    | 0    | 0    | 0    |
| Initial Dwell Overlap 4  | 0    | 0    | 0    | 0    | 0    | 0    |
| Initial Dwell Overlap 5  | 0    | 0    | 0    | 0    | 0    | 0    |
| Initial Dwell Overlap 6  | 0    | 0    | 0    | 0    | 0    | 0    |
| Initial Dwell Overlap 7  | 0    | 0    | 0    | 0    | 0    | 0    |
| Initial Dwell Overlap 8  | 0    | 0    | 0    | 0    | 0    | 0    |
| Initial Dwell Overlap 9  | 0    | 0    | 0    | 0    | 0    | 0    |
| Initial Dwell Overlap 10 | 0    | 0    | 0    | 0    | 0    | 0    |
| Initial Dwell Overlap 11 | 0    | 0    | 0    | 0    | 0    | 0    |
| Initial Dwell Overlap 12 | 0    | 0    | 0    | 0    | 0    | 0    |
| Initial Dwell Overlap 13 | 0    | 0    | 0    | 0    | 0    | 0    |
| Initial Dwell Overlap 14 | 0    | 0    | 0    | 0    | 0    | 0    |
| Initial Dwell Overlap 15 | 0    | 0    | 0    | 0    | 0    | 0    |

Coordination, Modes, + [2.1]  
Modes

| Operational | Correct  | Maximum | Force-Off |
|-------------|----------|---------|-----------|
|             | SHRT/LNG | MAX INH | FLOAT     |

## Coordination, Pattern 1-16 [2.4]

## Coordination, Pattern 17-32 [2.4]

Coordination, Pattern+ 1-8 [2.5]

[illegible]

**Station : 19 - HR Pkwy & WR Pkwy/Springhill Pkwy ( Standard File )****Coordination, Pattern+ 9-16 [2.5]**

| <b>Pattern</b> | <b>9</b> | <b>10</b> | <b>11</b> | <b>12</b> | <b>13</b> | <b>14</b> | <b>15</b> | <b>16</b> |
|----------------|----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| Short          | 10       | 10        | 10        | 10        | 10        | 10        | 10        | 10        |
| Long           | 34       | 34        | 34        | 34        | 34        | 34        | 34        | 34        |
| Dwell          |          |           |           |           |           |           |           |           |
| No Short P 1   |          |           |           |           |           |           |           |           |
| No Short P 2   |          |           |           |           |           |           |           |           |
| No Short P 3   |          |           |           |           |           |           |           |           |
| No Short P 4   |          |           |           |           |           |           |           |           |
| Early Yield    |          |           |           |           |           |           |           |           |
| Offset         | ENDGRN   | ENDGRN    | ENDGRN    | ENDGRN    | ENDGRN    | ENDGRN    | ENDGRN    | ENDGRN    |
| CNA            |          |           |           |           |           |           |           |           |
| Max 2          |          |           |           |           |           |           |           |           |
| Float          |          |           |           |           |           |           |           |           |
| Min Veh Perm   |          |           |           |           |           |           |           |           |
| Min Ped Perm   |          |           |           |           |           |           |           |           |
| Percentage     |          |           |           |           |           |           |           |           |
| MI             |          |           |           |           |           |           |           |           |
| Ret Hold       | ON       | ON        | ON        | ON        | ON        | ON        | ON        | ON        |
| ASC            |          |           |           |           |           |           |           |           |
| Ph Opt Table   |          |           |           |           |           |           |           |           |
| Ph Time Table  |          |           |           |           |           |           |           |           |
| Det Grp        |          |           |           |           |           |           |           |           |
| Call Inh       |          |           |           |           |           |           |           |           |
| Olp Off 1      |          |           |           |           |           |           |           |           |
| Olp Off 2      |          |           |           |           |           |           |           |           |
| Olp Off 3      |          |           |           |           |           |           |           |           |
| Olp Off 4      |          |           |           |           |           |           |           |           |
| Olp Off 5      |          |           |           |           |           |           |           |           |
| Olp Off 6      |          |           |           |           |           |           |           |           |
| Olp Off 7      |          |           |           |           |           |           |           |           |
| Olp Off 8      |          |           |           |           |           |           |           |           |
| Dia Mode       | DFT      | DFT       | DFT       | DFT       | DFT       | DFT       | DFT       | DFT       |
| Force Mode     | DFT      | DFT       | DFT       | DFT       | DFT       | DFT       | DFT       | DFT       |

**Coordination, Pattern+ 17 - 24 [2.5]**

| <b>Pattern</b> | <b>17</b> | <b>18</b> | <b>19</b> | <b>20</b> | <b>21</b> | <b>22</b> | <b>23</b> | <b>24</b> |
|----------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| Short          | 10        | 10        | 10        | 10        | 10        | 10        | 10        | 10        |
| Long           | 34        | 34        | 34        | 34        | 34        | 34        | 34        | 34        |
| Dwell          |           |           |           |           |           |           |           |           |
| No Short P 1   |           |           |           |           |           |           |           |           |
| No Short P 2   |           |           |           |           |           |           |           |           |
| No Short P 3   |           |           |           |           |           |           |           |           |
| No Short P 4   |           |           |           |           |           |           |           |           |
| Early Yield    |           |           |           |           |           |           |           |           |
| Offset         | ENDGRN    | ENDGRN    | ENDGRN    | ENDGRN    | ENDGRN    | ENDGRN    | ENDGRN    | ENDGRN    |
| CNA            |           |           |           |           |           |           |           |           |
| Max 2          |           |           |           |           |           |           |           |           |
| Float          |           |           |           |           |           |           |           |           |
| Min Veh Perm   |           |           |           |           |           |           |           |           |
| Min Ped Perm   |           |           |           |           |           |           |           |           |
| Percentage     |           |           |           |           |           |           |           |           |
| MI             |           |           |           |           |           |           |           |           |
| Ret Hold       | ON        | ON        | ON        | ON        | ON        | ON        | ON        | ON        |
| ASC            |           |           |           |           |           |           |           |           |
| Ph Opt Table   |           |           |           |           |           |           |           |           |
| Ph Time Table  |           |           |           |           |           |           |           |           |
| Det Grp        |           |           |           |           |           |           |           |           |
| Call Inh       |           |           |           |           |           |           |           |           |
| Olp Off 1      |           |           |           |           |           |           |           |           |
| Olp Off 2      |           |           |           |           |           |           |           |           |
| Olp Off 3      |           |           |           |           |           |           |           |           |
| Olp Off 4      |           |           |           |           |           |           |           |           |
| Olp Off 5      |           |           |           |           |           |           |           |           |
| Olp Off 6      |           |           |           |           |           |           |           |           |
| Olp Off 7      |           |           |           |           |           |           |           |           |
| Olp Off 8      |           |           |           |           |           |           |           |           |
| Dia Mode       | DFT       | DFT       | DFT       | DFT       | DFT       | DFT       | DFT       | DFT       |
| Force Mode     | DFT       | DFT       | DFT       | DFT       | DFT       | DFT       | DFT       | DFT       |

## Coordination, Splits [2.7.1]

[illegible]

Douglas County Timing Sheet

Timing Sheet 11/27/2024 10:54:27 AM

11/27/2024 10:54:27 AM

**Station : 19 - HR Pkwy & WR Pkwy/Springhill Pkwy ( Standard File )**

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## TB Coor, Advanced Scheduler [4.3]

### TB Coor, Day Plan [4.4]

[illegible]

**Station : 19 - HR Pkwy & WR Pkwy/Springhill Pkwy ( Standard File )**

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**Station : 19 - HR Pkwy & WR Pkwy/Springhill Pkwy ( Standard File )**

[illegible]

Station : 19 - HR Pkwy &amp; WR Pkwy/Springhill Pkwy ( Standard File )

TB Coor, Action Table [4.5]

| Action | Pattern | Aux 1 | Aux 2 | Aux 3 | Special 1 | Special 2 | Special 3 | Special 4 | Special 5 | Special 6 | Special 7 | Special 8 |
|--------|---------|-------|-------|-------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| 1      | 1       |       |       |       | 0         | 0         |           |           |           |           |           |           |
| 2      | 2       |       |       |       | 0         | 0         |           |           |           |           |           |           |
| 3      | 3       |       |       |       | 0         | 0         |           |           |           |           |           |           |
| 4      | 4       |       |       |       | 0         | 0         |           |           |           |           |           |           |
| 5      | 5       |       |       |       | 0         | 0         |           |           |           |           |           |           |
| 6      | 6       |       |       |       | 0         | 0         |           |           |           |           |           |           |
| 7      | 7       |       |       |       | 0         | 0         |           |           |           |           |           |           |
| 8      | 8       |       |       |       | 0         | 0         |           |           |           |           |           |           |
| 9      | 9       |       |       |       | 0         | 0         |           |           |           |           |           |           |
| 10     | 10      |       |       |       | 0         | 0         |           |           |           |           |           |           |
| 11     | 11      |       |       |       | 0         | 0         |           |           |           |           |           |           |
| 12     | 12      |       |       |       | 0         | 0         |           |           |           |           |           |           |
| 13     | 13      |       |       |       | 0         | 0         |           |           |           |           |           |           |
| 14     | 14      |       |       |       | 0         | 0         |           |           |           |           |           |           |
| 15     | 15      |       |       |       | 0         | 0         |           |           |           |           |           |           |
| 16     | 16      |       |       |       | 0         | 0         |           |           |           |           |           |           |
| 17     | 17      |       |       |       | 0         | 0         |           |           |           |           |           |           |
| 18     | 18      |       |       |       | 0         | 0         |           |           |           |           |           |           |
| 19     | 19      |       |       |       | 0         | 0         |           |           |           |           |           |           |
| 20     | 20      |       |       |       | 0         | 0         |           |           |           |           |           |           |
| 21     | 21      |       |       |       | 0         | 0         |           |           |           |           |           |           |
| 22     | 22      |       |       |       | 0         | 0         |           |           |           |           |           |           |
| 23     | 23      |       |       |       | 0         | 0         |           |           |           |           |           |           |
| 24     | 24      |       |       |       | 0         | 0         |           |           |           |           |           |           |
| 25     | 25      |       |       |       | 0         | 0         |           |           |           |           |           |           |
| 26     | 26      |       |       |       | 0         | 0         |           |           |           |           |           |           |
| 27     | 27      |       |       |       | 0         | 0         |           |           |           |           |           |           |
| 28     | 28      |       |       |       | 0         | 0         |           |           |           |           |           |           |
| 29     | 29      |       |       |       | 0         | 0         |           |           |           |           |           |           |
| 30     | 30      |       |       |       | 0         | 0         |           |           |           |           |           |           |
| 31     | 31      |       |       |       | 0         | 0         |           |           |           |           |           |           |
| 32     | 32      |       |       |       | 0         | 0         |           |           |           |           |           |           |
| 33     |         |       |       |       | 0         | 0         |           |           |           |           |           |           |
| 34     |         |       |       |       | 0         | 0         |           |           |           |           |           |           |
| 35     |         |       |       |       | 0         | 0         |           |           |           |           |           |           |
| 36     |         |       |       |       | 0         | 0         |           |           |           |           |           |           |
| 37     |         |       |       |       | 0         | 0         |           |           |           |           |           |           |
| 38     |         |       |       |       | 0         | 0         |           |           |           |           |           |           |
| 39     |         |       |       |       | 0         | 0         |           |           |           |           |           |           |
| 40     |         |       |       |       | 0         | 0         |           |           |           |           |           |           |
| 41     |         |       |       |       | 0         | 0         |           |           |           |           |           |           |
| 42     |         |       |       |       | 0         | 0         |           |           |           |           |           |           |
| 43     |         |       |       |       | 0         | 0         |           |           |           |           |           |           |
| 44     |         |       |       |       | 0         | 0         |           |           |           |           |           |           |
| 45     |         |       |       |       | 0         | 0         |           |           |           |           |           |           |
| 46     |         |       |       |       | 0         | 0         |           |           |           |           |           |           |
| 47     |         |       |       |       | 0         | 0         |           |           |           |           |           |           |
| 48     |         |       |       |       | 0         | 0         |           |           |           |           |           |           |
| 49     |         |       |       |       | 0         | 0         |           |           |           |           |           |           |
| 50     |         |       |       |       | 0         | 0         |           |           |           |           |           |           |
| 51     |         |       |       |       | 0         | 0         |           |           |           |           |           |           |
| 52     |         |       |       |       | 0         | 0         |           |           |           |           |           |           |
| 53     |         |       |       |       | 0         | 0         |           |           |           |           |           |           |
| 54     |         |       |       |       | 0         | 0         |           |           |           |           |           |           |
| 55     |         |       |       |       | 0         | 0         |           |           |           |           |           |           |
| 56     |         |       |       |       | 0         | 0         |           |           |           |           |           |           |
| 57     |         |       |       |       | 0         | 0         |           |           |           |           |           |           |
| 58     |         |       |       |       | 0         | 0         |           |           |           |           |           |           |
| 59     |         |       |       |       | 0         | 0         |           |           |           |           |           |           |
| 60     |         |       |       |       | 0         | 0         |           |           |           |           |           |           |
| 61     |         |       |       |       | 0         | 0         |           |           |           |           |           |           |
| 62     |         |       |       |       | 0         | 0         |           |           |           |           |           |           |
| 63     |         |       |       |       | 0         | 0         |           |           |           |           |           |           |
| 64     |         |       |       |       | 0         | 0         |           |           |           |           |           |           |
| 99     | 254     |       |       |       | 0         | 0         |           |           |           |           |           |           |
| 100    | 255     |       |       |       | 0         | 0         |           |           |           |           |           |           |

**Station : 19 - HR Pkwy & WR Pkwy/Springhill Pkwy ( Standard File )**

### Alternate Phase Program 1, Interval Times [1.1.6.1]

[illegible]

### Alternate Phase Program 2, Interval Times [1.1.6.1]

[illegible]

### Alternate Phase Program 1, >Phase Options [1.1.6.2]

[illegible]

### Alternate Phase Program 2, Phase Options [1.1.6.2]

[illegible]

### Alternate Phase Program 3, Phase Options [1.1.6.2]

[illegible]

### Alternate Phase Program 1, Calls and Redirection [1.1.6.3]

[illegible]

### Alternate Phase Program 2, Calls and Redirection [1.1.6.3]

[illegible]

### Detector Alternate Program 1, Vehicle Parameters [5.5.1]

### Detector Alternate Program 2, Vehicle Parameters [5.5.1]

### User Input map [1.8.9.1]

### User Output map [1.8.9.2]

[illegible]

Station : 33 - HR Pkwy &amp; Deer Creek/Westridge Village Pkwy ( Standard File )

## Phase [1.1.1]

|                    | φ1<br>(WL) | φ2<br>(ET) | φ3 | φ4<br>(ST) | φ5<br>(EL) | φ6<br>(WT) | φ7 | φ8<br>(NT) | φ9 | φ10 | φ11 | φ12 | φ13 | φ14 | φ15 | φ16 |
|--------------------|------------|------------|----|------------|------------|------------|----|------------|----|-----|-----|-----|-----|-----|-----|-----|
| Walk               | 0          | 5          | 0  | 5          | 0          | 5          | 0  | 5          | 0  | 0   | 0   | 0   | 0   | 0   | 0   | 0   |
| Ped Clearance      | 0          | 13         | 0  | 23         | 0          | 11         | 0  | 22         | 0  | 0   | 0   | 0   | 0   | 0   | 0   | 0   |
| Min Green          | 5          | 20         | 0  | 5          | 5          | 20         | 0  | 5          | 0  | 0   | 0   | 0   | 0   | 0   | 0   | 0   |
| Gap Ext            | 1.5        | 3          | 0  | 2          | 1.5        | 3          | 0  | 2          | 0  | 0   | 0   | 0   | 0   | 0   | 0   | 0   |
| Max1               | 15         | 40         | 0  | 25         | 15         | 40         | 0  | 25         | 0  | 0   | 0   | 0   | 0   | 0   | 0   | 0   |
| Max2               | 8          | 30         | 0  | 20         | 8          | 30         | 0  | 20         | 0  | 0   | 0   | 0   | 0   | 0   | 0   | 0   |
| Yellow Clr         | 3          | 4.5        | 0  | 3          | 3          | 4.5        | 0  | 3          | 3  | 3   | 3   | 3   | 3   | 3   | 3   | 3   |
| Red Clr            | 1          | 2          | 0  | 2          | 1          | 2          | 0  | 2          | 2  | 2   | 2   | 2   | 2   | 2   | 2   | 2   |
| Red Revert         | 5          | 5          | 0  | 5          | 5          | 5          | 0  | 5          | 0  | 0   | 0   | 0   | 0   | 0   | 0   | 0   |
| Added Initial      | 0          | 0          | 0  | 0          | 0          | 0          | 0  | 0          | 0  | 0   | 0   | 0   | 0   | 0   | 0   | 0   |
| Max Initial        | 0          | 0          | 0  | 0          | 0          | 0          | 0  | 0          | 0  | 0   | 0   | 0   | 0   | 0   | 0   | 0   |
| Time Before Reduce | 0          | 0          | 0  | 0          | 0          | 0          | 0  | 0          | 0  | 0   | 0   | 0   | 0   | 0   | 0   | 0   |
| Cars Before Reduce | 0          | 0          | 0  | 0          | 0          | 0          | 0  | 0          | 0  | 0   | 0   | 0   | 0   | 0   | 0   | 0   |
| Time To Reduce     | 0          | 0          | 0  | 0          | 0          | 0          | 0  | 0          | 0  | 0   | 0   | 0   | 0   | 0   | 0   | 0   |
| Reduce By          | 0          | 0          | 0  | 0          | 0          | 0          | 0  | 0          | 0  | 0   | 0   | 0   | 0   | 0   | 0   | 0   |
| Min Gap            | 0          | 0          | 0  | 0          | 0          | 0          | 0  | 0          | 0  | 0   | 0   | 0   | 0   | 0   | 0   | 0   |
| Dynamic Max Limit  | 0          | 0          | 0  | 0          | 0          | 0          | 0  | 0          | 0  | 0   | 0   | 0   | 0   | 0   | 0   | 0   |
| Dynamic Max Step   | 0          | 0          | 0  | 0          | 0          | 0          | 0  | 0          | 0  | 0   | 0   | 0   | 0   | 0   | 0   | 0   |
| Auto Flash Entry   |            |            |    | ON         |            |            |    | ON         |    |     |     |     |     |     |     |     |
| Auto Flash Exit    |            | ON         |    |            |            | ON         |    |            |    |     |     |     |     |     |     |     |
| Non-Actuated 1     |            |            |    |            |            |            |    |            |    |     |     |     |     |     |     |     |
| Non-Actuated 2     |            |            |    |            |            |            |    |            |    |     |     |     |     |     |     |     |

## Phase Option [1.1.2]

|                | φ1<br>(WL) | φ2<br>(ET) | φ3 | φ4<br>(ST) | φ5<br>(EL) | φ6<br>(WT) | φ7 | φ8<br>(NT) | φ9 | φ10 | φ11 | φ12 | φ13 | φ14 | φ15 | φ16 |
|----------------|------------|------------|----|------------|------------|------------|----|------------|----|-----|-----|-----|-----|-----|-----|-----|
| Enable         | ON         | ON         |    | ON         | ON         | ON         |    | ON         |    |     |     |     |     |     |     |     |
| Lock Call      |            |            |    |            |            |            |    |            | ON | ON  | ON  | ON  | ON  | ON  | ON  | ON  |
| Min Recall     |            | ON         |    |            |            | ON         |    |            |    |     |     |     |     |     |     |     |
| Max Recall     |            |            |    |            |            |            |    |            |    |     |     |     |     |     |     |     |
| Ped Recall     |            |            |    |            |            |            |    |            |    |     |     |     |     |     |     |     |
| Soft Recall    |            |            |    |            |            |            |    |            |    |     |     |     |     |     |     |     |
| Dual Entry     |            | ON         |    | ON         |            | ON         |    | ON         |    |     |     |     |     |     |     |     |
| Sim Gap Enable | ON         | ON         | ON | ON         | ON         | ON         | ON | ON         | ON | ON  | ON  | ON  | ON  | ON  | ON  | ON  |
| Guar Passage   |            |            |    |            |            |            |    |            |    |     |     |     |     |     |     |     |
| Rest In Walk   |            | ON         |    |            |            |            |    |            |    |     |     |     |     |     |     |     |
| Cond Service   |            |            |    |            |            |            |    |            |    |     |     |     |     |     |     |     |
| Add Init Calc  |            |            |    |            |            |            |    |            |    |     |     |     |     |     |     |     |

## Phase Option+ [1.1.3]/[1.1.5]

|                         | φ1 | φ2 | φ3 | φ4 | φ5 | φ6 | φ7 | φ8 | φ9 | φ10 | φ11 | φ12 | φ13 | φ14 | φ15 | φ16 |
|-------------------------|----|----|----|----|----|----|----|----|----|-----|-----|-----|-----|-----|-----|-----|
| Reservice               |    |    |    |    |    |    |    |    |    |     |     |     |     |     |     |     |
| Ped Clr Thru Yellow     |    |    |    |    |    |    |    |    |    |     |     |     |     |     |     |     |
| Skip Red-NoCall         |    |    |    |    |    |    |    |    |    |     |     |     |     |     |     |     |
| Red Rest                |    |    |    |    |    |    |    |    |    |     |     |     |     |     |     |     |
| Max 2                   |    |    |    |    |    |    |    |    |    |     |     |     |     |     |     |     |
| Max Inhibit             |    |    |    |    |    |    |    |    |    |     |     |     |     |     |     |     |
| Ped Delay               |    |    |    |    |    |    |    |    |    |     |     |     |     |     |     |     |
| Red Rest On Gap         |    |    |    |    |    |    |    |    |    |     |     |     |     |     |     |     |
| Conflicting P           |    |    |    |    |    |    |    |    |    |     |     |     |     |     |     |     |
| Green Ped Delay Time    |    |    |    |    |    |    |    |    |    |     |     |     |     |     |     |     |
| Omit Yel                |    |    |    |    |    |    |    |    |    |     |     |     |     |     |     |     |
| Ped Out                 |    |    |    |    |    |    |    |    |    |     |     |     |     |     |     |     |
| Start Yel               |    |    |    |    |    |    |    |    |    |     |     |     |     |     |     |     |
| Inhibit P1              |    | ON |    |    |    |    |    |    |    |     |     |     |     |     |     |     |
| Inhibit P2              |    |    |    |    |    |    |    |    |    |     |     |     |     |     |     |     |
| Inhibit P3              |    |    |    |    |    |    |    |    |    |     |     |     |     |     |     |     |
| Inhibit P4              |    |    |    |    |    |    |    |    |    |     |     |     |     |     |     |     |
| Inhibit P5              |    |    |    |    |    | ON |    |    |    |     |     |     |     |     |     |     |
| Inhibit P6              |    |    |    |    |    |    |    |    |    |     |     |     |     |     |     |     |
| Inhibit P7              |    |    |    |    |    |    |    |    |    |     |     |     |     |     |     |     |
| Inhibit P8              |    |    |    |    |    |    |    |    |    |     |     |     |     |     |     |     |
| Call Phs1               |    |    |    |    |    |    |    |    |    |     |     |     |     |     |     |     |
| Call Phs2               |    |    |    |    |    |    |    |    |    |     |     |     |     |     |     |     |
| Redirect P Calls From 1 |    |    |    |    |    |    |    |    |    |     |     |     |     |     |     |     |
| Redirect P Calls To 1   |    |    |    |    |    |    |    |    |    |     |     |     |     |     |     |     |
| Redirect P Calls From 2 |    |    |    |    |    |    |    |    |    |     |     |     |     |     |     |     |
| Redirect P Calls To 2   |    |    |    |    |    |    |    |    |    |     |     |     |     |     |     |     |
| Redirect P Calls From 3 |    |    |    |    |    |    |    |    |    |     |     |     |     |     |     |     |
| Redirect P Calls To 3   |    |    |    |    |    |    |    |    |    |     |     |     |     |     |     |     |
| Redirect P Calls From 4 |    |    |    |    |    |    |    |    |    |     |     |     |     |     |     |     |
| Redirect P Calls To 4   |    |    |    |    |    |    |    |    |    |     |     |     |     |     |     |     |

Prepared By / Date

Reviewed By / Date



Station : 33 - HR Pkwy &amp; Deer Creek/Westridge Village Pkwy ( Standard File )

## Ring Sequence [1.2.4]

| Ring   | P1 | P2 | P3 | P4 | P5 | P6 | P7 | P8 |
|--------|----|----|----|----|----|----|----|----|
| Ring 1 | 1  | 2  | 3  | 4  |    |    |    |    |
| Ring 2 | 5  | 6  | 7  | 8  |    |    |    |    |
| Ring 3 |    |    |    |    |    |    |    |    |
| Ring 4 |    |    |    |    |    |    |    |    |

## Unit Parameters [1.2.1]

| StartUp Flash | Auto Ped Clear | Red Revert | Local Flash Start | Allow < 3 sec Yel | Allow Skip Yel | MCE Timeout | Enable Run | Start Red Time | Phase Mode | Startup Calls | Diamond Mode | Stop Time Over Preempt | Free Ring Sequence | Clearance Decide | Min Ped Clear Time | RingAlgo |  |  |  |
|---------------|----------------|------------|-------------------|-------------------|----------------|-------------|------------|----------------|------------|---------------|--------------|------------------------|--------------------|------------------|--------------------|----------|--|--|--|
|               | OFF            | 5          | RST               | OFF               | OFF            |             | ON         | 6              | STD8       | OFF           | 4PH          | OFF                    | 1                  | OFF              | OFF                |          |  |  |  |

## Alarms, Parameters [1.4.1]

## Auto Flash Parameter

| Yellow | Red | Mode | Source |
|--------|-----|------|--------|
|        |     |      |        |

## Detector, Vehicle Parameters 1-16 [5.1]

| Detector #    | 1  | 2  | 3  | 4  | 5  | 6  | 7  | 8   | 9  | 10 | 11 | 12 | 13 | 14 | 15 | 16 |
|---------------|----|----|----|----|----|----|----|-----|----|----|----|----|----|----|----|----|
| Yellow Lock   |    |    |    |    |    |    |    |     |    |    |    |    |    |    |    |    |
| Red Lock      |    |    |    |    |    |    |    |     |    |    |    |    |    |    |    |    |
| Extend        | ON | ON | ON | ON | ON |    | ON | ON  | ON | ON | ON |    | ON | ON | ON | ON |
| Added Initial |    |    |    |    |    |    |    |     |    |    |    |    |    |    |    |    |
| Call          | ON | ON | ON | ON |    | ON | ON | ON  | ON | ON |    | ON | ON | ON | ON | ON |
| Call Phase    | 1  | 2  | 2  | 2  | 2  | 2  | 3  | 4   | 4  | 4  | 4  | 4  | 1  | 3  | 5  | 6  |
| Switch Phase  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0   | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| Delay Time    | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 7.5 | 0  | 3  | 0  | 0  | 0  | 0  | 0  | 0  |

## Detector, Vehicle Parameters 17-32 [5.1]

| Detector #    | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 | 32 |
|---------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| Yellow Lock   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| Red Lock      |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| Extend        | ON | ON | ON |    | ON | ON | ON | ON | ON |    | ON | ON |    |    |    |    |
| Added Initial |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| Call          | ON | ON |    | ON | ON | ON | ON | ON |    | ON | ON | ON |    |    |    |    |
| Call Phase    | 6  | 6  | 6  | 6  | 7  | 8  | 8  | 8  | 8  | 8  | 5  | 7  | 0  | 0  | 0  | 0  |
| Switch Phase  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| Delay Time    | 0  | 0  | 0  | 0  | 0  | 12 | 0  | 3  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |

## Detector, Ped Detectors 1-16 [5.4]

| Detector     | 1  | 2  | 3  | 4  | 5  | 6  | 7  | 8  | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 |
|--------------|----|----|----|----|----|----|----|----|---|----|----|----|----|----|----|----|
| Call Phase   | 0  | 2  | 0  | 4  | 0  | 6  | 0  | 8  |   |    |    |    |    |    |    |    |
| No Activity  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |   |    |    |    |    |    |    |    |
| Max Presence | 15 | 15 | 15 | 15 | 15 | 15 | 15 | 15 |   |    |    |    |    |    |    |    |
| Erratic Cnt  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |   |    |    |    |    |    |    |    |



11/27/2024 10:52:49 AM

### Channels/SDLC, Assign to Phases [1.8.1]

### Channel/SDLC +, Assign to Phases [1.8.4]

### Overlap General Parameters [1.5.1]

### Overlap Program Parameters [1.5.2.1]

## Overlap Conflict Parameters+ [1.5.2.2]

### Overlap Program Parameters+ [1.5.2.3]

[illegible]

[illegible]

Station : 33 - HR Pkwy &amp; Deer Creek/Westridge Village Pkwy ( Standard File )

## Preemption Times[3.1]/Phases[3.2]/Options[3.3]

| Channel                 | 1  | 2  | 3   | 4   | 5   | 6   |
|-------------------------|----|----|-----|-----|-----|-----|
| Lock Input              | ON | ON | ON  | ON  | ON  | ON  |
| Override Auto Flash     | ON | ON |     |     |     |     |
| Override Higher Preempt | ON | ON |     |     |     |     |
| Flash in Dwell          |    |    |     |     |     |     |
| Link to Preempt         | 0  | 0  | 0   | 0   | 0   | 0   |
| Delay                   | 0  | 0  | 0   | 0   | 0   | 0   |
| Min Duration            | 0  | 0  | 5   | 5   | 5   | 5   |
| Min Green               | 0  | 0  | 5   | 5   | 5   | 5   |
| Min Walk                | 0  | 0  | 0   | 0   | 0   | 0   |
| Ped Clear               | 0  | 0  | 0   | 0   | 0   | 0   |
| Track Green             | 0  | 0  | 0   | 0   | 0   | 0   |
| Min Dwell               | 0  | 0  | 0   | 0   | 0   | 0   |
| Max Presence            | 0  | 0  | 120 | 120 | 120 | 120 |
| Track Veh 1             | 0  | 0  | 0   | 0   | 0   | 0   |
| Track Veh 2             | 0  | 0  | 0   | 0   | 0   | 0   |
| Track Veh 3             | 0  | 0  | 0   | 0   | 0   | 0   |
| Track Veh 4             | 0  | 0  | 0   | 0   | 0   | 0   |
| Dwell Cyc Veh 1         | 0  | 0  | 2   | 4   | 1   | 8   |
| Dwell Cyc Veh 2         | 0  | 0  | 5   | 0   | 6   | 0   |
| Dwell Cyc Veh 3         | 0  | 0  | 0   | 0   | 0   | 0   |
| Dwell Cyc Veh 4         | 0  | 0  | 0   | 0   | 0   | 0   |
| Dwell Cyc Veh 5         | 0  | 0  | 0   | 0   | 0   | 0   |
| Dwell Cyc Veh 6         | 0  | 0  | 0   | 0   | 0   | 0   |
| Dwell Cyc Veh 7         | 0  | 0  | 0   | 0   | 0   | 0   |
| Dwell Cyc Veh 8         | 0  | 0  | 0   | 0   | 0   | 0   |
| Dwell Cyc Veh 9         | 0  | 0  | 0   | 0   | 0   | 0   |
| Dwell Cyc Veh 10        | 0  | 0  | 0   | 0   | 0   | 0   |
| Dwell Cyc Veh 11        | 0  | 0  | 0   | 0   | 0   | 0   |
| Dwell Cyc Veh 12        | 0  | 0  | 0   | 0   | 0   | 0   |
| Dwell Cyc Ped1          | 0  | 0  | 0   | 0   | 0   | 0   |
| Dwell Cyc Ped2          | 0  | 0  | 0   | 0   | 0   | 0   |
| Dwell Cyc Ped3          | 0  | 0  | 0   | 0   | 0   | 0   |
| Dwell Cyc Ped4          | 0  | 0  | 0   | 0   | 0   | 0   |
| Dwell Cyc Ped5          | 0  | 0  | 0   | 0   | 0   | 0   |
| Dwell Cyc Ped6          | 0  | 0  | 0   | 0   | 0   | 0   |
| Dwell vPed7             | 0  | 0  | 0   | 0   | 0   | 0   |
| Dwell Cyc Ped8          | 0  | 0  | 0   | 0   | 0   | 0   |
| Exit 1                  | 0  | 0  | 4   | 0   | 4   | 0   |
| Exit 2                  | 0  | 0  | 8   | 0   | 8   | 0   |
| Exit 3                  | 0  | 0  | 0   | 0   | 0   | 0   |
| Exit 4                  | 0  | 0  | 0   | 0   | 0   | 0   |

## Preemption Times+[3.4]/Overlaps+[3.5]/Options+[3.6]

| Preempt          | 1    | 2    | 3     | 4     | 5     | 6     |
|------------------|------|------|-------|-------|-------|-------|
| Enable           |      |      | ON    | ON    | ON    | ON    |
| Type             | RAIL | RAIL | EMERG | EMERG | EMERG | EMERG |
| Skip Track       |      |      |       |       |       |       |
| Volt Mon Flash   |      |      |       |       |       |       |
| Coord in Preempt |      |      |       |       |       |       |
| Return Max/Min   | MAX  | MAX  | MAX   | MAX   | MAX   | MAX   |
| Extend Dwell     | 0    | 0    | 0     | 0     | 0     | 0     |
| Pattern          | 0    | 0    | 0     | 0     | 0     | 0     |
| Output Mode      | TS2  | TS2  | TS2   | TS2   | TS2   | TS2   |
| Track Over 1     | 0    | 0    | 0     | 0     | 0     | 0     |
| Track Over 2     | 0    | 0    | 0     | 0     | 0     | 0     |
| Track Over 3     | 0    | 0    | 0     | 0     | 0     | 0     |
| Track Over 4     | 0    | 0    | 0     | 0     | 0     | 0     |
| Track Over 5     | 0    | 0    | 0     | 0     | 0     | 0     |
| Track Over 6     | 0    | 0    | 0     | 0     | 0     | 0     |
| Track Over 7     | 0    | 0    | 0     | 0     | 0     | 0     |
| Track Over 8     | 0    | 0    | 0     | 0     | 0     | 0     |
| Track Over 9     | 0    | 0    | 0     | 0     | 0     | 0     |
| Track Over 10    | 0    | 0    | 0     | 0     | 0     | 0     |
| Track Over 11    | 0    | 0    | 0     | 0     | 0     | 0     |
| Track Over 12    | 0    | 0    | 0     | 0     | 0     | 0     |
| DwellCyc Over 1  | 0    | 0    | 0     | 0     | 0     | 0     |
| DwellCyc Over 2  | 0    | 0    | 0     | 0     | 0     | 0     |
| DwellCyc Over 3  | 0    | 0    | 0     | 0     | 0     | 0     |
| DwellCyc Over 4  | 0    | 0    | 0     | 0     | 0     | 0     |
| DwellCyc Over 5  | 0    | 0    | 0     | 0     | 0     | 0     |
| DwellCyc Over 6  | 0    | 0    | 0     | 0     | 0     | 0     |
| DwellCyc Over 7  | 0    | 0    | 0     | 0     | 0     | 0     |
| DwellCyc Over 8  | 0    | 0    | 0     | 0     | 0     | 0     |
| DwellCyc Over 9  | 0    | 0    | 0     | 0     | 0     | 0     |
| DwellCyc Over 10 | 0    | 0    | 0     | 0     | 0     | 0     |
| DwellCyc Over 11 | 0    | 0    | 0     | 0     | 0     | 0     |
| DwellCyc Over 12 | 0    | 0    | 0     | 0     | 0     | 0     |
| Ped Clear        | 0    | 0    | 0     | 0     | 0     | 0     |
| Yellow           | 0    | 0    | 0     | 0     | 0     | 0     |
| Red              | 0    | 0    | 0     | 0     | 0     | 0     |
| Return Max       | 0    | 0    | 0     | 0     | 0     | 0     |

## Preemption Adv Times[3.8]/Init Dwell [3.9]

| Preempt                  | 1    | 2    | 3    | 4    | 5    | 6    |
|--------------------------|------|------|------|------|------|------|
| All Red B4 Preempt       |      |      |      |      |      |      |
| Reset Ext Dwell          |      |      |      |      |      |      |
| Reservice Preempt        |      |      |      |      |      |      |
| End Dwell                |      |      |      |      |      |      |
| DsblDwellCalls           |      |      |      |      |      |      |
| Enter Yellow Change      | 25.5 | 25.5 | 25.5 | 25.5 | 25.5 | 25.5 |
| Enter Red Clear          | 25.5 | 25.5 | 25.5 | 25.5 | 25.5 | 25.5 |
| Track Yellow Change      | 25.5 | 25.5 | 25.5 | 25.5 | 25.5 | 25.5 |
| Track Red Clear          | 25.5 | 25.5 | 25.5 | 25.5 | 25.5 | 25.5 |
| Dynamic Exit Threshold   | 0    | 0    | 0    | 0    | 0    | 0    |
| Initial Dwell Phase 1    | 0    | 0    | 0    | 0    | 0    | 0    |
| Initial Dwell Phase 2    | 0    | 0    | 0    | 0    | 0    | 0    |
| Initial Dwell Phase 3    | 0    | 0    | 0    | 0    | 0    | 0    |
| Initial Dwell Phase 4    | 0    | 0    | 0    | 0    | 0    | 0    |
| Ped 1                    | 0    | 0    | 0    | 0    | 0    | 0    |
| Ped 2                    | 0    | 0    | 0    | 0    | 0    | 0    |
| Ped 3                    | 0    | 0    | 0    | 0    | 0    | 0    |
| Ped 4                    | 0    | 0    | 0    | 0    | 0    | 0    |
| Initial Dwell Overlap 1  | 0    | 0    | 0    | 0    | 0    | 0    |
| Initial Dwell Overlap 2  | 0    | 0    | 0    | 0    | 0    | 0    |
| Initial Dwell Overlap 3  | 0    | 0    | 0    | 0    | 0    | 0    |
| Initial Dwell Overlap 4  | 0    | 0    | 0    | 0    | 0    | 0    |
| Initial Dwell Overlap 5  | 0    | 0    | 0    | 0    | 0    | 0    |
| Initial Dwell Overlap 6  | 0    | 0    | 0    | 0    | 0    | 0    |
| Initial Dwell Overlap 7  | 0    | 0    | 0    | 0    | 0    | 0    |
| Initial Dwell Overlap 8  | 0    | 0    | 0    | 0    | 0    | 0    |
| Initial Dwell Overlap 9  | 0    | 0    | 0    | 0    | 0    | 0    |
| Initial Dwell Overlap 10 | 0    | 0    | 0    | 0    | 0    | 0    |
| Initial Dwell Overlap 11 | 0    | 0    | 0    | 0    | 0    | 0    |
| Initial Dwell Overlap 12 | 0    | 0    | 0    | 0    | 0    | 0    |
| Initial Dwell Overlap 13 | 0    | 0    | 0    | 0    | 0    | 0    |
| Initial Dwell Overlap 14 | 0    | 0    | 0    | 0    | 0    | 0    |
| Initial Dwell Overlap 15 | 0    | 0    | 0    | 0    | 0    | 0    |

Coordination, Modes, + [2.1]  
Modes

| Operational | Correct  | Maximum | Force-Off |
|-------------|----------|---------|-----------|
|             | SHRT/LNG | MAX INH | FLOAT     |

## Coordination, Pattern 1-16 [2.4]

## Coordination, Pattern 17-32 [2.4]

Coordination, Pattern+ 1-8 [2.5]

[illegible]

**Station : 33 - HR Pkwy & Deer Creek/Westridge Village Pkwy ( Standard File )****Coordination, Pattern+ 9-16 [2.5]**

| <b>Pattern</b> | <b>9</b> | <b>10</b> | <b>11</b> | <b>12</b> | <b>13</b> | <b>14</b> | <b>15</b> | <b>16</b> |
|----------------|----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| Short          | 10       | 10        | 10        | 10        | 10        | 10        | 10        | 10        |
| Long           | 24       | 24        | 24        | 24        | 24        | 24        | 24        | 24        |
| Dwell          |          |           |           |           |           |           |           |           |
| No Short P 1   |          |           |           |           |           |           |           |           |
| No Short P 2   |          |           |           |           |           |           |           |           |
| No Short P 3   |          |           |           |           |           |           |           |           |
| No Short P 4   |          |           |           |           |           |           |           |           |
| Early Yield    |          |           |           |           |           |           |           |           |
| Offset         | ENDGRN   | ENDGRN    | ENDGRN    | ENDGRN    | ENDGRN    | ENDGRN    | ENDGRN    | ENDGRN    |
| CNA            |          |           |           |           |           |           |           |           |
| Max 2          |          |           |           |           |           |           |           |           |
| Float          |          |           |           |           |           |           |           |           |
| Min Veh Perm   |          |           |           |           |           |           |           |           |
| Min Ped Perm   |          |           |           |           |           |           |           |           |
| Percentage     |          |           |           |           |           |           |           |           |
| MI             |          |           |           |           |           |           |           |           |
| Ret Hold       | ON       | ON        | ON        | ON        | ON        | ON        | ON        | ON        |
| ASC            |          |           |           |           |           |           |           |           |
| Ph Opt Table   |          |           |           |           |           |           |           |           |
| Ph Time Table  |          |           |           |           |           |           |           |           |
| Det Grp        |          |           |           |           |           |           |           |           |
| Call Inh       |          |           |           |           |           |           |           |           |
| Olp Off 1      |          |           |           |           |           |           |           |           |
| Olp Off 2      |          |           |           |           |           |           |           |           |
| Olp Off 3      |          |           |           |           |           |           |           |           |
| Olp Off 4      |          |           |           |           |           |           |           |           |
| Olp Off 5      |          |           |           |           |           |           |           |           |
| Olp Off 6      |          |           |           |           |           |           |           |           |
| Olp Off 7      |          |           |           |           |           |           |           |           |
| Olp Off 8      |          |           |           |           |           |           |           |           |
| Dia Mode       | DFT      | DFT       | DFT       | DFT       | DFT       | DFT       | DFT       | DFT       |
| Force Mode     | DFT      | DFT       | DFT       | DFT       | DFT       | DFT       | DFT       | DFT       |

**Coordination, Pattern+ 17 - 24 [2.5]**

| <b>Pattern</b> | <b>17</b> | <b>18</b> | <b>19</b> | <b>20</b> | <b>21</b> | <b>22</b> | <b>23</b> | <b>24</b> |
|----------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| Short          | 10        | 10        | 10        | 10        | 10        | 10        | 10        | 10        |
| Long           | 24        | 24        | 24        | 24        | 24        | 24        | 24        | 24        |
| Dwell          |           |           |           |           |           |           |           |           |
| No Short P 1   |           |           |           |           |           |           |           |           |
| No Short P 2   |           |           |           |           |           |           |           |           |
| No Short P 3   |           |           |           |           |           |           |           |           |
| No Short P 4   |           |           |           |           |           |           |           |           |
| Early Yield    |           |           |           |           |           |           |           |           |
| Offset         | ENDGRN    | ENDGRN    | ENDGRN    | ENDGRN    | ENDGRN    | ENDGRN    | ENDGRN    | ENDGRN    |
| CNA            |           |           |           |           |           |           |           |           |
| Max 2          |           |           |           |           |           |           |           |           |
| Float          |           |           |           |           |           |           |           |           |
| Min Veh Perm   |           |           |           |           |           |           |           |           |
| Min Ped Perm   |           |           |           |           |           |           |           |           |
| Percentage     |           |           |           |           |           |           |           |           |
| MI             |           |           |           |           |           |           |           |           |
| Ret Hold       | ON        | ON        | ON        | ON        | ON        | ON        | ON        | ON        |
| ASC            |           |           |           |           |           |           |           |           |
| Ph Opt Table   |           |           |           |           |           |           |           |           |
| Ph Time Table  |           |           |           |           |           |           |           |           |
| Det Grp        |           |           |           |           |           |           |           |           |
| Call Inh       |           |           |           |           |           |           |           |           |
| Olp Off 1      |           |           |           |           |           |           |           |           |
| Olp Off 2      |           |           |           |           |           |           |           |           |
| Olp Off 3      |           |           |           |           |           |           |           |           |
| Olp Off 4      |           |           |           |           |           |           |           |           |
| Olp Off 5      |           |           |           |           |           |           |           |           |
| Olp Off 6      |           |           |           |           |           |           |           |           |
| Olp Off 7      |           |           |           |           |           |           |           |           |
| Olp Off 8      |           |           |           |           |           |           |           |           |
| Dia Mode       | DFT       | DFT       | DFT       | DFT       | DFT       | DFT       | DFT       | DFT       |
| Force Mode     | DFT       | DFT       | DFT       | DFT       | DFT       | DFT       | DFT       | DFT       |

## Coordination, Splits [2.7.1]

[illegible]

**Station : 33 - HR Pkwy & Deer Creek/Westridge Village Pkwy ( Standard File )**

11/27/2024 10:52:49 AM

[illegible]

Douglas County Timing Sheet  
**Station : 33 - HR Pkwy & Deer Creek/Westridge Village Pkwy ( Standard File )**

Timing Sheet  
Pkwy ( Standard File )

11/27/2024 10:52:49 AM

[illegible][illegible][illegible][illegible][illegible][illegible][illegible][illegible]



## TB Coor, Advanced Scheduler [4.3]

TB Coor, Day Plan [4.4]

[illegible]

Douglas County Timing Sheet  
**Station : 33 - HR Pkwy & Deer Creek/Westridge Village Pkwy ( Standard File )**

Timing Sheet  
Pkw ( Standard File )

11/27/2024 10:52:49 AM

[illegible][illegible][illegible][illegible][illegible][illegible][illegible]

Station : 33 - HR Pkwy &amp; Deer Creek/Westridge Village Pkwy ( Standard File )

TB Coor, Action Table [4.5]

| Action | Pattern | Aux 1 | Aux 2 | Aux 3 | Special 1 | Special 2 | Special 3 | Special 4 | Special 5 | Special 6 | Special 7 | Special 8 |
|--------|---------|-------|-------|-------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| 1      | 1       |       |       |       | 0         | 0         |           |           |           |           |           |           |
| 2      | 2       |       |       |       | 0         | 0         |           |           |           |           |           |           |
| 3      | 3       |       |       |       | 0         | 0         |           |           |           |           |           |           |
| 4      | 4       |       |       |       | 0         | 0         |           |           |           |           |           |           |
| 5      | 5       |       |       |       | 0         | 0         |           |           |           |           |           |           |
| 6      | 6       |       |       |       | 0         | 0         |           |           |           |           |           |           |
| 7      | 7       |       |       |       | 0         | 0         |           |           |           |           |           |           |
| 8      | 8       |       |       |       | 0         | 0         |           |           |           |           |           |           |
| 9      | 9       |       |       |       | 0         | 0         |           |           |           |           |           |           |
| 10     | 10      |       |       |       | 0         | 0         |           |           |           |           |           |           |
| 11     | 11      |       |       |       | 0         | 0         |           |           |           |           |           |           |
| 12     | 12      |       |       |       | 0         | 0         |           |           |           |           |           |           |
| 13     | 13      |       |       |       | 0         | 0         |           |           |           |           |           |           |
| 14     | 14      |       |       |       | 0         | 0         |           |           |           |           |           |           |
| 15     | 15      |       |       |       | 0         | 0         |           |           |           |           |           |           |
| 16     | 16      |       |       |       | 0         | 0         |           |           |           |           |           |           |
| 17     | 17      |       |       |       | 0         | 0         |           |           |           |           |           |           |
| 18     | 18      |       |       |       | 0         | 0         |           |           |           |           |           |           |
| 19     | 19      |       |       |       | 0         | 0         |           |           |           |           |           |           |
| 20     | 20      |       |       |       | 0         | 0         |           |           |           |           |           |           |
| 21     | 21      |       |       |       | 0         | 0         |           |           |           |           |           |           |
| 22     | 22      |       |       |       | 0         | 0         |           |           |           |           |           |           |
| 23     | 23      |       |       |       | 0         | 0         |           |           |           |           |           |           |
| 24     | 24      |       |       |       | 0         | 0         |           |           |           |           |           |           |
| 25     | 25      |       |       |       | 0         | 0         |           |           |           |           |           |           |
| 26     | 26      |       |       |       | 0         | 0         |           |           |           |           |           |           |
| 27     | 27      |       |       |       | 0         | 0         |           |           |           |           |           |           |
| 28     | 28      |       |       |       | 0         | 0         |           |           |           |           |           |           |
| 29     | 29      |       |       |       | 0         | 0         |           |           |           |           |           |           |
| 30     | 30      |       |       |       | 0         | 0         |           |           |           |           |           |           |
| 31     | 31      |       |       |       | 0         | 0         |           |           |           |           |           |           |
| 32     | 32      |       |       |       | 0         | 0         |           |           |           |           |           |           |
| 33     |         |       |       |       | 0         | 0         |           |           |           |           |           |           |
| 34     |         |       |       |       | 0         | 0         |           |           |           |           |           |           |
| 35     |         |       |       |       | 0         | 0         |           |           |           |           |           |           |
| 36     |         |       |       |       | 0         | 0         |           |           |           |           |           |           |
| 37     |         |       |       |       | 0         | 0         |           |           |           |           |           |           |
| 38     |         |       |       |       | 0         | 0         |           |           |           |           |           |           |
| 39     |         |       |       |       | 0         | 0         |           |           |           |           |           |           |
| 40     |         |       |       |       | 0         | 0         |           |           |           |           |           |           |
| 41     |         |       |       |       | 0         | 0         |           |           |           |           |           |           |
| 42     |         |       |       |       | 0         | 0         |           |           |           |           |           |           |
| 43     |         |       |       |       | 0         | 0         |           |           |           |           |           |           |
| 44     |         |       |       |       | 0         | 0         |           |           |           |           |           |           |
| 45     |         |       |       |       | 0         | 0         |           |           |           |           |           |           |
| 46     |         |       |       |       | 0         | 0         |           |           |           |           |           |           |
| 47     |         |       |       |       | 0         | 0         |           |           |           |           |           |           |
| 48     |         |       |       |       | 0         | 0         |           |           |           |           |           |           |
| 49     |         |       |       |       | 0         | 0         |           |           |           |           |           |           |
| 50     |         |       |       |       | 0         | 0         |           |           |           |           |           |           |
| 51     |         |       |       |       | 0         | 0         |           |           |           |           |           |           |
| 52     |         |       |       |       | 0         | 0         |           |           |           |           |           |           |
| 53     |         |       |       |       | 0         | 0         |           |           |           |           |           |           |
| 54     |         |       |       |       | 0         | 0         |           |           |           |           |           |           |
| 55     |         |       |       |       | 0         | 0         |           |           |           |           |           |           |
| 56     |         |       |       |       | 0         | 0         |           |           |           |           |           |           |
| 57     |         |       |       |       | 0         | 0         |           |           |           |           |           |           |
| 58     |         |       |       |       | 0         | 0         |           |           |           |           |           |           |
| 59     |         |       |       |       | 0         | 0         |           |           |           |           |           |           |
| 60     |         |       |       |       | 0         | 0         |           |           |           |           |           |           |
| 61     |         |       |       |       | 0         | 0         |           |           |           |           |           |           |
| 62     |         |       |       |       | 0         | 0         |           |           |           |           |           |           |
| 63     |         |       |       |       | 0         | 0         |           |           |           |           |           |           |
| 64     |         |       |       |       | 0         | 0         |           |           |           |           |           |           |
| 99     | 254     |       |       |       | 0         | 0         |           |           |           |           |           |           |
| 100    | 255     |       |       |       | 0         | 0         |           |           |           |           |           |           |

### Alternate Phase Program 2, Interval Times [1.1.6.1]

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### Detector Alternate Program 1, Vehicle Parameters [5.5.1]

### Detector Alternate Program 2, Vehicle Parameters [5.5.1]

### User Input map [1.8.9.1]

### User Output map [1.8.9.2]

[illegible]

Station : 66 - HR Pkwy &amp; Foothills Canyon ( Standard File )

## Phase [1.1.1]

|                    | φ1<br>(SWL) | φ2<br>(NET) | φ3 | φ4<br>(SET) | φ5<br>(NEL) | φ6<br>(SWT) | φ7 | φ8<br>(NWT) | φ9 | φ10 | φ11 | φ12 | φ13 | φ14 | φ15 | φ16 |
|--------------------|-------------|-------------|----|-------------|-------------|-------------|----|-------------|----|-----|-----|-----|-----|-----|-----|-----|
| Walk               | 0           | 5           | 0  | 5           | 0           | 5           | 0  | 5           | 0  | 0   | 0   | 0   | 0   | 0   | 0   | 0   |
| Ped Clearance      | 0           | 15          | 0  | 26          | 0           | 15          | 0  | 27          | 0  | 0   | 0   | 0   | 0   | 0   | 0   | 0   |
| Min Green          | 5           | 25          | 0  | 5           | 5           | 25          | 0  | 5           | 0  | 0   | 0   | 0   | 0   | 0   | 0   | 0   |
| Gap Ext            | 1.5         | 3           | 0  | 3           | 1.5         | 3           | 0  | 3           | 0  | 0   | 0   | 0   | 0   | 0   | 0   | 0   |
| Max1               | 10          | 45          | 0  | 30          | 10          | 45          | 0  | 30          | 0  | 0   | 0   | 0   | 0   | 0   | 0   | 0   |
| Max2               | 8           | 25          | 0  | 15          | 8           | 25          | 0  | 15          | 0  | 0   | 0   | 0   | 0   | 0   | 0   | 0   |
| Yellow Clr         | 3           | 4.5         | 3  | 3           | 3           | 4.5         | 3  | 3           | 3  | 3   | 3   | 3   | 3   | 3   | 3   | 3   |
| Red Clr            | 2           | 2           | 3  | 2           | 2           | 2           | 4  | 2           | 2  | 2   | 2   | 2   | 2   | 2   | 2   | 2   |
| Red Revert         | 5           | 5           | 0  | 5           | 5           | 5           | 0  | 5           | 0  | 0   | 0   | 0   | 0   | 0   | 0   | 0   |
| Added Initial      | 0           | 0           | 0  | 0           | 0           | 0           | 0  | 0           | 0  | 0   | 0   | 0   | 0   | 0   | 0   | 0   |
| Max Initial        | 0           | 0           | 0  | 0           | 0           | 0           | 0  | 0           | 0  | 0   | 0   | 0   | 0   | 0   | 0   | 0   |
| Time Before Reduce | 0           | 0           | 0  | 0           | 0           | 0           | 0  | 0           | 0  | 0   | 0   | 0   | 0   | 0   | 0   | 0   |
| Cars Before Reduce | 0           | 0           | 0  | 0           | 0           | 0           | 0  | 0           | 0  | 0   | 0   | 0   | 0   | 0   | 0   | 0   |
| Time To Reduce     | 0           | 0           | 0  | 0           | 0           | 0           | 0  | 0           | 0  | 0   | 0   | 0   | 0   | 0   | 0   | 0   |
| Reduce By          | 0           | 0           | 0  | 0           | 0           | 0           | 0  | 0           | 0  | 0   | 0   | 0   | 0   | 0   | 0   | 0   |
| Min Gap            | 0           | 0           | 0  | 0           | 0           | 0           | 0  | 0           | 0  | 0   | 0   | 0   | 0   | 0   | 0   | 0   |
| Dynamic Max Limit  | 0           | 0           | 0  | 0           | 0           | 0           | 0  | 0           | 0  | 0   | 0   | 0   | 0   | 0   | 0   | 0   |
| Dynamic Max Step   | 0           | 0           | 0  | 0           | 0           | 0           | 0  | 0           | 0  | 0   | 0   | 0   | 0   | 0   | 0   | 0   |
| Auto Flash Entry   |             |             |    | ON          |             |             |    | ON          |    |     |     |     |     |     |     |     |
| Auto Flash Exit    |             | ON          |    |             |             | ON          |    |             |    |     |     |     |     |     |     |     |
| Non-Actuated 1     |             |             |    |             |             |             |    |             |    |     |     |     |     |     |     |     |
| Non-Actuated 2     |             |             |    |             |             |             |    |             |    |     |     |     |     |     |     |     |

## Phase Option [1.1.2]

|                | φ1<br>(SWL) | φ2<br>(NET) | φ3 | φ4<br>(SET) | φ5<br>(NEL) | φ6<br>(SWT) | φ7 | φ8<br>(NWT) | φ9 | φ10 | φ11 | φ12 | φ13 | φ14 | φ15 | φ16 |
|----------------|-------------|-------------|----|-------------|-------------|-------------|----|-------------|----|-----|-----|-----|-----|-----|-----|-----|
| Enable         | ON          | ON          |    | ON          | ON          | ON          |    | ON          |    |     |     |     |     |     |     |     |
| Lock Call      |             |             |    |             |             |             |    |             | ON | ON  | ON  | ON  | ON  | ON  | ON  | ON  |
| Min Recall     |             | ON          |    |             |             | ON          |    |             |    |     |     |     |     |     |     |     |
| Max Recall     |             |             |    |             |             |             |    |             |    |     |     |     |     |     |     |     |
| Ped Recall     |             |             |    |             |             |             |    |             |    |     |     |     |     |     |     |     |
| Soft Recall    |             |             |    |             |             |             |    |             |    |     |     |     |     |     |     |     |
| Dual Entry     |             | ON          |    | ON          |             | ON          |    | ON          |    |     |     |     |     |     |     |     |
| Sim Gap Enable | ON          | ON          | ON | ON          | ON          | ON          | ON | ON          | ON | ON  | ON  | ON  | ON  | ON  | ON  | ON  |
| Guar Passage   |             |             |    |             |             |             |    |             |    |     |     |     |     |     |     |     |
| Rest In Walk   |             | ON          |    |             |             | ON          |    |             |    |     |     |     |     |     |     |     |
| Cond Service   |             |             |    |             |             |             |    |             |    |     |     |     |     |     |     |     |
| Add Init Calc  |             |             |    |             |             |             |    |             |    |     |     |     |     |     |     |     |

## Phase Option+ [1.1.3]/[1.1.5]

|                         | φ1 | φ2 | φ3 | φ4 | φ5 | φ6 | φ7 | φ8 | φ9 | φ10 | φ11 | φ12 | φ13 | φ14 | φ15 | φ16 |
|-------------------------|----|----|----|----|----|----|----|----|----|-----|-----|-----|-----|-----|-----|-----|
| Reservice               |    |    |    |    |    |    |    |    |    |     |     |     |     |     |     |     |
| Ped Clr Thru Yellow     |    |    |    |    |    |    |    |    |    |     |     |     |     |     |     |     |
| Skip Red-NoCall         |    |    |    |    |    |    |    |    |    |     |     |     |     |     |     |     |
| Red Rest                |    |    |    |    |    |    |    |    |    |     |     |     |     |     |     |     |
| Max 2                   |    |    |    |    |    |    |    |    |    |     |     |     |     |     |     |     |
| Max Inhibit             |    |    |    |    |    |    |    |    |    |     |     |     |     |     |     |     |
| Ped Delay               |    |    |    |    |    |    |    |    |    |     |     |     |     |     |     |     |
| Red Rest On Gap         |    |    |    |    |    |    |    |    |    |     |     |     |     |     |     |     |
| Conflicting P           |    |    |    |    |    |    |    |    |    |     |     |     |     |     |     |     |
| Green Ped Delay Time    |    |    |    | 15 |    |    |    | 15 |    |     |     |     |     |     |     |     |
| Omit Yel                |    |    |    |    |    |    |    |    |    |     |     |     |     |     |     |     |
| Ped Out                 |    |    |    |    |    |    |    |    |    |     |     |     |     |     |     |     |
| Start Yel               |    |    |    |    |    |    |    |    |    |     |     |     |     |     |     |     |
| Inhibit P1              |    | ON |    |    |    |    |    |    |    |     |     |     |     |     |     |     |
| Inhibit P2              |    |    |    |    |    |    |    |    |    |     |     |     |     |     |     |     |
| Inhibit P3              |    |    |    | ON |    |    |    |    |    |     |     |     |     |     |     |     |
| Inhibit P4              |    |    |    |    |    |    |    |    |    |     |     |     |     |     |     |     |
| Inhibit P5              |    |    |    |    |    | ON |    |    |    |     |     |     |     |     |     |     |
| Inhibit P6              |    |    |    |    |    |    |    |    |    |     |     |     |     |     |     |     |
| Inhibit P7              |    |    |    |    |    |    |    | ON |    |     |     |     |     |     |     |     |
| Inhibit P8              |    |    |    |    |    |    |    |    |    |     |     |     |     |     |     |     |
| Call Phs1               |    |    |    |    |    |    |    |    |    |     |     |     |     |     |     |     |
| Call Phs2               |    |    |    |    |    |    |    |    |    |     |     |     |     |     |     |     |
| Redirect P Calls From 1 |    |    |    |    |    |    |    |    |    |     |     |     |     |     |     |     |
| Redirect P Calls To 1   |    |    |    |    |    |    |    |    |    |     |     |     |     |     |     |     |
| Redirect P Calls From 2 |    |    |    |    |    |    |    |    |    |     |     |     |     |     |     |     |
| Redirect P Calls To 2   |    |    |    |    |    |    |    |    |    |     |     |     |     |     |     |     |
| Redirect P Calls From 3 |    |    |    |    |    |    |    |    |    |     |     |     |     |     |     |     |
| Redirect P Calls To 3   |    |    |    |    |    |    |    |    |    |     |     |     |     |     |     |     |
| Redirect P Calls From 4 |    |    |    |    |    |    |    |    |    |     |     |     |     |     |     |     |
| Redirect P Calls To 4   |    |    |    |    |    |    |    |    |    |     |     |     |     |     |     |     |

Prepared By / Date

Reviewed By / Date



Station : 66 - HR Pkwy &amp; Foothills Canyon ( Standard File )

## Ring Sequence [1.2.4]

| Ring   | P1 | P2 | P3 | P4 | P5 | P6 | P7 | P8 |
|--------|----|----|----|----|----|----|----|----|
| Ring 1 | 1  | 2  | 3  | 4  |    |    |    |    |
| Ring 2 | 5  | 6  | 7  | 8  |    |    |    |    |
| Ring 3 |    |    |    |    |    |    |    |    |
| Ring 4 |    |    |    |    |    |    |    |    |

## Unit Parameters [1.2.1]

| StartUp Flash | Auto Ped Clear | Red Revert | Local Flash Start | Allow < 3 sec Yel | Allow Skip Yel | MCE Timeout | Enable Run | Start Red Time | Phase Mode | Startup Calls | Diamond Mode | Stop Time Over Preempt | Free Ring Sequence | Clearance Decide | Min Ped Clear Time | RingAlgo |  |  |  |
|---------------|----------------|------------|-------------------|-------------------|----------------|-------------|------------|----------------|------------|---------------|--------------|------------------------|--------------------|------------------|--------------------|----------|--|--|--|
|               | OFF            | 5          | RST               | OFF               | OFF            |             | ON         | 6              | STD8       | OFF           | 4PH          | OFF                    | 1                  | OFF              | OFF                |          |  |  |  |

## Alarms, Parameters [1.4.1]

## Auto Flash Parameter

| Yellow | Red | Mode | Source |
|--------|-----|------|--------|
|        |     |      |        |

## Detector, Vehicle Parameters 1-16 [5.1]

| Detector #    | 1  | 2  | 3  | 4  | 5  | 6  | 7  | 8  | 9   | 10 | 11 | 12 | 13 | 14 | 15 | 16 |
|---------------|----|----|----|----|----|----|----|----|-----|----|----|----|----|----|----|----|
| Yellow Lock   |    |    |    |    |    |    |    |    |     |    |    |    |    |    |    |    |
| Red Lock      |    |    |    |    |    |    |    |    |     |    |    |    |    |    |    |    |
| Extend        | ON | ON | ON | ON | ON |    | ON | ON | ON  | ON | ON |    | ON | ON | ON | ON |
| Added Initial |    |    |    |    |    |    |    |    |     |    |    |    |    |    |    |    |
| Call          | ON | ON | ON | ON |    | ON | ON | ON | ON  | ON |    | ON | ON | ON | ON | ON |
| Call Phase    | 1  | 2  | 2  | 2  | 2  | 2  | 3  | 4  | 4   | 4  | 4  | 4  | 1  | 3  | 5  | 6  |
| Switch Phase  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0   | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| Delay Time    | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 7.5 | 0  | 3  | 0  | 0  | 0  | 0  | 0  |

## Detector, Vehicle Parameters 17-32 [5.1]

| Detector #    | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 | 32 |
|---------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| Yellow Lock   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| Red Lock      |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| Extend        | ON | ON | ON |    | ON | ON | ON | ON | ON |    | ON | ON |    |    |    |    |
| Added Initial |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| Call          | ON | ON |    | ON | ON | ON | ON | ON |    | ON | ON | ON |    |    |    |    |
| Call Phase    | 6  | 6  | 6  | 6  | 7  | 8  | 8  | 8  | 8  | 8  | 5  | 7  | 0  | 0  | 0  | 0  |
| Switch Phase  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| Delay Time    | 0  | 0  | 0  | 0  | 0  | 12 | 0  | 3  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |

## Detector, Ped Detectors 1-16 [5.4]

| Detector     | 1  | 2  | 3  | 4  | 5  | 6  | 7  | 8  | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 |
|--------------|----|----|----|----|----|----|----|----|---|----|----|----|----|----|----|----|
| Call Phase   | 0  | 2  | 0  | 4  | 0  | 6  | 0  | 8  |   |    |    |    |    |    |    |    |
| No Activity  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |   |    |    |    |    |    |    |    |
| Max Presence | 15 | 15 | 15 | 15 | 15 | 15 | 15 | 15 |   |    |    |    |    |    |    |    |
| Erratic Cnt  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |   |    |    |    |    |    |    |    |



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### Channels/SDLC, Assign to Phases [1.8.1]

### Channel/SDLC +, Assign to Phases [1.8.4]

### Overlap General Parameters [1.5.1]

### Overlap Program Parameters [1.5.2.1]

## Overlap Conflict Parameters+ [1.5.2.2]

### Overlap Program Parameters+ [1.5.2.3]

[illegible]

[illegible]

Station : 66 - HR Pkwy &amp; Foothills Canyon ( Standard File )

## Preemption Times[3.1]/Phases[3.2]/Options[3.3]

| Channel                 | 1  | 2  | 3   | 4   | 5   | 6   |
|-------------------------|----|----|-----|-----|-----|-----|
| Lock Input              | ON | ON | ON  | ON  | ON  | ON  |
| Override Auto Flash     | ON | ON |     |     |     |     |
| Override Higher Preempt | ON | ON |     |     |     |     |
| Flash in Dwell          |    |    |     |     |     |     |
| Link to Preempt         | 0  | 0  | 0   | 0   | 0   | 0   |
| Delay                   | 0  | 0  | 0   | 0   | 0   | 0   |
| Min Duration            | 0  | 0  | 5   | 5   | 5   | 5   |
| Min Green               | 0  | 0  | 5   | 5   | 5   | 5   |
| Min Walk                | 0  | 0  | 0   | 0   | 0   | 0   |
| Ped Clear               | 0  | 0  | 3   | 3   | 3   | 3   |
| Track Green             | 0  | 0  | 0   | 0   | 0   | 0   |
| Min Dwell               | 0  | 0  | 0   | 0   | 0   | 0   |
| Max Presence            | 0  | 0  | 120 | 120 | 120 | 120 |
| Track Veh 1             | 0  | 0  | 0   | 0   | 0   | 0   |
| Track Veh 2             | 0  | 0  | 0   | 0   | 0   | 0   |
| Track Veh 3             | 0  | 0  | 0   | 0   | 0   | 0   |
| Track Veh 4             | 0  | 0  | 0   | 0   | 0   | 0   |
| Dwell Cyc Veh 1         | 0  | 0  | 2   | 4   | 1   | 8   |
| Dwell Cyc Veh 2         | 0  | 0  | 5   | 0   | 6   | 0   |
| Dwell Cyc Veh 3         | 0  | 0  | 0   | 0   | 0   | 0   |
| Dwell Cyc Veh 4         | 0  | 0  | 0   | 0   | 0   | 0   |
| Dwell Cyc Veh 5         | 0  | 0  | 0   | 0   | 0   | 0   |
| Dwell Cyc Veh 6         | 0  | 0  | 0   | 0   | 0   | 0   |
| Dwell Cyc Veh 7         | 0  | 0  | 0   | 0   | 0   | 0   |
| Dwell Cyc Veh 8         | 0  | 0  | 0   | 0   | 0   | 0   |
| Dwell Cyc Veh 9         | 0  | 0  | 0   | 0   | 0   | 0   |
| Dwell Cyc Veh 10        | 0  | 0  | 0   | 0   | 0   | 0   |
| Dwell Cyc Veh 11        | 0  | 0  | 0   | 0   | 0   | 0   |
| Dwell Cyc Veh 12        | 0  | 0  | 0   | 0   | 0   | 0   |
| Dwell Cyc Ped1          | 0  | 0  | 0   | 0   | 0   | 0   |
| Dwell Cyc Ped2          | 0  | 0  | 0   | 0   | 0   | 0   |
| Dwell Cyc Ped3          | 0  | 0  | 0   | 0   | 0   | 0   |
| Dwell Cyc Ped4          | 0  | 0  | 0   | 0   | 0   | 0   |
| Dwell Cyc Ped5          | 0  | 0  | 0   | 0   | 0   | 0   |
| Dwell Cyc Ped6          | 0  | 0  | 0   | 0   | 0   | 0   |
| Dwell vPed7             | 0  | 0  | 0   | 0   | 0   | 0   |
| Dwell Cyc Ped8          | 0  | 0  | 0   | 0   | 0   | 0   |
| Exit 1                  | 0  | 0  | 4   | 0   | 4   | 0   |
| Exit 2                  | 0  | 0  | 8   | 0   | 8   | 0   |
| Exit 3                  | 0  | 0  | 0   | 0   | 0   | 0   |
| Exit 4                  | 0  | 0  | 0   | 0   | 0   | 0   |

## Preemption Times+[3.4]/Overlaps+[3.5]/Options+[3.6]

| Preempt          | 1    | 2    | 3     | 4     | 5     | 6     |
|------------------|------|------|-------|-------|-------|-------|
| Enable           |      |      | ON    | ON    | ON    | ON    |
| Type             | RAIL | RAIL | EMERG | EMERG | EMERG | EMERG |
| Skip Track       |      |      |       |       |       |       |
| Volt Mon Flash   |      |      |       |       |       |       |
| Coord in Preempt |      |      |       |       |       |       |
| Return Max/Min   | MAX  | MAX  | MAX   | MAX   | MAX   | MAX   |
| Extend Dwell     | 0    | 0    | 0     | 0     | 0     | 0     |
| Pattern          | 0    | 0    | 0     | 0     | 0     | 0     |
| Output Mode      | TS2  | TS2  | TS2   | TS2   | TS2   | TS2   |
| Track Over 1     | 0    | 0    | 0     | 0     | 0     | 0     |
| Track Over 2     | 0    | 0    | 0     | 0     | 0     | 0     |
| Track Over 3     | 0    | 0    | 0     | 0     | 0     | 0     |
| Track Over 4     | 0    | 0    | 0     | 0     | 0     | 0     |
| Track Over 5     | 0    | 0    | 0     | 0     | 0     | 0     |
| Track Over 6     | 0    | 0    | 0     | 0     | 0     | 0     |
| Track Over 7     | 0    | 0    | 0     | 0     | 0     | 0     |
| Track Over 8     | 0    | 0    | 0     | 0     | 0     | 0     |
| Track Over 9     | 0    | 0    | 0     | 0     | 0     | 0     |
| Track Over 10    | 0    | 0    | 0     | 0     | 0     | 0     |
| Track Over 11    | 0    | 0    | 0     | 0     | 0     | 0     |
| Track Over 12    | 0    | 0    | 0     | 0     | 0     | 0     |
| DwellCyc Over 1  | 0    | 0    | 1     | 1     | 1     | 1     |
| DwellCyc Over 2  | 0    | 0    | 2     | 2     | 2     | 2     |
| DwellCyc Over 3  | 0    | 0    | 3     | 3     | 3     | 3     |
| DwellCyc Over 4  | 0    | 0    | 4     | 4     | 4     | 4     |
| DwellCyc Over 5  | 0    | 0    | 0     | 0     | 0     | 0     |
| DwellCyc Over 6  | 0    | 0    | 0     | 0     | 0     | 0     |
| DwellCyc Over 7  | 0    | 0    | 0     | 0     | 0     | 0     |
| DwellCyc Over 8  | 0    | 0    | 0     | 0     | 0     | 0     |
| DwellCyc Over 9  | 0    | 0    | 0     | 0     | 0     | 0     |
| DwellCyc Over 10 | 0    | 0    | 0     | 0     | 0     | 0     |
| DwellCyc Over 11 | 0    | 0    | 0     | 0     | 0     | 0     |
| DwellCyc Over 12 | 0    | 0    | 0     | 0     | 0     | 0     |
| Ped Clear        | 0    | 0    | 0     | 0     | 0     | 0     |
| Yellow           | 0    | 0    | 0     | 0     | 0     | 0     |
| Red              | 0    | 0    | 0     | 0     | 0     | 0     |
| Return Max       | 0    | 0    | 0     | 0     | 0     | 0     |

## Preemption Adv Times[3.8]/Init Dwell [3.9]

| Preempt                  | 1    | 2    | 3    | 4    | 5    | 6    |
|--------------------------|------|------|------|------|------|------|
| All Red B4 Preempt       |      |      |      |      |      |      |
| Reset Ext Dwell          |      |      |      |      |      |      |
| Reservice Preempt        |      |      |      |      |      |      |
| End Dwell                |      |      |      |      |      |      |
| DsblDwellCalls           |      |      |      |      |      |      |
| Enter Yellow Change      | 25.5 | 25.5 | 25.5 | 25.5 | 25.5 | 25.5 |
| Enter Red Clear          | 25.5 | 25.5 | 25.5 | 25.5 | 25.5 | 25.5 |
| Track Yellow Change      | 25.5 | 25.5 | 25.5 | 25.5 | 25.5 | 25.5 |
| Track Red Clear          | 25.5 | 25.5 | 25.5 | 25.5 | 25.5 | 25.5 |
| Dynamic Exit Threshold   | 0    | 0    | 0    | 0    | 0    | 0    |
| Initial Dwell Phase 1    | 0    | 0    | 0    | 0    | 0    | 0    |
| Initial Dwell Phase 2    | 0    | 0    | 0    | 0    | 0    | 0    |
| Initial Dwell Phase 3    | 0    | 0    | 0    | 0    | 0    | 0    |
| Initial Dwell Phase 4    | 0    | 0    | 0    | 0    | 0    | 0    |
| Ped 1                    | 0    | 0    | 0    | 0    | 0    | 0    |
| Ped 2                    | 0    | 0    | 0    | 0    | 0    | 0    |
| Ped 3                    | 0    | 0    | 0    | 0    | 0    | 0    |
| Ped 4                    | 0    | 0    | 0    | 0    | 0    | 0    |
| Initial Dwell Overlap 1  | 0    | 0    | 0    | 0    | 0    | 0    |
| Initial Dwell Overlap 2  | 0    | 0    | 0    | 0    | 0    | 0    |
| Initial Dwell Overlap 3  | 0    | 0    | 0    | 0    | 0    | 0    |
| Initial Dwell Overlap 4  | 0    | 0    | 0    | 0    | 0    | 0    |
| Initial Dwell Overlap 5  | 0    | 0    | 0    | 0    | 0    | 0    |
| Initial Dwell Overlap 6  | 0    | 0    | 0    | 0    | 0    | 0    |
| Initial Dwell Overlap 7  | 0    | 0    | 0    | 0    | 0    | 0    |
| Initial Dwell Overlap 8  | 0    | 0    | 0    | 0    | 0    | 0    |
| Initial Dwell Overlap 9  | 0    | 0    | 0    | 0    | 0    | 0    |
| Initial Dwell Overlap 10 | 0    | 0    | 0    | 0    | 0    | 0    |
| Initial Dwell Overlap 11 | 0    | 0    | 0    | 0    | 0    | 0    |
| Initial Dwell Overlap 12 | 0    | 0    | 0    | 0    | 0    | 0    |
| Initial Dwell Overlap 13 | 0    | 0    | 0    | 0    | 0    | 0    |
| Initial Dwell Overlap 14 | 0    | 0    | 0    | 0    | 0    | 0    |
| Initial Dwell Overlap 15 | 0    | 0    | 0    | 0    | 0    | 0    |

Coordination, Modes, + [2.1]  
Modes

| Operational | Correct  | Maximum | Force-Off |
|-------------|----------|---------|-----------|
|             | SHRT/LNG | MAX INH | FLOAT     |

## Coordination, Pattern 1-16 [2.4]

## Coordination, Pattern 17-32 [2.4]

Coordination, Pattern+ 1-8 [2.5]

[illegible]

Station : 66 - HR Pkwy &amp; Foothills Canyon ( Standard File )

## Coordination, Pattern+ 9-16 [2.5]

| Pattern       | 9      | 10     | 11     | 12     | 13     | 14     | 15     | 16     |
|---------------|--------|--------|--------|--------|--------|--------|--------|--------|
| Short         | 10     | 10     | 10     | 10     | 10     | 10     | 10     | 10     |
| Long          | 34     | 34     | 34     | 34     | 34     | 34     | 34     | 34     |
| Dwell         |        |        |        |        |        |        |        |        |
| No Short P 1  |        |        |        |        |        |        |        |        |
| No Short P 2  |        |        |        |        |        |        |        |        |
| No Short P 3  |        |        |        |        |        |        |        |        |
| No Short P 4  |        |        |        |        |        |        |        |        |
| Early Yield   |        |        |        |        |        |        |        |        |
| Offset        | ENDGRN | ENDGRN | ENDGRN | ENDGRN | ENDGRN | ENDGRN | ENDGRN | ENDGRN |
| CNA           |        |        |        |        |        |        |        |        |
| Max 2         |        |        |        |        |        |        |        |        |
| Float         |        |        |        |        |        |        |        |        |
| Min Veh Perm  |        |        |        |        |        |        |        |        |
| Min Ped Perm  |        |        |        |        |        |        |        |        |
| Percentage    |        |        |        |        |        |        |        |        |
| MI            |        |        |        |        |        |        |        |        |
| Ret Hold      | ON     | ON     | ON     | ON     | ON     | ON     | ON     | ON     |
| ASC           |        |        |        |        |        |        |        |        |
| Ph Opt Table  |        |        |        |        |        |        |        |        |
| Ph Time Table |        |        |        |        |        |        |        |        |
| Det Grp       |        |        |        |        |        |        |        |        |
| Call Inh      |        |        |        |        |        |        |        |        |
| Olp Off 1     |        |        |        |        |        |        |        |        |
| Olp Off 2     |        |        |        |        |        |        |        |        |
| Olp Off 3     |        |        |        |        |        |        |        |        |
| Olp Off 4     |        |        |        |        |        |        |        |        |
| Olp Off 5     |        |        |        |        |        |        |        |        |
| Olp Off 6     |        |        |        |        |        |        |        |        |
| Olp Off 7     |        |        |        |        |        |        |        |        |
| Olp Off 8     |        |        |        |        |        |        |        |        |
| Dia Mode      | DFT    | DFT    | DFT    | DFT    | DFT    | DFT    | DFT    | DFT    |
| Force Mode    | DFT    | DFT    | DFT    | DFT    | DFT    | DFT    | DFT    | DFT    |

## Coordination, Pattern+ 17 - 24 [2.5]

| Pattern       | 17     | 18     | 19     | 20     | 21     | 22     | 23     | 24     |
|---------------|--------|--------|--------|--------|--------|--------|--------|--------|
| Short         | 10     | 10     | 10     | 10     | 10     | 10     | 10     | 10     |
| Long          | 34     | 34     | 34     | 34     | 34     | 34     | 34     | 34     |
| Dwell         |        |        |        |        |        |        |        |        |
| No Short P 1  |        |        |        |        |        |        |        |        |
| No Short P 2  |        |        |        |        |        |        |        |        |
| No Short P 3  |        |        |        |        |        |        |        |        |
| No Short P 4  |        |        |        |        |        |        |        |        |
| Early Yield   |        |        |        |        |        |        |        |        |
| Offset        | ENDGRN | ENDGRN | ENDGRN | ENDGRN | ENDGRN | ENDGRN | ENDGRN | ENDGRN |
| CNA           |        |        |        |        |        |        |        |        |
| Max 2         |        |        |        |        |        |        |        |        |
| Float         |        |        |        |        |        |        |        |        |
| Min Veh Perm  |        |        |        |        |        |        |        |        |
| Min Ped Perm  |        |        |        |        |        |        |        |        |
| Percentage    |        |        |        |        |        |        |        |        |
| MI            |        |        |        |        |        |        |        |        |
| Ret Hold      | ON     | ON     | ON     | ON     | ON     | ON     | ON     | ON     |
| ASC           |        |        |        |        |        |        |        |        |
| Ph Opt Table  |        |        |        |        |        |        |        |        |
| Ph Time Table |        |        |        |        |        |        |        |        |
| Det Grp       |        |        |        |        |        |        |        |        |
| Call Inh      |        |        |        |        |        |        |        |        |
| Olp Off 1     |        |        |        |        |        |        |        |        |
| Olp Off 2     |        |        |        |        |        |        |        |        |
| Olp Off 3     |        |        |        |        |        |        |        |        |
| Olp Off 4     |        |        |        |        |        |        |        |        |
| Olp Off 5     |        |        |        |        |        |        |        |        |
| Olp Off 6     |        |        |        |        |        |        |        |        |
| Olp Off 7     |        |        |        |        |        |        |        |        |
| Olp Off 8     |        |        |        |        |        |        |        |        |
| Dia Mode      | DFT    | DFT    | DFT    | DFT    | DFT    | DFT    | DFT    | DFT    |
| Force Mode    | DFT    | DFT    | DFT    | DFT    | DFT    | DFT    | DFT    | DFT    |

## Coordination, Splits [2.7.1]

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## TB Coor, Advanced Scheduler [4.3]

### TB Coor, Day Plan [4.4]

[illegible]

**Station : 66 - HR Pkwy & Foothills Canyon ( Standard File )**

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Station : 66 - HR Pkwy &amp; Foothills Canyon ( Standard File )

TB Coor, Action Table [4.5]

| Action | Pattern | Aux 1 | Aux 2 | Aux 3 | Special 1 | Special 2 | Special 3 | Special 4 | Special 5 | Special 6 | Special 7 | Special 8 |
|--------|---------|-------|-------|-------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| 1      | 1       |       |       |       | 0         | 0         |           |           |           |           |           |           |
| 2      | 2       |       |       |       | 0         | 0         |           |           |           |           |           |           |
| 3      | 3       |       |       |       | 0         | 0         |           |           |           |           |           |           |
| 4      | 4       |       |       |       | 0         | 0         |           |           |           |           |           |           |
| 5      | 5       |       |       |       | 0         | 0         |           |           |           |           |           |           |
| 6      | 6       |       |       |       | 0         | 0         |           |           |           |           |           |           |
| 7      | 7       |       |       |       | 0         | 0         |           |           |           |           |           |           |
| 8      | 8       |       |       |       | 0         | 0         |           |           |           |           |           |           |
| 9      | 9       |       |       |       | 0         | 0         |           |           |           |           |           |           |
| 10     | 10      |       |       |       | 0         | 0         |           |           |           |           |           |           |
| 11     | 11      |       |       |       | 0         | 0         |           |           |           |           |           |           |
| 12     | 12      |       |       |       | 0         | 0         |           |           |           |           |           |           |
| 13     | 13      |       |       |       | 0         | 0         |           |           |           |           |           |           |
| 14     | 14      |       |       |       | 0         | 0         |           |           |           |           |           |           |
| 15     | 15      |       |       |       | 0         | 0         |           |           |           |           |           |           |
| 16     | 16      |       |       |       | 0         | 0         |           |           |           |           |           |           |
| 17     | 17      |       |       |       | 0         | 0         |           |           |           |           |           |           |
| 18     | 18      |       |       |       | 0         | 0         |           |           |           |           |           |           |
| 19     | 19      |       |       |       | 0         | 0         |           |           |           |           |           |           |
| 20     | 20      |       |       |       | 0         | 0         |           |           |           |           |           |           |
| 21     | 21      |       |       |       | 0         | 0         |           |           |           |           |           |           |
| 22     | 22      |       |       |       | 0         | 0         |           |           |           |           |           |           |
| 23     | 23      |       |       |       | 0         | 0         |           |           |           |           |           |           |
| 24     | 24      |       |       |       | 0         | 0         |           |           |           |           |           |           |
| 25     | 25      |       |       |       | 0         | 0         |           |           |           |           |           |           |
| 26     | 26      |       |       |       | 0         | 0         |           |           |           |           |           |           |
| 27     | 27      |       |       |       | 0         | 0         |           |           |           |           |           |           |
| 28     | 28      |       |       |       | 0         | 0         |           |           |           |           |           |           |
| 29     | 29      |       |       |       | 0         | 0         |           |           |           |           |           |           |
| 30     | 30      |       |       |       | 0         | 0         |           |           |           |           |           |           |
| 31     | 31      |       |       |       | 0         | 0         |           |           |           |           |           |           |
| 32     | 32      |       |       |       | 0         | 0         |           |           |           |           |           |           |
| 33     |         |       |       |       | 0         | 0         |           |           |           |           |           |           |
| 34     |         |       |       |       | 0         | 0         |           |           |           |           |           |           |
| 35     |         |       |       |       | 0         | 0         |           |           |           |           |           |           |
| 36     |         |       |       |       | 0         | 0         |           |           |           |           |           |           |
| 37     |         |       |       |       | 0         | 0         |           |           |           |           |           |           |
| 38     |         |       |       |       | 0         | 0         |           |           |           |           |           |           |
| 39     |         |       |       |       | 0         | 0         |           |           |           |           |           |           |
| 40     |         |       |       |       | 0         | 0         |           |           |           |           |           |           |
| 41     |         |       |       |       | 0         | 0         |           |           |           |           |           |           |
| 42     |         |       |       |       | 0         | 0         |           |           |           |           |           |           |
| 43     |         |       |       |       | 0         | 0         |           |           |           |           |           |           |
| 44     |         |       |       |       | 0         | 0         |           |           |           |           |           |           |
| 45     |         |       |       |       | 0         | 0         |           |           |           |           |           |           |
| 46     |         |       |       |       | 0         | 0         |           |           |           |           |           |           |
| 47     |         |       |       |       | 0         | 0         |           |           |           |           |           |           |
| 48     |         |       |       |       | 0         | 0         |           |           |           |           |           |           |
| 49     |         |       |       |       | 0         | 0         |           |           |           |           |           |           |
| 50     |         |       |       |       | 0         | 0         |           |           |           |           |           |           |
| 51     |         |       |       |       | 0         | 0         |           |           |           |           |           |           |
| 52     |         |       |       |       | 0         | 0         |           |           |           |           |           |           |
| 53     |         |       |       |       | 0         | 0         |           |           |           |           |           |           |
| 54     |         |       |       |       | 0         | 0         |           |           |           |           |           |           |
| 55     |         |       |       |       | 0         | 0         |           |           |           |           |           |           |
| 56     |         |       |       |       | 0         | 0         |           |           |           |           |           |           |
| 57     |         |       |       |       | 0         | 0         |           |           |           |           |           |           |
| 58     |         |       |       |       | 0         | 0         |           |           |           |           |           |           |
| 59     |         |       |       |       | 0         | 0         |           |           |           |           |           |           |
| 60     |         |       |       |       | 0         | 0         |           |           |           |           |           |           |
| 61     |         |       |       |       | 0         | 0         |           |           |           |           |           |           |
| 62     |         |       |       |       | 0         | 0         |           |           |           |           |           |           |
| 63     |         |       |       |       | 0         | 0         |           |           |           |           |           |           |
| 64     |         |       |       |       | 0         | 0         |           |           |           |           |           |           |
| 99     | 254     |       |       |       | 0         | 0         |           |           |           |           |           |           |
| 100    | 255     |       |       |       | 0         | 0         |           |           |           |           |           |           |

### Alternate Phase Program 1, Interval Times [1.1.6.1]

### Alternate Phase Program 2, Interval Times [1.1.6.1]

### Alternate Phase Program 1, >Phase Options [1.1.6.2]

### Alternate Phase Program 2, Phase Options [1.1.6.2]

### Alternate Phase Program 3, Phase Options [1.1.6.2]

### Alternate Phase Program 1, Calls and Redirection

### Alternate Phase Program 2, Calls and Redirection [1.1.6.3]

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### Detector Alternate Program 1, Vehicle Parameters [5.5.1]

### Detector Alternate Program 2, Vehicle Parameters [5.5.1]

### User Input map [1.8.9.1]

### User Output map [1.8.9.2]

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## **Appendix D   Existing Level of Service Reports**

# Lanes, Volumes, Timings

## 70: Foothills Canyon Blvd & Highlands Ranch Pkwy

12/12/2024

|                            |  |  |  |  |  |  |   |  |  |  |  |  |
|----------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Lane Group                 | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | WBR                                                                               | NBL                                                                                 | NBT                                                                                 | NBR                                                                                 | SBL                                                                                 | SBT                                                                                 | SBR                                                                                 |
| Lane Configurations        |  |  |                                                                                   |  |  |  |  |  |  |  |  |  |
| Traffic Volume (vph)       | 77                                                                                | 1112                                                                              | 23                                                                                | 60                                                                                | 479                                                                               | 87                                                                                | 45                                                                                  | 37                                                                                  | 107                                                                                 | 109                                                                                 | 21                                                                                  | 92                                                                                  |
| Future Volume (vph)        | 77                                                                                | 1112                                                                              | 23                                                                                | 60                                                                                | 479                                                                               | 87                                                                                | 45                                                                                  | 37                                                                                  | 107                                                                                 | 109                                                                                 | 21                                                                                  | 92                                                                                  |
| Ideal Flow (vphpl)         | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                                | 1900                                                                                | 1900                                                                                | 1900                                                                                | 1900                                                                                | 1900                                                                                |
| Storage Length (ft)        | 135                                                                               |                                                                                   | 0                                                                                 | 170                                                                               |                                                                                   | 120                                                                               | 170                                                                                 |                                                                                     | 170                                                                                 | 100                                                                                 |                                                                                     | 0                                                                                   |
| Storage Lanes              | 1                                                                                 |                                                                                   | 0                                                                                 | 1                                                                                 |                                                                                   | 1                                                                                 | 1                                                                                   |                                                                                     | 1                                                                                   | 1                                                                                   |                                                                                     | 0                                                                                   |
| Taper Length (ft)          | 25                                                                                |                                                                                   |                                                                                   | 25                                                                                |                                                                                   |                                                                                   | 25                                                                                  |                                                                                     |                                                                                     | 25                                                                                  |                                                                                     |                                                                                     |
| Lane Util. Factor          | 1.00                                                                              | 0.95                                                                              | 0.95                                                                              | 1.00                                                                              | 0.95                                                                              | 1.00                                                                              | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Frt                        |                                                                                   | 0.997                                                                             |                                                                                   |                                                                                   |                                                                                   | 0.850                                                                             |                                                                                     |                                                                                     | 0.850                                                                               |                                                                                     | 0.878                                                                               |                                                                                     |
| Flt Protected              | 0.950                                                                             |                                                                                   |                                                                                   | 0.950                                                                             |                                                                                   |                                                                                   | 0.950                                                                               |                                                                                     |                                                                                     | 0.950                                                                               |                                                                                     |                                                                                     |
| Satd. Flow (prot)          | 1770                                                                              | 3529                                                                              | 0                                                                                 | 1770                                                                              | 3539                                                                              | 1583                                                                              | 1770                                                                                | 1863                                                                                | 1583                                                                                | 1770                                                                                | 1635                                                                                | 0                                                                                   |
| Flt Permitted              | 0.448                                                                             |                                                                                   |                                                                                   | 0.104                                                                             |                                                                                   |                                                                                   | 0.666                                                                               |                                                                                     |                                                                                     | 0.682                                                                               |                                                                                     |                                                                                     |
| Satd. Flow (perm)          | 835                                                                               | 3529                                                                              | 0                                                                                 | 194                                                                               | 3539                                                                              | 1583                                                                              | 1241                                                                                | 1863                                                                                | 1583                                                                                | 1270                                                                                | 1635                                                                                | 0                                                                                   |
| Right Turn on Red          |                                                                                   |                                                                                   | Yes                                                                               |                                                                                   |                                                                                   | Yes                                                                               |                                                                                     |                                                                                     | Yes                                                                                 |                                                                                     |                                                                                     | Yes                                                                                 |
| Satd. Flow (RTOR)          |                                                                                   | 3                                                                                 |                                                                                   |                                                                                   |                                                                                   | 92                                                                                |                                                                                     |                                                                                     | 146                                                                                 |                                                                                     | 114                                                                                 |                                                                                     |
| Link Speed (mph)           |                                                                                   | 30                                                                                |                                                                                   |                                                                                   | 30                                                                                |                                                                                   |                                                                                     | 30                                                                                  |                                                                                     |                                                                                     | 30                                                                                  |                                                                                     |
| Link Distance (ft)         |                                                                                   | 1593                                                                              |                                                                                   |                                                                                   | 794                                                                               |                                                                                   |                                                                                     | 600                                                                                 |                                                                                     |                                                                                     | 737                                                                                 |                                                                                     |
| Travel Time (s)            |                                                                                   | 36.2                                                                              |                                                                                   |                                                                                   | 18.0                                                                              |                                                                                   |                                                                                     | 13.6                                                                                |                                                                                     |                                                                                     | 16.8                                                                                |                                                                                     |
| Peak Hour Factor           | 0.87                                                                              | 0.87                                                                              | 0.87                                                                              | 0.95                                                                              | 0.95                                                                              | 0.95                                                                              | 0.32                                                                                | 0.32                                                                                | 0.32                                                                                | 0.81                                                                                | 0.81                                                                                | 0.81                                                                                |
| Adj. Flow (vph)            | 89                                                                                | 1278                                                                              | 26                                                                                | 63                                                                                | 504                                                                               | 92                                                                                | 141                                                                                 | 116                                                                                 | 334                                                                                 | 135                                                                                 | 26                                                                                  | 114                                                                                 |
| Shared Lane Traffic (%)    |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Lane Group Flow (vph)      | 89                                                                                | 1304                                                                              | 0                                                                                 | 63                                                                                | 504                                                                               | 92                                                                                | 141                                                                                 | 116                                                                                 | 334                                                                                 | 135                                                                                 | 140                                                                                 | 0                                                                                   |
| Enter Blocked Intersection | No                                                                                | No                                                                                | No                                                                                | No                                                                                | No                                                                                | No                                                                                | No                                                                                  | No                                                                                  | No                                                                                  | No                                                                                  | No                                                                                  | No                                                                                  |
| Lane Alignment             | Left                                                                              | Left                                                                              | Right                                                                             | Left                                                                              | Left                                                                              | Right                                                                             | Left                                                                                | Left                                                                                | Right                                                                               | Left                                                                                | Left                                                                                | Right                                                                               |
| Median Width(ft)           |                                                                                   | 24                                                                                |                                                                                   |                                                                                   | 24                                                                                |                                                                                   |                                                                                     | 12                                                                                  |                                                                                     |                                                                                     | 12                                                                                  |                                                                                     |
| Link Offset(ft)            |                                                                                   | 0                                                                                 |                                                                                   |                                                                                   | 0                                                                                 |                                                                                   |                                                                                     | 0                                                                                   |                                                                                     |                                                                                     | 0                                                                                   |                                                                                     |
| Crosswalk Width(ft)        |                                                                                   | 16                                                                                |                                                                                   |                                                                                   | 16                                                                                |                                                                                   |                                                                                     | 16                                                                                  |                                                                                     |                                                                                     | 16                                                                                  |                                                                                     |
| Two way Left Turn Lane     |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Headway Factor             | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Turning Speed (mph)        | 60                                                                                |                                                                                   | 60                                                                                | 60                                                                                |                                                                                   | 60                                                                                | 60                                                                                  |                                                                                     | 60                                                                                  | 60                                                                                  |                                                                                     | 60                                                                                  |
| Turn Type                  | pm+pt                                                                             | NA                                                                                |                                                                                   | pm+pt                                                                             | NA                                                                                | Perm                                                                              | Perm                                                                                | NA                                                                                  | Perm                                                                                | Perm                                                                                | NA                                                                                  |                                                                                     |
| Protected Phases           | 5                                                                                 | 2                                                                                 |                                                                                   | 1                                                                                 | 6                                                                                 |                                                                                   |                                                                                     | 8                                                                                   |                                                                                     |                                                                                     | 4                                                                                   |                                                                                     |
| Permitted Phases           | 2                                                                                 |                                                                                   |                                                                                   | 6                                                                                 |                                                                                   | 6                                                                                 | 8                                                                                   |                                                                                     | 8                                                                                   | 4                                                                                   |                                                                                     |                                                                                     |
| Minimum Split (s)          | 10.0                                                                              | 31.5                                                                              |                                                                                   | 10.0                                                                              | 31.5                                                                              | 31.5                                                                              | 34.0                                                                                | 34.0                                                                                | 34.0                                                                                | 33.0                                                                                | 33.0                                                                                |                                                                                     |
| Total Split (s)            | 10.0                                                                              | 45.0                                                                              |                                                                                   | 10.0                                                                              | 45.0                                                                              | 45.0                                                                              | 30.0                                                                                | 30.0                                                                                | 30.0                                                                                | 30.0                                                                                | 30.0                                                                                |                                                                                     |
| Total Split (%)            | 11.8%                                                                             | 52.9%                                                                             |                                                                                   | 11.8%                                                                             | 52.9%                                                                             | 52.9%                                                                             | 35.3%                                                                               | 35.3%                                                                               | 35.3%                                                                               | 35.3%                                                                               | 35.3%                                                                               |                                                                                     |
| Maximum Green (s)          | 5.0                                                                               | 38.5                                                                              |                                                                                   | 5.0                                                                               | 38.5                                                                              | 38.5                                                                              | 25.0                                                                                | 25.0                                                                                | 25.0                                                                                | 25.0                                                                                | 25.0                                                                                |                                                                                     |
| Yellow Time (s)            | 3.0                                                                               | 4.5                                                                               |                                                                                   | 3.0                                                                               | 4.5                                                                               | 4.5                                                                               | 3.0                                                                                 | 3.0                                                                                 | 3.0                                                                                 | 3.0                                                                                 | 3.0                                                                                 |                                                                                     |
| All-Red Time (s)           | 2.0                                                                               | 2.0                                                                               |                                                                                   | 2.0                                                                               | 2.0                                                                               | 2.0                                                                               | 2.0                                                                                 | 2.0                                                                                 | 2.0                                                                                 | 2.0                                                                                 | 2.0                                                                                 |                                                                                     |
| Lost Time Adjust (s)       | 0.0                                                                               | 0.0                                                                               |                                                                                   | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 |                                                                                     |
| Total Lost Time (s)        | 5.0                                                                               | 6.5                                                                               |                                                                                   | 5.0                                                                               | 6.5                                                                               | 6.5                                                                               | 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                                                                               |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Walk Time (s)              |                                                                                   | 5.0                                                                               |                                                                                   |                                                                                   | 5.0                                                                               | 5.0                                                                               | 5.0                                                                                 | 5.0                                                                                 | 5.0                                                                                 | 5.0                                                                                 | 5.0                                                                                 |                                                                                     |
| Flash Dont Walk (s)        |                                                                                   | 10.5                                                                              |                                                                                   |                                                                                   | 10.5                                                                              | 10.5                                                                              | 24.0                                                                                | 24.0                                                                                | 24.0                                                                                | 23.0                                                                                | 23.0                                                                                |                                                                                     |
| Pedestrian Calls (#/hr)    |                                                                                   | 0                                                                                 |                                                                                   |                                                                                   | 0                                                                                 | 0                                                                                 | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   |                                                                                     |
| Act Effct Green (s)        | 45.0                                                                              | 38.5                                                                              |                                                                                   | 45.0                                                                              | 38.5                                                                              | 38.5                                                                              | 25.0                                                                                | 25.0                                                                                | 25.0                                                                                | 25.0                                                                                | 25.0                                                                                |                                                                                     |
| Actuated g/C Ratio         | 0.53                                                                              | 0.45                                                                              |                                                                                   | 0.53                                                                              | 0.45                                                                              | 0.45                                                                              | 0.29                                                                                | 0.29                                                                                | 0.29                                                                                | 0.29                                                                                | 0.29                                                                                |                                                                                     |
| v/c Ratio                  | 0.18                                                                              | 0.81                                                                              |                                                                                   | 0.32                                                                              | 0.31                                                                              | 0.12                                                                              | 0.39                                                                                | 0.21                                                                                | 0.59                                                                                | 0.36                                                                                | 0.25                                                                                |                                                                                     |

# Lanes, Volumes, Timings

## 70: Foothills Canyon Blvd & Highlands Ranch Pkwy

12/12/2024

|                         |  |  |  |  |  |  |  |  |  |  |  |  |
|-------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Lane Group              | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | WBR                                                                               | NBL                                                                                | NBT                                                                                 | NBR                                                                                 | SBL                                                                                 | SBT                                                                                 | SBR                                                                                 |
| Control Delay           | 8.7                                                                               | 25.3                                                                              |                                                                                   | 12.3                                                                              | 15.5                                                                              | 3.6                                                                               | 27.8                                                                               | 23.9                                                                                | 18.9                                                                                | 27.2                                                                                | 8.1                                                                                 |                                                                                     |
| Queue Delay             | 0.0                                                                               | 0.0                                                                               |                                                                                   | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                                | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 |                                                                                     |
| Total Delay             | 8.7                                                                               | 25.3                                                                              |                                                                                   | 12.3                                                                              | 15.5                                                                              | 3.6                                                                               | 27.8                                                                               | 23.9                                                                                | 18.9                                                                                | 27.2                                                                                | 8.1                                                                                 |                                                                                     |
| LOS                     | A                                                                                 | C                                                                                 |                                                                                   | B                                                                                 | B                                                                                 | A                                                                                 | C                                                                                  | C                                                                                   | B                                                                                   | C                                                                                   | A                                                                                   |                                                                                     |
| Approach Delay          |                                                                                   | 24.2                                                                              |                                                                                   |                                                                                   | 13.5                                                                              |                                                                                   |                                                                                    | 22.0                                                                                |                                                                                     |                                                                                     | 17.4                                                                                |                                                                                     |
| Approach LOS            |                                                                                   | C                                                                                 |                                                                                   |                                                                                   | B                                                                                 |                                                                                   |                                                                                    | C                                                                                   |                                                                                     |                                                                                     | B                                                                                   |                                                                                     |
| Queue Length 50th (ft)  | 19                                                                                | 305                                                                               |                                                                                   | 13                                                                                | 86                                                                                | 0                                                                                 | 60                                                                                 | 46                                                                                  | 82                                                                                  | 57                                                                                  | 10                                                                                  |                                                                                     |
| Queue Length 95th (ft)  | 37                                                                                | 372                                                                               |                                                                                   | 29                                                                                | 122                                                                               | 25                                                                                | 35                                                                                 | 29                                                                                  | 9                                                                                   | 94                                                                                  | 41                                                                                  |                                                                                     |
| Internal Link Dist (ft) |                                                                                   | 1513                                                                              |                                                                                   |                                                                                   | 714                                                                               |                                                                                   |                                                                                    | 520                                                                                 |                                                                                     |                                                                                     | 657                                                                                 |                                                                                     |
| Turn Bay Length (ft)    | 135                                                                               |                                                                                   |                                                                                   | 170                                                                               |                                                                                   | 120                                                                               | 170                                                                                |                                                                                     | 170                                                                                 | 100                                                                                 |                                                                                     |                                                                                     |
| Base Capacity (vph)     | 497                                                                               | 1600                                                                              |                                                                                   | 195                                                                               | 1602                                                                              | 767                                                                               | 365                                                                                | 547                                                                                 | 568                                                                                 | 373                                                                                 | 561                                                                                 |                                                                                     |
| Starvation Cap Reductn  | 0                                                                                 | 0                                                                                 |                                                                                   | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                  | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   |                                                                                     |
| Spillback Cap Reductn   | 0                                                                                 | 0                                                                                 |                                                                                   | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                  | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   |                                                                                     |
| Storage Cap Reductn     | 0                                                                                 | 0                                                                                 |                                                                                   | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                  | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   |                                                                                     |
| Reduced v/c Ratio       | 0.18                                                                              | 0.81                                                                              |                                                                                   | 0.32                                                                              | 0.31                                                                              | 0.12                                                                              | 0.39                                                                               | 0.21                                                                                | 0.59                                                                                | 0.36                                                                                | 0.25                                                                                |                                                                                     |

### Intersection Summary

Area Type: Other

Cycle Length: 85

Actuated Cycle Length: 85

Offset: 38.5 (45%), Referenced to phase 2:EBTL and 6:WBTL, Start of Yellow

Natural Cycle: 80

Control Type: Pretimed

Maximum v/c Ratio: 0.81

Intersection Signal Delay: 20.7

Intersection LOS: C

Intersection Capacity Utilization 62.1%

ICU Level of Service B

Analysis Period (min) 15

### Splits and Phases: 70: Foothills Canyon Blvd & Highlands Ranch Pkwy

|                                                                                        |                                                                                            |                                                                                          |
|----------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------|
|  Ø1 |  Ø2 (R) |  Ø4 |
| 10 s                                                                                   | 45 s                                                                                       | 30 s                                                                                     |
|  Ø5 |  Ø6 (R) |  Ø8 |
| 10 s                                                                                   | 45 s                                                                                       | 30 s                                                                                     |



Lanes, Volumes, Timings  
67: Springhill Pkwy & Highlands Ranch Pkwy

12/12/2024

|                            |  |  |  |  |  |  |  |  |  |  |  |  |
|----------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Lane Group                 | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | WBR                                                                               | NBL                                                                                | NBT                                                                                 | NBR                                                                                 | SBL                                                                                 | SBT                                                                                 | SBR                                                                                 |
| Lane Configurations        |  |  |  |  |  |  |  |  |  |  |  |  |
| Traffic Volume (vph)       | 15                                                                                | 813                                                                               | 283                                                                               | 152                                                                               | 344                                                                               | 32                                                                                | 233                                                                                | 25                                                                                  | 290                                                                                 | 26                                                                                  | 34                                                                                  | 6                                                                                   |
| Future Volume (vph)        | 15                                                                                | 813                                                                               | 283                                                                               | 152                                                                               | 344                                                                               | 32                                                                                | 233                                                                                | 25                                                                                  | 290                                                                                 | 26                                                                                  | 34                                                                                  | 6                                                                                   |
| Ideal Flow (vphpl)         | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                               | 1900                                                                                | 1900                                                                                | 1900                                                                                | 1900                                                                                | 1900                                                                                |
| Storage Length (ft)        | 140                                                                               |                                                                                   | 165                                                                               | 240                                                                               |                                                                                   | 0                                                                                 | 250                                                                                |                                                                                     | 0                                                                                   | 150                                                                                 |                                                                                     | 0                                                                                   |
| Storage Lanes              | 1                                                                                 |                                                                                   | 1                                                                                 | 2                                                                                 |                                                                                   | 1                                                                                 | 2                                                                                  |                                                                                     | 1                                                                                   | 1                                                                                   |                                                                                     | 0                                                                                   |
| Taper Length (ft)          | 25                                                                                |                                                                                   |                                                                                   | 25                                                                                |                                                                                   |                                                                                   | 25                                                                                 |                                                                                     |                                                                                     | 25                                                                                  |                                                                                     |                                                                                     |
| Lane Util. Factor          | 1.00                                                                              | 0.95                                                                              | 1.00                                                                              | 0.97                                                                              | 0.95                                                                              | 1.00                                                                              | 0.97                                                                               | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Frt                        |                                                                                   |                                                                                   | 0.850                                                                             |                                                                                   |                                                                                   | 0.850                                                                             |                                                                                    |                                                                                     | 0.850                                                                               |                                                                                     | 0.978                                                                               |                                                                                     |
| Flt Protected              | 0.950                                                                             |                                                                                   |                                                                                   | 0.950                                                                             |                                                                                   |                                                                                   | 0.950                                                                              |                                                                                     |                                                                                     | 0.950                                                                               |                                                                                     |                                                                                     |
| Satd. Flow (prot)          | 1770                                                                              | 3539                                                                              | 1583                                                                              | 3433                                                                              | 3539                                                                              | 1583                                                                              | 3433                                                                               | 1863                                                                                | 1583                                                                                | 1770                                                                                | 1822                                                                                | 0                                                                                   |
| Flt Permitted              | 0.532                                                                             |                                                                                   |                                                                                   | 0.104                                                                             |                                                                                   |                                                                                   | 0.550                                                                              |                                                                                     |                                                                                     | 0.734                                                                               |                                                                                     |                                                                                     |
| Satd. Flow (perm)          | 991                                                                               | 3539                                                                              | 1583                                                                              | 376                                                                               | 3539                                                                              | 1583                                                                              | 1988                                                                               | 1863                                                                                | 1583                                                                                | 1367                                                                                | 1822                                                                                | 0                                                                                   |
| Right Turn on Red          |                                                                                   |                                                                                   | Yes                                                                               |                                                                                   |                                                                                   | Yes                                                                               |                                                                                    |                                                                                     | Yes                                                                                 |                                                                                     |                                                                                     | Yes                                                                                 |
| Satd. Flow (RTOR)          |                                                                                   |                                                                                   | 197                                                                               |                                                                                   |                                                                                   | 155                                                                               |                                                                                    |                                                                                     | 412                                                                                 |                                                                                     | 6                                                                                   |                                                                                     |
| Link Speed (mph)           |                                                                                   | 30                                                                                |                                                                                   |                                                                                   | 30                                                                                |                                                                                   |                                                                                    | 30                                                                                  |                                                                                     |                                                                                     | 30                                                                                  |                                                                                     |
| Link Distance (ft)         |                                                                                   | 705                                                                               |                                                                                   |                                                                                   | 1593                                                                              |                                                                                   |                                                                                    | 631                                                                                 |                                                                                     |                                                                                     | 652                                                                                 |                                                                                     |
| Travel Time (s)            |                                                                                   | 16.0                                                                              |                                                                                   |                                                                                   | 36.2                                                                              |                                                                                   |                                                                                    | 14.3                                                                                |                                                                                     |                                                                                     | 14.8                                                                                |                                                                                     |
| Peak Hour Factor           | 0.87                                                                              | 0.87                                                                              | 0.87                                                                              | 0.93                                                                              | 0.93                                                                              | 0.93                                                                              | 0.70                                                                               | 0.70                                                                                | 0.70                                                                                | 0.45                                                                                | 0.45                                                                                | 0.45                                                                                |
| Adj. Flow (vph)            | 17                                                                                | 934                                                                               | 325                                                                               | 163                                                                               | 370                                                                               | 34                                                                                | 333                                                                                | 36                                                                                  | 414                                                                                 | 58                                                                                  | 76                                                                                  | 13                                                                                  |
| Shared Lane Traffic (%)    |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Lane Group Flow (vph)      | 17                                                                                | 934                                                                               | 325                                                                               | 163                                                                               | 370                                                                               | 34                                                                                | 333                                                                                | 36                                                                                  | 414                                                                                 | 58                                                                                  | 89                                                                                  | 0                                                                                   |
| Enter Blocked Intersection | No                                                                                | No                                                                                | No                                                                                | No                                                                                | No                                                                                | No                                                                                | No                                                                                 | No                                                                                  | No                                                                                  | No                                                                                  | No                                                                                  | No                                                                                  |
| Lane Alignment             | Left                                                                              | Left                                                                              | Right                                                                             | Left                                                                              | Left                                                                              | Right                                                                             | Left                                                                               | Left                                                                                | Right                                                                               | Left                                                                                | Left                                                                                | Right                                                                               |
| Median Width(ft)           |                                                                                   | 24                                                                                |                                                                                   |                                                                                   | 24                                                                                |                                                                                   |                                                                                    | 24                                                                                  |                                                                                     |                                                                                     | 24                                                                                  |                                                                                     |
| Link Offset(ft)            |                                                                                   | 0                                                                                 |                                                                                   |                                                                                   | 0                                                                                 |                                                                                   |                                                                                    | 0                                                                                   |                                                                                     |                                                                                     | 0                                                                                   |                                                                                     |
| Crosswalk Width(ft)        |                                                                                   | 16                                                                                |                                                                                   |                                                                                   | 16                                                                                |                                                                                   |                                                                                    | 16                                                                                  |                                                                                     |                                                                                     | 16                                                                                  |                                                                                     |
| Two way Left Turn Lane     |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Headway Factor             | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                               | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Turning Speed (mph)        | 60                                                                                |                                                                                   | 60                                                                                | 60                                                                                |                                                                                   | 60                                                                                | 60                                                                                 |                                                                                     | 60                                                                                  | 60                                                                                  |                                                                                     | 60                                                                                  |
| Turn Type                  | pm+pt                                                                             | NA                                                                                | Perm                                                                              | pm+pt                                                                             | NA                                                                                | Perm                                                                              | pm+pt                                                                              | NA                                                                                  | Perm                                                                                | pm+pt                                                                               | NA                                                                                  |                                                                                     |
| Protected Phases           | 5                                                                                 | 2                                                                                 |                                                                                   | 1                                                                                 | 6                                                                                 |                                                                                   | 3                                                                                  | 8                                                                                   |                                                                                     | 7                                                                                   | 4                                                                                   |                                                                                     |
| Permitted Phases           | 2                                                                                 |                                                                                   | 2                                                                                 | 6                                                                                 |                                                                                   | 6                                                                                 | 8                                                                                  |                                                                                     | 8                                                                                   | 4                                                                                   |                                                                                     |                                                                                     |
| Minimum Split (s)          | 10.0                                                                              | 30.5                                                                              | 30.5                                                                              | 10.0                                                                              | 31.5                                                                              | 31.5                                                                              | 10.0                                                                               | 38.5                                                                                | 38.5                                                                                | 10.0                                                                                | 24.5                                                                                |                                                                                     |
| Total Split (s)            | 15.0                                                                              | 40.0                                                                              | 40.0                                                                              | 25.0                                                                              | 50.0                                                                              | 50.0                                                                              | 40.0                                                                               | 50.0                                                                                | 50.0                                                                                | 15.0                                                                                | 25.0                                                                                |                                                                                     |
| Total Split (%)            | 11.5%                                                                             | 30.8%                                                                             | 30.8%                                                                             | 19.2%                                                                             | 38.5%                                                                             | 38.5%                                                                             | 30.8%                                                                              | 38.5%                                                                               | 38.5%                                                                               | 11.5%                                                                               | 19.2%                                                                               |                                                                                     |
| Maximum Green (s)          | 10.0                                                                              | 33.5                                                                              | 33.5                                                                              | 20.0                                                                              | 43.5                                                                              | 43.5                                                                              | 35.0                                                                               | 43.5                                                                                | 43.5                                                                                | 10.0                                                                                | 18.5                                                                                |                                                                                     |
| Yellow Time (s)            | 3.0                                                                               | 4.5                                                                               | 4.5                                                                               | 3.0                                                                               | 4.5                                                                               | 4.5                                                                               | 3.0                                                                                | 4.5                                                                                 | 4.5                                                                                 | 3.0                                                                                 | 4.5                                                                                 |                                                                                     |
| All-Red Time (s)           | 2.0                                                                               | 2.0                                                                               | 2.0                                                                               | 2.0                                                                               | 2.0                                                                               | 2.0                                                                               | 2.0                                                                                | 2.0                                                                                 | 2.0                                                                                 | 2.0                                                                                 | 2.0                                                                                 |                                                                                     |
| Lost Time Adjust (s)       | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                                | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 |                                                                                     |
| Total Lost Time (s)        | 5.0                                                                               | 6.5                                                                               | 6.5                                                                               | 5.0                                                                               | 6.5                                                                               | 6.5                                                                               | 5.0                                                                                | 6.5                                                                                 | 6.5                                                                                 | 5.0                                                                                 | 6.5                                                                                 |                                                                                     |
| Lead/Lag                   | Lead                                                                              | Lag                                                                               | Lag                                                                               | Lead                                                                              | Lag                                                                               | Lag                                                                               | Lead                                                                               | Lag                                                                                 | Lag                                                                                 | Lead                                                                                | Lag                                                                                 |                                                                                     |
| Lead-Lag Optimize?         | Yes                                                                               | Yes                                                                               | Yes                                                                               | Yes                                                                               | Yes                                                                               | Yes                                                                               | Yes                                                                                | Yes                                                                                 | Yes                                                                                 | Yes                                                                                 | Yes                                                                                 |                                                                                     |
| Walk Time (s)              |                                                                                   | 5.0                                                                               | 5.0                                                                               |                                                                                   | 5.0                                                                               | 5.0                                                                               |                                                                                    | 5.0                                                                                 | 5.0                                                                                 |                                                                                     |                                                                                     |                                                                                     |
| Flash Dont Walk (s)        |                                                                                   | 19.0                                                                              | 19.0                                                                              |                                                                                   | 20.0                                                                              | 20.0                                                                              |                                                                                    | 27.0                                                                                | 27.0                                                                                |                                                                                     |                                                                                     |                                                                                     |
| Pedestrian Calls (#/hr)    |                                                                                   | 0                                                                                 | 0                                                                                 |                                                                                   | 0                                                                                 | 0                                                                                 |                                                                                    | 0                                                                                   | 0                                                                                   |                                                                                     |                                                                                     |                                                                                     |
| Act Effct Green (s)        | 45.0                                                                              | 33.5                                                                              | 33.5                                                                              | 60.0                                                                              | 43.5                                                                              | 43.5                                                                              | 60.0                                                                               | 43.5                                                                                | 43.5                                                                                | 30.0                                                                                | 18.5                                                                                |                                                                                     |
| Actuated g/C Ratio         | 0.35                                                                              | 0.26                                                                              | 0.26                                                                              | 0.46                                                                              | 0.33                                                                              | 0.33                                                                              | 0.46                                                                               | 0.33                                                                                | 0.33                                                                                | 0.23                                                                                | 0.14                                                                                |                                                                                     |
| v/c Ratio                  | 0.04                                                                              | 1.03                                                                              | 0.59                                                                              | 0.25                                                                              | 0.31                                                                              | 0.05                                                                              | 0.25                                                                               | 0.06                                                                                | 0.52                                                                                | 0.17                                                                                | 0.34                                                                                |                                                                                     |

# Lanes, Volumes, Timings

## 67: Springhill Pkwy & Highlands Ranch Pkwy

12/12/2024

|                         |  |  |  |  |  |  |  |  |  |  |  |  |
|-------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Lane Group              | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | WBR                                                                               | NBL                                                                                 | NBT                                                                                 | NBR                                                                                 | SBL                                                                                 | SBT                                                                                 | SBR                                                                                 |
| Control Delay           | 20.3                                                                              | 83.6                                                                              | 20.8                                                                              | 20.8                                                                              | 33.1                                                                              | 0.2                                                                               | 21.5                                                                                | 29.8                                                                                | 5.4                                                                                 | 24.4                                                                                | 50.8                                                                                |                                                                                     |
| Queue Delay             | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 |                                                                                     |
| Total Delay             | 20.3                                                                              | 83.6                                                                              | 20.8                                                                              | 20.8                                                                              | 33.1                                                                              | 0.2                                                                               | 21.5                                                                                | 29.8                                                                                | 5.4                                                                                 | 24.4                                                                                | 50.8                                                                                |                                                                                     |
| LOS                     | C                                                                                 | F                                                                                 | C                                                                                 | C                                                                                 | C                                                                                 | A                                                                                 | C                                                                                   | C                                                                                   | A                                                                                   | C                                                                                   | D                                                                                   |                                                                                     |
| Approach Delay          | 66.8                                                                              |                                                                                   |                                                                                   | 27.6                                                                              |                                                                                   |                                                                                   | 13.4                                                                                |                                                                                     |                                                                                     | 40.4                                                                                |                                                                                     |                                                                                     |
| Approach LOS            | E                                                                                 |                                                                                   |                                                                                   | C                                                                                 |                                                                                   |                                                                                   | B                                                                                   |                                                                                     |                                                                                     | D                                                                                   |                                                                                     |                                                                                     |
| Queue Length 50th (ft)  | 8                                                                                 | ~440                                                                              | 91                                                                                | 39                                                                                | 121                                                                               | 0                                                                                 | 84                                                                                  | 21                                                                                  | 1                                                                                   | 27                                                                                  | 64                                                                                  |                                                                                     |
| Queue Length 95th (ft)  | 21                                                                                | #541                                                                              | 178                                                                               | 60                                                                                | 164                                                                               | 0                                                                                 | 87                                                                                  | 36                                                                                  | 1                                                                                   | 26                                                                                  | 54                                                                                  |                                                                                     |
| Internal Link Dist (ft) | 625                                                                               |                                                                                   |                                                                                   | 1513                                                                              |                                                                                   |                                                                                   | 551                                                                                 |                                                                                     |                                                                                     | 572                                                                                 |                                                                                     |                                                                                     |
| Turn Bay Length (ft)    | 140                                                                               |                                                                                   | 165                                                                               | 240                                                                               |                                                                                   |                                                                                   | 250                                                                                 |                                                                                     |                                                                                     | 150                                                                                 |                                                                                     |                                                                                     |
| Base Capacity (vph)     | 402                                                                               | 911                                                                               | 554                                                                               | 643                                                                               | 1184                                                                              | 632                                                                               | 1306                                                                                | 623                                                                                 | 803                                                                                 | 346                                                                                 | 264                                                                                 |                                                                                     |
| Starvation Cap Reductn  | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   |                                                                                     |
| Spillback Cap Reductn   | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   |                                                                                     |
| Storage Cap Reductn     | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   |                                                                                     |
| Reduced v/c Ratio       | 0.04                                                                              | 1.03                                                                              | 0.59                                                                              | 0.25                                                                              | 0.31                                                                              | 0.05                                                                              | 0.25                                                                                | 0.06                                                                                | 0.52                                                                                | 0.17                                                                                | 0.34                                                                                |                                                                                     |

### Intersection Summary

Area Type: Other

Cycle Length: 130

Actuated Cycle Length: 130

Offset: 0 (0%), Referenced to phase 2:EBTL, Start of Green

Natural Cycle: 90

Control Type: Pretimed

Maximum v/c Ratio: 1.03

Intersection Signal Delay: 42.3

Intersection LOS: D

Intersection Capacity Utilization 59.6%

ICU Level of Service B

Analysis Period (min) 15

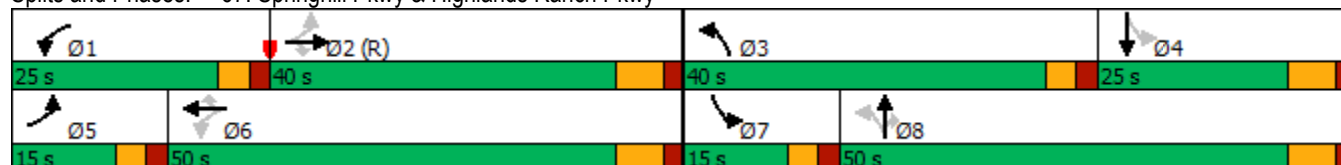
~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

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

Queue shown is maximum after two cycles.

Splits and Phases: 67: Springhill Pkwy & Highlands Ranch Pkwy



# Lanes, Volumes, Timings

## 30: Westridge Village Pkwy & Highlands Ranch Pkwy

12/12/2024

|                            |  |       |       |       |       |       |       |       |       |       |       |       |
|----------------------------|------------------------------------------------------------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Lane Group                 | EBL                                                                                | EBT   | EBR   | WBL   | WBT   | WBR   | NBL   | NBT   | NBR   | SBL   | SBT   | SBR   |
| Lane Configurations        |                                                                                    |       |       |       |       |       |       |       |       |       |       |       |
| Traffic Volume (vph)       | 3                                                                                  | 743   | 108   | 98    | 451   | 36    | 123   | 5     | 197   | 82    | 5     | 7     |
| Future Volume (vph)        | 3                                                                                  | 743   | 108   | 98    | 451   | 36    | 123   | 5     | 197   | 82    | 5     | 7     |
| Ideal Flow (vphpl)         | 1900                                                                               | 1900  | 1900  | 1900  | 1900  | 1900  | 1900  | 1900  | 1900  | 1900  | 1900  | 1900  |
| Storage Length (ft)        | 100                                                                                |       | 0     | 100   |       | 0     | 100   |       | 100   | 50    |       | 0     |
| Storage Lanes              | 1                                                                                  |       | 0     | 1     |       | 0     | 1     |       | 1     | 1     |       | 0     |
| Taper Length (ft)          | 25                                                                                 |       |       | 25    |       |       | 25    |       |       | 25    |       |       |
| Lane Util. Factor          | 1.00                                                                               | 0.95  | 0.95  | 1.00  | 0.95  | 0.95  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  |
| Frt                        |                                                                                    | 0.981 |       |       | 0.989 |       |       |       | 0.850 |       | 0.910 |       |
| Flt Protected              | 0.950                                                                              |       |       | 0.950 |       |       | 0.950 |       |       | 0.950 |       |       |
| Satd. Flow (prot)          | 1770                                                                               | 3472  | 0     | 1770  | 3500  | 0     | 1770  | 1863  | 1583  | 1770  | 1695  | 0     |
| Flt Permitted              | 0.395                                                                              |       |       | 0.147 |       |       | 0.748 |       |       | 0.752 |       |       |
| Satd. Flow (perm)          | 736                                                                                | 3472  | 0     | 274   | 3500  | 0     | 1393  | 1863  | 1583  | 1401  | 1695  | 0     |
| Right Turn on Red          |                                                                                    |       | Yes   |       |       | Yes   |       |       | Yes   |       |       | Yes   |
| Satd. Flow (RTOR)          |                                                                                    | 25    |       |       | 13    |       |       |       | 310   |       | 9     |       |
| Link Speed (mph)           |                                                                                    | 30    |       |       | 30    |       |       | 30    |       |       | 30    |       |
| Link Distance (ft)         |                                                                                    | 386   |       |       | 629   |       |       | 741   |       |       | 129   |       |
| Travel Time (s)            |                                                                                    | 8.8   |       |       | 14.3  |       |       | 16.8  |       |       | 2.9   |       |
| Peak Hour Factor           | 0.79                                                                               | 0.79  | 0.79  | 0.84  | 0.84  | 0.84  | 0.55  | 0.55  | 0.55  | 0.81  | 0.81  | 0.81  |
| Adj. Flow (vph)            | 4                                                                                  | 941   | 137   | 117   | 537   | 43    | 224   | 9     | 358   | 101   | 6     | 9     |
| Shared Lane Traffic (%)    |                                                                                    |       |       |       |       |       |       |       |       |       |       |       |
| Lane Group Flow (vph)      | 4                                                                                  | 1078  | 0     | 117   | 580   | 0     | 224   | 9     | 358   | 101   | 15    | 0     |
| Enter Blocked Intersection | No                                                                                 | No    | No    | No    | No    | No    | No    | No    | No    | No    | No    | No    |
| Lane Alignment             | Left                                                                               | Left  | Right | Left  | Left  | Right | Left  | Left  | Right | Left  | Left  | Right |
| Median Width(ft)           |                                                                                    | 12    |       |       | 12    |       |       | 12    |       |       | 12    |       |
| Link Offset(ft)            |                                                                                    | 0     |       |       | 0     |       |       | 0     |       |       | 0     |       |
| Crosswalk Width(ft)        |                                                                                    | 16    |       |       | 16    |       |       | 16    |       |       | 16    |       |
| Two way Left Turn Lane     |                                                                                    |       |       |       |       |       |       |       |       |       |       |       |
| Headway Factor             | 1.00                                                                               | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  |
| Turning Speed (mph)        | 60                                                                                 |       | 60    | 60    |       | 60    | 60    |       | 60    | 60    |       | 60    |
| Turn Type                  | pm+pt                                                                              | NA    |       | pm+pt | NA    |       | Perm  | NA    | Perm  | Perm  | NA    |       |
| Protected Phases           | 5                                                                                  | 2     |       | 1     | 6     |       |       | 8     |       |       | 4     |       |
| Permitted Phases           | 2                                                                                  |       |       | 6     |       |       | 8     |       | 8     | 4     |       |       |
| Minimum Split (s)          | 9.0                                                                                | 26.5  |       | 9.0   | 26.5  |       | 29.0  | 29.0  | 29.0  | 30.0  | 30.0  |       |
| Total Split (s)            | 15.0                                                                               | 40.0  |       | 15.0  | 40.0  |       | 25.0  | 25.0  | 25.0  | 25.0  | 25.0  |       |
| Total Split (%)            | 18.8%                                                                              | 50.0% |       | 18.8% | 50.0% |       | 31.3% | 31.3% | 31.3% | 31.3% | 31.3% |       |
| Maximum Green (s)          | 11.0                                                                               | 33.5  |       | 11.0  | 33.5  |       | 20.0  | 20.0  | 20.0  | 20.0  | 20.0  |       |
| Yellow Time (s)            | 3.0                                                                                | 4.5   |       | 3.0   | 4.5   |       | 3.0   | 3.0   | 3.0   | 3.0   | 3.0   |       |
| All-Red Time (s)           | 1.0                                                                                | 2.0   |       | 1.0   | 2.0   |       | 2.0   | 2.0   | 2.0   | 2.0   | 2.0   |       |
| Lost Time Adjust (s)       | 0.0                                                                                | 0.0   |       | 0.0   | 0.0   |       | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |       |
| Total Lost Time (s)        | 4.0                                                                                | 6.5   |       | 4.0   | 6.5   |       | 5.0   | 5.0   | 5.0   | 5.0   | 5.0   |       |
| Lead/Lag                   | Lead                                                                               | Lag   |       | Lead  | Lag   |       |       |       |       |       |       |       |
| Lead-Lag Optimize?         | Yes                                                                                | Yes   |       | Yes   | Yes   |       |       |       |       |       |       |       |
| Walk Time (s)              |                                                                                    | 5.0   |       |       | 5.0   |       | 5.0   | 5.0   | 5.0   | 5.0   | 5.0   |       |
| Flash Dont Walk (s)        |                                                                                    | 8.5   |       |       | 6.5   |       | 19.0  | 19.0  | 19.0  | 20.0  | 20.0  |       |
| Pedestrian Calls (#/hr)    |                                                                                    | 0     |       |       | 0     |       | 0     | 0     | 0     | 0     | 0     |       |
| Act Effct Green (s)        | 47.0                                                                               | 33.5  |       | 47.0  | 33.5  |       | 20.0  | 20.0  | 20.0  | 20.0  | 20.0  |       |
| Actuated g/C Ratio         | 0.59                                                                               | 0.42  |       | 0.59  | 0.42  |       | 0.25  | 0.25  | 0.25  | 0.25  | 0.25  |       |
| v/c Ratio                  | 0.01                                                                               | 0.73  |       | 0.32  | 0.39  |       | 0.64  | 0.02  | 0.57  | 0.29  | 0.03  |       |

# Lanes, Volumes, Timings

## 30: Westridge Village Pkwy & Highlands Ranch Pkwy

12/12/2024

|                         |  |  |  |  |  |  |  |  |  |  |  |  |
|-------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Lane Group              | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | WBR                                                                               | NBL                                                                                | NBT                                                                                 | NBR                                                                                 | SBL                                                                                 | SBT                                                                                 | SBR                                                                                 |
| Control Delay           | 5.3                                                                               | 22.7                                                                              |                                                                                   | 8.3                                                                               | 16.8                                                                              |                                                                                   | 36.7                                                                               | 22.8                                                                                | 9.1                                                                                 | 27.0                                                                                | 16.2                                                                                |                                                                                     |
| Queue Delay             | 0.0                                                                               | 0.0                                                                               |                                                                                   | 0.0                                                                               | 0.0                                                                               |                                                                                   | 0.0                                                                                | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 |                                                                                     |
| Total Delay             | 5.3                                                                               | 22.7                                                                              |                                                                                   | 8.3                                                                               | 16.8                                                                              |                                                                                   | 36.7                                                                               | 22.8                                                                                | 9.1                                                                                 | 27.0                                                                                | 16.2                                                                                |                                                                                     |
| LOS                     | A                                                                                 | C                                                                                 |                                                                                   | A                                                                                 | B                                                                                 |                                                                                   | D                                                                                  | C                                                                                   | A                                                                                   | C                                                                                   | B                                                                                   |                                                                                     |
| Approach Delay          |                                                                                   | 22.6                                                                              |                                                                                   |                                                                                   | 15.4                                                                              |                                                                                   |                                                                                    | 19.8                                                                                |                                                                                     |                                                                                     | 25.6                                                                                |                                                                                     |
| Approach LOS            |                                                                                   | C                                                                                 |                                                                                   |                                                                                   | B                                                                                 |                                                                                   |                                                                                    | B                                                                                   |                                                                                     |                                                                                     | C                                                                                   |                                                                                     |
| Queue Length 50th (ft)  | 1                                                                                 | 225                                                                               |                                                                                   | 20                                                                                | 100                                                                               |                                                                                   | 100                                                                                | 3                                                                                   | 19                                                                                  | 41                                                                                  | 2                                                                                   |                                                                                     |
| Queue Length 95th (ft)  | 3                                                                                 | 244                                                                               |                                                                                   | 36                                                                                | 129                                                                               |                                                                                   | 95                                                                                 | 9                                                                                   | 1                                                                                   | 74                                                                                  | 15                                                                                  |                                                                                     |
| Internal Link Dist (ft) |                                                                                   | 306                                                                               |                                                                                   |                                                                                   | 549                                                                               |                                                                                   |                                                                                    | 661                                                                                 |                                                                                     |                                                                                     | 49                                                                                  |                                                                                     |
| Turn Bay Length (ft)    | 100                                                                               |                                                                                   |                                                                                   | 100                                                                               |                                                                                   |                                                                                   | 100                                                                                |                                                                                     | 100                                                                                 | 50                                                                                  |                                                                                     |                                                                                     |
| Base Capacity (vph)     | 574                                                                               | 1468                                                                              |                                                                                   | 366                                                                               | 1473                                                                              |                                                                                   | 348                                                                                | 465                                                                                 | 628                                                                                 | 350                                                                                 | 430                                                                                 |                                                                                     |
| Starvation Cap Reductn  | 0                                                                                 | 0                                                                                 |                                                                                   | 0                                                                                 | 0                                                                                 |                                                                                   | 0                                                                                  | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   |                                                                                     |
| Spillback Cap Reductn   | 0                                                                                 | 0                                                                                 |                                                                                   | 0                                                                                 | 0                                                                                 |                                                                                   | 0                                                                                  | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   |                                                                                     |
| Storage Cap Reductn     | 0                                                                                 | 0                                                                                 |                                                                                   | 0                                                                                 | 0                                                                                 |                                                                                   | 0                                                                                  | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   |                                                                                     |
| Reduced v/c Ratio       | 0.01                                                                              | 0.73                                                                              |                                                                                   | 0.32                                                                              | 0.39                                                                              |                                                                                   | 0.64                                                                               | 0.02                                                                                | 0.57                                                                                | 0.29                                                                                | 0.03                                                                                |                                                                                     |

### Intersection Summary

Area Type: Other

Cycle Length: 80

Actuated Cycle Length: 80

Offset: 33.5 (42%), Referenced to phase 2:EBTL, Start of Yellow

Natural Cycle: 70

Control Type: Pretimed

Maximum v/c Ratio: 0.73

Intersection Signal Delay: 20.1

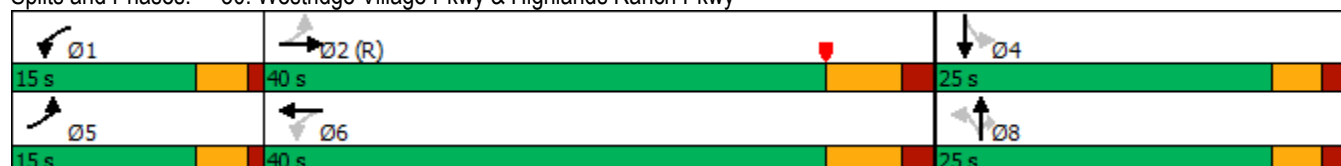
Intersection LOS: C

Intersection Capacity Utilization 55.8%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 30: Westridge Village Pkwy & Highlands Ranch Pkwy



# Lanes, Volumes, Timings

## 70: Foothills Canyon Blvd & Highlands Ranch Pkwy

12/12/2024

|                            |  |  |  |  |  |  |   |  |  |  |  |  |
|----------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Lane Group                 | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | WBR                                                                               | NBL                                                                                 | NBT                                                                                 | NBR                                                                                 | SBL                                                                                 | SBT                                                                                 | SBR                                                                                 |
| Lane Configurations        |  |  |                                                                                   |  |  |  |  |  |  |  |  |  |
| Traffic Volume (vph)       | 138                                                                               | 1009                                                                              | 12                                                                                | 49                                                                                | 956                                                                               | 124                                                                               | 51                                                                                  | 73                                                                                  | 186                                                                                 | 86                                                                                  | 7                                                                                   | 102                                                                                 |
| Future Volume (vph)        | 138                                                                               | 1009                                                                              | 12                                                                                | 49                                                                                | 956                                                                               | 124                                                                               | 51                                                                                  | 73                                                                                  | 186                                                                                 | 86                                                                                  | 7                                                                                   | 102                                                                                 |
| Ideal Flow (vphpl)         | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                                | 1900                                                                                | 1900                                                                                | 1900                                                                                | 1900                                                                                | 1900                                                                                |
| Storage Length (ft)        | 135                                                                               |                                                                                   | 0                                                                                 | 170                                                                               |                                                                                   | 120                                                                               | 170                                                                                 |                                                                                     | 170                                                                                 | 100                                                                                 |                                                                                     | 0                                                                                   |
| Storage Lanes              | 1                                                                                 |                                                                                   | 0                                                                                 | 1                                                                                 |                                                                                   | 1                                                                                 | 1                                                                                   |                                                                                     | 1                                                                                   | 1                                                                                   |                                                                                     | 0                                                                                   |
| Taper Length (ft)          | 25                                                                                |                                                                                   |                                                                                   | 25                                                                                |                                                                                   |                                                                                   | 25                                                                                  |                                                                                     |                                                                                     | 25                                                                                  |                                                                                     |                                                                                     |
| Lane Util. Factor          | 1.00                                                                              | 0.95                                                                              | 0.95                                                                              | 1.00                                                                              | 0.95                                                                              | 1.00                                                                              | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Frt                        |                                                                                   | 0.998                                                                             |                                                                                   |                                                                                   |                                                                                   | 0.850                                                                             |                                                                                     |                                                                                     | 0.850                                                                               |                                                                                     | 0.860                                                                               |                                                                                     |
| Flt Protected              | 0.950                                                                             |                                                                                   |                                                                                   | 0.950                                                                             |                                                                                   |                                                                                   | 0.950                                                                               |                                                                                     |                                                                                     | 0.950                                                                               |                                                                                     |                                                                                     |
| Satd. Flow (prot)          | 1770                                                                              | 3532                                                                              | 0                                                                                 | 1770                                                                              | 3539                                                                              | 1583                                                                              | 1770                                                                                | 1863                                                                                | 1583                                                                                | 1770                                                                                | 1602                                                                                | 0                                                                                   |
| Flt Permitted              | 0.177                                                                             |                                                                                   |                                                                                   | 0.164                                                                             |                                                                                   |                                                                                   | 0.669                                                                               |                                                                                     |                                                                                     | 0.666                                                                               |                                                                                     |                                                                                     |
| Satd. Flow (perm)          | 330                                                                               | 3532                                                                              | 0                                                                                 | 305                                                                               | 3539                                                                              | 1583                                                                              | 1246                                                                                | 1863                                                                                | 1583                                                                                | 1241                                                                                | 1602                                                                                | 0                                                                                   |
| Right Turn on Red          |                                                                                   |                                                                                   | Yes                                                                               |                                                                                   |                                                                                   | Yes                                                                               |                                                                                     |                                                                                     | Yes                                                                                 |                                                                                     |                                                                                     | Yes                                                                                 |
| Satd. Flow (RTOR)          |                                                                                   | 2                                                                                 |                                                                                   |                                                                                   |                                                                                   | 111                                                                               |                                                                                     |                                                                                     | 167                                                                                 |                                                                                     | 128                                                                                 |                                                                                     |
| Link Speed (mph)           |                                                                                   | 30                                                                                |                                                                                   |                                                                                   | 30                                                                                |                                                                                   |                                                                                     | 30                                                                                  |                                                                                     |                                                                                     | 30                                                                                  |                                                                                     |
| Link Distance (ft)         |                                                                                   | 1593                                                                              |                                                                                   |                                                                                   | 794                                                                               |                                                                                   |                                                                                     | 600                                                                                 |                                                                                     |                                                                                     | 737                                                                                 |                                                                                     |
| Travel Time (s)            |                                                                                   | 36.2                                                                              |                                                                                   |                                                                                   | 18.0                                                                              |                                                                                   |                                                                                     | 13.6                                                                                |                                                                                     |                                                                                     | 16.8                                                                                |                                                                                     |
| Peak Hour Factor           | 0.95                                                                              | 0.95                                                                              | 0.95                                                                              | 0.92                                                                              | 0.92                                                                              | 0.92                                                                              | 0.52                                                                                | 0.52                                                                                | 0.52                                                                                | 0.80                                                                                | 0.80                                                                                | 0.80                                                                                |
| Adj. Flow (vph)            | 145                                                                               | 1062                                                                              | 13                                                                                | 53                                                                                | 1039                                                                              | 135                                                                               | 98                                                                                  | 140                                                                                 | 358                                                                                 | 108                                                                                 | 9                                                                                   | 128                                                                                 |
| Shared Lane Traffic (%)    |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Lane Group Flow (vph)      | 145                                                                               | 1075                                                                              | 0                                                                                 | 53                                                                                | 1039                                                                              | 135                                                                               | 98                                                                                  | 140                                                                                 | 358                                                                                 | 108                                                                                 | 137                                                                                 | 0                                                                                   |
| Enter Blocked Intersection | No                                                                                | No                                                                                | No                                                                                | No                                                                                | No                                                                                | No                                                                                | No                                                                                  | No                                                                                  | No                                                                                  | No                                                                                  | No                                                                                  | No                                                                                  |
| Lane Alignment             | Left                                                                              | Left                                                                              | Right                                                                             | Left                                                                              | Left                                                                              | Right                                                                             | Left                                                                                | Left                                                                                | Right                                                                               | Left                                                                                | Left                                                                                | Right                                                                               |
| Median Width(ft)           |                                                                                   | 24                                                                                |                                                                                   |                                                                                   | 24                                                                                |                                                                                   |                                                                                     | 12                                                                                  |                                                                                     |                                                                                     | 12                                                                                  |                                                                                     |
| Link Offset(ft)            |                                                                                   | 0                                                                                 |                                                                                   |                                                                                   | 0                                                                                 |                                                                                   |                                                                                     | 0                                                                                   |                                                                                     |                                                                                     | 0                                                                                   |                                                                                     |
| Crosswalk Width(ft)        |                                                                                   | 16                                                                                |                                                                                   |                                                                                   | 16                                                                                |                                                                                   |                                                                                     | 16                                                                                  |                                                                                     |                                                                                     | 16                                                                                  |                                                                                     |
| Two way Left Turn Lane     |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Headway Factor             | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Turning Speed (mph)        | 60                                                                                |                                                                                   | 60                                                                                | 60                                                                                |                                                                                   | 60                                                                                | 60                                                                                  |                                                                                     | 60                                                                                  | 60                                                                                  |                                                                                     | 60                                                                                  |
| Turn Type                  | pm+pt                                                                             | NA                                                                                |                                                                                   | pm+pt                                                                             | NA                                                                                | Perm                                                                              | Perm                                                                                | NA                                                                                  | Perm                                                                                | Perm                                                                                | NA                                                                                  |                                                                                     |
| Protected Phases           | 5                                                                                 | 2                                                                                 |                                                                                   | 1                                                                                 | 6                                                                                 |                                                                                   |                                                                                     | 8                                                                                   |                                                                                     |                                                                                     | 4                                                                                   |                                                                                     |
| Permitted Phases           | 2                                                                                 |                                                                                   |                                                                                   | 6                                                                                 |                                                                                   | 6                                                                                 | 8                                                                                   |                                                                                     | 8                                                                                   | 4                                                                                   |                                                                                     |                                                                                     |
| Minimum Split (s)          | 10.0                                                                              | 31.5                                                                              |                                                                                   | 10.0                                                                              | 31.5                                                                              | 31.5                                                                              | 34.0                                                                                | 34.0                                                                                | 34.0                                                                                | 33.0                                                                                | 33.0                                                                                |                                                                                     |
| Total Split (s)            | 10.0                                                                              | 45.0                                                                              |                                                                                   | 10.0                                                                              | 45.0                                                                              | 45.0                                                                              | 30.0                                                                                | 30.0                                                                                | 30.0                                                                                | 30.0                                                                                | 30.0                                                                                |                                                                                     |
| Total Split (%)            | 11.8%                                                                             | 52.9%                                                                             |                                                                                   | 11.8%                                                                             | 52.9%                                                                             | 52.9%                                                                             | 35.3%                                                                               | 35.3%                                                                               | 35.3%                                                                               | 35.3%                                                                               | 35.3%                                                                               |                                                                                     |
| Maximum Green (s)          | 5.0                                                                               | 38.5                                                                              |                                                                                   | 5.0                                                                               | 38.5                                                                              | 38.5                                                                              | 25.0                                                                                | 25.0                                                                                | 25.0                                                                                | 25.0                                                                                | 25.0                                                                                |                                                                                     |
| Yellow Time (s)            | 3.0                                                                               | 4.5                                                                               |                                                                                   | 3.0                                                                               | 4.5                                                                               | 4.5                                                                               | 3.0                                                                                 | 3.0                                                                                 | 3.0                                                                                 | 3.0                                                                                 | 3.0                                                                                 |                                                                                     |
| All-Red Time (s)           | 2.0                                                                               | 2.0                                                                               |                                                                                   | 2.0                                                                               | 2.0                                                                               | 2.0                                                                               | 2.0                                                                                 | 2.0                                                                                 | 2.0                                                                                 | 2.0                                                                                 | 2.0                                                                                 |                                                                                     |
| Lost Time Adjust (s)       | 0.0                                                                               | 0.0                                                                               |                                                                                   | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 |                                                                                     |
| Total Lost Time (s)        | 5.0                                                                               | 6.5                                                                               |                                                                                   | 5.0                                                                               | 6.5                                                                               | 6.5                                                                               | 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                                                                               |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Walk Time (s)              |                                                                                   | 5.0                                                                               |                                                                                   |                                                                                   | 5.0                                                                               | 5.0                                                                               | 5.0                                                                                 | 5.0                                                                                 | 5.0                                                                                 | 5.0                                                                                 | 5.0                                                                                 |                                                                                     |
| Flash Dont Walk (s)        |                                                                                   | 10.5                                                                              |                                                                                   |                                                                                   | 10.5                                                                              | 10.5                                                                              | 24.0                                                                                | 24.0                                                                                | 24.0                                                                                | 23.0                                                                                | 23.0                                                                                |                                                                                     |
| Pedestrian Calls (#/hr)    |                                                                                   | 0                                                                                 |                                                                                   |                                                                                   | 0                                                                                 | 0                                                                                 | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   |                                                                                     |
| Act Effct Green (s)        | 45.0                                                                              | 38.5                                                                              |                                                                                   | 45.0                                                                              | 38.5                                                                              | 38.5                                                                              | 25.0                                                                                | 25.0                                                                                | 25.0                                                                                | 25.0                                                                                | 25.0                                                                                |                                                                                     |
| Actuated g/C Ratio         | 0.53                                                                              | 0.45                                                                              |                                                                                   | 0.53                                                                              | 0.45                                                                              | 0.45                                                                              | 0.29                                                                                | 0.29                                                                                | 0.29                                                                                | 0.29                                                                                | 0.29                                                                                |                                                                                     |
| v/c Ratio                  | 0.56                                                                              | 0.67                                                                              |                                                                                   | 0.21                                                                              | 0.65                                                                              | 0.17                                                                              | 0.27                                                                                | 0.26                                                                                | 0.61                                                                                | 0.30                                                                                | 0.24                                                                                |                                                                                     |

Existing PM 4:45 pm 11/05/2024

Synchro 11 Report

Page 1

# Lanes, Volumes, Timings

## 70: Foothills Canyon Blvd & Highlands Ranch Pkwy

12/12/2024

|                         |  |  |  |  |  |  |  |  |  |  |  |  |
|-------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Lane Group              | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | WBR                                                                               | NBL                                                                                | NBT                                                                                 | NBR                                                                                 | SBL                                                                                 | SBT                                                                                 | SBR                                                                                 |
| Control Delay           | 17.2                                                                              | 20.8                                                                              |                                                                                   | 9.7                                                                               | 20.4                                                                              | 4.7                                                                               | 25.5                                                                               | 24.5                                                                                | 18.6                                                                                | 26.0                                                                                | 6.4                                                                                 |                                                                                     |
| Queue Delay             | 0.0                                                                               | 0.0                                                                               |                                                                                   | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                                | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 |                                                                                     |
| Total Delay             | 17.2                                                                              | 20.8                                                                              |                                                                                   | 9.7                                                                               | 20.4                                                                              | 4.7                                                                               | 25.5                                                                               | 24.5                                                                                | 18.6                                                                                | 26.0                                                                                | 6.4                                                                                 |                                                                                     |
| LOS                     | B                                                                                 | C                                                                                 |                                                                                   | A                                                                                 | C                                                                                 | A                                                                                 | C                                                                                  | C                                                                                   | B                                                                                   | C                                                                                   | A                                                                                   |                                                                                     |
| Approach Delay          |                                                                                   | 20.4                                                                              |                                                                                   |                                                                                   | 18.2                                                                              |                                                                                   |                                                                                    | 21.1                                                                                |                                                                                     |                                                                                     | 15.0                                                                                |                                                                                     |
| Approach LOS            |                                                                                   | C                                                                                 |                                                                                   |                                                                                   | B                                                                                 |                                                                                   |                                                                                    | C                                                                                   |                                                                                     |                                                                                     | B                                                                                   |                                                                                     |
| Queue Length 50th (ft)  | 32                                                                                | 228                                                                               |                                                                                   | 11                                                                                | 217                                                                               | 7                                                                                 | 40                                                                                 | 57                                                                                  | 84                                                                                  | 44                                                                                  | 3                                                                                   |                                                                                     |
| Queue Length 95th (ft)  | 58                                                                                | 297                                                                               |                                                                                   | 26                                                                                | 284                                                                               | 37                                                                                | 43                                                                                 | 56                                                                                  | 51                                                                                  | 76                                                                                  | 32                                                                                  |                                                                                     |
| Internal Link Dist (ft) |                                                                                   | 1513                                                                              |                                                                                   |                                                                                   | 714                                                                               |                                                                                   |                                                                                    | 520                                                                                 |                                                                                     |                                                                                     | 657                                                                                 |                                                                                     |
| Turn Bay Length (ft)    | 135                                                                               |                                                                                   |                                                                                   | 170                                                                               |                                                                                   | 120                                                                               | 170                                                                                |                                                                                     | 170                                                                                 | 100                                                                                 |                                                                                     |                                                                                     |
| Base Capacity (vph)     | 259                                                                               | 1600                                                                              |                                                                                   | 247                                                                               | 1602                                                                              | 777                                                                               | 366                                                                                | 547                                                                                 | 583                                                                                 | 365                                                                                 | 561                                                                                 |                                                                                     |
| Starvation Cap Reductn  | 0                                                                                 | 0                                                                                 |                                                                                   | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                  | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   |                                                                                     |
| Spillback Cap Reductn   | 0                                                                                 | 0                                                                                 |                                                                                   | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                  | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   |                                                                                     |
| Storage Cap Reductn     | 0                                                                                 | 0                                                                                 |                                                                                   | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                  | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   |                                                                                     |
| Reduced v/c Ratio       | 0.56                                                                              | 0.67                                                                              |                                                                                   | 0.21                                                                              | 0.65                                                                              | 0.17                                                                              | 0.27                                                                               | 0.26                                                                                | 0.61                                                                                | 0.30                                                                                | 0.24                                                                                |                                                                                     |

### Intersection Summary

Area Type: Other

Cycle Length: 85

Actuated Cycle Length: 85

Offset: 13 (15%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green

Natural Cycle: 80

Control Type: Pretimed

Maximum v/c Ratio: 0.67

Intersection Signal Delay: 19.3

Intersection LOS: B

Intersection Capacity Utilization 59.3%

ICU Level of Service B

Analysis Period (min) 15

### Splits and Phases: 70: Foothills Canyon Blvd & Highlands Ranch Pkwy

|                                                                                        |                                                                                            |                                                                                          |
|----------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------|
|  Ø1 |  Ø2 (R) |  Ø4 |
| 10 s                                                                                   | 45 s                                                                                       | 30 s                                                                                     |
|  Ø5 |  Ø6 (R) |  Ø8 |
| 10 s                                                                                   | 45 s                                                                                       | 30 s                                                                                     |

Lanes, Volumes, Timings  
67: Springhill Pkwy & Highlands Ranch Pkwy

12/12/2024

|                            |  |  |  |  |  |  |  |  |  |  |  |  |
|----------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Lane Group                 | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | WBR                                                                               | NBL                                                                                | NBT                                                                                 | NBR                                                                                 | SBL                                                                                 | SBT                                                                                 | SBR                                                                                 |
| Lane Configurations        |  |  |  |  |  |  |  |  |  |  |  |  |
| Traffic Volume (vph)       | 15                                                                                | 599                                                                               | 258                                                                               | 232                                                                               | 667                                                                               | 50                                                                                | 399                                                                                | 53                                                                                  | 346                                                                                 | 46                                                                                  | 41                                                                                  | 29                                                                                  |
| Future Volume (vph)        | 15                                                                                | 599                                                                               | 258                                                                               | 232                                                                               | 667                                                                               | 50                                                                                | 399                                                                                | 53                                                                                  | 346                                                                                 | 46                                                                                  | 41                                                                                  | 29                                                                                  |
| Ideal Flow (vphpl)         | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                               | 1900                                                                                | 1900                                                                                | 1900                                                                                | 1900                                                                                | 1900                                                                                |
| Storage Length (ft)        | 140                                                                               |                                                                                   | 165                                                                               | 240                                                                               |                                                                                   | 0                                                                                 | 250                                                                                |                                                                                     | 0                                                                                   | 150                                                                                 |                                                                                     | 0                                                                                   |
| Storage Lanes              | 1                                                                                 |                                                                                   | 1                                                                                 | 2                                                                                 |                                                                                   | 1                                                                                 | 2                                                                                  |                                                                                     | 1                                                                                   | 1                                                                                   |                                                                                     | 0                                                                                   |
| Taper Length (ft)          | 25                                                                                |                                                                                   |                                                                                   | 25                                                                                |                                                                                   |                                                                                   | 25                                                                                 |                                                                                     |                                                                                     | 25                                                                                  |                                                                                     |                                                                                     |
| Lane Util. Factor          | 1.00                                                                              | 0.95                                                                              | 1.00                                                                              | 0.97                                                                              | 0.95                                                                              | 1.00                                                                              | 0.97                                                                               | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Frt                        |                                                                                   |                                                                                   | 0.850                                                                             |                                                                                   |                                                                                   | 0.850                                                                             |                                                                                    |                                                                                     | 0.850                                                                               |                                                                                     | 0.938                                                                               |                                                                                     |
| Flt Protected              | 0.950                                                                             |                                                                                   |                                                                                   | 0.950                                                                             |                                                                                   |                                                                                   | 0.950                                                                              |                                                                                     |                                                                                     | 0.950                                                                               |                                                                                     |                                                                                     |
| Satd. Flow (prot)          | 1770                                                                              | 3539                                                                              | 1583                                                                              | 3433                                                                              | 3539                                                                              | 1583                                                                              | 3433                                                                               | 1863                                                                                | 1583                                                                                | 1770                                                                                | 1747                                                                                | 0                                                                                   |
| Flt Permitted              | 0.282                                                                             |                                                                                   |                                                                                   | 0.191                                                                             |                                                                                   |                                                                                   | 0.498                                                                              |                                                                                     |                                                                                     | 0.714                                                                               |                                                                                     |                                                                                     |
| Satd. Flow (perm)          | 525                                                                               | 3539                                                                              | 1583                                                                              | 690                                                                               | 3539                                                                              | 1583                                                                              | 1800                                                                               | 1863                                                                                | 1583                                                                                | 1330                                                                                | 1747                                                                                | 0                                                                                   |
| Right Turn on Red          |                                                                                   |                                                                                   | Yes                                                                               |                                                                                   |                                                                                   | Yes                                                                               |                                                                                    |                                                                                     | Yes                                                                                 |                                                                                     |                                                                                     | Yes                                                                                 |
| Satd. Flow (RTOR)          |                                                                                   |                                                                                   | 232                                                                               |                                                                                   |                                                                                   | 155                                                                               |                                                                                    |                                                                                     | 413                                                                                 |                                                                                     | 23                                                                                  |                                                                                     |
| Link Speed (mph)           |                                                                                   | 30                                                                                |                                                                                   |                                                                                   | 30                                                                                |                                                                                   |                                                                                    | 30                                                                                  |                                                                                     |                                                                                     | 30                                                                                  |                                                                                     |
| Link Distance (ft)         |                                                                                   | 705                                                                               |                                                                                   |                                                                                   | 1593                                                                              |                                                                                   |                                                                                    | 631                                                                                 |                                                                                     |                                                                                     | 652                                                                                 |                                                                                     |
| Travel Time (s)            |                                                                                   | 16.0                                                                              |                                                                                   |                                                                                   | 36.2                                                                              |                                                                                   |                                                                                    | 14.3                                                                                |                                                                                     |                                                                                     | 14.8                                                                                |                                                                                     |
| Peak Hour Factor           | 0.94                                                                              | 0.94                                                                              | 0.94                                                                              | 0.89                                                                              | 0.89                                                                              | 0.89                                                                              | 0.80                                                                               | 0.80                                                                                | 0.80                                                                                | 0.59                                                                                | 0.59                                                                                | 0.59                                                                                |
| Adj. Flow (vph)            | 16                                                                                | 637                                                                               | 274                                                                               | 261                                                                               | 749                                                                               | 56                                                                                | 499                                                                                | 66                                                                                  | 433                                                                                 | 78                                                                                  | 69                                                                                  | 49                                                                                  |
| Shared Lane Traffic (%)    |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Lane Group Flow (vph)      | 16                                                                                | 637                                                                               | 274                                                                               | 261                                                                               | 749                                                                               | 56                                                                                | 499                                                                                | 66                                                                                  | 433                                                                                 | 78                                                                                  | 118                                                                                 | 0                                                                                   |
| Enter Blocked Intersection | No                                                                                | No                                                                                | No                                                                                | No                                                                                | No                                                                                | No                                                                                | No                                                                                 | No                                                                                  | No                                                                                  | No                                                                                  | No                                                                                  | No                                                                                  |
| Lane Alignment             | Left                                                                              | Left                                                                              | Right                                                                             | Left                                                                              | Left                                                                              | Right                                                                             | Left                                                                               | Left                                                                                | Right                                                                               | Left                                                                                | Left                                                                                | Right                                                                               |
| Median Width(ft)           |                                                                                   | 24                                                                                |                                                                                   |                                                                                   | 24                                                                                |                                                                                   |                                                                                    | 24                                                                                  |                                                                                     |                                                                                     | 24                                                                                  |                                                                                     |
| Link Offset(ft)            |                                                                                   | 0                                                                                 |                                                                                   |                                                                                   | 0                                                                                 |                                                                                   |                                                                                    | 0                                                                                   |                                                                                     |                                                                                     | 0                                                                                   |                                                                                     |
| Crosswalk Width(ft)        |                                                                                   | 16                                                                                |                                                                                   |                                                                                   | 16                                                                                |                                                                                   |                                                                                    | 16                                                                                  |                                                                                     |                                                                                     | 16                                                                                  |                                                                                     |
| Two way Left Turn Lane     |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Headway Factor             | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                               | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Turning Speed (mph)        | 60                                                                                |                                                                                   | 60                                                                                | 60                                                                                |                                                                                   | 60                                                                                | 60                                                                                 |                                                                                     | 60                                                                                  | 60                                                                                  |                                                                                     | 60                                                                                  |
| Turn Type                  | pm+pt                                                                             | NA                                                                                | Perm                                                                              | pm+pt                                                                             | NA                                                                                | Perm                                                                              | pm+pt                                                                              | NA                                                                                  | Perm                                                                                | pm+pt                                                                               | NA                                                                                  |                                                                                     |
| Protected Phases           | 5                                                                                 | 2                                                                                 |                                                                                   | 1                                                                                 | 6                                                                                 |                                                                                   | 3                                                                                  | 8                                                                                   |                                                                                     | 7                                                                                   | 4                                                                                   |                                                                                     |
| Permitted Phases           | 2                                                                                 |                                                                                   | 2                                                                                 | 6                                                                                 |                                                                                   | 6                                                                                 | 8                                                                                  |                                                                                     | 8                                                                                   | 4                                                                                   |                                                                                     |                                                                                     |
| Minimum Split (s)          | 10.0                                                                              | 30.5                                                                              | 30.5                                                                              | 10.0                                                                              | 31.5                                                                              | 31.5                                                                              | 10.0                                                                               | 38.5                                                                                | 38.5                                                                                | 10.0                                                                                | 24.5                                                                                |                                                                                     |
| Total Split (s)            | 15.0                                                                              | 40.0                                                                              | 40.0                                                                              | 25.0                                                                              | 50.0                                                                              | 50.0                                                                              | 40.0                                                                               | 50.0                                                                                | 50.0                                                                                | 15.0                                                                                | 25.0                                                                                |                                                                                     |
| Total Split (%)            | 11.5%                                                                             | 30.8%                                                                             | 30.8%                                                                             | 19.2%                                                                             | 38.5%                                                                             | 38.5%                                                                             | 30.8%                                                                              | 38.5%                                                                               | 38.5%                                                                               | 11.5%                                                                               | 19.2%                                                                               |                                                                                     |
| Maximum Green (s)          | 10.0                                                                              | 33.5                                                                              | 33.5                                                                              | 20.0                                                                              | 43.5                                                                              | 43.5                                                                              | 35.0                                                                               | 43.5                                                                                | 43.5                                                                                | 10.0                                                                                | 18.5                                                                                |                                                                                     |
| Yellow Time (s)            | 3.0                                                                               | 4.5                                                                               | 4.5                                                                               | 3.0                                                                               | 4.5                                                                               | 4.5                                                                               | 3.0                                                                                | 4.5                                                                                 | 4.5                                                                                 | 3.0                                                                                 | 4.5                                                                                 |                                                                                     |
| All-Red Time (s)           | 2.0                                                                               | 2.0                                                                               | 2.0                                                                               | 2.0                                                                               | 2.0                                                                               | 2.0                                                                               | 2.0                                                                                | 2.0                                                                                 | 2.0                                                                                 | 2.0                                                                                 | 2.0                                                                                 |                                                                                     |
| Lost Time Adjust (s)       | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                                | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 |                                                                                     |
| Total Lost Time (s)        | 5.0                                                                               | 6.5                                                                               | 6.5                                                                               | 5.0                                                                               | 6.5                                                                               | 6.5                                                                               | 5.0                                                                                | 6.5                                                                                 | 6.5                                                                                 | 5.0                                                                                 | 6.5                                                                                 |                                                                                     |
| Lead/Lag                   | Lead                                                                              | Lag                                                                               | Lag                                                                               | Lead                                                                              | Lag                                                                               | Lag                                                                               | Lead                                                                               | Lag                                                                                 | Lag                                                                                 | Lead                                                                                | Lag                                                                                 |                                                                                     |
| Lead-Lag Optimize?         | Yes                                                                               | Yes                                                                               | Yes                                                                               | Yes                                                                               | Yes                                                                               | Yes                                                                               | Yes                                                                                | Yes                                                                                 | Yes                                                                                 | Yes                                                                                 | Yes                                                                                 |                                                                                     |
| Walk Time (s)              |                                                                                   | 5.0                                                                               | 5.0                                                                               |                                                                                   | 5.0                                                                               | 5.0                                                                               |                                                                                    | 5.0                                                                                 | 5.0                                                                                 |                                                                                     |                                                                                     |                                                                                     |
| Flash Dont Walk (s)        |                                                                                   | 19.0                                                                              | 19.0                                                                              |                                                                                   | 20.0                                                                              | 20.0                                                                              |                                                                                    | 27.0                                                                                | 27.0                                                                                |                                                                                     |                                                                                     |                                                                                     |
| Pedestrian Calls (#/hr)    |                                                                                   | 0                                                                                 | 0                                                                                 |                                                                                   | 0                                                                                 | 0                                                                                 |                                                                                    | 0                                                                                   | 0                                                                                   |                                                                                     |                                                                                     |                                                                                     |
| Act Effct Green (s)        | 45.0                                                                              | 33.5                                                                              | 33.5                                                                              | 60.0                                                                              | 43.5                                                                              | 43.5                                                                              | 60.0                                                                               | 43.5                                                                                | 43.5                                                                                | 30.0                                                                                | 18.5                                                                                |                                                                                     |
| Actuated g/C Ratio         | 0.35                                                                              | 0.26                                                                              | 0.26                                                                              | 0.46                                                                              | 0.33                                                                              | 0.33                                                                              | 0.46                                                                               | 0.33                                                                                | 0.33                                                                                | 0.23                                                                                | 0.14                                                                                |                                                                                     |
| v/c Ratio                  | 0.06                                                                              | 0.70                                                                              | 0.47                                                                              | 0.35                                                                              | 0.63                                                                              | 0.09                                                                              | 0.39                                                                               | 0.11                                                                                | 0.54                                                                                | 0.23                                                                                | 0.44                                                                                |                                                                                     |

Existing PM 4:45 pm 11/05/2024

Synchro 11 Report  
Page 1

# Lanes, Volumes, Timings

## 67: Springhill Pkwy & Highlands Ranch Pkwy

12/12/2024

|                         |  |  |  |  |  |  |  |  |  |  |  |  |
|-------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Lane Group              | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | WBR                                                                               | NBL                                                                                | NBT                                                                                 | NBR                                                                                 | SBL                                                                                 | SBT                                                                                 | SBR                                                                                 |
| Control Delay           | 20.5                                                                              | 48.5                                                                              | 10.9                                                                              | 21.9                                                                              | 39.4                                                                              | 0.3                                                                               | 23.1                                                                               | 30.5                                                                                | 6.4                                                                                 | 25.3                                                                                | 46.6                                                                                |                                                                                     |
| Queue Delay             | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                                | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 |                                                                                     |
| Total Delay             | 20.5                                                                              | 48.5                                                                              | 10.9                                                                              | 21.9                                                                              | 39.4                                                                              | 0.3                                                                               | 23.1                                                                               | 30.5                                                                                | 6.4                                                                                 | 25.3                                                                                | 46.6                                                                                |                                                                                     |
| LOS                     | C                                                                                 | D                                                                                 | B                                                                                 | C                                                                                 | D                                                                                 | A                                                                                 | C                                                                                  | C                                                                                   | A                                                                                   | C                                                                                   | D                                                                                   |                                                                                     |
| Approach Delay          | 36.9                                                                              |                                                                                   |                                                                                   | 33.1                                                                              |                                                                                   |                                                                                   | 16.4                                                                               |                                                                                     |                                                                                     | 38.1                                                                                |                                                                                     |                                                                                     |
| Approach LOS            | D                                                                                 |                                                                                   |                                                                                   | C                                                                                 |                                                                                   |                                                                                   | B                                                                                  |                                                                                     |                                                                                     | D                                                                                   |                                                                                     |                                                                                     |
| Queue Length 50th (ft)  | 7                                                                                 | 256                                                                               | 27                                                                                | 64                                                                                | 279                                                                               | 0                                                                                 | 134                                                                                | 38                                                                                  | 11                                                                                  | 36                                                                                  | 74                                                                                  |                                                                                     |
| Queue Length 95th (ft)  | 21                                                                                | 325                                                                               | 105                                                                               | 91                                                                                | 343                                                                               | 0                                                                                 | 151                                                                                | 65                                                                                  | 45                                                                                  | 43                                                                                  | 80                                                                                  |                                                                                     |
| Internal Link Dist (ft) | 625                                                                               |                                                                                   |                                                                                   | 1513                                                                              |                                                                                   |                                                                                   | 551                                                                                |                                                                                     |                                                                                     | 572                                                                                 |                                                                                     |                                                                                     |
| Turn Bay Length (ft)    | 140                                                                               |                                                                                   | 165                                                                               | 240                                                                               |                                                                                   |                                                                                   | 250                                                                                |                                                                                     |                                                                                     | 150                                                                                 |                                                                                     |                                                                                     |
| Base Capacity (vph)     | 277                                                                               | 911                                                                               | 580                                                                               | 740                                                                               | 1184                                                                              | 632                                                                               | 1270                                                                               | 623                                                                                 | 804                                                                                 | 340                                                                                 | 268                                                                                 |                                                                                     |
| Starvation Cap Reductn  | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                  | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   |                                                                                     |
| Spillback Cap Reductn   | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                  | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   |                                                                                     |
| Storage Cap Reductn     | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                  | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   |                                                                                     |
| Reduced v/c Ratio       | 0.06                                                                              | 0.70                                                                              | 0.47                                                                              | 0.35                                                                              | 0.63                                                                              | 0.09                                                                              | 0.39                                                                               | 0.11                                                                                | 0.54                                                                                | 0.23                                                                                | 0.44                                                                                |                                                                                     |

### Intersection Summary

Area Type: Other

Cycle Length: 130

Actuated Cycle Length: 130

Offset: 13 (10%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green

Natural Cycle: 90

Control Type: Pretimed

Maximum v/c Ratio: 0.70

Intersection Signal Delay: 29.3

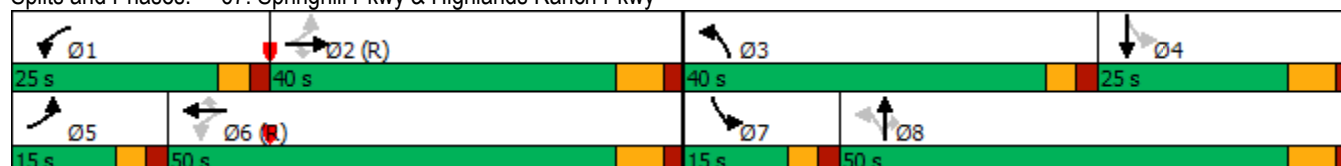
Intersection LOS: C

Intersection Capacity Utilization 57.1%

ICU Level of Service B

Analysis Period (min) 15

### Splits and Phases: 67: Springhill Pkwy & Highlands Ranch Pkwy





# Lanes, Volumes, Timings

## 30: Westridge Village Pkwy & Highlands Ranch Pkwy

12/12/2024

|                            |  |  |  |  |  |  |   |  |  |  |  |  |
|----------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Lane Group                 | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | WBR                                                                               | NBL                                                                                 | NBT                                                                                 | NBR                                                                                 | SBL                                                                                 | SBT                                                                                 | SBR                                                                                 |
| Lane Configurations        |  |  |                                                                                   |  |  |                                                                                   |  |  |  |  |  |  |
| Traffic Volume (vph)       | 7                                                                                 | 637                                                                               | 122                                                                               | 185                                                                               | 841                                                                               | 78                                                                                | 90                                                                                  | 3                                                                                   | 175                                                                                 | 69                                                                                  | 5                                                                                   | 5                                                                                   |
| Future Volume (vph)        | 7                                                                                 | 637                                                                               | 122                                                                               | 185                                                                               | 841                                                                               | 78                                                                                | 90                                                                                  | 3                                                                                   | 175                                                                                 | 69                                                                                  | 5                                                                                   | 5                                                                                   |
| Ideal Flow (vphpl)         | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                                | 1900                                                                                | 1900                                                                                | 1900                                                                                | 1900                                                                                | 1900                                                                                |
| Storage Length (ft)        | 100                                                                               |                                                                                   | 0                                                                                 | 100                                                                               |                                                                                   | 0                                                                                 | 100                                                                                 |                                                                                     | 100                                                                                 | 50                                                                                  |                                                                                     | 0                                                                                   |
| Storage Lanes              | 1                                                                                 |                                                                                   | 0                                                                                 | 1                                                                                 |                                                                                   | 0                                                                                 | 1                                                                                   |                                                                                     | 1                                                                                   | 1                                                                                   |                                                                                     | 0                                                                                   |
| Taper Length (ft)          | 25                                                                                |                                                                                   |                                                                                   | 25                                                                                |                                                                                   |                                                                                   | 25                                                                                  |                                                                                     |                                                                                     | 25                                                                                  |                                                                                     |                                                                                     |
| Lane Util. Factor          | 1.00                                                                              | 0.95                                                                              | 0.95                                                                              | 1.00                                                                              | 0.95                                                                              | 0.95                                                                              | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Frt                        |                                                                                   | 0.976                                                                             |                                                                                   |                                                                                   | 0.987                                                                             |                                                                                   |                                                                                     |                                                                                     | 0.850                                                                               |                                                                                     | 0.925                                                                               |                                                                                     |
| Flt Protected              | 0.950                                                                             |                                                                                   |                                                                                   | 0.950                                                                             |                                                                                   |                                                                                   | 0.950                                                                               |                                                                                     |                                                                                     | 0.950                                                                               |                                                                                     |                                                                                     |
| Satd. Flow (prot)          | 1770                                                                              | 3454                                                                              | 0                                                                                 | 1770                                                                              | 3493                                                                              | 0                                                                                 | 1770                                                                                | 1863                                                                                | 1583                                                                                | 1770                                                                                | 1723                                                                                | 0                                                                                   |
| Flt Permitted              | 0.169                                                                             |                                                                                   |                                                                                   | 0.234                                                                             |                                                                                   |                                                                                   | 0.747                                                                               |                                                                                     |                                                                                     | 0.754                                                                               |                                                                                     |                                                                                     |
| Satd. Flow (perm)          | 315                                                                               | 3454                                                                              | 0                                                                                 | 436                                                                               | 3493                                                                              | 0                                                                                 | 1391                                                                                | 1863                                                                                | 1583                                                                                | 1405                                                                                | 1723                                                                                | 0                                                                                   |
| Right Turn on Red          |                                                                                   |                                                                                   | Yes                                                                               |                                                                                   |                                                                                   | Yes                                                                               |                                                                                     |                                                                                     | Yes                                                                                 |                                                                                     |                                                                                     | Yes                                                                                 |
| Satd. Flow (RTOR)          |                                                                                   | 34                                                                                |                                                                                   |                                                                                   | 15                                                                                |                                                                                   |                                                                                     |                                                                                     | 302                                                                                 |                                                                                     | 8                                                                                   |                                                                                     |
| Link Speed (mph)           |                                                                                   | 30                                                                                |                                                                                   |                                                                                   | 30                                                                                |                                                                                   |                                                                                     | 30                                                                                  |                                                                                     |                                                                                     | 30                                                                                  |                                                                                     |
| Link Distance (ft)         |                                                                                   | 386                                                                               |                                                                                   |                                                                                   | 629                                                                               |                                                                                   |                                                                                     | 741                                                                                 |                                                                                     |                                                                                     | 129                                                                                 |                                                                                     |
| Travel Time (s)            |                                                                                   | 8.8                                                                               |                                                                                   |                                                                                   | 14.3                                                                              |                                                                                   |                                                                                     | 16.8                                                                                |                                                                                     |                                                                                     | 2.9                                                                                 |                                                                                     |
| Peak Hour Factor           | 0.87                                                                              | 0.87                                                                              | 0.87                                                                              | 0.90                                                                              | 0.90                                                                              | 0.90                                                                              | 0.58                                                                                | 0.58                                                                                | 0.58                                                                                | 0.66                                                                                | 0.66                                                                                | 0.66                                                                                |
| Adj. Flow (vph)            | 8                                                                                 | 732                                                                               | 140                                                                               | 206                                                                               | 934                                                                               | 87                                                                                | 155                                                                                 | 5                                                                                   | 302                                                                                 | 105                                                                                 | 8                                                                                   | 8                                                                                   |
| Shared Lane Traffic (%)    |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Lane Group Flow (vph)      | 8                                                                                 | 872                                                                               | 0                                                                                 | 206                                                                               | 1021                                                                              | 0                                                                                 | 155                                                                                 | 5                                                                                   | 302                                                                                 | 105                                                                                 | 16                                                                                  | 0                                                                                   |
| Enter Blocked Intersection | No                                                                                | No                                                                                | No                                                                                | No                                                                                | No                                                                                | No                                                                                | No                                                                                  | No                                                                                  | No                                                                                  | No                                                                                  | No                                                                                  | No                                                                                  |
| Lane Alignment             | Left                                                                              | Left                                                                              | Right                                                                             | Left                                                                              | Left                                                                              | Right                                                                             | Left                                                                                | Left                                                                                | Right                                                                               | Left                                                                                | Left                                                                                | Right                                                                               |
| Median Width(ft)           |                                                                                   | 12                                                                                |                                                                                   |                                                                                   | 12                                                                                |                                                                                   |                                                                                     | 12                                                                                  |                                                                                     |                                                                                     | 12                                                                                  |                                                                                     |
| Link Offset(ft)            |                                                                                   | 0                                                                                 |                                                                                   |                                                                                   | 0                                                                                 |                                                                                   |                                                                                     | 0                                                                                   |                                                                                     |                                                                                     | 0                                                                                   |                                                                                     |
| Crosswalk Width(ft)        |                                                                                   | 16                                                                                |                                                                                   |                                                                                   | 16                                                                                |                                                                                   |                                                                                     | 16                                                                                  |                                                                                     |                                                                                     | 16                                                                                  |                                                                                     |
| Two way Left Turn Lane     |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Headway Factor             | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Turning Speed (mph)        | 60                                                                                |                                                                                   | 60                                                                                | 60                                                                                |                                                                                   | 60                                                                                | 60                                                                                  |                                                                                     | 60                                                                                  | 60                                                                                  |                                                                                     | 60                                                                                  |
| Turn Type                  | pm+pt                                                                             | NA                                                                                |                                                                                   | pm+pt                                                                             | NA                                                                                |                                                                                   | Perm                                                                                | NA                                                                                  | Perm                                                                                | Perm                                                                                | NA                                                                                  |                                                                                     |
| Protected Phases           | 5                                                                                 | 2                                                                                 |                                                                                   | 1                                                                                 | 6                                                                                 |                                                                                   |                                                                                     | 8                                                                                   |                                                                                     |                                                                                     | 4                                                                                   |                                                                                     |
| Permitted Phases           | 2                                                                                 |                                                                                   |                                                                                   | 6                                                                                 |                                                                                   |                                                                                   | 8                                                                                   |                                                                                     | 8                                                                                   | 4                                                                                   |                                                                                     |                                                                                     |
| Minimum Split (s)          | 9.5                                                                               | 26.5                                                                              |                                                                                   | 9.5                                                                               | 26.5                                                                              |                                                                                   | 29.0                                                                                | 29.0                                                                                | 29.0                                                                                | 30.0                                                                                | 30.0                                                                                |                                                                                     |
| Total Split (s)            | 15.0                                                                              | 40.0                                                                              |                                                                                   | 15.0                                                                              | 40.0                                                                              |                                                                                   | 25.0                                                                                | 25.0                                                                                | 25.0                                                                                | 25.0                                                                                | 25.0                                                                                |                                                                                     |
| Total Split (%)            | 18.8%                                                                             | 50.0%                                                                             |                                                                                   | 18.8%                                                                             | 50.0%                                                                             |                                                                                   | 31.3%                                                                               | 31.3%                                                                               | 31.3%                                                                               | 31.3%                                                                               | 31.3%                                                                               |                                                                                     |
| Maximum Green (s)          | 11.0                                                                              | 33.5                                                                              |                                                                                   | 11.0                                                                              | 33.5                                                                              |                                                                                   | 20.0                                                                                | 20.0                                                                                | 20.0                                                                                | 20.0                                                                                | 20.0                                                                                |                                                                                     |
| Yellow Time (s)            | 3.0                                                                               | 4.5                                                                               |                                                                                   | 3.0                                                                               | 4.5                                                                               |                                                                                   | 3.0                                                                                 | 3.0                                                                                 | 3.0                                                                                 | 3.0                                                                                 | 3.0                                                                                 |                                                                                     |
| All-Red Time (s)           | 1.0                                                                               | 2.0                                                                               |                                                                                   | 1.0                                                                               | 2.0                                                                               |                                                                                   | 2.0                                                                                 | 2.0                                                                                 | 2.0                                                                                 | 2.0                                                                                 | 2.0                                                                                 |                                                                                     |
| Lost Time Adjust (s)       | 0.0                                                                               | 0.0                                                                               |                                                                                   | 0.0                                                                               | 0.0                                                                               |                                                                                   | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 |                                                                                     |
| Total Lost Time (s)        | 4.0                                                                               | 6.5                                                                               |                                                                                   | 4.0                                                                               | 6.5                                                                               |                                                                                   | 5.0                                                                                 | 5.0                                                                                 | 5.0                                                                                 | 5.0                                                                                 | 5.0                                                                                 |                                                                                     |
| Lead/Lag                   | Lead                                                                              | Lag                                                                               |                                                                                   | Lead                                                                              | Lag                                                                               |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Lead-Lag Optimize?         | Yes                                                                               | Yes                                                                               |                                                                                   | Yes                                                                               | Yes                                                                               |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Walk Time (s)              |                                                                                   | 5.0                                                                               |                                                                                   |                                                                                   | 5.0                                                                               |                                                                                   | 5.0                                                                                 | 5.0                                                                                 | 5.0                                                                                 | 5.0                                                                                 | 5.0                                                                                 |                                                                                     |
| Flash Dont Walk (s)        |                                                                                   | 8.5                                                                               |                                                                                   |                                                                                   | 6.5                                                                               |                                                                                   | 19.0                                                                                | 19.0                                                                                | 19.0                                                                                | 20.0                                                                                | 20.0                                                                                |                                                                                     |
| Pedestrian Calls (#/hr)    |                                                                                   | 0                                                                                 |                                                                                   |                                                                                   | 0                                                                                 |                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   |                                                                                     |
| Act Effct Green (s)        | 47.0                                                                              | 33.5                                                                              |                                                                                   | 47.0                                                                              | 33.5                                                                              |                                                                                   | 20.0                                                                                | 20.0                                                                                | 20.0                                                                                | 20.0                                                                                | 20.0                                                                                |                                                                                     |
| Actuated g/C Ratio         | 0.59                                                                              | 0.42                                                                              |                                                                                   | 0.59                                                                              | 0.42                                                                              |                                                                                   | 0.25                                                                                | 0.25                                                                                | 0.25                                                                                | 0.25                                                                                | 0.25                                                                                |                                                                                     |
| v/c Ratio                  | 0.02                                                                              | 0.59                                                                              |                                                                                   | 0.47                                                                              | 0.69                                                                              |                                                                                   | 0.45                                                                                | 0.01                                                                                | 0.49                                                                                | 0.30                                                                                | 0.04                                                                                |                                                                                     |

Existing PM 4:45 pm 11/05/2024

Synchro 11 Report  
Page 1

# Lanes, Volumes, Timings

## 30: Westridge Village Pkwy & Highlands Ranch Pkwy

12/12/2024

|                         |  |  |  |  |  |  |  |  |  |  |  |  |
|-------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Lane Group              | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | WBR                                                                               | NBL                                                                                | NBT                                                                                 | NBR                                                                                 | SBL                                                                                 | SBT                                                                                 | SBR                                                                                 |
| Control Delay           | 5.6                                                                               | 19.3                                                                              |                                                                                   | 9.9                                                                               | 21.8                                                                              |                                                                                   | 30.2                                                                               | 22.7                                                                                | 6.2                                                                                 | 27.2                                                                                | 17.0                                                                                |                                                                                     |
| Queue Delay             | 0.0                                                                               | 0.0                                                                               |                                                                                   | 0.0                                                                               | 0.0                                                                               |                                                                                   | 0.0                                                                                | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 |                                                                                     |
| Total Delay             | 5.6                                                                               | 19.3                                                                              |                                                                                   | 9.9                                                                               | 21.8                                                                              |                                                                                   | 30.2                                                                               | 22.7                                                                                | 6.2                                                                                 | 27.2                                                                                | 17.0                                                                                |                                                                                     |
| LOS                     | A                                                                                 | B                                                                                 |                                                                                   | A                                                                                 | C                                                                                 |                                                                                   | C                                                                                  | C                                                                                   | A                                                                                   | C                                                                                   | B                                                                                   |                                                                                     |
| Approach Delay          |                                                                                   | 19.2                                                                              |                                                                                   |                                                                                   | 19.8                                                                              |                                                                                   |                                                                                    | 14.4                                                                                |                                                                                     |                                                                                     | 25.8                                                                                |                                                                                     |
| Approach LOS            |                                                                                   | B                                                                                 |                                                                                   |                                                                                   | B                                                                                 |                                                                                   |                                                                                    | B                                                                                   |                                                                                     |                                                                                     | C                                                                                   |                                                                                     |
| Queue Length 50th (ft)  | 1                                                                                 | 164                                                                               |                                                                                   | 37                                                                                | 210                                                                               |                                                                                   | 66                                                                                 | 2                                                                                   | 0                                                                                   | 43                                                                                  | 3                                                                                   |                                                                                     |
| Queue Length 95th (ft)  | 6                                                                                 | 212                                                                               |                                                                                   | 64                                                                                | 279                                                                               |                                                                                   | 72                                                                                 | 6                                                                                   | 0                                                                                   | 60                                                                                  | 12                                                                                  |                                                                                     |
| Internal Link Dist (ft) |                                                                                   | 306                                                                               |                                                                                   |                                                                                   | 549                                                                               |                                                                                   |                                                                                    | 661                                                                                 |                                                                                     |                                                                                     | 49                                                                                  |                                                                                     |
| Turn Bay Length (ft)    | 100                                                                               |                                                                                   |                                                                                   | 100                                                                               |                                                                                   |                                                                                   | 100                                                                                |                                                                                     | 100                                                                                 | 50                                                                                  |                                                                                     |                                                                                     |
| Base Capacity (vph)     | 385                                                                               | 1466                                                                              |                                                                                   | 439                                                                               | 1471                                                                              |                                                                                   | 347                                                                                | 465                                                                                 | 622                                                                                 | 351                                                                                 | 436                                                                                 |                                                                                     |
| Starvation Cap Reductn  | 0                                                                                 | 0                                                                                 |                                                                                   | 0                                                                                 | 0                                                                                 |                                                                                   | 0                                                                                  | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   |                                                                                     |
| Spillback Cap Reductn   | 0                                                                                 | 0                                                                                 |                                                                                   | 0                                                                                 | 0                                                                                 |                                                                                   | 0                                                                                  | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   |                                                                                     |
| Storage Cap Reductn     | 0                                                                                 | 0                                                                                 |                                                                                   | 0                                                                                 | 0                                                                                 |                                                                                   | 0                                                                                  | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   |                                                                                     |
| Reduced v/c Ratio       | 0.02                                                                              | 0.59                                                                              |                                                                                   | 0.47                                                                              | 0.69                                                                              |                                                                                   | 0.45                                                                               | 0.01                                                                                | 0.49                                                                                | 0.30                                                                                | 0.04                                                                                |                                                                                     |

### Intersection Summary

Area Type: Other

Cycle Length: 80

Actuated Cycle Length: 80

Offset: 33.5 (42%), Referenced to phase 2:EBTL and 6:WBTL, Start of Yellow

Natural Cycle: 70

Control Type: Pretimed

Maximum v/c Ratio: 0.69

Intersection Signal Delay: 19.0

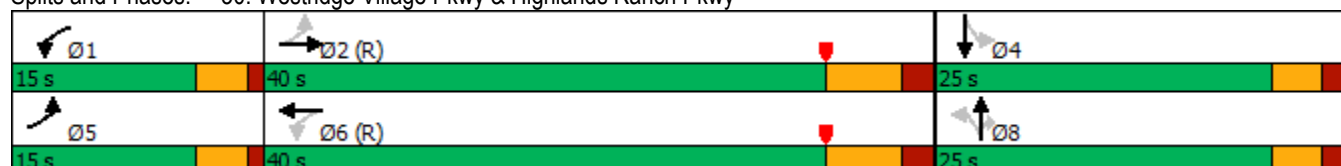
Intersection LOS: B

Intersection Capacity Utilization 56.3%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 30: Westridge Village Pkwy & Highlands Ranch Pkwy



| Intersection             |        |       |       |       |       |      |        |      |      |        |      |      |
|--------------------------|--------|-------|-------|-------|-------|------|--------|------|------|--------|------|------|
| Int Delay, s/veh         | 1.7    |       |       |       |       |      |        |      |      |        |      |      |
| Movement                 | EBL    | EBT   | EBR   | WBL   | WBT   | WBR  | NBL    | NBT  | NBR  | SBL    | SBT  | SBR  |
| Lane Configurations      |        | ↕     |       |       |       |      |        | ↕    |      |        | ↕    |      |
| Traffic Vol, veh/h       | 2      | 2     | 7     | 0     | 0     | 0    | 8      | 47   | 15   | 11     | 43   | 4    |
| Future Vol, veh/h        | 2      | 2     | 7     | 0     | 0     | 0    | 8      | 47   | 15   | 11     | 43   | 4    |
| Conflicting Peds, #/hr   | 0      | 0     | 0     | 0     | 0     | 0    | 0      | 0    | 0    | 0      | 0    | 0    |
| Sign Control             | Stop   | Stop  | Stop  | Free  | Free  | Free | Free   | Free | Free | Free   | Free | Free |
| RT Channelized           | -      | -     | None  | -     | -     | None | -      | -    | None | -      | -    | None |
| Storage Length           | -      | -     | -     | -     | -     | -    | -      | -    | -    | -      | -    | -    |
| Veh in Median Storage, # | -      | 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                | 2      | 2     | 8     | 0     | 0     | 0    | 9      | 51   | 16   | 12     | 47   | 4    |
|                          |        |       |       |       |       |      |        |      |      |        |      |      |
| Major/Minor              | Minor2 |       |       |       |       |      | Major1 |      |      | Major2 |      |      |
| Conflicting Flow All     | 150    | 158   | 49    |       |       |      | 51     | 0    | 0    | 67     | 0    | 0    |
| Stage 1                  | 73     | 73    | -     |       |       |      | -      | -    | -    | -      | -    | -    |
| Stage 2                  | 77     | 85    | -     |       |       |      | -      | -    | -    | -      | -    | -    |
| Critical Hdwy            | 6.42   | 6.52  | 6.22  |       |       |      | 4.12   | -    | -    | 4.12   | -    | -    |
| Critical Hdwy Stg 1      | 5.42   | 5.52  | -     |       |       |      | -      | -    | -    | -      | -    | -    |
| Critical Hdwy Stg 2      | 5.42   | 5.52  | -     |       |       |      | -      | -    | -    | -      | -    | -    |
| Follow-up Hdwy           | 3.518  | 4.018 | 3.318 |       |       |      | 2.218  | -    | -    | 2.218  | -    | -    |
| Pot Cap-1 Maneuver       | 842    | 734   | 1020  |       |       |      | 1555   | -    | -    | 1535   | -    | -    |
| Stage 1                  | 950    | 834   | -     |       |       |      | -      | -    | -    | -      | -    | -    |
| Stage 2                  | 946    | 824   | -     |       |       |      | -      | -    | -    | -      | -    | -    |
| Platoon blocked, %       |        |       |       |       |       |      | -      | -    |      | -      | -    |      |
| Mov Cap-1 Maneuver       | 830    | 0     | 1020  |       |       |      | 1555   | -    | -    | 1535   | -    | -    |
| Mov Cap-2 Maneuver       | 830    | 0     | -     |       |       |      | -      | -    | -    | -      | -    | -    |
| Stage 1                  | 944    | 0     | -     |       |       |      | -      | -    | -    | -      | -    | -    |
| Stage 2                  | 938    | 0     | -     |       |       |      | -      | -    | -    | -      | -    | -    |
|                          |        |       |       |       |       |      |        |      |      |        |      |      |
| Approach                 | EB     |       |       |       |       |      | NB     |      |      | SB     |      |      |
| HCM Control Delay, s     | 8.8    |       |       |       |       |      | 0.8    |      |      | 1.4    |      |      |
| HCM LOS                  | A      |       |       |       |       |      |        |      |      |        |      |      |
|                          |        |       |       |       |       |      |        |      |      |        |      |      |
| Minor Lane/Major Mvmt    | NBL    | NBT   | NBR   | EBLn1 | SBL   | SBT  | SBR    |      |      |        |      |      |
| Capacity (veh/h)         | 1555   | -     | -     | 971   | 1535  | -    | -      |      |      |        |      |      |
| HCM Lane V/C Ratio       | 0.006  | -     | -     | 0.012 | 0.008 | -    | -      |      |      |        |      |      |
| HCM Control Delay (s)    | 7.3    | 0     | -     | 8.8   | 7.4   | 0    | -      |      |      |        |      |      |
| HCM Lane LOS             | A      | A     | -     | A     | A     | A    | -      |      |      |        |      |      |
| HCM 95th %tile Q(veh)    | 0      | -     | -     | 0     | 0     | -    | -      |      |      |        |      |      |

**Intersection**

Int Delay, s/veh 2.1

| Movement                 | WBL                                                                               | WBR  | NBT                                                                               | NBR  | SBL  | SBT                                                                               |
|--------------------------|-----------------------------------------------------------------------------------|------|-----------------------------------------------------------------------------------|------|------|-----------------------------------------------------------------------------------|
| Lane Configurations      |  |      |  |      |      |  |
| Traffic Vol, veh/h       | 16                                                                                | 12   | 49                                                                                | 0    | 0    | 44                                                                                |
| Future Vol, veh/h        | 16                                                                                | 12   | 49                                                                                | 0    | 0    | 44                                                                                |
| Conflicting Peds, #/hr   | 0                                                                                 | 0    | 0                                                                                 | 0    | 0    | 0                                                                                 |
| Sign Control             | Stop                                                                              | Stop | Free                                                                              | Free | Free | Free                                                                              |
| RT Channelized           | -                                                                                 | None | -                                                                                 | None | -    | None                                                                              |
| Storage Length           | 0                                                                                 | -    | -                                                                                 | -    | -    | -                                                                                 |
| Veh in Median Storage, # | 0                                                                                 | -    | 0                                                                                 | -    | -    | 0                                                                                 |
| Grade, %                 | 0                                                                                 | -    | 0                                                                                 | -    | -    | 0                                                                                 |
| Peak Hour Factor         | 92                                                                                | 92   | 92                                                                                | 92   | 92   | 92                                                                                |
| Heavy Vehicles, %        | 2                                                                                 | 2    | 2                                                                                 | 2    | 2    | 2                                                                                 |
| Mvmt Flow                | 17                                                                                | 13   | 53                                                                                | 0    | 0    | 48                                                                                |

| Major/Minor          | Minor1 | Major1 | Major2 |
|----------------------|--------|--------|--------|
| Conflicting Flow All | 101    | 53     | 0      |
| Stage 1              | 53     | -      | -      |
| Stage 2              | 48     | -      | -      |
| Critical Hdwy        | 6.42   | 6.22   | -      |
| Critical Hdwy Stg 1  | 5.42   | -      | -      |
| Critical Hdwy Stg 2  | 5.42   | -      | -      |
| Follow-up Hdwy       | 3.518  | 3.318  | -      |
| Pot Cap-1 Maneuver   | 898    | 1014   | -      |
| Stage 1              | 970    | -      | -      |
| Stage 2              | 974    | -      | -      |
| Platoon blocked, %   |        | -      | -      |
| Mov Cap-1 Maneuver   | 898    | 1014   | -      |
| Mov Cap-2 Maneuver   | 898    | -      | -      |
| Stage 1              | 970    | -      | -      |
| Stage 2              | 974    | -      | -      |

| Approach             | WB  | NB | SB |
|----------------------|-----|----|----|
| HCM Control Delay, s | 8.9 | 0  | 0  |
| HCM LOS              | A   |    |    |

| Minor Lane/Major Mvmt | NBTWBLn1 | SBT |
|-----------------------|----------|-----|
| Capacity (veh/h)      | - 944    | -   |
| HCM Lane V/C Ratio    | - 0.032  | -   |
| HCM Control Delay (s) | - 8.9    | -   |
| HCM Lane LOS          | - A      | -   |
| HCM 95th %tile Q(veh) | - 0.1    | -   |

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| Intersection             |        |       |      |        |       |      |        |       |       |        |       |       |
|--------------------------|--------|-------|------|--------|-------|------|--------|-------|-------|--------|-------|-------|
| Int Delay, s/veh         | 5.3    |       |      |        |       |      |        |       |       |        |       |       |
| Movement                 | EBL    | EBT   | EBR  | WBL    | WBT   | WBR  | NBL    | NBT   | NBR   | SBL    | SBT   | SBR   |
| Lane Configurations      |        | ↕     |      |        | ↕     |      |        | ↕     |       | ↕      | ↕     |       |
| Traffic Vol, veh/h       | 42     | 29    | 57   | 16     | 10    | 39   | 14     | 33    | 9     | 0      | 12    | 3     |
| Future Vol, veh/h        | 42     | 29    | 57   | 16     | 10    | 39   | 14     | 33    | 9     | 0      | 12    | 3     |
| Conflicting Peds, #/hr   | 0      | 0     | 0    | 0      | 0     | 0    | 0      | 0     | 0     | 0      | 0     | 0     |
| Sign Control             | Free   | Free  | Free | Free   | Free  | Free | Stop   | Stop  | Stop  | Stop   | Stop  | Stop  |
| RT Channelized           | -      | -     | None | -      | -     | None | -      | -     | None  | -      | -     | None  |
| Storage Length           | -      | -     | -    | -      | -     | -    | -      | -     | -     | 0      | -     | -     |
| Veh in Median Storage, # | -      | 0     | -    | -      | 0     | -    | -      | 0     | -     | -      | 0     | -     |
| Grade, %                 | -      | 0     | -    | -      | 0     | -    | -      | 0     | -     | -      | 0     | -     |
| Peak Hour Factor         | 44     | 44    | 44   | 61     | 61    | 61   | 64     | 64    | 64    | 27     | 27    | 27    |
| Heavy Vehicles, %        | 2      | 2     | 2    | 2      | 2     | 2    | 2      | 2     | 2     | 2      | 2     | 2     |
| Mvmt Flow                | 95     | 66    | 130  | 26     | 16    | 64   | 22     | 52    | 14    | 0      | 44    | 11    |
| Major/Minor              | Major1 |       |      | Major2 |       |      | Minor1 |       |       | Minor2 |       |       |
| Conflicting Flow All     | 80     | 0     | 0    | 196    | 0     | 0    | 449    | 453   | 131   | 454    | 486   | 48    |
| Stage 1                  | -      | -     | -    | -      | -     | -    | 321    | 321   | -     | 100    | 100   | -     |
| Stage 2                  | -      | -     | -    | -      | -     | -    | 128    | 132   | -     | 354    | 386   | -     |
| Critical Hdwy            | 4.12   | -     | -    | 4.12   | -     | -    | 7.12   | 6.52  | 6.22  | 7.12   | 6.52  | 6.22  |
| Critical Hdwy Stg 1      | -      | -     | -    | -      | -     | -    | 6.12   | 5.52  | -     | 6.12   | 5.52  | -     |
| Critical Hdwy Stg 2      | -      | -     | -    | -      | -     | -    | 6.12   | 5.52  | -     | 6.12   | 5.52  | -     |
| Follow-up Hdwy           | 2.218  | -     | -    | 2.218  | -     | -    | 3.518  | 4.018 | 3.318 | 3.518  | 4.018 | 3.318 |
| Pot Cap-1 Maneuver       | 1518   | -     | -    | 1377   | -     | -    | 520    | 503   | 919   | 516    | 481   | 1021  |
| Stage 1                  | -      | -     | -    | -      | -     | -    | 691    | 652   | -     | 906    | 812   | -     |
| Stage 2                  | -      | -     | -    | -      | -     | -    | 876    | 787   | -     | 663    | 610   | -     |
| Platoon blocked, %       | -      | -     | -    | -      | -     | -    | -      | -     | -     | -      | -     | -     |
| Mov Cap-1 Maneuver       | 1518   | -     | -    | 1377   | -     | -    | 443    | 458   | 919   | 433    | 438   | 1021  |
| Mov Cap-2 Maneuver       | -      | -     | -    | -      | -     | -    | 443    | 458   | -     | 433    | 438   | -     |
| Stage 1                  | -      | -     | -    | -      | -     | -    | 642    | 606   | -     | 842    | 796   | -     |
| Stage 2                  | -      | -     | -    | -      | -     | -    | 802    | 771   | -     | 555    | 567   | -     |
| Approach                 | EB     |       |      | WB     |       |      | NB     |       |       | SB     |       |       |
| HCM Control Delay, s     | 2.5    |       |      | 1.9    |       |      | 13.8   |       |       | 13.2   |       |       |
| HCM LOS                  |        |       |      |        |       |      | B      |       |       | B      |       |       |
| Minor Lane/Major Mvmt    | NBLn1  | EBL   | EBT  | EBR    | WBL   | WBT  | WBR    | SBLn1 | SBLn2 |        |       |       |
| Capacity (veh/h)         | 494    | 1518  | -    | -      | 1377  | -    | -      | -     | 494   |        |       |       |
| HCM Lane V/C Ratio       | 0.177  | 0.063 | -    | -      | 0.019 | -    | -      | -     | 0.112 |        |       |       |
| HCM Control Delay (s)    | 13.8   | 7.5   | 0    | -      | 7.7   | 0    | -      | 0     | 13.2  |        |       |       |
| HCM Lane LOS             | B      | A     | A    | -      | A     | A    | -      | A     | B     |        |       |       |
| HCM 95th %tile Q(veh)    | 0.6    | 0.2   | -    | -      | 0.1   | -    | -      | -     | 0.4   |        |       |       |

| Intersection             |        |                                                                                   |      |        |                                                                                   |       |        |                                                                                   |       |                                                                                     |                                                                                     |       |
|--------------------------|--------|-----------------------------------------------------------------------------------|------|--------|-----------------------------------------------------------------------------------|-------|--------|-----------------------------------------------------------------------------------|-------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------|
| Int Delay, s/veh         | 5.9    |                                                                                   |      |        |                                                                                   |       |        |                                                                                   |       |                                                                                     |                                                                                     |       |
| Movement                 | EBL    | EBT                                                                               | EBR  | WBL    | WBT                                                                               | WBR   | NBL    | NBT                                                                               | NBR   | SBL                                                                                 | SBT                                                                                 | SBR   |
| Lane Configurations      |        |  |      |        |  |       |        |  |       |  |  |       |
| Traffic Vol, veh/h       | 0      | 34                                                                                | 14   | 4      | 27                                                                                | 0     | 20     | 0                                                                                 | 17    | 56                                                                                  | 12                                                                                  | 26    |
| Future Vol, veh/h        | 0      | 34                                                                                | 14   | 4      | 27                                                                                | 0     | 20     | 0                                                                                 | 17    | 56                                                                                  | 12                                                                                  | 26    |
| Conflicting Peds, #/hr   | 0      | 0                                                                                 | 0    | 0      | 0                                                                                 | 0     | 0      | 0                                                                                 | 0     | 0                                                                                   | 0                                                                                   | 0     |
| Sign Control             | Free   | Free                                                                              | Free | Free   | Free                                                                              | Free  | Stop   | Stop                                                                              | Stop  | Stop                                                                                | Stop                                                                                | Stop  |
| RT Channelized           | -      | -                                                                                 | None | -      | -                                                                                 | None  | -      | -                                                                                 | None  | -                                                                                   | -                                                                                   | None  |
| Storage Length           | -      | -                                                                                 | -    | -      | -                                                                                 | -     | -      | -                                                                                 | -     | 0                                                                                   | -                                                                                   | -     |
| 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      | 37                                                                                | 15   | 4      | 29                                                                                | 0     | 22     | 0                                                                                 | 18    | 61                                                                                  | 13                                                                                  | 28    |
|                          |        |                                                                                   |      |        |                                                                                   |       |        |                                                                                   |       |                                                                                     |                                                                                     |       |
| Major/Minor              | Major1 |                                                                                   |      | Major2 |                                                                                   |       | Minor1 |                                                                                   |       | Minor2                                                                              |                                                                                     |       |
| Conflicting Flow All     | -      | 0                                                                                 | 0    | 52     | 0                                                                                 | 0     | 103    | 82                                                                                | 45    | 91                                                                                  | 89                                                                                  | 29    |
| Stage 1                  | -      | -                                                                                 | -    | -      | -                                                                                 | -     | 45     | 45                                                                                | -     | 37                                                                                  | 37                                                                                  | -     |
| Stage 2                  | -      | -                                                                                 | -    | -      | -                                                                                 | -     | 58     | 37                                                                                | -     | 54                                                                                  | 52                                                                                  | -     |
| Critical Hdwy            | -      | -                                                                                 | -    | 4.12   | -                                                                                 | -     | 7.12   | 6.52                                                                              | 6.22  | 7.12                                                                                | 6.52                                                                                | 6.22  |
| Critical Hdwy Stg 1      | -      | -                                                                                 | -    | -      | -                                                                                 | -     | 6.12   | 5.52                                                                              | -     | 6.12                                                                                | 5.52                                                                                | -     |
| Critical Hdwy Stg 2      | -      | -                                                                                 | -    | -      | -                                                                                 | -     | 6.12   | 5.52                                                                              | -     | 6.12                                                                                | 5.52                                                                                | -     |
| Follow-up Hdwy           | -      | -                                                                                 | -    | 2.218  | -                                                                                 | -     | 3.518  | 4.018                                                                             | 3.318 | 3.518                                                                               | 4.018                                                                               | 3.318 |
| Pot Cap-1 Maneuver       | 0      | -                                                                                 | -    | 1554   | -                                                                                 | 0     | 877    | 808                                                                               | 1025  | 893                                                                                 | 801                                                                                 | 1046  |
| Stage 1                  | 0      | -                                                                                 | -    | -      | -                                                                                 | 0     | 969    | 857                                                                               | -     | 978                                                                                 | 864                                                                                 | -     |
| Stage 2                  | 0      | -                                                                                 | -    | -      | -                                                                                 | 0     | 954    | 864                                                                               | -     | 958                                                                                 | 852                                                                                 | -     |
| Platoon blocked, %       |        | -                                                                                 | -    |        | -                                                                                 |       |        |                                                                                   |       |                                                                                     |                                                                                     |       |
| Mov Cap-1 Maneuver       | -      | -                                                                                 | -    | 1554   | -                                                                                 | -     | 841    | 806                                                                               | 1025  | 875                                                                                 | 799                                                                                 | 1046  |
| Mov Cap-2 Maneuver       | -      | -                                                                                 | -    | -      | -                                                                                 | -     | 841    | 806                                                                               | -     | 875                                                                                 | 799                                                                                 | -     |
| Stage 1                  | -      | -                                                                                 | -    | -      | -                                                                                 | -     | 969    | 857                                                                               | -     | 978                                                                                 | 861                                                                                 | -     |
| Stage 2                  | -      | -                                                                                 | -    | -      | -                                                                                 | -     | 911    | 861                                                                               | -     | 941                                                                                 | 852                                                                                 | -     |
|                          |        |                                                                                   |      |        |                                                                                   |       |        |                                                                                   |       |                                                                                     |                                                                                     |       |
|                          |        |                                                                                   |      |        |                                                                                   |       |        |                                                                                   |       |                                                                                     |                                                                                     |       |
| Approach                 | EB     |                                                                                   |      | WB     |                                                                                   |       | NB     |                                                                                   |       | SB                                                                                  |                                                                                     |       |
| HCM Control Delay, s     | 0      |                                                                                   |      | 0.9    |                                                                                   |       | 9.1    |                                                                                   |       | 9.2                                                                                 |                                                                                     |       |
| HCM LOS                  |        |                                                                                   |      |        |                                                                                   |       | A      |                                                                                   |       | A                                                                                   |                                                                                     |       |
|                          |        |                                                                                   |      |        |                                                                                   |       |        |                                                                                   |       |                                                                                     |                                                                                     |       |
| Minor Lane/Major Mvmt    | NBLn1  | EBT                                                                               | EBR  | WBL    | WBT                                                                               | SBLn1 | SBLn2  |                                                                                   |       |                                                                                     |                                                                                     |       |
| Capacity (veh/h)         | 917    | -                                                                                 | -    | 1554   | -                                                                                 | 875   | 953    |                                                                                   |       |                                                                                     |                                                                                     |       |
| HCM Lane V/C Ratio       | 0.044  | -                                                                                 | -    | 0.003  | -                                                                                 | 0.07  | 0.043  |                                                                                   |       |                                                                                     |                                                                                     |       |
| HCM Control Delay (s)    | 9.1    | -                                                                                 | -    | 7.3    | 0                                                                                 | 9.4   | 8.9    |                                                                                   |       |                                                                                     |                                                                                     |       |
| HCM Lane LOS             | A      | -                                                                                 | -    | A      | A                                                                                 | A     | A      |                                                                                   |       |                                                                                     |                                                                                     |       |
| HCM 95th %tile Q(veh)    | 0.1    | -                                                                                 | -    | 0      | -                                                                                 | 0.2   | 0.1    |                                                                                   |       |                                                                                     |                                                                                     |       |

| Intersection             |        |              |       |      |       |       |        |              |        |       |              |      |
|--------------------------|--------|--------------|-------|------|-------|-------|--------|--------------|--------|-------|--------------|------|
| Int Delay, s/veh         | 1.1    |              |       |      |       |       |        |              |        |       |              |      |
| Movement                 | EBL    | EBT          | EBR   | WBL  | WBT   | WBR   | NBL    | NBT          | NBR    | SBL   | SBT          | SBR  |
| Lane Configurations      |        | <div>↕</div> |       |      |       |       |        | <div>↕</div> |        |       | <div>↕</div> |      |
| Traffic Vol, veh/h       | 3      | 1            | 2     | 0    | 0     | 0     | 8      | 44           | 13     | 5     | 56           | 1    |
| Future Vol, veh/h        | 3      | 1            | 2     | 0    | 0     | 0     | 8      | 44           | 13     | 5     | 56           | 1    |
| Conflicting Peds, #/hr   | 0      | 0            | 0     | 0    | 0     | 0     | 0      | 0            | 0      | 0     | 0            | 0    |
| Sign Control             | Stop   | Stop         | Stop  | Free | Free  | Free  | Free   | Free         | Free   | Free  | Free         | Free |
| RT Channelized           | -      | -            | None  | -    | -     | None  | -      | -            | None   | -     | -            | None |
| Storage Length           | -      | -            | -     | -    | -     | -     | -      | -            | -      | -     | -            | -    |
| Veh in Median Storage, # | -      | 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                | 3      | 1            | 2     | 0    | 0     | 0     | 9      | 48           | 14     | 5     | 61           | 1    |
|                          |        |              |       |      |       |       |        |              |        |       |              |      |
| Major/Minor              | Minor2 |              |       |      |       |       | Major1 |              | Major2 |       |              |      |
| Conflicting Flow All     | 145    | 152          | 62    |      |       |       | 62     | 0            | 0      | 62    | 0            | 0    |
| Stage 1                  | 72     | 72           | -     |      |       |       | -      | -            | -      | -     | -            | -    |
| Stage 2                  | 73     | 80           | -     |      |       |       | -      | -            | -      | -     | -            | -    |
| Critical Hdwy            | 6.42   | 6.52         | 6.22  |      |       |       | 4.12   | -            | -      | 4.12  | -            | -    |
| Critical Hdwy Stg 1      | 5.42   | 5.52         | -     |      |       |       | -      | -            | -      | -     | -            | -    |
| Critical Hdwy Stg 2      | 5.42   | 5.52         | -     |      |       |       | -      | -            | -      | -     | -            | -    |
| Follow-up Hdwy           | 3.518  | 4.018        | 3.318 |      |       |       | 2.218  | -            | -      | 2.218 | -            | -    |
| Pot Cap-1 Maneuver       | 847    | 740          | 1003  |      |       |       | 1541   | -            | -      | 1541  | -            | -    |
| Stage 1                  | 951    | 835          | -     |      |       |       | -      | -            | -      | -     | -            | -    |
| Stage 2                  | 950    | 828          | -     |      |       |       | -      | -            | -      | -     | -            | -    |
| Platoon blocked, %       |        |              |       |      |       |       | -      | -            |        | -     | -            |      |
| Mov Cap-1 Maneuver       | 839    | 0            | 1003  |      |       |       | 1541   | -            | -      | 1541  | -            | -    |
| Mov Cap-2 Maneuver       | 839    | 0            | -     |      |       |       | -      | -            | -      | -     | -            | -    |
| Stage 1                  | 945    | 0            | -     |      |       |       | -      | -            | -      | -     | -            | -    |
| Stage 2                  | 947    | 0            | -     |      |       |       | -      | -            | -      | -     | -            | -    |
|                          |        |              |       |      |       |       |        |              |        |       |              |      |
|                          |        |              |       |      |       |       |        |              |        |       |              |      |
| Approach                 | EB     |              |       |      |       |       | NB     |              | SB     |       |              |      |
| HCM Control Delay, s     | 9      |              |       |      |       |       | 0.9    |              | 0.6    |       |              |      |
| HCM LOS                  | A      |              |       |      |       |       |        |              |        |       |              |      |
|                          |        |              |       |      |       |       |        |              |        |       |              |      |
| Minor Lane/Major Mvmt    |        | NBL          | NBT   | NBR  | EBLn1 | SBL   | SBT    | SBR          |        |       |              |      |
| Capacity (veh/h)         |        | 1541         | -     | -    | 898   | 1541  | -      | -            |        |       |              |      |
| HCM Lane V/C Ratio       |        | 0.006        | -     | -    | 0.007 | 0.004 | -      | -            |        |       |              |      |
| HCM Control Delay (s)    |        | 7.3          | 0     | -    | 9     | 7.3   | 0      | -            |        |       |              |      |
| HCM Lane LOS             |        | A            | A     | -    | A     | A     | A      | -            |        |       |              |      |
| HCM 95th %tile Q(veh)    |        | 0            | -     | -    | 0     | 0     | -      | -            |        |       |              |      |

**Intersection**

Int Delay, s/veh 1.5

| Movement                 | WBL                                                                               | WBR  | NBT                                                                               | NBR  | SBL  | SBT                                                                               |
|--------------------------|-----------------------------------------------------------------------------------|------|-----------------------------------------------------------------------------------|------|------|-----------------------------------------------------------------------------------|
| Lane Configurations      |  |      |  |      |      |  |
| Traffic Vol, veh/h       | 14                                                                                | 5    | 49                                                                                | 0    | 0    | 49                                                                                |
| Future Vol, veh/h        | 14                                                                                | 5    | 49                                                                                | 0    | 0    | 49                                                                                |
| Conflicting Peds, #/hr   | 0                                                                                 | 0    | 0                                                                                 | 0    | 0    | 0                                                                                 |
| Sign Control             | Stop                                                                              | Stop | Free                                                                              | Free | Free | Free                                                                              |
| RT Channelized           | -                                                                                 | None | -                                                                                 | None | -    | None                                                                              |
| Storage Length           | 0                                                                                 | -    | -                                                                                 | -    | -    | -                                                                                 |
| Veh in Median Storage, # | 0                                                                                 | -    | 0                                                                                 | -    | -    | 0                                                                                 |
| Grade, %                 | 0                                                                                 | -    | 0                                                                                 | -    | -    | 0                                                                                 |
| Peak Hour Factor         | 92                                                                                | 92   | 92                                                                                | 92   | 92   | 92                                                                                |
| Heavy Vehicles, %        | 2                                                                                 | 2    | 2                                                                                 | 2    | 2    | 2                                                                                 |
| Mvmt Flow                | 15                                                                                | 5    | 53                                                                                | 0    | 0    | 53                                                                                |

| Major/Minor          | Minor1 | Major1 | Major2 |
|----------------------|--------|--------|--------|
| Conflicting Flow All | 106    | 53     | 0      |
| Stage 1              | 53     | -      | -      |
| Stage 2              | 53     | -      | -      |
| Critical Hdwy        | 6.42   | 6.22   | -      |
| Critical Hdwy Stg 1  | 5.42   | -      | -      |
| Critical Hdwy Stg 2  | 5.42   | -      | -      |
| Follow-up Hdwy       | 3.518  | 3.318  | -      |
| Pot Cap-1 Maneuver   | 892    | 1014   | -      |
| Stage 1              | 970    | -      | -      |
| Stage 2              | 970    | -      | -      |
| Platoon blocked, %   |        | -      | -      |
| Mov Cap-1 Maneuver   | 892    | 1014   | -      |
| Mov Cap-2 Maneuver   | 892    | -      | -      |
| Stage 1              | 970    | -      | -      |
| Stage 2              | 970    | -      | -      |

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

| Minor Lane/Major Mvmt | NBTWBLn1 | SBT |
|-----------------------|----------|-----|
| Capacity (veh/h)      | - 921    | -   |
| HCM Lane V/C Ratio    | - 0.022  | -   |
| HCM Control Delay (s) | - 9      | -   |
| HCM Lane LOS          | - A      | -   |
| HCM 95th %tile Q(veh) | - 0.1    | -   |



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| Intersection             |        |       |      |        |       |      |        |       |       |        |       |       |
|--------------------------|--------|-------|------|--------|-------|------|--------|-------|-------|--------|-------|-------|
| Int Delay, s/veh         | 7.7    |       |      |        |       |      |        |       |       |        |       |       |
| Movement                 | EBL    | EBT   | EBR  | WBL    | WBT   | WBR  | NBL    | NBT   | NBR   | SBL    | SBT   | SBR   |
| Lane Configurations      |        | ↕     |      |        | ↕     |      |        | ↕     |       | ↕      | ↕     |       |
| Traffic Vol, veh/h       | 29     | 14    | 34   | 14     | 11    | 13   | 50     | 34    | 20    | 0      | 42    | 0     |
| Future Vol, veh/h        | 29     | 14    | 34   | 14     | 11    | 13   | 50     | 34    | 20    | 0      | 42    | 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           | -      | -     | -    | -      | -     | -    | -      | -     | -     | 0      | -     | -     |
| Veh in Median Storage, # | -      | 0     | -    | -      | 0     | -    | -      | 0     | -     | -      | 0     | -     |
| Grade, %                 | -      | 0     | -    | -      | 0     | -    | -      | 0     | -     | -      | 0     | -     |
| Peak Hour Factor         | 57     | 57    | 57   | 45     | 45    | 45   | 73     | 73    | 73    | 48     | 48    | 48    |
| Heavy Vehicles, %        | 2      | 2     | 2    | 2      | 2     | 2    | 2      | 2     | 2     | 2      | 2     | 2     |
| Mvmt Flow                | 51     | 25    | 60   | 31     | 24    | 29   | 68     | 47    | 27    | 0      | 88    | 0     |
| Major/Minor              | Major1 |       |      | Major2 |       |      | Minor1 |       |       | Minor2 |       |       |
| Conflicting Flow All     | 53     | 0     | 0    | 85     | 0     | 0    | 302    | 272   | 55    | 295    | 288   | 39    |
| Stage 1                  | -      | -     | -    | -      | -     | -    | 157    | 157   | -     | 101    | 101   | -     |
| Stage 2                  | -      | -     | -    | -      | -     | -    | 145    | 115   | -     | 194    | 187   | -     |
| Critical Hdwy            | 4.12   | -     | -    | 4.12   | -     | -    | 7.12   | 6.52  | 6.22  | 7.12   | 6.52  | 6.22  |
| Critical Hdwy Stg 1      | -      | -     | -    | -      | -     | -    | 6.12   | 5.52  | -     | 6.12   | 5.52  | -     |
| Critical Hdwy Stg 2      | -      | -     | -    | -      | -     | -    | 6.12   | 5.52  | -     | 6.12   | 5.52  | -     |
| Follow-up Hdwy           | 2.218  | -     | -    | 2.218  | -     | -    | 3.518  | 4.018 | 3.318 | 3.518  | 4.018 | 3.318 |
| Pot Cap-1 Maneuver       | 1553   | -     | -    | 1512   | -     | -    | 650    | 635   | 1012  | 657    | 622   | 1033  |
| Stage 1                  | -      | -     | -    | -      | -     | -    | 845    | 768   | -     | 905    | 811   | -     |
| Stage 2                  | -      | -     | -    | -      | -     | -    | 858    | 800   | -     | 808    | 745   | -     |
| Platoon blocked, %       | -      | -     | -    | -      | -     | -    | -      | -     | -     | -      | -     | -     |
| Mov Cap-1 Maneuver       | 1553   | -     | -    | 1512   | -     | -    | 552    | 600   | 1012  | 576    | 588   | 1033  |
| Mov Cap-2 Maneuver       | -      | -     | -    | -      | -     | -    | 552    | 600   | -     | 576    | 588   | -     |
| Stage 1                  | -      | -     | -    | -      | -     | -    | 815    | 741   | -     | 873    | 794   | -     |
| Stage 2                  | -      | -     | -    | -      | -     | -    | 747    | 783   | -     | 711    | 719   | -     |
| Approach                 | EB     |       |      | WB     |       |      | NB     |       |       | SB     |       |       |
| HCM Control Delay, s     | 2.8    |       |      | 2.7    |       |      | 12.5   |       |       | 12.2   |       |       |
| HCM LOS                  |        |       |      |        |       |      | B      |       |       | B      |       |       |
| Minor Lane/Major Mvmt    | NBLn1  | EBL   | EBT  | EBR    | WBL   | WBT  | WBR    | SBLn1 | SBLn2 |        |       |       |
| Capacity (veh/h)         | 623    | 1553  | -    | -      | 1512  | -    | -      | -     | 588   |        |       |       |
| HCM Lane V/C Ratio       | 0.229  | 0.033 | -    | -      | 0.021 | -    | -      | -     | 0.149 |        |       |       |
| HCM Control Delay (s)    | 12.5   | 7.4   | 0    | -      | 7.4   | 0    | -      | 0     | 12.2  |        |       |       |
| HCM Lane LOS             | B      | A     | A    | -      | A     | A    | -      | A     | B     |        |       |       |
| HCM 95th %tile Q(veh)    | 0.9    | 0.1   | -    | -      | 0.1   | -    | -      | -     | 0.5   |        |       |       |

| Intersection             |        |                                                                                   |      |        |                                                                                   |       |        |                                                                                   |       |                                                                                     |                                                                                     |       |
|--------------------------|--------|-----------------------------------------------------------------------------------|------|--------|-----------------------------------------------------------------------------------|-------|--------|-----------------------------------------------------------------------------------|-------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------|
| Int Delay, s/veh         | 4.1    |                                                                                   |      |        |                                                                                   |       |        |                                                                                   |       |                                                                                     |                                                                                     |       |
| Movement                 | EBL    | EBT                                                                               | EBR  | WBL    | WBT                                                                               | WBR   | NBL    | NBT                                                                               | NBR   | SBL                                                                                 | SBT                                                                                 | SBR   |
| Lane Configurations      |        |  |      |        |  |       |        |  |       |  |  |       |
| Traffic Vol, veh/h       | 0      | 35                                                                                | 24   | 15     | 44                                                                                | 0     | 10     | 0                                                                                 | 15    | 21                                                                                  | 12                                                                                  | 12    |
| Future Vol, veh/h        | 0      | 35                                                                                | 24   | 15     | 44                                                                                | 0     | 10     | 0                                                                                 | 15    | 21                                                                                  | 12                                                                                  | 12    |
| Conflicting Peds, #/hr   | 0      | 0                                                                                 | 0    | 0      | 0                                                                                 | 0     | 0      | 0                                                                                 | 0     | 0                                                                                   | 0                                                                                   | 0     |
| Sign Control             | Free   | Free                                                                              | Free | Free   | Free                                                                              | Free  | Stop   | Stop                                                                              | Stop  | Stop                                                                                | Stop                                                                                | Stop  |
| RT Channelized           | -      | -                                                                                 | None | -      | -                                                                                 | None  | -      | -                                                                                 | None  | -                                                                                   | -                                                                                   | None  |
| Storage Length           | -      | -                                                                                 | -    | -      | -                                                                                 | -     | -      | -                                                                                 | -     | 0                                                                                   | -                                                                                   | -     |
| 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      | 38                                                                                | 26   | 16     | 48                                                                                | 0     | 11     | 0                                                                                 | 16    | 23                                                                                  | 13                                                                                  | 13    |
|                          |        |                                                                                   |      |        |                                                                                   |       |        |                                                                                   |       |                                                                                     |                                                                                     |       |
| Major/Minor              | Major1 |                                                                                   |      | Major2 |                                                                                   |       | Minor1 |                                                                                   |       | Minor2                                                                              |                                                                                     |       |
| Conflicting Flow All     | -      | 0                                                                                 | 0    | 64     | 0                                                                                 | 0     | 144    | 131                                                                               | 51    | 139                                                                                 | 144                                                                                 | 48    |
| Stage 1                  | -      | -                                                                                 | -    | -      | -                                                                                 | -     | 51     | 51                                                                                | -     | 80                                                                                  | 80                                                                                  | -     |
| Stage 2                  | -      | -                                                                                 | -    | -      | -                                                                                 | -     | 93     | 80                                                                                | -     | 59                                                                                  | 64                                                                                  | -     |
| Critical Hdwy            | -      | -                                                                                 | -    | 4.12   | -                                                                                 | -     | 7.12   | 6.52                                                                              | 6.22  | 7.12                                                                                | 6.52                                                                                | 6.22  |
| Critical Hdwy Stg 1      | -      | -                                                                                 | -    | -      | -                                                                                 | -     | 6.12   | 5.52                                                                              | -     | 6.12                                                                                | 5.52                                                                                | -     |
| Critical Hdwy Stg 2      | -      | -                                                                                 | -    | -      | -                                                                                 | -     | 6.12   | 5.52                                                                              | -     | 6.12                                                                                | 5.52                                                                                | -     |
| Follow-up Hdwy           | -      | -                                                                                 | -    | 2.218  | -                                                                                 | -     | 3.518  | 4.018                                                                             | 3.318 | 3.518                                                                               | 4.018                                                                               | 3.318 |
| Pot Cap-1 Maneuver       | 0      | -                                                                                 | -    | 1538   | -                                                                                 | 0     | 825    | 760                                                                               | 1017  | 831                                                                                 | 747                                                                                 | 1021  |
| Stage 1                  | 0      | -                                                                                 | -    | -      | -                                                                                 | 0     | 962    | 852                                                                               | -     | 929                                                                                 | 828                                                                                 | -     |
| Stage 2                  | 0      | -                                                                                 | -    | -      | -                                                                                 | 0     | 914    | 828                                                                               | -     | 953                                                                                 | 842                                                                                 | -     |
| Platoon blocked, %       |        | -                                                                                 | -    |        | -                                                                                 |       |        |                                                                                   |       |                                                                                     |                                                                                     |       |
| Mov Cap-1 Maneuver       | -      | -                                                                                 | -    | 1538   | -                                                                                 | -     | 797    | 752                                                                               | 1017  | 811                                                                                 | 739                                                                                 | 1021  |
| Mov Cap-2 Maneuver       | -      | -                                                                                 | -    | -      | -                                                                                 | -     | 797    | 752                                                                               | -     | 811                                                                                 | 739                                                                                 | -     |
| Stage 1                  | -      | -                                                                                 | -    | -      | -                                                                                 | -     | 962    | 852                                                                               | -     | 929                                                                                 | 819                                                                                 | -     |
| Stage 2                  | -      | -                                                                                 | -    | -      | -                                                                                 | -     | 878    | 819                                                                               | -     | 938                                                                                 | 842                                                                                 | -     |
|                          |        |                                                                                   |      |        |                                                                                   |       |        |                                                                                   |       |                                                                                     |                                                                                     |       |
| Approach                 | EB     |                                                                                   |      | WB     |                                                                                   |       | NB     |                                                                                   |       | SB                                                                                  |                                                                                     |       |
| HCM Control Delay, s     | 0      |                                                                                   |      | 1.9    |                                                                                   |       | 9.1    |                                                                                   |       | 9.4                                                                                 |                                                                                     |       |
| HCM LOS                  |        |                                                                                   |      |        |                                                                                   |       | A      |                                                                                   |       | A                                                                                   |                                                                                     |       |
|                          |        |                                                                                   |      |        |                                                                                   |       |        |                                                                                   |       |                                                                                     |                                                                                     |       |
| Minor Lane/Major Mvmt    | NBLn1  | EBT                                                                               | EBR  | WBL    | WBT                                                                               | SBLn1 | SBLn2  |                                                                                   |       |                                                                                     |                                                                                     |       |
| Capacity (veh/h)         | 916    | -                                                                                 | -    | 1538   | -                                                                                 | 811   | 857    |                                                                                   |       |                                                                                     |                                                                                     |       |
| HCM Lane V/C Ratio       | 0.03   | -                                                                                 | -    | 0.011  | -                                                                                 | 0.028 | 0.03   |                                                                                   |       |                                                                                     |                                                                                     |       |
| HCM Control Delay (s)    | 9.1    | -                                                                                 | -    | 7.4    | 0                                                                                 | 9.6   | 9.3    |                                                                                   |       |                                                                                     |                                                                                     |       |
| HCM Lane LOS             | A      | -                                                                                 | -    | A      | A                                                                                 | A     | A      |                                                                                   |       |                                                                                     |                                                                                     |       |
| HCM 95th %tile Q(veh)    | 0.1    | -                                                                                 | -    | 0      | -                                                                                 | 0.1   | 0.1    |                                                                                   |       |                                                                                     |                                                                                     |       |



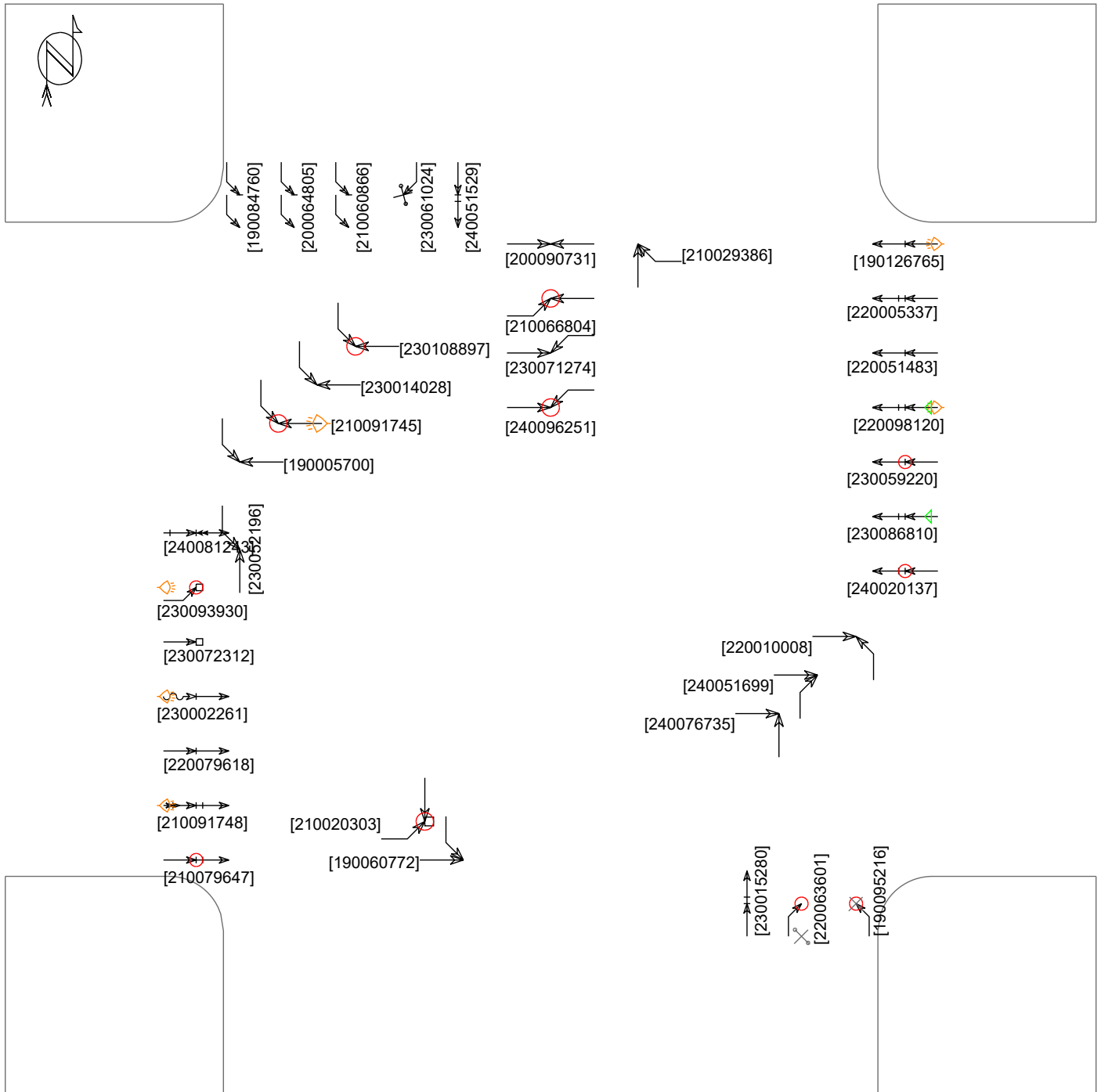
## **Appendix E    Crash Diagrams and Listings**

# HIGHLANDS RANCH PKWY & FOOTHILLS CANYON BLVD

## 2019 - 2024

37 Crashes

Clear



- |              |                |              |                |
|--------------|----------------|--------------|----------------|
| ← Straight   | ▭ Parked       | × Pedestrian | ◁ 3rd Vehicle  |
| ←+ Stopped   | ←~ Weaving     | ⊗ Bicycle    | ←M- Motorcycle |
| ← Unknown    | ←~ Changing Ln | ○ Injury     | ←○ Overturn    |
| ↔ Backing    | ↗ Right turn   | ● Fatality   |                |
| ↔ Overtaking | ↖ Left turn    | 🕒 Nighttime  |                |
| ↔ Sideswipe  | ↺ U-turn       | 🚦 DUI        |                |
- Fixed objects:
- |              |               |
|--------------|---------------|
| □ General    | ⊗ Animal      |
| ⊞ Public Obj | ⊞ Private Obj |

Crash Magic Online 11/14/2024

# HIGHLANDS RANCH PKWY & FOOTHILLS CANYON BLVD

## 2019 - 2024

37 Crashes

Clear

| Casetrackingid | Accidenttime | Accidentdate | Primarystreet         | Crossstreet           | Onroadaddress | Numberinjured | Numberkilled | Harmfulevent1               |
|----------------|--------------|--------------|-----------------------|-----------------------|---------------|---------------|--------------|-----------------------------|
| 190005700      | 11:10 am     | 1/14/2019    | FOOTHILLS CANYON BLVD | HIGHLANDS RANCH PKWY  |               | 0             | 0            | Front to Side               |
| 190060772      | 7:18 am      | 5/24/2019    | HIGHLANDS RANCH PKWY  | FOOTHILLS CANYON BLVD |               | 0             | 0            | Front to Side               |
| 190084760      | 11:23 am     | 7/24/2019    | HIGHLANDS RANCH PKWY  | FOOTHILLS CANYON BLVD |               | 0             | 0            | Front to Rear               |
| 190095216      | 3:47 pm      | 8/21/2019    | HIGHLANDS RANCH PKWY  | FOOTHILLS CANYON BLVD |               | 1             | 0            | Pedestrian                  |
| 190126765      | 5:23 pm      | 11/11/2019   | HIGHLANDS RANCH PKWY  | FOOTHILLS CANYON BLVD |               | 0             | 0            | Front to Rear               |
| 200064805      | 3:55 pm      | 7/8/2020     | HIGHLANDS RANCH PKWY  | FOOTHILLS CANYON BLVD |               | 0             | 0            | Front to Rear               |
| 200090731      | 2:56 pm      | 10/4/2020    | HIGHLANDS RANCH PKWY  | FOOTHILLS CANYON BLVD |               | 0             | 0            | Front to Side               |
| 210020303      | 4:29 pm      | 3/11/2021    | HIGHLANDS RANCH PKWY  | FOOTHILLS CANYON BLVD |               | 1             | 0            | Curb                        |
| 210029386      | 2:25 pm      | 4/13/2021    | HIGHLANDS RANCH PKWY  | FOOTHILLS CANYON BLVD |               | 0             | 0            | Front to Side               |
| 210060866      | 4:03 pm      | 7/27/2021    | FOOTHILLS CANYON BLVD | HIGHLANDS RANCH PKWY  |               | 0             | 0            | Front to Rear               |
| 210066804      | 5:20 pm      | 8/17/2021    | HIGHLANDS RANCH PKWY  | FOOTHILLS CANYON BLVD |               | 0             | 0            | Front to Front              |
| 210079647      | 3:06 pm      | 10/1/2021    | HIGHLANDS RANCH PKWY  | FOOTHILLS CANYON BLVD |               | 0             | 0            | Front to Rear               |
| 210091745      | 5:39 pm      | 11/15/2021   | HIGHLANDS RANCH PKWY  | FOOTHILLS CANYON BLVD |               | 0             | 0            | Front to Side               |
| 210091748      | 5:37 pm      | 11/15/2021   | HIGHLANDS RANCH PKWY  | FOOTHILLS CANYON BLVD |               | 0             | 0            | Front to Rear               |
| 220005337      | 1:39 pm      | 1/22/2022    | HIGHLANDS RANCH PKWY  | FOOTHILLS CANYON BLVD |               | 0             | 0            | Front to Rear               |
| 220010008      | 3:12 pm      | 2/8/2022     | FOOTHILLS CANYON BLVD | HIGHLANDS RANCH PKWY  |               | 0             | 0            | Front to Side               |
| 220051483      | 5:30 pm      | 6/29/2022    | HIGHLANDS RANCH PKWY  | FOOTHILLS CANYON BLVD |               | 0             | 0            | Front to Rear               |
| 220063601      | 7:47 am      | 8/11/2022    | HIGHLANDS RANCH PKWY  | FOOTHILLS CANYON BLVD |               | 1             | 0            | Bicycle / Motorized Bicycle |
| 220079618      | 3:04 pm      | 10/5/2022    | HIGHLANDS RANCH PKWY  | FOOTHILLS CANYON BLVD |               | 0             | 0            | Front to Rear               |
| 220098120      | 6:08 pm      | 12/14/2022   | HIGHLANDS RANCH PKWY  | FOOTHILLS CANYON BLVD |               | 0             | 0            | Front to Rear               |
| 230002261      | 5:43 pm      | 1/10/2023    | HIGHLANDS RANCH PKWY  | FOOTHILLS CANYON BLVD |               | 0             | 0            | Front to Rear               |
| 230014028      | 11:47 am     | 2/20/2023    | HIGHLANDS RANCH PKWY  | FOOTHILLS CANYON BLVD |               | 0             | 0            | Front to Side               |
| 230015280      | 2:07 pm      | 2/24/2023    | FOOTHILLS CANYON BLVD | HIGHLANDS RANCH PKWY  |               | 0             | 0            | Front to Rear               |
| 230052196      | 11:35 am     | 6/19/2023    | FOOTHILLS CANYON BLVD | HIGHLANDS RANCH PKWY  |               | 0             | 0            | Front to Front              |
| 230059220      | 5:28 pm      | 7/10/2023    | HIGHLANDS RANCH PKWY  | FOOTHILLS CANYON BLVD |               | 1             | 0            | Front to Rear               |
| 230061024      | 10:31 am     | 7/16/2023    | FOOTHILLS CANYON BLVD | HIGHLANDS RANCH PKWY  |               | 0             | 0            | Bicycle / Motorized Bicycle |
| 230071274      | 7:34 am      | 8/17/2023    | HIGHLANDS RANCH PKWY  | FOOTHILLS CANYON BLVD |               | 0             | 0            | Front to Side               |

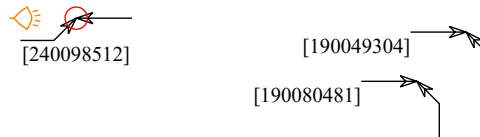
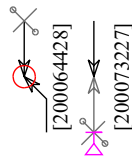
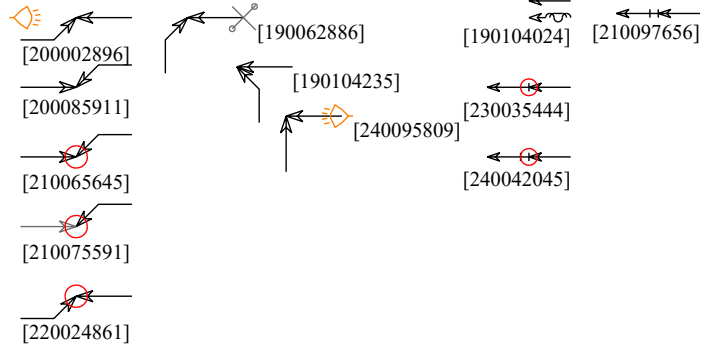
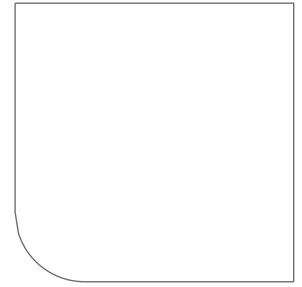
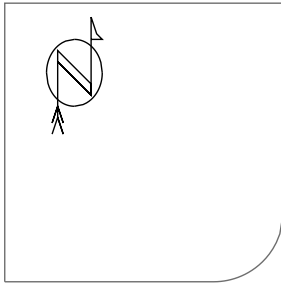
| Casetrackingid | Accidenttime | Accidentdate | Primarystreet            | Crossstreet              | Onroadaddress | Numberinjured | Numberkilled | Harmfulevent1 |
|----------------|--------------|--------------|--------------------------|--------------------------|---------------|---------------|--------------|---------------|
| 230072312      | 4:42 pm      | 8/20/2023    | HIGHLANDS<br>RANCH PKWY  | FOOTHILLS<br>CANYON BLVD | -2000         | 0             | 0            | Curb          |
| 230086810      | 3:58 pm      | 10/6/2023    | HIGHLANDS<br>RANCH PKWY  | FOOTHILLS<br>CANYON BLVD |               | 0             | 0            | Front to Rear |
| 230093930      | 8:01 pm      | 10/31/2023   | FOOTHILLS<br>CANYON BLVD | HIGHLANDS<br>RANCH PKWY  |               | 2             | 0            | Curb          |
| 230108897      | 3:20 pm      | 12/21/2023   | HIGHLANDS<br>RANCH PKWY  | FOOTHILLS<br>CANYON BLVD |               | 1             | 0            | Front to Side |
| 240020137      | 6:13 pm      | 2/28/2024    | HIGHLANDS<br>RANCH PKWY  | FOOTHILLS<br>CANYON BLVD |               | 0             | 0            | Front to Rear |
| 240051529      | 11:06 am     | 6/3/2024     | FOOTHILLS<br>CANYON BLVD | HIGHLANDS<br>RANCH PKWY  |               | 0             | 0            | Front to Rear |
| 240051699      | 4:40 pm      | 6/3/2024     | HIGHLANDS<br>RANCH PKWY  | FOOTHILLS<br>CANYON BLVD |               | 0             | 0            | Front to Side |
| 240076735      | 6:19 pm      | 8/15/2024    | FOOTHILLS<br>CANYON BLVD | HIGHLANDS<br>RANCH PKWY  |               | 0             | 0            | Front to Side |
| 240081243      | 1:46 pm      | 8/29/2024    | HIGHLANDS<br>RANCH PKWY  | FOOTHILLS<br>CANYON BLVD |               | 0             | 0            | Front to Rear |
| 240096251      | 10:54 am     | 10/17/2024   | HIGHLANDS<br>RANCH PKWY  | FOOTHILLS<br>CANYON BLVD |               | 0             | 0            | Front to Side |

# HIGHLANDS RANCH PKWY & WESTRIDGE KNOLLS AVE

## 2019 - 2024

22 Crashes

Clear



[240089353]

[240089341]

[200063208]

[190022017]



← Straight  
 ←+ Stopped  
 ← Unknown  
 ↔ Backing  
 ↔ Overtaking  
 ← Sideswipe

Parked  
 Weaving  
 Changing Ln  
 Right turn  
 Left turn  
 U-turn

Pedestrian  
 Bicycle  
 Injury  
 Fatality  
 Nighttime  
 DUI

3rd Vehicle  
 Motorcycle  
 Overturn

Fixed objects:  
☐ General ☐ Animal  
☐ Public Obj ☐ Private Obj

Crash Magic Online 11/14/2024

# HIGHLANDS RANCH PKWY & WESTRIDGE KNOLLS AVE

## 2019 - 2024

22 Crashes

[Clear](#)

| Casetrackingid | Accidenttime | Accidentdate | Primarystreet        | Crossstreet          | Onroadaddress | Numberinjured | Numberkilled | Harmfuleventl                 |
|----------------|--------------|--------------|----------------------|----------------------|---------------|---------------|--------------|-------------------------------|
| 190022017      | 11:38 am     | 2/20/2019    | HIGHLANDS RANCH PKWY | WESTRIDGE KNOLLS AVE |               | 0             | 0            | Front to Rear                 |
| 190049304      | 12:23 pm     | 4/25/2019    | HIGHLANDS RANCH PKWY | WESTRIDGE KNOLLS AVE |               | 0             | 0            | Front to Side                 |
| 190062886      | 2:22 pm      | 5/29/2019    | WESTRIDGE KNOLLS AVE | HIGHLANDS RANCH PKWY |               | 0             | 0            | Front to Side                 |
| 190080481      | 7:18 am      | 7/12/2019    | HIGHLANDS RANCH PKWY | WESTRIDGE KNOLLS AVE |               | 0             | 0            | Front to Side                 |
| 190104024      | 6:35 pm      | 9/13/2019    | HIGHLANDS RANCH PKWY | DESERT WILLOW RD     |               | 0             | 0            | Side to Side - Same Direction |
| 190104235      | 2:08 pm      | 9/14/2019    | DESERT WILLOW RD     | HIGHLANDS RANCH PKWY |               | 0             | 0            | Front to Side                 |
| 200002896      | 8:26 pm      | 1/8/2020     | HIGHLANDS RANCH PKWY | DESERT WILLOW RD     |               | 0             | 0            | Front to Side                 |
| 200063208      | 11:14 am     | 7/4/2020     | HIGHLANDS RANCH PKWY | WESTRIDGE KNOLLS AVE |               | 0             | 0            | Front to Rear                 |
| 200064428      | 7:15 pm      | 7/7/2020     | HIGHLANDS RANCH PKWY | WESTRIDGE KNOLLS AVE |               | 1             | 0            | Bicycle / Motorized Bicycle   |
| 200073227      | 1:01 pm      | 8/6/2020     | HIGHLANDS RANCH PKWY | DESERT WILLOW RD     |               | 0             | 0            | Bicycle / Motorized Bicycle   |
| 200085911      | 9:14 am      | 9/18/2020    | HIGHLANDS RANCH PKWY | WESTRIDGE KNOLLS AVE |               | 0             | 0            | Front to Side                 |
| 210065645      | 3:05 pm      | 8/13/2021    | HIGHLANDS RANCH PKWY | WESTRIDGE KNOLLS AVE |               | 0             | 0            | Front to Side                 |
| 210075591      | 3:24 pm      | 9/17/2021    | HIGHLANDS RANCH PKWY | WESTRIDGE KNOLLS AVE |               | 3             | 0            | Front to Side                 |
| 210097656      | 1:23 pm      | 12/7/2021    | HIGHLANDS RANCH PKWY | DESERT WILLOW RD     |               | 0             | 0            | Front to Rear                 |
| 220024861      | 3:44 pm      | 3/31/2022    | HIGHLANDS RANCH PKWY | WESTRIDGE KNOLLS AVE |               | 0             | 0            | Front to Front                |
| 230035444      | 5:09 pm      | 4/26/2023    | HIGHLANDS RANCH PKWY | WESTRIDGE KNOLLS AVE |               | 0             | 0            | Front to Rear                 |
| 230038020      | 6:35 pm      | 5/4/2023     | HIGHLANDS RANCH PKWY | WESTRIDGE KNOLLS AVE |               | 1             | 0            | Bicycle / Motorized Bicycle   |
| 240042045      | 5:02 pm      | 5/6/2024     | HIGHLANDS RANCH PKWY | DESERT WILLOW RD     |               | 2             | 0            | Front to Rear                 |
| 240089341      | 3:08 pm      | 9/27/2024    | HIGHLANDS RANCH PKWY | WESTRIDGE KNOLLS AVE |               | 0             | 0            | Front to Rear                 |
| 240089353      | 3:41 pm      | 9/24/2024    | HIGHLANDS RANCH PKWY | WESTRIDGE KNOLLS AVE |               | 0             | 0            | Front to Rear                 |
| 240095809      | 10:11 pm     | 10/15/2024   | HIGHLANDS RANCH PKWY | WESTRIDGE KNOLLS AVE |               | 0             | 0            | Front to Side                 |
| 240098512      | 8:54 pm      | 10/24/2024   | HIGHLANDS RANCH PKWY | DESERT WILLOW RD     |               | 1             | 0            | Front to Front                |



# HIGHLANDS RANCH PKWY & WESTRIDGE VILLAGE PKWY

## 2019 - 2024

18 Crashes

Clear

| Casetrackingid | Accidenttime | Accidentdate | Primarystreet          | Crossstreet            | Onroadaddress | Numberinjured | Numberkilled | Harmfuleventl                     |
|----------------|--------------|--------------|------------------------|------------------------|---------------|---------------|--------------|-----------------------------------|
| 190018334      | 7:52 am      | 2/12/2019    | DEER CREEK ST          | HIGHLANDS RANCH PKWY   |               | 0             | 0            | Front to Rear                     |
| 190116520      | 5:48 pm      | 10/15/2019   | HIGHLANDS RANCH PKWY   | WESTRIDGE VILLAGE PKWY |               | 0             | 0            | Bicycle / Motorized Bicycle       |
| 190122567      | 8:32 am      | 10/31/2019   | WESTRIDGE VILLAGE PKWY | HIGHLANDS RANCH PKWY   |               | 0             | 0            | Front to Rear                     |
| 200074616      | 5:10 pm      | 8/11/2020    | HIGHLANDS RANCH PKWY   | WESTRIDGE VILLAGE PKWY |               | 0             | 0            | Front to Rear                     |
| 200110918      | 6:08 pm      | 12/15/2020   | HIGHLANDS RANCH PKWY   | DEER CREEK ST          |               | 1             | 0            | Pedestrian                        |
| 210013207      | 8:38 am      | 2/15/2021    | HIGHLANDS RANCH PKWY   | WESTRIDGE VILLAGE PKWY |               | 0             | 0            | Front to Side                     |
| 210069654      | 2:42 pm      | 8/27/2021    | HIGHLANDS RANCH PKWY   | WESTRIDGE VILLAGE PKWY |               | 0             | 0            | Front to Rear                     |
| 220003461      | 10:16 am     | 1/15/2022    | WESTRIDGE VILLAGE PKWY | HIGHLANDS RANCH PKWY   |               | 0             | 0            | Front to Rear                     |
| 220012167      | 2:56 pm      | 2/15/2022    | HIGHLANDS RANCH PKWY   | WESTRIDGE VILLAGE PKWY |               | 0             | 0            | Front to Side                     |
| 220030817      | 7:29 am      | 4/21/2022    | HIGHLANDS RANCH PKWY   | WESTRIDGE VILLAGE PKWY |               | 0             | 0            | Side to Side - Opposite Direction |
| 220050172      | 12:12 pm     | 6/25/2022    | HIGHLANDS RANCH PKWY   | WESTRIDGE VILLAGE PKWY |               | 1             | 0            | Front to Rear                     |
| 230014534      | 7:50 am      | 2/22/2023    | HIGHLANDS RANCH PKWY   | DEER CREEK ST          |               | 0             | 0            | Side to Side - Same Direction     |
| 230097045      | 11:03 pm     | 11/10/2023   | HIGHLANDS RANCH PKWY   | WESTRIDGE VILLAGE PKWY |               | 3             | 0            | Curb                              |
| 230111137      | 8:22 am      | 12/30/2023   | HIGHLANDS RANCH PKWY   | DEER CREEK ST          |               | 0             | 0            | Side to Side - Opposite Direction |
| 240013037      | 8:26 am      | 2/9/2024     | HIGHLANDS RANCH PKWY   | WESTRIDGE VILLAGE PKWY |               | 0             | 0            | Front to Front                    |
| 240057926      | 11:53 am     | 6/21/2024    | HIGHLANDS RANCH PKWY   | WESTRIDGE VILLAGE PKWY |               | 2             | 0            | Front to Front                    |
| 240080192      | 3:02 pm      | 8/26/2024    | WESTRIDGE VILLAGE PKWY | HIGHLANDS RANCH PKWY   |               | 2             | 0            | Front to Side                     |
| 240099612      | 3:49 pm      | 10/28/2024   | HIGHLANDS RANCH PKWY   | WESTRIDGE VILLAGE PKWY |               | 0             | 0            | Front to Rear                     |



## **Appendix F    Projected Level of Service Reports**

# Lanes, Volumes, Timings

## 30: Westridge Village Pkwy & Highlands Ranch Pkwy

12/20/2024

|                            |  |  |  |  |  |  |   |  |  |  |  |  |
|----------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Lane Group                 | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | WBR                                                                               | NBL                                                                                 | NBT                                                                                 | NBR                                                                                 | SBL                                                                                 | SBT                                                                                 | SBR                                                                                 |
| Lane Configurations        |  |  |                                                                                   |  |  |                                                                                   |  |  |  |  |  |  |
| Traffic Volume (vph)       | 3                                                                                 | 767                                                                               | 71                                                                                | 108                                                                               | 474                                                                               | 33                                                                                | 86                                                                                  | 5                                                                                   | 207                                                                                 | 80                                                                                  | 5                                                                                   | 7                                                                                   |
| Future Volume (vph)        | 3                                                                                 | 767                                                                               | 71                                                                                | 108                                                                               | 474                                                                               | 33                                                                                | 86                                                                                  | 5                                                                                   | 207                                                                                 | 80                                                                                  | 5                                                                                   | 7                                                                                   |
| Ideal Flow (vphpl)         | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                                | 1900                                                                                | 1900                                                                                | 1900                                                                                | 1900                                                                                | 1900                                                                                |
| Storage Length (ft)        | 100                                                                               |                                                                                   | 0                                                                                 | 100                                                                               |                                                                                   | 0                                                                                 | 100                                                                                 |                                                                                     | 100                                                                                 | 50                                                                                  |                                                                                     | 0                                                                                   |
| Storage Lanes              | 1                                                                                 |                                                                                   | 0                                                                                 | 1                                                                                 |                                                                                   | 0                                                                                 | 1                                                                                   |                                                                                     | 1                                                                                   | 1                                                                                   |                                                                                     | 0                                                                                   |
| Taper Length (ft)          | 25                                                                                |                                                                                   |                                                                                   | 25                                                                                |                                                                                   |                                                                                   | 25                                                                                  |                                                                                     |                                                                                     | 25                                                                                  |                                                                                     |                                                                                     |
| Lane Util. Factor          | 1.00                                                                              | 0.95                                                                              | 0.95                                                                              | 1.00                                                                              | 0.95                                                                              | 0.95                                                                              | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Frt                        |                                                                                   | 0.987                                                                             |                                                                                   |                                                                                   | 0.990                                                                             |                                                                                   |                                                                                     |                                                                                     | 0.850                                                                               |                                                                                     | 0.910                                                                               |                                                                                     |
| Flt Protected              | 0.950                                                                             |                                                                                   |                                                                                   | 0.950                                                                             |                                                                                   |                                                                                   | 0.950                                                                               |                                                                                     |                                                                                     | 0.950                                                                               |                                                                                     |                                                                                     |
| Satd. Flow (prot)          | 1770                                                                              | 3493                                                                              | 0                                                                                 | 1770                                                                              | 3504                                                                              | 0                                                                                 | 1770                                                                                | 1863                                                                                | 1583                                                                                | 1770                                                                                | 1695                                                                                | 0                                                                                   |
| Flt Permitted              | 0.380                                                                             |                                                                                   |                                                                                   | 0.154                                                                             |                                                                                   |                                                                                   | 0.748                                                                               |                                                                                     |                                                                                     | 0.752                                                                               |                                                                                     |                                                                                     |
| Satd. Flow (perm)          | 708                                                                               | 3493                                                                              | 0                                                                                 | 287                                                                               | 3504                                                                              | 0                                                                                 | 1393                                                                                | 1863                                                                                | 1583                                                                                | 1401                                                                                | 1695                                                                                | 0                                                                                   |
| Right Turn on Red          |                                                                                   |                                                                                   | Yes                                                                               |                                                                                   |                                                                                   | Yes                                                                               |                                                                                     |                                                                                     | Yes                                                                                 |                                                                                     |                                                                                     | Yes                                                                                 |
| Satd. Flow (RTOR)          |                                                                                   | 15                                                                                |                                                                                   |                                                                                   | 11                                                                                |                                                                                   |                                                                                     |                                                                                     | 306                                                                                 |                                                                                     | 9                                                                                   |                                                                                     |
| Link Speed (mph)           |                                                                                   | 30                                                                                |                                                                                   |                                                                                   | 30                                                                                |                                                                                   |                                                                                     | 30                                                                                  |                                                                                     |                                                                                     | 30                                                                                  |                                                                                     |
| Link Distance (ft)         |                                                                                   | 386                                                                               |                                                                                   |                                                                                   | 629                                                                               |                                                                                   |                                                                                     | 741                                                                                 |                                                                                     |                                                                                     | 129                                                                                 |                                                                                     |
| Travel Time (s)            |                                                                                   | 8.8                                                                               |                                                                                   |                                                                                   | 14.3                                                                              |                                                                                   |                                                                                     | 16.8                                                                                |                                                                                     |                                                                                     | 2.9                                                                                 |                                                                                     |
| Peak Hour Factor           | 0.79                                                                              | 0.79                                                                              | 0.79                                                                              | 0.84                                                                              | 0.84                                                                              | 0.84                                                                              | 0.55                                                                                | 0.55                                                                                | 0.55                                                                                | 0.81                                                                                | 0.81                                                                                | 0.81                                                                                |
| Adj. Flow (vph)            | 4                                                                                 | 971                                                                               | 90                                                                                | 129                                                                               | 564                                                                               | 39                                                                                | 156                                                                                 | 9                                                                                   | 376                                                                                 | 99                                                                                  | 6                                                                                   | 9                                                                                   |
| Shared Lane Traffic (%)    |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Lane Group Flow (vph)      | 4                                                                                 | 1061                                                                              | 0                                                                                 | 129                                                                               | 603                                                                               | 0                                                                                 | 156                                                                                 | 9                                                                                   | 376                                                                                 | 99                                                                                  | 15                                                                                  | 0                                                                                   |
| Enter Blocked Intersection | No                                                                                | No                                                                                | No                                                                                | No                                                                                | No                                                                                | No                                                                                | No                                                                                  | No                                                                                  | No                                                                                  | No                                                                                  | No                                                                                  | No                                                                                  |
| Lane Alignment             | Left                                                                              | Left                                                                              | Right                                                                             | Left                                                                              | Left                                                                              | Right                                                                             | Left                                                                                | Left                                                                                | Right                                                                               | Left                                                                                | Left                                                                                | Right                                                                               |
| Median Width(ft)           |                                                                                   | 12                                                                                |                                                                                   |                                                                                   | 12                                                                                |                                                                                   |                                                                                     | 12                                                                                  |                                                                                     |                                                                                     | 12                                                                                  |                                                                                     |
| Link Offset(ft)            |                                                                                   | 0                                                                                 |                                                                                   |                                                                                   | 0                                                                                 |                                                                                   |                                                                                     | 0                                                                                   |                                                                                     |                                                                                     | 0                                                                                   |                                                                                     |
| Crosswalk Width(ft)        |                                                                                   | 16                                                                                |                                                                                   |                                                                                   | 16                                                                                |                                                                                   |                                                                                     | 16                                                                                  |                                                                                     |                                                                                     | 16                                                                                  |                                                                                     |
| Two way Left Turn Lane     |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Headway Factor             | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Turning Speed (mph)        | 60                                                                                |                                                                                   | 60                                                                                | 60                                                                                |                                                                                   | 60                                                                                | 60                                                                                  |                                                                                     | 60                                                                                  | 60                                                                                  |                                                                                     | 60                                                                                  |
| Turn Type                  | pm+pt                                                                             | NA                                                                                |                                                                                   | pm+pt                                                                             | NA                                                                                |                                                                                   | Perm                                                                                | NA                                                                                  | Perm                                                                                | Perm                                                                                | NA                                                                                  |                                                                                     |
| Protected Phases           | 5                                                                                 | 2                                                                                 |                                                                                   | 1                                                                                 | 6                                                                                 |                                                                                   |                                                                                     | 8                                                                                   |                                                                                     |                                                                                     | 4                                                                                   |                                                                                     |
| Permitted Phases           | 2                                                                                 |                                                                                   |                                                                                   | 6                                                                                 |                                                                                   |                                                                                   | 8                                                                                   |                                                                                     | 8                                                                                   | 4                                                                                   |                                                                                     |                                                                                     |
| Minimum Split (s)          | 9.0                                                                               | 26.5                                                                              |                                                                                   | 9.0                                                                               | 26.5                                                                              |                                                                                   | 29.0                                                                                | 29.0                                                                                | 29.0                                                                                | 30.0                                                                                | 30.0                                                                                |                                                                                     |
| Total Split (s)            | 15.0                                                                              | 40.0                                                                              |                                                                                   | 15.0                                                                              | 40.0                                                                              |                                                                                   | 25.0                                                                                | 25.0                                                                                | 25.0                                                                                | 25.0                                                                                | 25.0                                                                                |                                                                                     |
| Total Split (%)            | 18.8%                                                                             | 50.0%                                                                             |                                                                                   | 18.8%                                                                             | 50.0%                                                                             |                                                                                   | 31.3%                                                                               | 31.3%                                                                               | 31.3%                                                                               | 31.3%                                                                               | 31.3%                                                                               |                                                                                     |
| Maximum Green (s)          | 11.0                                                                              | 33.5                                                                              |                                                                                   | 11.0                                                                              | 33.5                                                                              |                                                                                   | 20.0                                                                                | 20.0                                                                                | 20.0                                                                                | 20.0                                                                                | 20.0                                                                                |                                                                                     |
| Yellow Time (s)            | 3.0                                                                               | 4.5                                                                               |                                                                                   | 3.0                                                                               | 4.5                                                                               |                                                                                   | 3.0                                                                                 | 3.0                                                                                 | 3.0                                                                                 | 3.0                                                                                 | 3.0                                                                                 |                                                                                     |
| All-Red Time (s)           | 1.0                                                                               | 2.0                                                                               |                                                                                   | 1.0                                                                               | 2.0                                                                               |                                                                                   | 2.0                                                                                 | 2.0                                                                                 | 2.0                                                                                 | 2.0                                                                                 | 2.0                                                                                 |                                                                                     |
| Lost Time Adjust (s)       | 0.0                                                                               | 0.0                                                                               |                                                                                   | 0.0                                                                               | 0.0                                                                               |                                                                                   | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 |                                                                                     |
| Total Lost Time (s)        | 4.0                                                                               | 6.5                                                                               |                                                                                   | 4.0                                                                               | 6.5                                                                               |                                                                                   | 5.0                                                                                 | 5.0                                                                                 | 5.0                                                                                 | 5.0                                                                                 | 5.0                                                                                 |                                                                                     |
| Lead/Lag                   | Lead                                                                              | Lag                                                                               |                                                                                   | Lead                                                                              | Lag                                                                               |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Lead-Lag Optimize?         | Yes                                                                               | Yes                                                                               |                                                                                   | Yes                                                                               | Yes                                                                               |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Walk Time (s)              |                                                                                   | 5.0                                                                               |                                                                                   |                                                                                   | 5.0                                                                               |                                                                                   | 5.0                                                                                 | 5.0                                                                                 | 5.0                                                                                 | 5.0                                                                                 | 5.0                                                                                 |                                                                                     |
| Flash Dont Walk (s)        |                                                                                   | 8.5                                                                               |                                                                                   |                                                                                   | 6.5                                                                               |                                                                                   | 19.0                                                                                | 19.0                                                                                | 19.0                                                                                | 20.0                                                                                | 20.0                                                                                |                                                                                     |
| Pedestrian Calls (#/hr)    |                                                                                   | 0                                                                                 |                                                                                   |                                                                                   | 0                                                                                 |                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   |                                                                                     |
| Act Effct Green (s)        | 47.0                                                                              | 33.5                                                                              |                                                                                   | 47.0                                                                              | 33.5                                                                              |                                                                                   | 20.0                                                                                | 20.0                                                                                | 20.0                                                                                | 20.0                                                                                | 20.0                                                                                |                                                                                     |
| Actuated g/C Ratio         | 0.59                                                                              | 0.42                                                                              |                                                                                   | 0.59                                                                              | 0.42                                                                              |                                                                                   | 0.25                                                                                | 0.25                                                                                | 0.25                                                                                | 0.25                                                                                | 0.25                                                                                |                                                                                     |
| v/c Ratio                  | 0.01                                                                              | 0.72                                                                              |                                                                                   | 0.35                                                                              | 0.41                                                                              |                                                                                   | 0.45                                                                                | 0.02                                                                                | 0.60                                                                                | 0.28                                                                                | 0.03                                                                                |                                                                                     |

Total AM 10:36 am 02/12/2024 Baseline

Synchro 11 Report

Page 1

# Lanes, Volumes, Timings

## 30: Westridge Village Pkwy & Highlands Ranch Pkwy

12/20/2024

|                         |  |  |  |  |  |  |  |  |  |  |  |  |
|-------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Lane Group              | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | WBR                                                                               | NBL                                                                                | NBT                                                                                 | NBR                                                                                 | SBL                                                                                 | SBT                                                                                 | SBR                                                                                 |
| Control Delay           | 5.3                                                                               | 22.5                                                                              |                                                                                   | 8.6                                                                               | 17.0                                                                              |                                                                                   | 30.2                                                                               | 22.8                                                                                | 10.5                                                                                | 26.9                                                                                | 16.2                                                                                |                                                                                     |
| Queue Delay             | 0.0                                                                               | 0.0                                                                               |                                                                                   | 0.0                                                                               | 0.0                                                                               |                                                                                   | 0.0                                                                                | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 |                                                                                     |
| Total Delay             | 5.3                                                                               | 22.5                                                                              |                                                                                   | 8.6                                                                               | 17.0                                                                              |                                                                                   | 30.2                                                                               | 22.8                                                                                | 10.5                                                                                | 26.9                                                                                | 16.2                                                                                |                                                                                     |
| LOS                     | A                                                                                 | C                                                                                 |                                                                                   | A                                                                                 | B                                                                                 |                                                                                   | C                                                                                  | C                                                                                   | B                                                                                   | C                                                                                   | B                                                                                   |                                                                                     |
| Approach Delay          |                                                                                   | 22.5                                                                              |                                                                                   |                                                                                   | 15.5                                                                              |                                                                                   |                                                                                    | 16.4                                                                                |                                                                                     |                                                                                     | 25.5                                                                                |                                                                                     |
| Approach LOS            |                                                                                   | C                                                                                 |                                                                                   |                                                                                   | B                                                                                 |                                                                                   |                                                                                    | B                                                                                   |                                                                                     |                                                                                     | C                                                                                   |                                                                                     |
| Queue Length 50th (ft)  | 1                                                                                 | 221                                                                               |                                                                                   | 22                                                                                | 105                                                                               |                                                                                   | 66                                                                                 | 3                                                                                   | 28                                                                                  | 40                                                                                  | 2                                                                                   |                                                                                     |
| Queue Length 95th (ft)  | 3                                                                                 | 241                                                                               |                                                                                   | 39                                                                                | 135                                                                               |                                                                                   | 69                                                                                 | 9                                                                                   | 7                                                                                   | 72                                                                                  | 15                                                                                  |                                                                                     |
| Internal Link Dist (ft) |                                                                                   | 306                                                                               |                                                                                   |                                                                                   | 549                                                                               |                                                                                   |                                                                                    | 661                                                                                 |                                                                                     |                                                                                     | 49                                                                                  |                                                                                     |
| Turn Bay Length (ft)    | 100                                                                               |                                                                                   |                                                                                   | 100                                                                               |                                                                                   |                                                                                   | 100                                                                                |                                                                                     | 100                                                                                 | 50                                                                                  |                                                                                     |                                                                                     |
| Base Capacity (vph)     | 561                                                                               | 1471                                                                              |                                                                                   | 372                                                                               | 1473                                                                              |                                                                                   | 348                                                                                | 465                                                                                 | 625                                                                                 | 350                                                                                 | 430                                                                                 |                                                                                     |
| Starvation Cap Reductn  | 0                                                                                 | 0                                                                                 |                                                                                   | 0                                                                                 | 0                                                                                 |                                                                                   | 0                                                                                  | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   |                                                                                     |
| Spillback Cap Reductn   | 0                                                                                 | 0                                                                                 |                                                                                   | 0                                                                                 | 0                                                                                 |                                                                                   | 0                                                                                  | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   |                                                                                     |
| Storage Cap Reductn     | 0                                                                                 | 0                                                                                 |                                                                                   | 0                                                                                 | 0                                                                                 |                                                                                   | 0                                                                                  | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   |                                                                                     |
| Reduced v/c Ratio       | 0.01                                                                              | 0.72                                                                              |                                                                                   | 0.35                                                                              | 0.41                                                                              |                                                                                   | 0.45                                                                               | 0.02                                                                                | 0.60                                                                                | 0.28                                                                                | 0.03                                                                                |                                                                                     |

### Intersection Summary

Area Type: Other

Cycle Length: 80

Actuated Cycle Length: 80

Offset: 33.5 (42%), Referenced to phase 2:EBTL, Start of Yellow

Natural Cycle: 70

Control Type: Pretimed

Maximum v/c Ratio: 0.72

Intersection Signal Delay: 19.2

Intersection LOS: B

Intersection Capacity Utilization 54.5%

ICU Level of Service A

Analysis Period (min) 15

### Splits and Phases: 30: Westridge Village Pkwy & Highlands Ranch Pkwy

|                                                                                        |                                                                                            |                                                                                          |
|----------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------|
|  Ø1 |  Ø2 (R) |  Ø4 |
| 15 s                                                                                   | 40 s                                                                                       | 25 s                                                                                     |
|  Ø5 |  Ø6     |  Ø8 |
| 15 s                                                                                   | 40 s                                                                                       | 25 s                                                                                     |

Lanes, Volumes, Timings  
67: Springhill Pkwy & Highlands Ranch Pkwy

12/20/2024

|                            |  |  |  |  |  |  |  |  |  |  |  |  |
|----------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Lane Group                 | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | WBR                                                                               | NBL                                                                                | NBT                                                                                 | NBR                                                                                 | SBL                                                                                 | SBT                                                                                 | SBR                                                                                 |
| Lane Configurations        |  |  |  |  |  |  |  |  |  |  |  |  |
| Traffic Volume (vph)       | 80                                                                                | 813                                                                               | 250                                                                               | 152                                                                               | 344                                                                               | 29                                                                                | 200                                                                                | 91                                                                                  | 290                                                                                 | 21                                                                                  | 100                                                                                 | 69                                                                                  |
| Future Volume (vph)        | 80                                                                                | 813                                                                               | 250                                                                               | 152                                                                               | 344                                                                               | 29                                                                                | 200                                                                                | 91                                                                                  | 290                                                                                 | 21                                                                                  | 100                                                                                 | 69                                                                                  |
| Ideal Flow (vphpl)         | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                               | 1900                                                                                | 1900                                                                                | 1900                                                                                | 1900                                                                                | 1900                                                                                |
| Storage Length (ft)        | 140                                                                               |                                                                                   | 165                                                                               | 240                                                                               |                                                                                   | 0                                                                                 | 250                                                                                |                                                                                     | 0                                                                                   | 150                                                                                 |                                                                                     | 0                                                                                   |
| Storage Lanes              | 1                                                                                 |                                                                                   | 1                                                                                 | 2                                                                                 |                                                                                   | 1                                                                                 | 2                                                                                  |                                                                                     | 1                                                                                   | 1                                                                                   |                                                                                     | 0                                                                                   |
| Taper Length (ft)          | 25                                                                                |                                                                                   |                                                                                   | 25                                                                                |                                                                                   |                                                                                   | 25                                                                                 |                                                                                     |                                                                                     | 25                                                                                  |                                                                                     |                                                                                     |
| Lane Util. Factor          | 1.00                                                                              | 0.95                                                                              | 1.00                                                                              | 0.97                                                                              | 0.95                                                                              | 1.00                                                                              | 0.97                                                                               | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Frt                        |                                                                                   |                                                                                   | 0.850                                                                             |                                                                                   |                                                                                   | 0.850                                                                             |                                                                                    |                                                                                     | 0.850                                                                               |                                                                                     | 0.939                                                                               |                                                                                     |
| Flt Protected              | 0.950                                                                             |                                                                                   |                                                                                   | 0.950                                                                             |                                                                                   |                                                                                   | 0.950                                                                              |                                                                                     |                                                                                     | 0.950                                                                               |                                                                                     |                                                                                     |
| Satd. Flow (prot)          | 1770                                                                              | 3539                                                                              | 1583                                                                              | 3433                                                                              | 3539                                                                              | 1583                                                                              | 3433                                                                               | 1863                                                                                | 1583                                                                                | 1770                                                                                | 1749                                                                                | 0                                                                                   |
| Flt Permitted              | 0.532                                                                             |                                                                                   |                                                                                   | 0.104                                                                             |                                                                                   |                                                                                   | 0.170                                                                              |                                                                                     |                                                                                     | 0.674                                                                               |                                                                                     |                                                                                     |
| Satd. Flow (perm)          | 991                                                                               | 3539                                                                              | 1583                                                                              | 376                                                                               | 3539                                                                              | 1583                                                                              | 614                                                                                | 1863                                                                                | 1583                                                                                | 1255                                                                                | 1749                                                                                | 0                                                                                   |
| Right Turn on Red          |                                                                                   |                                                                                   | Yes                                                                               |                                                                                   |                                                                                   | Yes                                                                               |                                                                                    |                                                                                     | Yes                                                                                 |                                                                                     |                                                                                     | Yes                                                                                 |
| Satd. Flow (RTOR)          |                                                                                   |                                                                                   | 197                                                                               |                                                                                   |                                                                                   | 155                                                                               |                                                                                    |                                                                                     | 414                                                                                 |                                                                                     | 22                                                                                  |                                                                                     |
| Link Speed (mph)           |                                                                                   | 30                                                                                |                                                                                   |                                                                                   | 30                                                                                |                                                                                   |                                                                                    | 30                                                                                  |                                                                                     |                                                                                     | 30                                                                                  |                                                                                     |
| Link Distance (ft)         |                                                                                   | 705                                                                               |                                                                                   |                                                                                   | 1593                                                                              |                                                                                   |                                                                                    | 631                                                                                 |                                                                                     |                                                                                     | 652                                                                                 |                                                                                     |
| Travel Time (s)            |                                                                                   | 16.0                                                                              |                                                                                   |                                                                                   | 36.2                                                                              |                                                                                   |                                                                                    | 14.3                                                                                |                                                                                     |                                                                                     | 14.8                                                                                |                                                                                     |
| Peak Hour Factor           | 0.87                                                                              | 0.87                                                                              | 0.87                                                                              | 0.93                                                                              | 0.93                                                                              | 0.93                                                                              | 0.70                                                                               | 0.70                                                                                | 0.70                                                                                | 0.45                                                                                | 0.45                                                                                | 0.45                                                                                |
| Adj. Flow (vph)            | 92                                                                                | 934                                                                               | 287                                                                               | 163                                                                               | 370                                                                               | 31                                                                                | 286                                                                                | 130                                                                                 | 414                                                                                 | 47                                                                                  | 222                                                                                 | 153                                                                                 |
| Shared Lane Traffic (%)    |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Lane Group Flow (vph)      | 92                                                                                | 934                                                                               | 287                                                                               | 163                                                                               | 370                                                                               | 31                                                                                | 286                                                                                | 130                                                                                 | 414                                                                                 | 47                                                                                  | 375                                                                                 | 0                                                                                   |
| Enter Blocked Intersection | No                                                                                | No                                                                                | No                                                                                | No                                                                                | No                                                                                | No                                                                                | No                                                                                 | No                                                                                  | No                                                                                  | No                                                                                  | No                                                                                  | No                                                                                  |
| Lane Alignment             | Left                                                                              | Left                                                                              | Right                                                                             | Left                                                                              | Left                                                                              | Right                                                                             | Left                                                                               | Left                                                                                | Right                                                                               | Left                                                                                | Left                                                                                | Right                                                                               |
| Median Width(ft)           |                                                                                   | 24                                                                                |                                                                                   |                                                                                   | 24                                                                                |                                                                                   |                                                                                    | 24                                                                                  |                                                                                     |                                                                                     | 24                                                                                  |                                                                                     |
| Link Offset(ft)            |                                                                                   | 0                                                                                 |                                                                                   |                                                                                   | 0                                                                                 |                                                                                   |                                                                                    | 0                                                                                   |                                                                                     |                                                                                     | 0                                                                                   |                                                                                     |
| Crosswalk Width(ft)        |                                                                                   | 16                                                                                |                                                                                   |                                                                                   | 16                                                                                |                                                                                   |                                                                                    | 16                                                                                  |                                                                                     |                                                                                     | 16                                                                                  |                                                                                     |
| Two way Left Turn Lane     |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Headway Factor             | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                               | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Turning Speed (mph)        | 60                                                                                |                                                                                   | 60                                                                                | 60                                                                                |                                                                                   | 60                                                                                | 60                                                                                 |                                                                                     | 60                                                                                  | 60                                                                                  |                                                                                     | 60                                                                                  |
| Turn Type                  | pm+pt                                                                             | NA                                                                                | Perm                                                                              | pm+pt                                                                             | NA                                                                                | Perm                                                                              | pm+pt                                                                              | NA                                                                                  | Perm                                                                                | pm+pt                                                                               | NA                                                                                  |                                                                                     |
| Protected Phases           | 5                                                                                 | 2                                                                                 |                                                                                   | 1                                                                                 | 6                                                                                 |                                                                                   | 3                                                                                  | 8                                                                                   |                                                                                     | 7                                                                                   | 4                                                                                   |                                                                                     |
| Permitted Phases           | 2                                                                                 |                                                                                   | 2                                                                                 | 6                                                                                 |                                                                                   | 6                                                                                 | 8                                                                                  |                                                                                     | 8                                                                                   | 4                                                                                   |                                                                                     |                                                                                     |
| Minimum Split (s)          | 10.0                                                                              | 30.5                                                                              | 30.5                                                                              | 10.0                                                                              | 31.5                                                                              | 31.5                                                                              | 10.0                                                                               | 38.5                                                                                | 38.5                                                                                | 10.0                                                                                | 24.5                                                                                |                                                                                     |
| Total Split (s)            | 15.0                                                                              | 40.0                                                                              | 40.0                                                                              | 25.0                                                                              | 50.0                                                                              | 50.0                                                                              | 40.0                                                                               | 50.0                                                                                | 50.0                                                                                | 15.0                                                                                | 25.0                                                                                |                                                                                     |
| Total Split (%)            | 11.5%                                                                             | 30.8%                                                                             | 30.8%                                                                             | 19.2%                                                                             | 38.5%                                                                             | 38.5%                                                                             | 30.8%                                                                              | 38.5%                                                                               | 38.5%                                                                               | 11.5%                                                                               | 19.2%                                                                               |                                                                                     |
| Maximum Green (s)          | 10.0                                                                              | 33.5                                                                              | 33.5                                                                              | 20.0                                                                              | 43.5                                                                              | 43.5                                                                              | 35.0                                                                               | 43.5                                                                                | 43.5                                                                                | 10.0                                                                                | 18.5                                                                                |                                                                                     |
| Yellow Time (s)            | 3.0                                                                               | 4.5                                                                               | 4.5                                                                               | 3.0                                                                               | 4.5                                                                               | 4.5                                                                               | 3.0                                                                                | 4.5                                                                                 | 4.5                                                                                 | 3.0                                                                                 | 4.5                                                                                 |                                                                                     |
| All-Red Time (s)           | 2.0                                                                               | 2.0                                                                               | 2.0                                                                               | 2.0                                                                               | 2.0                                                                               | 2.0                                                                               | 2.0                                                                                | 2.0                                                                                 | 2.0                                                                                 | 2.0                                                                                 | 2.0                                                                                 |                                                                                     |
| Lost Time Adjust (s)       | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                                | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 |                                                                                     |
| Total Lost Time (s)        | 5.0                                                                               | 6.5                                                                               | 6.5                                                                               | 5.0                                                                               | 6.5                                                                               | 6.5                                                                               | 5.0                                                                                | 6.5                                                                                 | 6.5                                                                                 | 5.0                                                                                 | 6.5                                                                                 |                                                                                     |
| Lead/Lag                   | Lead                                                                              | Lag                                                                               | Lag                                                                               | Lead                                                                              | Lag                                                                               | Lag                                                                               | Lead                                                                               | Lag                                                                                 | Lag                                                                                 | Lead                                                                                | Lag                                                                                 |                                                                                     |
| Lead-Lag Optimize?         | Yes                                                                               | Yes                                                                               | Yes                                                                               | Yes                                                                               | Yes                                                                               | Yes                                                                               | Yes                                                                                | Yes                                                                                 | Yes                                                                                 | Yes                                                                                 | Yes                                                                                 |                                                                                     |
| Walk Time (s)              |                                                                                   | 5.0                                                                               | 5.0                                                                               |                                                                                   | 5.0                                                                               | 5.0                                                                               |                                                                                    | 5.0                                                                                 | 5.0                                                                                 |                                                                                     |                                                                                     |                                                                                     |
| Flash Dont Walk (s)        |                                                                                   | 19.0                                                                              | 19.0                                                                              |                                                                                   | 20.0                                                                              | 20.0                                                                              |                                                                                    | 27.0                                                                                | 27.0                                                                                |                                                                                     |                                                                                     |                                                                                     |
| Pedestrian Calls (#/hr)    |                                                                                   | 0                                                                                 | 0                                                                                 |                                                                                   | 0                                                                                 | 0                                                                                 |                                                                                    | 0                                                                                   | 0                                                                                   |                                                                                     |                                                                                     |                                                                                     |
| Act Effct Green (s)        | 45.0                                                                              | 33.5                                                                              | 33.5                                                                              | 60.0                                                                              | 43.5                                                                              | 43.5                                                                              | 60.0                                                                               | 43.5                                                                                | 43.5                                                                                | 30.0                                                                                | 18.5                                                                                |                                                                                     |
| Actuated g/C Ratio         | 0.35                                                                              | 0.26                                                                              | 0.26                                                                              | 0.46                                                                              | 0.33                                                                              | 0.33                                                                              | 0.46                                                                               | 0.33                                                                                | 0.33                                                                                | 0.23                                                                                | 0.14                                                                                |                                                                                     |
| v/c Ratio                  | 0.23                                                                              | 1.03                                                                              | 0.52                                                                              | 0.25                                                                              | 0.31                                                                              | 0.05                                                                              | 0.27                                                                               | 0.21                                                                                | 0.51                                                                                | 0.14                                                                                | 1.40                                                                                |                                                                                     |

Total AM 10:36 am 02/12/2024 Baseline

Synchro 11 Report  
Page 3

# Lanes, Volumes, Timings

## 67: Springhill Pkwy & Highlands Ranch Pkwy

12/20/2024

|                         |  |  |  |  |  |  |  |  |  |  |  |  |
|-------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Lane Group              | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | WBR                                                                               | NBL                                                                                | NBT                                                                                 | NBR                                                                                 | SBL                                                                                 | SBT                                                                                 | SBR                                                                                 |
| Control Delay           | 22.4                                                                              | 83.6                                                                              | 16.7                                                                              | 20.8                                                                              | 33.1                                                                              | 0.1                                                                               | 21.4                                                                               | 32.1                                                                                | 5.3                                                                                 | 24.1                                                                                | 241.2                                                                               |                                                                                     |
| Queue Delay             | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                                | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 |                                                                                     |
| Total Delay             | 22.4                                                                              | 83.6                                                                              | 16.7                                                                              | 20.8                                                                              | 33.1                                                                              | 0.1                                                                               | 21.4                                                                               | 32.1                                                                                | 5.3                                                                                 | 24.1                                                                                | 241.2                                                                               |                                                                                     |
| LOS                     | C                                                                                 | F                                                                                 | B                                                                                 | C                                                                                 | C                                                                                 | A                                                                                 | C                                                                                  | C                                                                                   | A                                                                                   | C                                                                                   | F                                                                                   |                                                                                     |
| Approach Delay          | 64.7                                                                              |                                                                                   |                                                                                   | 27.7                                                                              |                                                                                   |                                                                                   | 15.0                                                                               |                                                                                     |                                                                                     | 217.0                                                                               |                                                                                     |                                                                                     |
| Approach LOS            | E                                                                                 |                                                                                   |                                                                                   | C                                                                                 |                                                                                   |                                                                                   | B                                                                                  |                                                                                     |                                                                                     | F                                                                                   |                                                                                     |                                                                                     |
| Queue Length 50th (ft)  | 43                                                                                | ~440                                                                              | 60                                                                                | 39                                                                                | 121                                                                               | 0                                                                                 | 71                                                                                 | 78                                                                                  | 0                                                                                   | 22                                                                                  | ~408                                                                                |                                                                                     |
| Queue Length 95th (ft)  | 74                                                                                | #541                                                                              | 139                                                                               | 60                                                                                | 164                                                                               | 0                                                                                 | 75                                                                                 | 98                                                                                  | 0                                                                                   | 22                                                                                  | 188                                                                                 |                                                                                     |
| Internal Link Dist (ft) | 625                                                                               |                                                                                   |                                                                                   | 1513                                                                              |                                                                                   |                                                                                   | 551                                                                                |                                                                                     |                                                                                     | 572                                                                                 |                                                                                     |                                                                                     |
| Turn Bay Length (ft)    | 140                                                                               |                                                                                   | 165                                                                               | 240                                                                               |                                                                                   |                                                                                   | 250                                                                                |                                                                                     |                                                                                     | 150                                                                                 |                                                                                     |                                                                                     |
| Base Capacity (vph)     | 402                                                                               | 911                                                                               | 554                                                                               | 643                                                                               | 1184                                                                              | 632                                                                               | 1042                                                                               | 623                                                                                 | 805                                                                                 | 329                                                                                 | 267                                                                                 |                                                                                     |
| Starvation Cap Reductn  | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                  | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   |                                                                                     |
| Spillback Cap Reductn   | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                  | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   |                                                                                     |
| Storage Cap Reductn     | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                  | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   |                                                                                     |
| Reduced v/c Ratio       | 0.23                                                                              | 1.03                                                                              | 0.52                                                                              | 0.25                                                                              | 0.31                                                                              | 0.05                                                                              | 0.27                                                                               | 0.21                                                                                | 0.51                                                                                | 0.14                                                                                | 1.40                                                                                |                                                                                     |

### Intersection Summary

Area Type: Other

Cycle Length: 130

Actuated Cycle Length: 130

Offset: 0 (0%), Referenced to phase 2:EBTL, Start of Green

Natural Cycle: 90

Control Type: Pretimed

Maximum v/c Ratio: 1.40

Intersection Signal Delay: 65.4

Intersection LOS: E

Intersection Capacity Utilization 62.5%

ICU Level of Service B

Analysis Period (min) 15

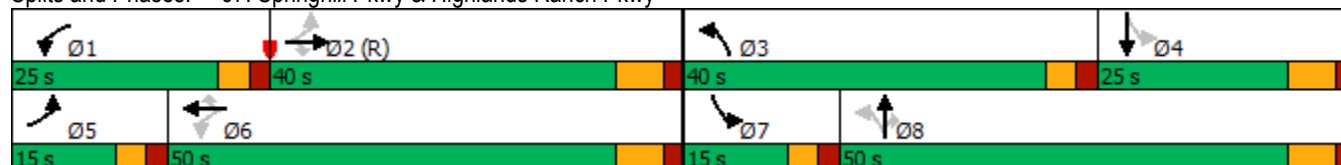
~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

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

Queue shown is maximum after two cycles.

Splits and Phases: 67: Springhill Pkwy & Highlands Ranch Pkwy



# Lanes, Volumes, Timings

## 30: Westridge Village Pkwy & Highlands Ranch Pkwy

12/20/2024

|                            |  |  |  |  |  |  |   |  |  |  |  |  |
|----------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Lane Group                 | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | WBR                                                                               | NBL                                                                                 | NBT                                                                                 | NBR                                                                                 | SBL                                                                                 | SBT                                                                                 | SBR                                                                                 |
| Lane Configurations        |  |  |                                                                                   |  |  |                                                                                   |  |  |  |  |  |  |
| Traffic Volume (vph)       | 7                                                                                 | 659                                                                               | 98                                                                                | 204                                                                               | 862                                                                               | 75                                                                                | 66                                                                                  | 3                                                                                   | 194                                                                                 | 67                                                                                  | 5                                                                                   | 5                                                                                   |
| Future Volume (vph)        | 7                                                                                 | 659                                                                               | 98                                                                                | 204                                                                               | 862                                                                               | 75                                                                                | 66                                                                                  | 3                                                                                   | 194                                                                                 | 67                                                                                  | 5                                                                                   | 5                                                                                   |
| Ideal Flow (vphpl)         | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                                | 1900                                                                                | 1900                                                                                | 1900                                                                                | 1900                                                                                | 1900                                                                                |
| Storage Length (ft)        | 100                                                                               |                                                                                   | 0                                                                                 | 100                                                                               |                                                                                   | 0                                                                                 | 100                                                                                 |                                                                                     | 100                                                                                 | 50                                                                                  |                                                                                     | 0                                                                                   |
| Storage Lanes              | 1                                                                                 |                                                                                   | 0                                                                                 | 1                                                                                 |                                                                                   | 0                                                                                 | 1                                                                                   |                                                                                     | 1                                                                                   | 1                                                                                   |                                                                                     | 0                                                                                   |
| Taper Length (ft)          | 25                                                                                |                                                                                   |                                                                                   | 25                                                                                |                                                                                   |                                                                                   | 25                                                                                  |                                                                                     |                                                                                     | 25                                                                                  |                                                                                     |                                                                                     |
| Lane Util. Factor          | 1.00                                                                              | 0.95                                                                              | 0.95                                                                              | 1.00                                                                              | 0.95                                                                              | 0.95                                                                              | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Frt                        |                                                                                   | 0.981                                                                             |                                                                                   |                                                                                   | 0.988                                                                             |                                                                                   |                                                                                     |                                                                                     | 0.850                                                                               |                                                                                     | 0.925                                                                               |                                                                                     |
| Flt Protected              | 0.950                                                                             |                                                                                   |                                                                                   | 0.950                                                                             |                                                                                   |                                                                                   | 0.950                                                                               |                                                                                     |                                                                                     | 0.950                                                                               |                                                                                     |                                                                                     |
| Satd. Flow (prot)          | 1770                                                                              | 3472                                                                              | 0                                                                                 | 1770                                                                              | 3497                                                                              | 0                                                                                 | 1770                                                                                | 1863                                                                                | 1583                                                                                | 1770                                                                                | 1723                                                                                | 0                                                                                   |
| Flt Permitted              | 0.161                                                                             |                                                                                   |                                                                                   | 0.235                                                                             |                                                                                   |                                                                                   | 0.747                                                                               |                                                                                     |                                                                                     | 0.754                                                                               |                                                                                     |                                                                                     |
| Satd. Flow (perm)          | 300                                                                               | 3472                                                                              | 0                                                                                 | 438                                                                               | 3497                                                                              | 0                                                                                 | 1391                                                                                | 1863                                                                                | 1583                                                                                | 1405                                                                                | 1723                                                                                | 0                                                                                   |
| Right Turn on Red          |                                                                                   |                                                                                   | Yes                                                                               |                                                                                   |                                                                                   | Yes                                                                               |                                                                                     |                                                                                     | Yes                                                                                 |                                                                                     |                                                                                     | Yes                                                                                 |
| Satd. Flow (RTOR)          |                                                                                   | 25                                                                                |                                                                                   |                                                                                   | 14                                                                                |                                                                                   |                                                                                     |                                                                                     | 334                                                                                 |                                                                                     | 8                                                                                   |                                                                                     |
| Link Speed (mph)           |                                                                                   | 30                                                                                |                                                                                   |                                                                                   | 30                                                                                |                                                                                   |                                                                                     | 30                                                                                  |                                                                                     |                                                                                     | 30                                                                                  |                                                                                     |
| Link Distance (ft)         |                                                                                   | 386                                                                               |                                                                                   |                                                                                   | 629                                                                               |                                                                                   |                                                                                     | 741                                                                                 |                                                                                     |                                                                                     | 129                                                                                 |                                                                                     |
| Travel Time (s)            |                                                                                   | 8.8                                                                               |                                                                                   |                                                                                   | 14.3                                                                              |                                                                                   |                                                                                     | 16.8                                                                                |                                                                                     |                                                                                     | 2.9                                                                                 |                                                                                     |
| Peak Hour Factor           | 0.87                                                                              | 0.87                                                                              | 0.87                                                                              | 0.90                                                                              | 0.90                                                                              | 0.90                                                                              | 0.58                                                                                | 0.58                                                                                | 0.58                                                                                | 0.66                                                                                | 0.66                                                                                | 0.66                                                                                |
| Adj. Flow (vph)            | 8                                                                                 | 757                                                                               | 113                                                                               | 227                                                                               | 958                                                                               | 83                                                                                | 114                                                                                 | 5                                                                                   | 334                                                                                 | 102                                                                                 | 8                                                                                   | 8                                                                                   |
| Shared Lane Traffic (%)    |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Lane Group Flow (vph)      | 8                                                                                 | 870                                                                               | 0                                                                                 | 227                                                                               | 1041                                                                              | 0                                                                                 | 114                                                                                 | 5                                                                                   | 334                                                                                 | 102                                                                                 | 16                                                                                  | 0                                                                                   |
| Enter Blocked Intersection | No                                                                                | No                                                                                | No                                                                                | No                                                                                | No                                                                                | No                                                                                | No                                                                                  | No                                                                                  | No                                                                                  | No                                                                                  | No                                                                                  | No                                                                                  |
| Lane Alignment             | Left                                                                              | Left                                                                              | Right                                                                             | Left                                                                              | Left                                                                              | Right                                                                             | Left                                                                                | Left                                                                                | Right                                                                               | Left                                                                                | Left                                                                                | Right                                                                               |
| Median Width(ft)           |                                                                                   | 12                                                                                |                                                                                   |                                                                                   | 12                                                                                |                                                                                   |                                                                                     | 12                                                                                  |                                                                                     |                                                                                     | 12                                                                                  |                                                                                     |
| Link Offset(ft)            |                                                                                   | 0                                                                                 |                                                                                   |                                                                                   | 0                                                                                 |                                                                                   |                                                                                     | 0                                                                                   |                                                                                     |                                                                                     | 0                                                                                   |                                                                                     |
| Crosswalk Width(ft)        |                                                                                   | 16                                                                                |                                                                                   |                                                                                   | 16                                                                                |                                                                                   |                                                                                     | 16                                                                                  |                                                                                     |                                                                                     | 16                                                                                  |                                                                                     |
| Two way Left Turn Lane     |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Headway Factor             | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Turning Speed (mph)        | 60                                                                                |                                                                                   | 60                                                                                | 60                                                                                |                                                                                   | 60                                                                                | 60                                                                                  |                                                                                     | 60                                                                                  | 60                                                                                  |                                                                                     | 60                                                                                  |
| Turn Type                  | pm+pt                                                                             | NA                                                                                |                                                                                   | pm+pt                                                                             | NA                                                                                |                                                                                   | Perm                                                                                | NA                                                                                  | Perm                                                                                | Perm                                                                                | NA                                                                                  |                                                                                     |
| Protected Phases           | 5                                                                                 | 2                                                                                 |                                                                                   | 1                                                                                 | 6                                                                                 |                                                                                   |                                                                                     | 8                                                                                   |                                                                                     |                                                                                     | 4                                                                                   |                                                                                     |
| Permitted Phases           | 2                                                                                 |                                                                                   |                                                                                   | 6                                                                                 |                                                                                   |                                                                                   | 8                                                                                   |                                                                                     | 8                                                                                   | 4                                                                                   |                                                                                     |                                                                                     |
| Minimum Split (s)          | 9.5                                                                               | 26.5                                                                              |                                                                                   | 9.5                                                                               | 26.5                                                                              |                                                                                   | 29.0                                                                                | 29.0                                                                                | 29.0                                                                                | 30.0                                                                                | 30.0                                                                                |                                                                                     |
| Total Split (s)            | 15.0                                                                              | 40.0                                                                              |                                                                                   | 15.0                                                                              | 40.0                                                                              |                                                                                   | 25.0                                                                                | 25.0                                                                                | 25.0                                                                                | 25.0                                                                                | 25.0                                                                                |                                                                                     |
| Total Split (%)            | 18.8%                                                                             | 50.0%                                                                             |                                                                                   | 18.8%                                                                             | 50.0%                                                                             |                                                                                   | 31.3%                                                                               | 31.3%                                                                               | 31.3%                                                                               | 31.3%                                                                               | 31.3%                                                                               |                                                                                     |
| Maximum Green (s)          | 11.0                                                                              | 33.5                                                                              |                                                                                   | 11.0                                                                              | 33.5                                                                              |                                                                                   | 20.0                                                                                | 20.0                                                                                | 20.0                                                                                | 20.0                                                                                | 20.0                                                                                |                                                                                     |
| Yellow Time (s)            | 3.0                                                                               | 4.5                                                                               |                                                                                   | 3.0                                                                               | 4.5                                                                               |                                                                                   | 3.0                                                                                 | 3.0                                                                                 | 3.0                                                                                 | 3.0                                                                                 | 3.0                                                                                 |                                                                                     |
| All-Red Time (s)           | 1.0                                                                               | 2.0                                                                               |                                                                                   | 1.0                                                                               | 2.0                                                                               |                                                                                   | 2.0                                                                                 | 2.0                                                                                 | 2.0                                                                                 | 2.0                                                                                 | 2.0                                                                                 |                                                                                     |
| Lost Time Adjust (s)       | 0.0                                                                               | 0.0                                                                               |                                                                                   | 0.0                                                                               | 0.0                                                                               |                                                                                   | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 |                                                                                     |
| Total Lost Time (s)        | 4.0                                                                               | 6.5                                                                               |                                                                                   | 4.0                                                                               | 6.5                                                                               |                                                                                   | 5.0                                                                                 | 5.0                                                                                 | 5.0                                                                                 | 5.0                                                                                 | 5.0                                                                                 |                                                                                     |
| Lead/Lag                   | Lead                                                                              | Lag                                                                               |                                                                                   | Lead                                                                              | Lag                                                                               |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Lead-Lag Optimize?         | Yes                                                                               | Yes                                                                               |                                                                                   | Yes                                                                               | Yes                                                                               |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Walk Time (s)              |                                                                                   | 5.0                                                                               |                                                                                   |                                                                                   | 5.0                                                                               |                                                                                   | 5.0                                                                                 | 5.0                                                                                 | 5.0                                                                                 | 5.0                                                                                 | 5.0                                                                                 |                                                                                     |
| Flash Dont Walk (s)        |                                                                                   | 8.5                                                                               |                                                                                   |                                                                                   | 6.5                                                                               |                                                                                   | 19.0                                                                                | 19.0                                                                                | 19.0                                                                                | 20.0                                                                                | 20.0                                                                                |                                                                                     |
| Pedestrian Calls (#/hr)    |                                                                                   | 0                                                                                 |                                                                                   |                                                                                   | 0                                                                                 |                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   |                                                                                     |
| Act Effct Green (s)        | 47.0                                                                              | 33.5                                                                              |                                                                                   | 47.0                                                                              | 33.5                                                                              |                                                                                   | 20.0                                                                                | 20.0                                                                                | 20.0                                                                                | 20.0                                                                                | 20.0                                                                                |                                                                                     |
| Actuated g/C Ratio         | 0.59                                                                              | 0.42                                                                              |                                                                                   | 0.59                                                                              | 0.42                                                                              |                                                                                   | 0.25                                                                                | 0.25                                                                                | 0.25                                                                                | 0.25                                                                                | 0.25                                                                                |                                                                                     |
| v/c Ratio                  | 0.02                                                                              | 0.59                                                                              |                                                                                   | 0.52                                                                              | 0.71                                                                              |                                                                                   | 0.33                                                                                | 0.01                                                                                | 0.52                                                                                | 0.29                                                                                | 0.04                                                                                |                                                                                     |

Total PM 4:45 pm 11/05/2024

Synchro 11 Report  
Page 1

# Lanes, Volumes, Timings

## 30: Westridge Village Pkwy & Highlands Ranch Pkwy

12/20/2024

|                         |  |  |  |  |  |  |  |  |  |  |  |  |
|-------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Lane Group              | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | WBR                                                                               | NBL                                                                                | NBT                                                                                 | NBR                                                                                 | SBL                                                                                 | SBT                                                                                 | SBR                                                                                 |
| Control Delay           | 5.6                                                                               | 19.5                                                                              |                                                                                   | 10.8                                                                              | 22.2                                                                              |                                                                                   | 27.7                                                                               | 22.7                                                                                | 6.3                                                                                 | 27.0                                                                                | 17.0                                                                                |                                                                                     |
| Queue Delay             | 0.0                                                                               | 0.0                                                                               |                                                                                   | 0.0                                                                               | 0.0                                                                               |                                                                                   | 0.0                                                                                | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 |                                                                                     |
| Total Delay             | 5.6                                                                               | 19.5                                                                              |                                                                                   | 10.8                                                                              | 22.2                                                                              |                                                                                   | 27.7                                                                               | 22.7                                                                                | 6.3                                                                                 | 27.0                                                                                | 17.0                                                                                |                                                                                     |
| LOS                     | A                                                                                 | B                                                                                 |                                                                                   | B                                                                                 | C                                                                                 |                                                                                   | C                                                                                  | C                                                                                   | A                                                                                   | C                                                                                   | B                                                                                   |                                                                                     |
| Approach Delay          |                                                                                   | 19.3                                                                              |                                                                                   |                                                                                   | 20.1                                                                              |                                                                                   |                                                                                    | 11.9                                                                                |                                                                                     |                                                                                     | 25.7                                                                                |                                                                                     |
| Approach LOS            |                                                                                   | B                                                                                 |                                                                                   |                                                                                   | C                                                                                 |                                                                                   |                                                                                    | B                                                                                   |                                                                                     |                                                                                     | C                                                                                   |                                                                                     |
| Queue Length 50th (ft)  | 1                                                                                 | 166                                                                               |                                                                                   | 42                                                                                | 216                                                                               |                                                                                   | 47                                                                                 | 2                                                                                   | 0                                                                                   | 41                                                                                  | 3                                                                                   |                                                                                     |
| Queue Length 95th (ft)  | 6                                                                                 | 214                                                                               |                                                                                   | 71                                                                                | 287                                                                               |                                                                                   | 56                                                                                 | 6                                                                                   | 0                                                                                   | 59                                                                                  | 12                                                                                  |                                                                                     |
| Internal Link Dist (ft) |                                                                                   | 306                                                                               |                                                                                   |                                                                                   | 549                                                                               |                                                                                   |                                                                                    | 661                                                                                 |                                                                                     |                                                                                     | 49                                                                                  |                                                                                     |
| Turn Bay Length (ft)    | 100                                                                               |                                                                                   |                                                                                   | 100                                                                               |                                                                                   |                                                                                   | 100                                                                                |                                                                                     | 100                                                                                 | 50                                                                                  |                                                                                     |                                                                                     |
| Base Capacity (vph)     | 378                                                                               | 1468                                                                              |                                                                                   | 440                                                                               | 1472                                                                              |                                                                                   | 347                                                                                | 465                                                                                 | 646                                                                                 | 351                                                                                 | 436                                                                                 |                                                                                     |
| Starvation Cap Reductn  | 0                                                                                 | 0                                                                                 |                                                                                   | 0                                                                                 | 0                                                                                 |                                                                                   | 0                                                                                  | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   |                                                                                     |
| Spillback Cap Reductn   | 0                                                                                 | 0                                                                                 |                                                                                   | 0                                                                                 | 0                                                                                 |                                                                                   | 0                                                                                  | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   |                                                                                     |
| Storage Cap Reductn     | 0                                                                                 | 0                                                                                 |                                                                                   | 0                                                                                 | 0                                                                                 |                                                                                   | 0                                                                                  | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   |                                                                                     |
| Reduced v/c Ratio       | 0.02                                                                              | 0.59                                                                              |                                                                                   | 0.52                                                                              | 0.71                                                                              |                                                                                   | 0.33                                                                               | 0.01                                                                                | 0.52                                                                                | 0.29                                                                                | 0.04                                                                                |                                                                                     |

### Intersection Summary

Area Type: Other

Cycle Length: 80

Actuated Cycle Length: 80

Offset: 33.5 (42%), Referenced to phase 2:EBTL and 6:WBTL, Start of Yellow

Natural Cycle: 70

Control Type: Pretimed

Maximum v/c Ratio: 0.71

Intersection Signal Delay: 18.7

Intersection LOS: B

Intersection Capacity Utilization 55.9%

ICU Level of Service B

Analysis Period (min) 15

### Splits and Phases: 30: Westridge Village Pkwy & Highlands Ranch Pkwy

|                                                                                        |                                                                                            |                                                                                          |
|----------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------|
|  Ø1 |  Ø2 (R) |  Ø4 |
| 15 s                                                                                   | 40 s                                                                                       | 25 s                                                                                     |
|  Ø5 |  Ø6 (R) |  Ø8 |
| 15 s                                                                                   | 40 s                                                                                       | 25 s                                                                                     |



Lanes, Volumes, Timings  
67: Springhill Pkwy & Highlands Ranch Pkwy

12/20/2024

|                            |  |  |  |  |  |  |  |  |  |  |  |  |
|----------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Lane Group                 | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | WBR                                                                               | NBL                                                                                | NBT                                                                                 | NBR                                                                                 | SBL                                                                                 | SBT                                                                                 | SBR                                                                                 |
| Lane Configurations        |  |  |  |  |  |  |  |  |  |  |  |  |
| Traffic Volume (vph)       | 74                                                                                | 599                                                                               | 237                                                                               | 232                                                                               | 667                                                                               | 47                                                                                | 378                                                                                | 114                                                                                 | 346                                                                                 | 40                                                                                  | 102                                                                                 | 86                                                                                  |
| Future Volume (vph)        | 74                                                                                | 599                                                                               | 237                                                                               | 232                                                                               | 667                                                                               | 47                                                                                | 378                                                                                | 114                                                                                 | 346                                                                                 | 40                                                                                  | 102                                                                                 | 86                                                                                  |
| Ideal Flow (vphpl)         | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                               | 1900                                                                                | 1900                                                                                | 1900                                                                                | 1900                                                                                | 1900                                                                                |
| Storage Length (ft)        | 140                                                                               |                                                                                   | 165                                                                               | 240                                                                               |                                                                                   | 0                                                                                 | 250                                                                                |                                                                                     | 0                                                                                   | 150                                                                                 |                                                                                     | 0                                                                                   |
| Storage Lanes              | 1                                                                                 |                                                                                   | 1                                                                                 | 2                                                                                 |                                                                                   | 1                                                                                 | 2                                                                                  |                                                                                     | 1                                                                                   | 1                                                                                   |                                                                                     | 0                                                                                   |
| Taper Length (ft)          | 25                                                                                |                                                                                   |                                                                                   | 25                                                                                |                                                                                   |                                                                                   | 25                                                                                 |                                                                                     |                                                                                     | 25                                                                                  |                                                                                     |                                                                                     |
| Lane Util. Factor          | 1.00                                                                              | 0.95                                                                              | 1.00                                                                              | 0.97                                                                              | 0.95                                                                              | 1.00                                                                              | 0.97                                                                               | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Frt                        |                                                                                   |                                                                                   | 0.850                                                                             |                                                                                   |                                                                                   | 0.850                                                                             |                                                                                    |                                                                                     | 0.850                                                                               |                                                                                     | 0.931                                                                               |                                                                                     |
| Flt Protected              | 0.950                                                                             |                                                                                   |                                                                                   | 0.950                                                                             |                                                                                   |                                                                                   | 0.950                                                                              |                                                                                     |                                                                                     | 0.950                                                                               |                                                                                     |                                                                                     |
| Satd. Flow (prot)          | 1770                                                                              | 3539                                                                              | 1583                                                                              | 3433                                                                              | 3539                                                                              | 1583                                                                              | 3433                                                                               | 1863                                                                                | 1583                                                                                | 1770                                                                                | 1734                                                                                | 0                                                                                   |
| Flt Permitted              | 0.282                                                                             |                                                                                   |                                                                                   | 0.191                                                                             |                                                                                   |                                                                                   | 0.170                                                                              |                                                                                     |                                                                                     | 0.666                                                                               |                                                                                     |                                                                                     |
| Satd. Flow (perm)          | 525                                                                               | 3539                                                                              | 1583                                                                              | 690                                                                               | 3539                                                                              | 1583                                                                              | 614                                                                                | 1863                                                                                | 1583                                                                                | 1241                                                                                | 1734                                                                                | 0                                                                                   |
| Right Turn on Red          |                                                                                   |                                                                                   | Yes                                                                               |                                                                                   |                                                                                   | Yes                                                                               |                                                                                    |                                                                                     | Yes                                                                                 |                                                                                     |                                                                                     | Yes                                                                                 |
| Satd. Flow (RTOR)          |                                                                                   |                                                                                   | 213                                                                               |                                                                                   |                                                                                   | 155                                                                               |                                                                                    |                                                                                     | 419                                                                                 |                                                                                     | 27                                                                                  |                                                                                     |
| Link Speed (mph)           |                                                                                   | 30                                                                                |                                                                                   |                                                                                   | 30                                                                                |                                                                                   |                                                                                    | 30                                                                                  |                                                                                     |                                                                                     | 30                                                                                  |                                                                                     |
| Link Distance (ft)         |                                                                                   | 705                                                                               |                                                                                   |                                                                                   | 1593                                                                              |                                                                                   |                                                                                    | 631                                                                                 |                                                                                     |                                                                                     | 652                                                                                 |                                                                                     |
| Travel Time (s)            |                                                                                   | 16.0                                                                              |                                                                                   |                                                                                   | 36.2                                                                              |                                                                                   |                                                                                    | 14.3                                                                                |                                                                                     |                                                                                     | 14.8                                                                                |                                                                                     |
| Peak Hour Factor           | 0.94                                                                              | 0.94                                                                              | 0.94                                                                              | 0.89                                                                              | 0.89                                                                              | 0.89                                                                              | 0.80                                                                               | 0.80                                                                                | 0.80                                                                                | 0.59                                                                                | 0.59                                                                                | 0.59                                                                                |
| Adj. Flow (vph)            | 79                                                                                | 637                                                                               | 252                                                                               | 261                                                                               | 749                                                                               | 53                                                                                | 473                                                                                | 143                                                                                 | 433                                                                                 | 68                                                                                  | 173                                                                                 | 146                                                                                 |
| Shared Lane Traffic (%)    |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Lane Group Flow (vph)      | 79                                                                                | 637                                                                               | 252                                                                               | 261                                                                               | 749                                                                               | 53                                                                                | 473                                                                                | 143                                                                                 | 433                                                                                 | 68                                                                                  | 319                                                                                 | 0                                                                                   |
| Enter Blocked Intersection | No                                                                                | No                                                                                | No                                                                                | No                                                                                | No                                                                                | No                                                                                | No                                                                                 | No                                                                                  | No                                                                                  | No                                                                                  | No                                                                                  | No                                                                                  |
| Lane Alignment             | Left                                                                              | Left                                                                              | Right                                                                             | Left                                                                              | Left                                                                              | Right                                                                             | Left                                                                               | Left                                                                                | Right                                                                               | Left                                                                                | Left                                                                                | Right                                                                               |
| Median Width(ft)           |                                                                                   | 24                                                                                |                                                                                   |                                                                                   | 24                                                                                |                                                                                   |                                                                                    | 24                                                                                  |                                                                                     |                                                                                     | 24                                                                                  |                                                                                     |
| Link Offset(ft)            |                                                                                   | 0                                                                                 |                                                                                   |                                                                                   | 0                                                                                 |                                                                                   |                                                                                    | 0                                                                                   |                                                                                     |                                                                                     | 0                                                                                   |                                                                                     |
| Crosswalk Width(ft)        |                                                                                   | 16                                                                                |                                                                                   |                                                                                   | 16                                                                                |                                                                                   |                                                                                    | 16                                                                                  |                                                                                     |                                                                                     | 16                                                                                  |                                                                                     |
| Two way Left Turn Lane     |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Headway Factor             | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                               | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Turning Speed (mph)        | 60                                                                                |                                                                                   | 60                                                                                | 60                                                                                |                                                                                   | 60                                                                                | 60                                                                                 |                                                                                     | 60                                                                                  | 60                                                                                  |                                                                                     | 60                                                                                  |
| Turn Type                  | pm+pt                                                                             | NA                                                                                | Perm                                                                              | pm+pt                                                                             | NA                                                                                | Perm                                                                              | pm+pt                                                                              | NA                                                                                  | Perm                                                                                | pm+pt                                                                               | NA                                                                                  |                                                                                     |
| Protected Phases           | 5                                                                                 | 2                                                                                 |                                                                                   | 1                                                                                 | 6                                                                                 |                                                                                   | 3                                                                                  | 8                                                                                   |                                                                                     | 7                                                                                   | 4                                                                                   |                                                                                     |
| Permitted Phases           | 2                                                                                 |                                                                                   | 2                                                                                 | 6                                                                                 |                                                                                   | 6                                                                                 | 8                                                                                  |                                                                                     | 8                                                                                   | 4                                                                                   |                                                                                     |                                                                                     |
| Minimum Split (s)          | 10.0                                                                              | 30.5                                                                              | 30.5                                                                              | 10.0                                                                              | 31.5                                                                              | 31.5                                                                              | 10.0                                                                               | 38.5                                                                                | 38.5                                                                                | 10.0                                                                                | 24.5                                                                                |                                                                                     |
| Total Split (s)            | 15.0                                                                              | 40.0                                                                              | 40.0                                                                              | 25.0                                                                              | 50.0                                                                              | 50.0                                                                              | 40.0                                                                               | 50.0                                                                                | 50.0                                                                                | 15.0                                                                                | 25.0                                                                                |                                                                                     |
| Total Split (%)            | 11.5%                                                                             | 30.8%                                                                             | 30.8%                                                                             | 19.2%                                                                             | 38.5%                                                                             | 38.5%                                                                             | 30.8%                                                                              | 38.5%                                                                               | 38.5%                                                                               | 11.5%                                                                               | 19.2%                                                                               |                                                                                     |
| Maximum Green (s)          | 10.0                                                                              | 33.5                                                                              | 33.5                                                                              | 20.0                                                                              | 43.5                                                                              | 43.5                                                                              | 35.0                                                                               | 43.5                                                                                | 43.5                                                                                | 10.0                                                                                | 18.5                                                                                |                                                                                     |
| Yellow Time (s)            | 3.0                                                                               | 4.5                                                                               | 4.5                                                                               | 3.0                                                                               | 4.5                                                                               | 4.5                                                                               | 3.0                                                                                | 4.5                                                                                 | 4.5                                                                                 | 3.0                                                                                 | 4.5                                                                                 |                                                                                     |
| All-Red Time (s)           | 2.0                                                                               | 2.0                                                                               | 2.0                                                                               | 2.0                                                                               | 2.0                                                                               | 2.0                                                                               | 2.0                                                                                | 2.0                                                                                 | 2.0                                                                                 | 2.0                                                                                 | 2.0                                                                                 |                                                                                     |
| Lost Time Adjust (s)       | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                                | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 |                                                                                     |
| Total Lost Time (s)        | 5.0                                                                               | 6.5                                                                               | 6.5                                                                               | 5.0                                                                               | 6.5                                                                               | 6.5                                                                               | 5.0                                                                                | 6.5                                                                                 | 6.5                                                                                 | 5.0                                                                                 | 6.5                                                                                 |                                                                                     |
| Lead/Lag                   | Lead                                                                              | Lag                                                                               | Lag                                                                               | Lead                                                                              | Lag                                                                               | Lag                                                                               | Lead                                                                               | Lag                                                                                 | Lag                                                                                 | Lead                                                                                | Lag                                                                                 |                                                                                     |
| Lead-Lag Optimize?         | Yes                                                                               | Yes                                                                               | Yes                                                                               | Yes                                                                               | Yes                                                                               | Yes                                                                               | Yes                                                                                | Yes                                                                                 | Yes                                                                                 | Yes                                                                                 | Yes                                                                                 |                                                                                     |
| Walk Time (s)              |                                                                                   | 5.0                                                                               | 5.0                                                                               |                                                                                   | 5.0                                                                               | 5.0                                                                               |                                                                                    | 5.0                                                                                 | 5.0                                                                                 |                                                                                     |                                                                                     |                                                                                     |
| Flash Dont Walk (s)        |                                                                                   | 19.0                                                                              | 19.0                                                                              |                                                                                   | 20.0                                                                              | 20.0                                                                              |                                                                                    | 27.0                                                                                | 27.0                                                                                |                                                                                     |                                                                                     |                                                                                     |
| Pedestrian Calls (#/hr)    |                                                                                   | 0                                                                                 | 0                                                                                 |                                                                                   | 0                                                                                 | 0                                                                                 |                                                                                    | 0                                                                                   | 0                                                                                   |                                                                                     |                                                                                     |                                                                                     |
| Act Effct Green (s)        | 45.0                                                                              | 33.5                                                                              | 33.5                                                                              | 60.0                                                                              | 43.5                                                                              | 43.5                                                                              | 60.0                                                                               | 43.5                                                                                | 43.5                                                                                | 30.0                                                                                | 18.5                                                                                |                                                                                     |
| Actuated g/C Ratio         | 0.35                                                                              | 0.26                                                                              | 0.26                                                                              | 0.46                                                                              | 0.33                                                                              | 0.33                                                                              | 0.46                                                                               | 0.33                                                                                | 0.33                                                                                | 0.23                                                                                | 0.14                                                                                |                                                                                     |
| v/c Ratio                  | 0.29                                                                              | 0.70                                                                              | 0.45                                                                              | 0.35                                                                              | 0.63                                                                              | 0.08                                                                              | 0.45                                                                               | 0.23                                                                                | 0.54                                                                                | 0.21                                                                                | 1.19                                                                                |                                                                                     |

Total PM 4:45 pm 11/05/2024

Synchro 11 Report  
Page 3

# Lanes, Volumes, Timings

## 67: Springhill Pkwy & Highlands Ranch Pkwy

12/20/2024

|                         |  |  |  |  |  |  |  |  |  |  |  |  |
|-------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Lane Group              | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | WBR                                                                               | NBL                                                                                | NBT                                                                                 | NBR                                                                                 | SBL                                                                                 | SBT                                                                                 | SBR                                                                                 |
| Control Delay           | 23.6                                                                              | 48.5                                                                              | 10.8                                                                              | 21.9                                                                              | 39.4                                                                              | 0.3                                                                               | 23.5                                                                               | 32.4                                                                                | 6.1                                                                                 | 25.0                                                                                | 158.2                                                                               |                                                                                     |
| Queue Delay             | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                                | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 |                                                                                     |
| Total Delay             | 23.6                                                                              | 48.5                                                                              | 10.8                                                                              | 21.9                                                                              | 39.4                                                                              | 0.3                                                                               | 23.5                                                                               | 32.4                                                                                | 6.1                                                                                 | 25.0                                                                                | 158.2                                                                               |                                                                                     |
| LOS                     | C                                                                                 | D                                                                                 | B                                                                                 | C                                                                                 | D                                                                                 | A                                                                                 | C                                                                                  | C                                                                                   | A                                                                                   | C                                                                                   | F                                                                                   |                                                                                     |
| Approach Delay          | 36.7                                                                              |                                                                                   |                                                                                   | 33.2                                                                              |                                                                                   |                                                                                   | 17.5                                                                               |                                                                                     |                                                                                     | 134.8                                                                               |                                                                                     |                                                                                     |
| Approach LOS            | D                                                                                 |                                                                                   |                                                                                   | C                                                                                 |                                                                                   |                                                                                   | B                                                                                  |                                                                                     |                                                                                     | F                                                                                   |                                                                                     |                                                                                     |
| Queue Length 50th (ft)  | 37                                                                                | 256                                                                               | 25                                                                                | 64                                                                                | 279                                                                               | 0                                                                                 | 125                                                                                | 87                                                                                  | 8                                                                                   | 31                                                                                  | ~303                                                                                |                                                                                     |
| Queue Length 95th (ft)  | 68                                                                                | 325                                                                               | 99                                                                                | 91                                                                                | 343                                                                               | 0                                                                                 | 143                                                                                | 124                                                                                 | 42                                                                                  | 38                                                                                  | #233                                                                                |                                                                                     |
| Internal Link Dist (ft) | 625                                                                               |                                                                                   |                                                                                   | 1513                                                                              |                                                                                   |                                                                                   | 551                                                                                |                                                                                     |                                                                                     | 572                                                                                 |                                                                                     |                                                                                     |
| Turn Bay Length (ft)    | 140                                                                               |                                                                                   | 165                                                                               | 240                                                                               |                                                                                   |                                                                                   | 250                                                                                |                                                                                     |                                                                                     | 150                                                                                 |                                                                                     |                                                                                     |
| Base Capacity (vph)     | 277                                                                               | 911                                                                               | 566                                                                               | 740                                                                               | 1184                                                                              | 632                                                                               | 1042                                                                               | 623                                                                                 | 808                                                                                 | 327                                                                                 | 269                                                                                 |                                                                                     |
| Starvation Cap Reductn  | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                  | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   |                                                                                     |
| Spillback Cap Reductn   | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                  | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   |                                                                                     |
| Storage Cap Reductn     | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                  | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   |                                                                                     |
| Reduced v/c Ratio       | 0.29                                                                              | 0.70                                                                              | 0.45                                                                              | 0.35                                                                              | 0.63                                                                              | 0.08                                                                              | 0.45                                                                               | 0.23                                                                                | 0.54                                                                                | 0.21                                                                                | 1.19                                                                                |                                                                                     |

### Intersection Summary

Area Type: Other

Cycle Length: 130

Actuated Cycle Length: 130

Offset: 13 (10%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green

Natural Cycle: 90

Control Type: Pretimed

Maximum v/c Ratio: 1.19

Intersection Signal Delay: 40.8

Intersection LOS: D

Intersection Capacity Utilization 64.0%

ICU Level of Service B

Analysis Period (min) 15

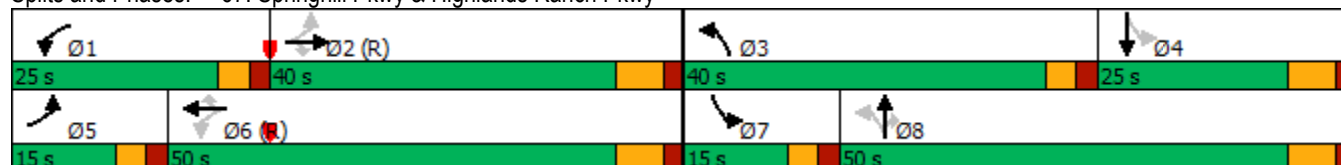
~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

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

Queue shown is maximum after two cycles.

Splits and Phases: 67: Springhill Pkwy & Highlands Ranch Pkwy



| Intersection             |        |                                                                                   |       |       |      |      |        |                                                                                   |        |       |                                                                                     |      |
|--------------------------|--------|-----------------------------------------------------------------------------------|-------|-------|------|------|--------|-----------------------------------------------------------------------------------|--------|-------|-------------------------------------------------------------------------------------|------|
| Int Delay, s/veh         | 1.2    |                                                                                   |       |       |      |      |        |                                                                                   |        |       |                                                                                     |      |
| Movement                 | EBL    | EBT                                                                               | EBR   | WBL   | WBT  | WBR  | NBL    | NBT                                                                               | NBR    | SBL   | SBT                                                                                 | SBR  |
| Lane Configurations      |        |  |       |       |      |      |        |  |        |       |  |      |
| Traffic Vol, veh/h       | 2      | 2                                                                                 | 7     | 0     | 0    | 0    | 8      | 47                                                                                | 38     | 9     | 66                                                                                  | 4    |
| Future Vol, veh/h        | 2      | 2                                                                                 | 7     | 0     | 0    | 0    | 8      | 47                                                                                | 38     | 9     | 66                                                                                  | 4    |
| Conflicting Peds, #/hr   | 0      | 0                                                                                 | 0     | 0     | 0    | 0    | 0      | 0                                                                                 | 0      | 0     | 0                                                                                   | 0    |
| Sign Control             | Stop   | Stop                                                                              | Stop  | Free  | Free | Free | Free   | Free                                                                              | Free   | Free  | Free                                                                                | Free |
| RT Channelized           | -      | -                                                                                 | None  | -     | -    | None | -      | -                                                                                 | None   | -     | -                                                                                   | None |
| Storage Length           | -      | -                                                                                 | -     | -     | -    | -    | -      | -                                                                                 | -      | -     | -                                                                                   | -    |
| Veh in Median Storage, # | -      | 0                                                                                 | -     | -     | -    | -    | -      | 0                                                                                 | -      | -     | 0                                                                                   | -    |
| Grade, %                 | -      | 0                                                                                 | -     | -     | 0    | -    | -      | 0                                                                                 | -      | -     | 0                                                                                   | -    |
| Peak Hour Factor         | 55     | 55                                                                                | 55    | 92    | 92   | 92   | 48     | 48                                                                                | 48     | 63    | 63                                                                                  | 63   |
| Heavy Vehicles, %        | 2      | 2                                                                                 | 2     | 2     | 2    | 2    | 2      | 2                                                                                 | 2      | 2     | 2                                                                                   | 2    |
| Mvmt Flow                | 4      | 4                                                                                 | 13    | 0     | 0    | 0    | 17     | 98                                                                                | 79     | 14    | 105                                                                                 | 6    |
|                          |        |                                                                                   |       |       |      |      |        |                                                                                   |        |       |                                                                                     |      |
| Major/Minor              | Minor2 |                                                                                   |       |       |      |      | Major1 |                                                                                   | Major2 |       |                                                                                     |      |
| Conflicting Flow All     | 308    | 347                                                                               | 108   |       |      |      | 111    | 0                                                                                 | 0      | 177   | 0                                                                                   | 0    |
| Stage 1                  | 136    | 136                                                                               | -     |       |      |      | -      | -                                                                                 | -      | -     | -                                                                                   | -    |
| Stage 2                  | 172    | 211                                                                               | -     |       |      |      | -      | -                                                                                 | -      | -     | -                                                                                   | -    |
| Critical Hdwy            | 6.42   | 6.52                                                                              | 6.22  |       |      |      | 4.12   | -                                                                                 | -      | 4.12  | -                                                                                   | -    |
| Critical Hdwy Stg 1      | 5.42   | 5.52                                                                              | -     |       |      |      | -      | -                                                                                 | -      | -     | -                                                                                   | -    |
| Critical Hdwy Stg 2      | 5.42   | 5.52                                                                              | -     |       |      |      | -      | -                                                                                 | -      | -     | -                                                                                   | -    |
| Follow-up Hdwy           | 3.518  | 4.018                                                                             | 3.318 |       |      |      | 2.218  | -                                                                                 | -      | 2.218 | -                                                                                   | -    |
| Pot Cap-1 Maneuver       | 684    | 576                                                                               | 946   |       |      |      | 1479   | -                                                                                 | -      | 1399  | -                                                                                   | -    |
| Stage 1                  | 890    | 784                                                                               | -     |       |      |      | -      | -                                                                                 | -      | -     | -                                                                                   | -    |
| Stage 2                  | 858    | 728                                                                               | -     |       |      |      | -      | -                                                                                 | -      | -     | -                                                                                   | -    |
| Platoon blocked, %       |        |                                                                                   |       |       |      |      | -      | -                                                                                 |        | -     | -                                                                                   |      |
| Mov Cap-1 Maneuver       | 668    | 0                                                                                 | 946   |       |      |      | 1479   | -                                                                                 | -      | 1399  | -                                                                                   | -    |
| Mov Cap-2 Maneuver       | 668    | 0                                                                                 | -     |       |      |      | -      | -                                                                                 | -      | -     | -                                                                                   | -    |
| Stage 1                  | 878    | 0                                                                                 | -     |       |      |      | -      | -                                                                                 | -      | -     | -                                                                                   | -    |
| Stage 2                  | 849    | 0                                                                                 | -     |       |      |      | -      | -                                                                                 | -      | -     | -                                                                                   | -    |
|                          |        |                                                                                   |       |       |      |      |        |                                                                                   |        |       |                                                                                     |      |
| Approach                 | EB     |                                                                                   |       |       |      |      | NB     |                                                                                   | SB     |       |                                                                                     |      |
| HCM Control Delay, s     | 9.3    |                                                                                   |       |       |      |      | 0.6    |                                                                                   | 0.9    |       |                                                                                     |      |
| HCM LOS                  | A      |                                                                                   |       |       |      |      |        |                                                                                   |        |       |                                                                                     |      |
|                          |        |                                                                                   |       |       |      |      |        |                                                                                   |        |       |                                                                                     |      |
| Minor Lane/Major Mvmt    | NBL    | NBT                                                                               | NBR   | EBLn1 | SBL  | SBT  | SBR    |                                                                                   |        |       |                                                                                     |      |
| Capacity (veh/h)         | 1479   | -                                                                                 | -     | 866   | 1399 | -    | -      |                                                                                   |        |       |                                                                                     |      |
| HCM Lane V/C Ratio       | 0.011  | -                                                                                 | -     | 0.023 | 0.01 | -    | -      |                                                                                   |        |       |                                                                                     |      |
| HCM Control Delay (s)    | 7.5    | 0                                                                                 | -     | 9.3   | 7.6  | 0    | -      |                                                                                   |        |       |                                                                                     |      |
| HCM Lane LOS             | A      | A                                                                                 | -     | A     | A    | A    | -      |                                                                                   |        |       |                                                                                     |      |
| HCM 95th %tile Q(veh)    | 0      | -                                                                                 | -     | 0.1   | 0    | -    | -      |                                                                                   |        |       |                                                                                     |      |

## Intersection

Int Delay, s/veh 3.9

| Movement                 | WBL                                                                               | WBR  | NBT                                                                               | NBR  | SBL  | SBT                                                                               |
|--------------------------|-----------------------------------------------------------------------------------|------|-----------------------------------------------------------------------------------|------|------|-----------------------------------------------------------------------------------|
| Lane Configurations      |  |      |  |      |      |  |
| Traffic Vol, veh/h       | 39                                                                                | 10   | 49                                                                                | 0    | 0    | 42                                                                                |
| Future Vol, veh/h        | 39                                                                                | 10   | 49                                                                                | 0    | 0    | 42                                                                                |
| Conflicting Peds, #/hr   | 0                                                                                 | 0    | 0                                                                                 | 0    | 0    | 0                                                                                 |
| Sign Control             | Stop                                                                              | Stop | Free                                                                              | Free | Free | Free                                                                              |
| RT Channelized           | -                                                                                 | None | -                                                                                 | None | -    | None                                                                              |
| Storage Length           | 0                                                                                 | -    | -                                                                                 | -    | -    | -                                                                                 |
| Veh in Median Storage, # | 0                                                                                 | -    | 0                                                                                 | -    | -    | 0                                                                                 |
| Grade, %                 | 0                                                                                 | -    | 0                                                                                 | -    | -    | 0                                                                                 |
| Peak Hour Factor         | 43                                                                                | 43   | 47                                                                                | 47   | 58   | 58                                                                                |
| Heavy Vehicles, %        | 2                                                                                 | 2    | 2                                                                                 | 2    | 2    | 2                                                                                 |
| Mvmt Flow                | 91                                                                                | 23   | 104                                                                               | 0    | 0    | 72                                                                                |

| Major/Minor          | Minor1 | Major1 | Major2 |
|----------------------|--------|--------|--------|
| Conflicting Flow All | 176    | 104    | 0      |
| Stage 1              | 104    | -      | -      |
| Stage 2              | 72     | -      | -      |
| Critical Hdwy        | 6.42   | 6.22   | -      |
| Critical Hdwy Stg 1  | 5.42   | -      | -      |
| Critical Hdwy Stg 2  | 5.42   | -      | -      |
| Follow-up Hdwy       | 3.518  | 3.318  | -      |
| Pot Cap-1 Maneuver   | 814    | 951    | -      |
| Stage 1              | 920    | -      | -      |
| Stage 2              | 951    | -      | -      |
| Platoon blocked, %   |        | -      | -      |
| Mov Cap-1 Maneuver   | 814    | 951    | -      |
| Mov Cap-2 Maneuver   | 814    | -      | -      |
| Stage 1              | 920    | -      | -      |
| Stage 2              | 951    | -      | -      |

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

| Minor Lane/Major Mvmt | NBTWBLn1 | SBT |
|-----------------------|----------|-----|
| Capacity (veh/h)      | - 839    | -   |
| HCM Lane V/C Ratio    | - 0.136  | -   |
| HCM Control Delay (s) | - 10     | -   |
| HCM Lane LOS          | - B      | -   |
| HCM 95th %tile Q(veh) | - 0.5    | -   |

HCM 2010 TWSC  
59: Hackberry St & Springhill Pkwy

12/20/2024

| Intersection             |        |       |      |        |       |      |        |       |       |        |       |       |
|--------------------------|--------|-------|------|--------|-------|------|--------|-------|-------|--------|-------|-------|
| Int Delay, s/veh         | 13.9   |       |      |        |       |      |        |       |       |        |       |       |
| Movement                 | EBL    | EBT   | EBR  | WBL    | WBT   | WBR  | NBL    | NBT   | NBR   | SBL    | SBT   | SBR   |
| Lane Configurations      |        | ↕     |      |        | ↕     |      |        | ↕     |       | ↕      | ↕     |       |
| Traffic Vol, veh/h       | 36     | 25    | 160  | 16     | 10    | 33   | 38     | 137   | 9     | 0      | 33    | 3     |
| Future Vol, veh/h        | 36     | 25    | 160  | 16     | 10    | 33   | 38     | 137   | 9     | 0      | 33    | 3     |
| Conflicting Peds, #/hr   | 0      | 0     | 0    | 0      | 0     | 0    | 0      | 0     | 0     | 0      | 0     | 0     |
| Sign Control             | Free   | Free  | Free | Free   | Free  | Free | Stop   | Stop  | Stop  | Stop   | Stop  | Stop  |
| RT Channelized           | -      | -     | None | -      | -     | None | -      | -     | None  | -      | -     | None  |
| Storage Length           | -      | -     | -    | -      | -     | -    | -      | -     | -     | 0      | -     | -     |
| Veh in Median Storage, # | -      | 0     | -    | -      | 0     | -    | -      | 0     | -     | -      | 0     | -     |
| Grade, %                 | -      | 0     | -    | -      | 0     | -    | -      | 0     | -     | -      | 0     | -     |
| Peak Hour Factor         | 44     | 44    | 44   | 61     | 61    | 61   | 64     | 64    | 64    | 27     | 27    | 27    |
| Heavy Vehicles, %        | 2      | 2     | 2    | 2      | 2     | 2    | 2      | 2     | 2     | 2      | 2     | 2     |
| Mvmt Flow                | 82     | 57    | 364  | 26     | 16    | 54   | 59     | 214   | 14    | 0      | 122   | 11    |
| Major/Minor              | Major1 |       |      | Major2 |       |      | Minor1 |       |       | Minor2 |       |       |
| Conflicting Flow All     | 70     | 0     | 0    | 421    | 0     | 0    | 565    | 525   | 239   | 612    | 680   | 43    |
| Stage 1                  | -      | -     | -    | -      | -     | -    | 403    | 403   | -     | 95     | 95    | -     |
| Stage 2                  | -      | -     | -    | -      | -     | -    | 162    | 122   | -     | 517    | 585   | -     |
| Critical Hdwy            | 4.12   | -     | -    | 4.12   | -     | -    | 7.12   | 6.52  | 6.22  | 7.12   | 6.52  | 6.22  |
| Critical Hdwy Stg 1      | -      | -     | -    | -      | -     | -    | 6.12   | 5.52  | -     | 6.12   | 5.52  | -     |
| Critical Hdwy Stg 2      | -      | -     | -    | -      | -     | -    | 6.12   | 5.52  | -     | 6.12   | 5.52  | -     |
| Follow-up Hdwy           | 2.218  | -     | -    | 2.218  | -     | -    | 3.518  | 4.018 | 3.318 | 3.518  | 4.018 | 3.318 |
| Pot Cap-1 Maneuver       | 1531   | -     | -    | 1138   | -     | -    | 436    | 458   | 800   | 405    | 373   | 1027  |
| Stage 1                  | -      | -     | -    | -      | -     | -    | 624    | 600   | -     | 912    | 816   | -     |
| Stage 2                  | -      | -     | -    | -      | -     | -    | 840    | 795   | -     | 541    | 498   | -     |
| Platoon blocked, %       | -      | -     | -    | -      | -     | -    | -      | -     | -     | -      | -     | -     |
| Mov Cap-1 Maneuver       | 1531   | -     | -    | 1138   | -     | -    | 288    | 414   | 800   | 220    | 337   | 1027  |
| Mov Cap-2 Maneuver       | -      | -     | -    | -      | -     | -    | 288    | 414   | -     | 220    | 337   | -     |
| Stage 1                  | -      | -     | -    | -      | -     | -    | 578    | 556   | -     | 845    | 796   | -     |
| Stage 2                  | -      | -     | -    | -      | -     | -    | 686    | 776   | -     | 303    | 461   | -     |
| Approach                 | EB     |       |      | WB     |       |      | NB     |       |       | SB     |       |       |
| HCM Control Delay, s     | 1.2    |       |      | 2.2    |       |      | 36.6   |       |       | 21     |       |       |
| HCM LOS                  |        |       |      |        |       |      | E      |       |       | C      |       |       |
| Minor Lane/Major Mvmt    | NBLn1  | EBL   | EBT  | EBR    | WBL   | WBT  | WBR    | SBLn1 | SBLn2 |        |       |       |
| Capacity (veh/h)         | 388    | 1531  | -    | -      | 1138  | -    | -      | -     | 357   |        |       |       |
| HCM Lane V/C Ratio       | 0.741  | 0.053 | -    | -      | 0.023 | -    | -      | -     | 0.373 |        |       |       |
| HCM Control Delay (s)    | 36.6   | 7.5   | 0    | -      | 8.2   | 0    | -      | 0     | 21    |        |       |       |
| HCM Lane LOS             | E      | A     | A    | -      | A     | A    | -      | A     | C     |        |       |       |
| HCM 95th %tile Q(veh)    | 5.9    | 0.2   | -    | -      | 0.1   | -    | -      | -     | 1.7   |        |       |       |

| Intersection             |        |                                                                                   |      |        |                                                                                   |       |        |                                                                                   |       |                                                                                     |                                                                                     |       |
|--------------------------|--------|-----------------------------------------------------------------------------------|------|--------|-----------------------------------------------------------------------------------|-------|--------|-----------------------------------------------------------------------------------|-------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------|
| Int Delay, s/veh         | 8      |                                                                                   |      |        |                                                                                   |       |        |                                                                                   |       |                                                                                     |                                                                                     |       |
| Movement                 | EBL    | EBT                                                                               | EBR  | WBL    | WBT                                                                               | WBR   | NBL    | NBT                                                                               | NBR   | SBL                                                                                 | SBT                                                                                 | SBR   |
| Lane Configurations      |        |  |      |        |  |       |        |  |       |  |  |       |
| Traffic Vol, veh/h       | 0      | 60                                                                                | 14   | 4      | 51                                                                                | 0     | 20     | 0                                                                                 | 17    | 134                                                                                 | 10                                                                                  | 22    |
| Future Vol, veh/h        | 0      | 60                                                                                | 14   | 4      | 51                                                                                | 0     | 20     | 0                                                                                 | 17    | 134                                                                                 | 10                                                                                  | 22    |
| Conflicting Peds, #/hr   | 0      | 0                                                                                 | 0    | 0      | 0                                                                                 | 0     | 0      | 0                                                                                 | 0     | 0                                                                                   | 0                                                                                   | 0     |
| Sign Control             | Free   | Free                                                                              | Free | Free   | Free                                                                              | Free  | Stop   | Stop                                                                              | Stop  | Stop                                                                                | Stop                                                                                | Stop  |
| RT Channelized           | -      | -                                                                                 | None | -      | -                                                                                 | None  | -      | -                                                                                 | None  | -                                                                                   | -                                                                                   | None  |
| Storage Length           | -      | -                                                                                 | -    | -      | -                                                                                 | -     | -      | -                                                                                 | -     | 0                                                                                   | -                                                                                   | -     |
| Veh in Median Storage, # | -      | 0                                                                                 | -    | -      | 0                                                                                 | -     | -      | 0                                                                                 | -     | -                                                                                   | 0                                                                                   | -     |
| Grade, %                 | -      | 0                                                                                 | -    | -      | 0                                                                                 | -     | -      | 0                                                                                 | -     | -                                                                                   | 0                                                                                   | -     |
| Peak Hour Factor         | 63     | 63                                                                                | 63   | 66     | 66                                                                                | 66    | 73     | 73                                                                                | 73    | 48                                                                                  | 48                                                                                  | 48    |
| Heavy Vehicles, %        | 2      | 2                                                                                 | 2    | 2      | 2                                                                                 | 2     | 2      | 2                                                                                 | 2     | 2                                                                                   | 2                                                                                   | 2     |
| Mvmt Flow                | 0      | 95                                                                                | 22   | 6      | 77                                                                                | 0     | 27     | 0                                                                                 | 23    | 279                                                                                 | 21                                                                                  | 46    |
|                          |        |                                                                                   |      |        |                                                                                   |       |        |                                                                                   |       |                                                                                     |                                                                                     |       |
| Major/Minor              | Major1 |                                                                                   |      | Major2 |                                                                                   |       | Minor1 |                                                                                   |       | Minor2                                                                              |                                                                                     |       |
| Conflicting Flow All     | -      | 0                                                                                 | 0    | 117    | 0                                                                                 | 0     | 229    | 195                                                                               | 106   | 207                                                                                 | 206                                                                                 | 77    |
| Stage 1                  | -      | -                                                                                 | -    | -      | -                                                                                 | -     | 106    | 106                                                                               | -     | 89                                                                                  | 89                                                                                  | -     |
| Stage 2                  | -      | -                                                                                 | -    | -      | -                                                                                 | -     | 123    | 89                                                                                | -     | 118                                                                                 | 117                                                                                 | -     |
| Critical Hdwy            | -      | -                                                                                 | -    | 4.12   | -                                                                                 | -     | 7.12   | 6.52                                                                              | 6.22  | 7.12                                                                                | 6.52                                                                                | 6.22  |
| Critical Hdwy Stg 1      | -      | -                                                                                 | -    | -      | -                                                                                 | -     | 6.12   | 5.52                                                                              | -     | 6.12                                                                                | 5.52                                                                                | -     |
| Critical Hdwy Stg 2      | -      | -                                                                                 | -    | -      | -                                                                                 | -     | 6.12   | 5.52                                                                              | -     | 6.12                                                                                | 5.52                                                                                | -     |
| Follow-up Hdwy           | -      | -                                                                                 | -    | 2.218  | -                                                                                 | -     | 3.518  | 4.018                                                                             | 3.318 | 3.518                                                                               | 4.018                                                                               | 3.318 |
| Pot Cap-1 Maneuver       | 0      | -                                                                                 | -    | 1471   | -                                                                                 | 0     | 726    | 700                                                                               | 948   | 751                                                                                 | 691                                                                                 | 984   |
| Stage 1                  | 0      | -                                                                                 | -    | -      | -                                                                                 | 0     | 900    | 807                                                                               | -     | 918                                                                                 | 821                                                                                 | -     |
| Stage 2                  | 0      | -                                                                                 | -    | -      | -                                                                                 | 0     | 881    | 821                                                                               | -     | 887                                                                                 | 799                                                                                 | -     |
| Platoon blocked, %       |        | -                                                                                 | -    |        | -                                                                                 |       |        |                                                                                   |       |                                                                                     |                                                                                     |       |
| Mov Cap-1 Maneuver       | -      | -                                                                                 | -    | 1471   | -                                                                                 | -     | 674    | 697                                                                               | 948   | 730                                                                                 | 688                                                                                 | 984   |
| Mov Cap-2 Maneuver       | -      | -                                                                                 | -    | -      | -                                                                                 | -     | 674    | 697                                                                               | -     | 730                                                                                 | 688                                                                                 | -     |
| Stage 1                  | -      | -                                                                                 | -    | -      | -                                                                                 | -     | 900    | 807                                                                               | -     | 918                                                                                 | 818                                                                                 | -     |
| Stage 2                  | -      | -                                                                                 | -    | -      | -                                                                                 | -     | 815    | 818                                                                               | -     | 865                                                                                 | 799                                                                                 | -     |
|                          |        |                                                                                   |      |        |                                                                                   |       |        |                                                                                   |       |                                                                                     |                                                                                     |       |
| Approach                 | EB     |                                                                                   |      | WB     |                                                                                   |       | NB     |                                                                                   |       | SB                                                                                  |                                                                                     |       |
| HCM Control Delay, s     | 0      |                                                                                   |      | 0.5    |                                                                                   |       | 10     |                                                                                   |       | 12.3                                                                                |                                                                                     |       |
| HCM LOS                  |        |                                                                                   |      |        |                                                                                   |       | B      |                                                                                   |       | B                                                                                   |                                                                                     |       |
|                          |        |                                                                                   |      |        |                                                                                   |       |        |                                                                                   |       |                                                                                     |                                                                                     |       |
| Minor Lane/Major Mvmt    | NBLn1  | EBT                                                                               | EBR  | WBL    | WBT                                                                               | SBLn1 | SBLn2  |                                                                                   |       |                                                                                     |                                                                                     |       |
| Capacity (veh/h)         | 777    | -                                                                                 | -    | 1471   | -                                                                                 | 730   | 867    |                                                                                   |       |                                                                                     |                                                                                     |       |
| HCM Lane V/C Ratio       | 0.065  | -                                                                                 | -    | 0.004  | -                                                                                 | 0.382 | 0.077  |                                                                                   |       |                                                                                     |                                                                                     |       |
| HCM Control Delay (s)    | 10     | -                                                                                 | -    | 7.5    | 0                                                                                 | 13    | 9.5    |                                                                                   |       |                                                                                     |                                                                                     |       |
| HCM Lane LOS             | B      | -                                                                                 | -    | A      | A                                                                                 | B     | A      |                                                                                   |       |                                                                                     |                                                                                     |       |
| HCM 95th %tile Q(veh)    | 0.2    | -                                                                                 | -    | 0      | -                                                                                 | 1.8   | 0.2    |                                                                                   |       |                                                                                     |                                                                                     |       |

| Intersection             |        |              |       |       |       |      |        |              |        |       |              |      |
|--------------------------|--------|--------------|-------|-------|-------|------|--------|--------------|--------|-------|--------------|------|
| Int Delay, s/veh         | 0.9    |              |       |       |       |      |        |              |        |       |              |      |
| Movement                 | EBL    | EBT          | EBR   | WBL   | WBT   | WBR  | NBL    | NBT          | NBR    | SBL   | SBT          | SBR  |
| Lane Configurations      |        | <div>↕</div> |       |       |       |      |        | <div>↕</div> |        |       | <div>↕</div> |      |
| Traffic Vol, veh/h       | 3      | 1            | 2     | 0     | 0     | 0    | 8      | 44           | 35     | 4     | 78           | 1    |
| Future Vol, veh/h        | 3      | 1            | 2     | 0     | 0     | 0    | 8      | 44           | 35     | 4     | 78           | 1    |
| Conflicting Peds, #/hr   | 0      | 0            | 0     | 0     | 0     | 0    | 0      | 0            | 0      | 0     | 0            | 0    |
| Sign Control             | Stop   | Stop         | Stop  | Free  | Free  | Free | Free   | Free         | Free   | Free  | Free         | Free |
| RT Channelized           | -      | -            | None  | -     | -     | None | -      | -            | None   | -     | -            | None |
| Storage Length           | -      | -            | -     | -     | -     | -    | -      | -            | -      | -     | -            | -    |
| Veh in Median Storage, # | -      | 0            | -     | -     | -     | -    | -      | 0            | -      | -     | 0            | -    |
| Grade, %                 | -      | 0            | -     | -     | 0     | -    | -      | 0            | -      | -     | 0            | -    |
| Peak Hour Factor         | 63     | 63           | 63    | 92    | 92    | 92   | 92     | 92           | 92     | 62    | 62           | 62   |
| Heavy Vehicles, %        | 2      | 2            | 2     | 2     | 2     | 2    | 2      | 2            | 2      | 2     | 2            | 2    |
| Mvmt Flow                | 5      | 2            | 3     | 0     | 0     | 0    | 9      | 48           | 38     | 6     | 126          | 2    |
|                          |        |              |       |       |       |      |        |              |        |       |              |      |
| Major/Minor              | Minor2 |              |       |       |       |      | Major1 |              | Major2 |       |              |      |
| Conflicting Flow All     | 224    | 243          | 127   |       |       |      | 128    | 0            | 0      | 86    | 0            | 0    |
| Stage 1                  | 139    | 139          | -     |       |       |      | -      | -            | -      | -     | -            | -    |
| Stage 2                  | 85     | 104          | -     |       |       |      | -      | -            | -      | -     | -            | -    |
| Critical Hdwy            | 6.42   | 6.52         | 6.22  |       |       |      | 4.12   | -            | -      | 4.12  | -            | -    |
| Critical Hdwy Stg 1      | 5.42   | 5.52         | -     |       |       |      | -      | -            | -      | -     | -            | -    |
| Critical Hdwy Stg 2      | 5.42   | 5.52         | -     |       |       |      | -      | -            | -      | -     | -            | -    |
| Follow-up Hdwy           | 3.518  | 4.018        | 3.318 |       |       |      | 2.218  | -            | -      | 2.218 | -            | -    |
| Pot Cap-1 Maneuver       | 764    | 659          | 923   |       |       |      | 1458   | -            | -      | 1510  | -            | -    |
| Stage 1                  | 888    | 782          | -     |       |       |      | -      | -            | -      | -     | -            | -    |
| Stage 2                  | 938    | 809          | -     |       |       |      | -      | -            | -      | -     | -            | -    |
| Platoon blocked, %       |        |              |       |       |       |      | -      | -            |        | -     | -            |      |
| Mov Cap-1 Maneuver       | 756    | 0            | 923   |       |       |      | 1458   | -            | -      | 1510  | -            | -    |
| Mov Cap-2 Maneuver       | 756    | 0            | -     |       |       |      | -      | -            | -      | -     | -            | -    |
| Stage 1                  | 882    | 0            | -     |       |       |      | -      | -            | -      | -     | -            | -    |
| Stage 2                  | 934    | 0            | -     |       |       |      | -      | -            | -      | -     | -            | -    |
|                          |        |              |       |       |       |      |        |              |        |       |              |      |
| Approach                 | EB     |              |       |       |       |      | NB     |              | SB     |       |              |      |
| HCM Control Delay, s     | 9.5    |              |       |       |       |      | 0.7    |              | 0.4    |       |              |      |
| HCM LOS                  | A      |              |       |       |       |      |        |              |        |       |              |      |
|                          |        |              |       |       |       |      |        |              |        |       |              |      |
| Minor Lane/Major Mvmt    | NBL    | NBT          | NBR   | EBLn1 | SBL   | SBT  | SBR    |              |        |       |              |      |
| Capacity (veh/h)         | 1458   | -            | -     | 815   | 1510  | -    | -      |              |        |       |              |      |
| HCM Lane V/C Ratio       | 0.006  | -            | -     | 0.012 | 0.004 | -    | -      |              |        |       |              |      |
| HCM Control Delay (s)    | 7.5    | 0            | -     | 9.5   | 7.4   | 0    | -      |              |        |       |              |      |
| HCM Lane LOS             | A      | A            | -     | A     | A     | A    | -      |              |        |       |              |      |
| HCM 95th %tile Q(veh)    | 0      | -            | -     | 0     | 0     | -    | -      |              |        |       |              |      |

## Intersection

Int Delay, s/veh 5.2

| Movement                 | WBL                                                                               | WBR  | NBT                                                                               | NBR  | SBL  | SBT                                                                               |
|--------------------------|-----------------------------------------------------------------------------------|------|-----------------------------------------------------------------------------------|------|------|-----------------------------------------------------------------------------------|
| Lane Configurations      |  |      |  |      |      |  |
| Traffic Vol, veh/h       | 36                                                                                | 4    | 49                                                                                | 0    | 0    | 48                                                                                |
| Future Vol, veh/h        | 36                                                                                | 4    | 49                                                                                | 0    | 0    | 48                                                                                |
| Conflicting Peds, #/hr   | 0                                                                                 | 0    | 0                                                                                 | 0    | 0    | 0                                                                                 |
| Sign Control             | Stop                                                                              | Stop | Free                                                                              | Free | Free | Free                                                                              |
| RT Channelized           | -                                                                                 | None | -                                                                                 | None | -    | None                                                                              |
| Storage Length           | 0                                                                                 | -    | -                                                                                 | -    | -    | -                                                                                 |
| Veh in Median Storage, # | 0                                                                                 | -    | 0                                                                                 | -    | -    | 0                                                                                 |
| Grade, %                 | 0                                                                                 | -    | 0                                                                                 | -    | -    | 0                                                                                 |
| Peak Hour Factor         | 30                                                                                | 30   | 82                                                                                | 82   | 88   | 88                                                                                |
| Heavy Vehicles, %        | 2                                                                                 | 2    | 2                                                                                 | 2    | 2    | 2                                                                                 |
| Mvmt Flow                | 120                                                                               | 13   | 60                                                                                | 0    | 0    | 55                                                                                |

| Major/Minor          | Minor1 | Major1 | Major2 |
|----------------------|--------|--------|--------|
| Conflicting Flow All | 115    | 60     | 0      |
| Stage 1              | 60     | -      | -      |
| Stage 2              | 55     | -      | -      |
| Critical Hdwy        | 6.42   | 6.22   | -      |
| Critical Hdwy Stg 1  | 5.42   | -      | -      |
| Critical Hdwy Stg 2  | 5.42   | -      | -      |
| Follow-up Hdwy       | 3.518  | 3.318  | -      |
| Pot Cap-1 Maneuver   | 881    | 1005   | -      |
| Stage 1              | 963    | -      | -      |
| Stage 2              | 968    | -      | -      |
| Platoon blocked, %   |        | -      | -      |
| Mov Cap-1 Maneuver   | 881    | 1005   | -      |
| Mov Cap-2 Maneuver   | 881    | -      | -      |
| Stage 1              | 963    | -      | -      |
| Stage 2              | 968    | -      | -      |

| Approach             | WB  | NB | SB |
|----------------------|-----|----|----|
| HCM Control Delay, s | 9.7 | 0  | 0  |
| HCM LOS              | A   |    |    |

| Minor Lane/Major Mvmt | NBTWBLn1 | SBT |
|-----------------------|----------|-----|
| Capacity (veh/h)      | - 892    | -   |
| HCM Lane V/C Ratio    | - 0.149  | -   |
| HCM Control Delay (s) | - 9.7    | -   |
| HCM Lane LOS          | - A      | -   |
| HCM 95th %tile Q(veh) | - 0.5    | -   |



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| Intersection             |        |       |      |        |       |      |        |       |       |        |       |       |
|--------------------------|--------|-------|------|--------|-------|------|--------|-------|-------|--------|-------|-------|
| Int Delay, s/veh         | 10.8   |       |      |        |       |      |        |       |       |        |       |       |
| Movement                 | EBL    | EBT   | EBR  | WBL    | WBT   | WBR  | NBL    | NBT   | NBR   | SBL    | SBT   | SBR   |
| Lane Configurations      |        | ↕     |      |        | ↕     |      |        | ↕     |       | ↕      | ↕     |       |
| Traffic Vol, veh/h       | 25     | 13    | 131  | 14     | 11    | 11   | 72     | 130   | 20    | 0      | 57    | 0     |
| Future Vol, veh/h        | 25     | 13    | 131  | 14     | 11    | 11   | 72     | 130   | 20    | 0      | 57    | 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           | -      | -     | -    | -      | -     | -    | -      | -     | -     | 0      | -     | -     |
| Veh in Median Storage, # | -      | 0     | -    | -      | 0     | -    | -      | 0     | -     | -      | 0     | -     |
| Grade, %                 | -      | 0     | -    | -      | 0     | -    | -      | 0     | -     | -      | 0     | -     |
| Peak Hour Factor         | 57     | 57    | 57   | 45     | 45    | 45   | 73     | 73    | 73    | 48     | 48    | 48    |
| Heavy Vehicles, %        | 2      | 2     | 2    | 2      | 2     | 2    | 2      | 2     | 2     | 2      | 2     | 2     |
| Mvmt Flow                | 44     | 23    | 230  | 31     | 24    | 24   | 99     | 178   | 27    | 0      | 119   | 0     |
| Major/Minor              | Major1 |       |      | Major2 |       |      | Minor1 |       |       | Minor2 |       |       |
| Conflicting Flow All     | 48     | 0     | 0    | 253    | 0     | 0    | 384    | 336   | 138   | 427    | 439   | 36    |
| Stage 1                  | -      | -     | -    | -      | -     | -    | 226    | 226   | -     | 98     | 98    | -     |
| Stage 2                  | -      | -     | -    | -      | -     | -    | 158    | 110   | -     | 329    | 341   | -     |
| Critical Hdwy            | 4.12   | -     | -    | 4.12   | -     | -    | 7.12   | 6.52  | 6.22  | 7.12   | 6.52  | 6.22  |
| Critical Hdwy Stg 1      | -      | -     | -    | -      | -     | -    | 6.12   | 5.52  | -     | 6.12   | 5.52  | -     |
| Critical Hdwy Stg 2      | -      | -     | -    | -      | -     | -    | 6.12   | 5.52  | -     | 6.12   | 5.52  | -     |
| Follow-up Hdwy           | 2.218  | -     | -    | 2.218  | -     | -    | 3.518  | 4.018 | 3.318 | 3.518  | 4.018 | 3.318 |
| Pot Cap-1 Maneuver       | 1559   | -     | -    | 1312   | -     | -    | 574    | 585   | 910   | 538    | 512   | 1037  |
| Stage 1                  | -      | -     | -    | -      | -     | -    | 777    | 717   | -     | 908    | 814   | -     |
| Stage 2                  | -      | -     | -    | -      | -     | -    | 844    | 804   | -     | 684    | 639   | -     |
| Platoon blocked, %       | -      | -     | -    | -      | -     | -    | -      | -     | -     | -      | -     | -     |
| Mov Cap-1 Maneuver       | 1559   | -     | -    | 1312   | -     | -    | 445    | 552   | 910   | 375    | 483   | 1037  |
| Mov Cap-2 Maneuver       | -      | -     | -    | -      | -     | -    | 445    | 552   | -     | 375    | 483   | -     |
| Stage 1                  | -      | -     | -    | -      | -     | -    | 751    | 693   | -     | 877    | 794   | -     |
| Stage 2                  | -      | -     | -    | -      | -     | -    | 701    | 785   | -     | 476    | 617   | -     |
| Approach                 | EB     |       |      | WB     |       |      | NB     |       |       | SB     |       |       |
| HCM Control Delay, s     | 1.1    |       |      | 3      |       |      | 20.6   |       |       | 14.9   |       |       |
| HCM LOS                  |        |       |      |        |       |      | C      |       |       | B      |       |       |
| Minor Lane/Major Mvmt    | NBLn1  | EBL   | EBT  | EBR    | WBL   | WBT  | WBR    | SBLn1 | SBLn2 |        |       |       |
| Capacity (veh/h)         | 529    | 1559  | -    | -      | 1312  | -    | -      | -     | 483   |        |       |       |
| HCM Lane V/C Ratio       | 0.575  | 0.028 | -    | -      | 0.024 | -    | -      | -     | 0.246 |        |       |       |
| HCM Control Delay (s)    | 20.6   | 7.4   | 0    | -      | 7.8   | 0    | -      | 0     | 14.9  |        |       |       |
| HCM Lane LOS             | C      | A     | A    | -      | A     | A    | -      | A     | B     |        |       |       |
| HCM 95th %tile Q(veh)    | 3.6    | 0.1   | -    | -      | 0.1   | -    | -      | -     | 1     |        |       |       |

| Intersection             |        |                                                                                   |      |        |                                                                                   |       |        |                                                                                   |       |                                                                                     |                                                                                     |       |
|--------------------------|--------|-----------------------------------------------------------------------------------|------|--------|-----------------------------------------------------------------------------------|-------|--------|-----------------------------------------------------------------------------------|-------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------|
| Int Delay, s/veh         | 6.7    |                                                                                   |      |        |                                                                                   |       |        |                                                                                   |       |                                                                                     |                                                                                     |       |
| Movement                 | EBL    | EBT                                                                               | EBR  | WBL    | WBT                                                                               | WBR   | NBL    | NBT                                                                               | NBR   | SBL                                                                                 | SBT                                                                                 | SBR   |
| Lane Configurations      |        |  |      |        |  |       |        |  |       |  |  |       |
| Traffic Vol, veh/h       | 0      | 59                                                                                | 24   | 15     | 66                                                                                | 0     | 10     | 0                                                                                 | 15    | 98                                                                                  | 10                                                                                  | 10    |
| Future Vol, veh/h        | 0      | 59                                                                                | 24   | 15     | 66                                                                                | 0     | 10     | 0                                                                                 | 15    | 98                                                                                  | 10                                                                                  | 10    |
| Conflicting Peds, #/hr   | 0      | 0                                                                                 | 0    | 0      | 0                                                                                 | 0     | 0      | 0                                                                                 | 0     | 0                                                                                   | 0                                                                                   | 0     |
| Sign Control             | Free   | Free                                                                              | Free | Free   | Free                                                                              | Free  | Stop   | Stop                                                                              | Stop  | Stop                                                                                | Stop                                                                                | Stop  |
| RT Channelized           | -      | -                                                                                 | None | -      | -                                                                                 | None  | -      | -                                                                                 | None  | -                                                                                   | -                                                                                   | None  |
| Storage Length           | -      | -                                                                                 | -    | -      | -                                                                                 | -     | -      | -                                                                                 | -     | 0                                                                                   | -                                                                                   | -     |
| Veh in Median Storage, # | -      | 0                                                                                 | -    | -      | 0                                                                                 | -     | -      | 0                                                                                 | -     | -                                                                                   | 0                                                                                   | -     |
| Grade, %                 | -      | 0                                                                                 | -    | -      | 0                                                                                 | -     | -      | 0                                                                                 | -     | -                                                                                   | 0                                                                                   | -     |
| Peak Hour Factor         | 67     | 67                                                                                | 67   | 66     | 66                                                                                | 66    | 73     | 73                                                                                | 73    | 48                                                                                  | 48                                                                                  | 48    |
| Heavy Vehicles, %        | 2      | 2                                                                                 | 2    | 2      | 2                                                                                 | 2     | 2      | 2                                                                                 | 2     | 2                                                                                   | 2                                                                                   | 2     |
| Mvmt Flow                | 0      | 88                                                                                | 36   | 23     | 100                                                                               | 0     | 14     | 0                                                                                 | 21    | 204                                                                                 | 21                                                                                  | 21    |
|                          |        |                                                                                   |      |        |                                                                                   |       |        |                                                                                   |       |                                                                                     |                                                                                     |       |
| Major/Minor              | Major1 |                                                                                   |      | Major2 |                                                                                   |       | Minor1 |                                                                                   |       | Minor2                                                                              |                                                                                     |       |
| Conflicting Flow All     | -      | 0                                                                                 | 0    | 124    | 0                                                                                 | 0     | 273    | 252                                                                               | 106   | 263                                                                                 | 270                                                                                 | 100   |
| Stage 1                  | -      | -                                                                                 | -    | -      | -                                                                                 | -     | 106    | 106                                                                               | -     | 146                                                                                 | 146                                                                                 | -     |
| Stage 2                  | -      | -                                                                                 | -    | -      | -                                                                                 | -     | 167    | 146                                                                               | -     | 117                                                                                 | 124                                                                                 | -     |
| Critical Hdwy            | -      | -                                                                                 | -    | 4.12   | -                                                                                 | -     | 7.12   | 6.52                                                                              | 6.22  | 7.12                                                                                | 6.52                                                                                | 6.22  |
| Critical Hdwy Stg 1      | -      | -                                                                                 | -    | -      | -                                                                                 | -     | 6.12   | 5.52                                                                              | -     | 6.12                                                                                | 5.52                                                                                | -     |
| Critical Hdwy Stg 2      | -      | -                                                                                 | -    | -      | -                                                                                 | -     | 6.12   | 5.52                                                                              | -     | 6.12                                                                                | 5.52                                                                                | -     |
| Follow-up Hdwy           | -      | -                                                                                 | -    | 2.218  | -                                                                                 | -     | 3.518  | 4.018                                                                             | 3.318 | 3.518                                                                               | 4.018                                                                               | 3.318 |
| Pot Cap-1 Maneuver       | 0      | -                                                                                 | -    | 1463   | -                                                                                 | 0     | 679    | 651                                                                               | 948   | 690                                                                                 | 636                                                                                 | 956   |
| Stage 1                  | 0      | -                                                                                 | -    | -      | -                                                                                 | 0     | 900    | 807                                                                               | -     | 857                                                                                 | 776                                                                                 | -     |
| Stage 2                  | 0      | -                                                                                 | -    | -      | -                                                                                 | 0     | 835    | 776                                                                               | -     | 888                                                                                 | 793                                                                                 | -     |
| Platoon blocked, %       |        | -                                                                                 | -    |        | -                                                                                 |       |        |                                                                                   |       |                                                                                     |                                                                                     |       |
| Mov Cap-1 Maneuver       | -      | -                                                                                 | -    | 1463   | -                                                                                 | -     | 639    | 640                                                                               | 948   | 667                                                                                 | 625                                                                                 | 956   |
| Mov Cap-2 Maneuver       | -      | -                                                                                 | -    | -      | -                                                                                 | -     | 639    | 640                                                                               | -     | 667                                                                                 | 625                                                                                 | -     |
| Stage 1                  | -      | -                                                                                 | -    | -      | -                                                                                 | -     | 900    | 807                                                                               | -     | 857                                                                                 | 763                                                                                 | -     |
| Stage 2                  | -      | -                                                                                 | -    | -      | -                                                                                 | -     | 781    | 763                                                                               | -     | 869                                                                                 | 793                                                                                 | -     |
|                          |        |                                                                                   |      |        |                                                                                   |       |        |                                                                                   |       |                                                                                     |                                                                                     |       |
|                          |        |                                                                                   |      |        |                                                                                   |       |        |                                                                                   |       |                                                                                     |                                                                                     |       |
| Approach                 | EB     |                                                                                   |      | WB     |                                                                                   |       | NB     |                                                                                   |       | SB                                                                                  |                                                                                     |       |
| HCM Control Delay, s     | 0      |                                                                                   |      | 1.4    |                                                                                   |       | 9.7    |                                                                                   |       | 12.3                                                                                |                                                                                     |       |
| HCM LOS                  |        |                                                                                   |      |        |                                                                                   |       | A      |                                                                                   |       | B                                                                                   |                                                                                     |       |
|                          |        |                                                                                   |      |        |                                                                                   |       |        |                                                                                   |       |                                                                                     |                                                                                     |       |
| Minor Lane/Major Mvmt    | NBLn1  | EBT                                                                               | EBR  | WBL    | WBT                                                                               | SBLn1 | SBLn2  |                                                                                   |       |                                                                                     |                                                                                     |       |
| Capacity (veh/h)         | 794    | -                                                                                 | -    | 1463   | -                                                                                 | 667   | 756    |                                                                                   |       |                                                                                     |                                                                                     |       |
| HCM Lane V/C Ratio       | 0.043  | -                                                                                 | -    | 0.016  | -                                                                                 | 0.306 | 0.055  |                                                                                   |       |                                                                                     |                                                                                     |       |
| HCM Control Delay (s)    | 9.7    | -                                                                                 | -    | 7.5    | 0                                                                                 | 12.8  | 10     |                                                                                   |       |                                                                                     |                                                                                     |       |
| HCM Lane LOS             | A      | -                                                                                 | -    | A      | A                                                                                 | B     | B      |                                                                                   |       |                                                                                     |                                                                                     |       |
| HCM 95th %tile Q(veh)    | 0.1    | -                                                                                 | -    | 0      | -                                                                                 | 1.3   | 0.2    |                                                                                   |       |                                                                                     |                                                                                     |       |

# Mitigation Scenario

Lanes, Volumes, Timings  
67: Springhill Pkwy & Highlands Ranch Pkwy

12/20/2024

|                            |  |  |  |  |  |  |  |  |  |  |  |  |
|----------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Lane Group                 | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | WBR                                                                               | NBL                                                                                | NBT                                                                                 | NBR                                                                                 | SBL                                                                                 | SBT                                                                                 | SBR                                                                                 |
| Lane Configurations        |  |  |  |  |  |  |  |  |  |  |  |  |
| Traffic Volume (vph)       | 80                                                                                | 813                                                                               | 250                                                                               | 152                                                                               | 344                                                                               | 29                                                                                | 200                                                                                | 91                                                                                  | 290                                                                                 | 21                                                                                  | 100                                                                                 | 69                                                                                  |
| Future Volume (vph)        | 80                                                                                | 813                                                                               | 250                                                                               | 152                                                                               | 344                                                                               | 29                                                                                | 200                                                                                | 91                                                                                  | 290                                                                                 | 21                                                                                  | 100                                                                                 | 69                                                                                  |
| Ideal Flow (vphpl)         | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                               | 1900                                                                                | 1900                                                                                | 1900                                                                                | 1900                                                                                | 1900                                                                                |
| Storage Length (ft)        | 140                                                                               |                                                                                   | 165                                                                               | 240                                                                               |                                                                                   | 0                                                                                 | 250                                                                                |                                                                                     | 0                                                                                   | 150                                                                                 |                                                                                     | 0                                                                                   |
| Storage Lanes              | 1                                                                                 |                                                                                   | 1                                                                                 | 2                                                                                 |                                                                                   | 1                                                                                 | 2                                                                                  |                                                                                     | 1                                                                                   | 1                                                                                   |                                                                                     | 0                                                                                   |
| Taper Length (ft)          | 25                                                                                |                                                                                   |                                                                                   | 25                                                                                |                                                                                   |                                                                                   | 25                                                                                 |                                                                                     |                                                                                     | 25                                                                                  |                                                                                     |                                                                                     |
| Lane Util. Factor          | 1.00                                                                              | 0.95                                                                              | 1.00                                                                              | 0.97                                                                              | 0.95                                                                              | 1.00                                                                              | 0.97                                                                               | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Frt                        |                                                                                   |                                                                                   | 0.850                                                                             |                                                                                   |                                                                                   | 0.850                                                                             |                                                                                    |                                                                                     | 0.850                                                                               |                                                                                     | 0.939                                                                               |                                                                                     |
| Flt Protected              | 0.950                                                                             |                                                                                   |                                                                                   | 0.950                                                                             |                                                                                   |                                                                                   | 0.950                                                                              |                                                                                     |                                                                                     | 0.950                                                                               |                                                                                     |                                                                                     |
| Satd. Flow (prot)          | 1770                                                                              | 3539                                                                              | 1583                                                                              | 3433                                                                              | 3539                                                                              | 1583                                                                              | 3433                                                                               | 1863                                                                                | 1583                                                                                | 1770                                                                                | 1749                                                                                | 0                                                                                   |
| Flt Permitted              | 0.532                                                                             |                                                                                   |                                                                                   | 0.104                                                                             |                                                                                   |                                                                                   | 0.337                                                                              |                                                                                     |                                                                                     | 0.670                                                                               |                                                                                     |                                                                                     |
| Satd. Flow (perm)          | 991                                                                               | 3539                                                                              | 1583                                                                              | 376                                                                               | 3539                                                                              | 1583                                                                              | 1218                                                                               | 1863                                                                                | 1583                                                                                | 1248                                                                                | 1749                                                                                | 0                                                                                   |
| Right Turn on Red          |                                                                                   |                                                                                   | Yes                                                                               |                                                                                   |                                                                                   | Yes                                                                               |                                                                                    |                                                                                     | Yes                                                                                 |                                                                                     |                                                                                     | Yes                                                                                 |
| Satd. Flow (RTOR)          |                                                                                   |                                                                                   | 165                                                                               |                                                                                   |                                                                                   | 113                                                                               |                                                                                    |                                                                                     | 414                                                                                 |                                                                                     | 29                                                                                  |                                                                                     |
| Link Speed (mph)           |                                                                                   | 30                                                                                |                                                                                   |                                                                                   | 30                                                                                |                                                                                   |                                                                                    | 30                                                                                  |                                                                                     |                                                                                     | 30                                                                                  |                                                                                     |
| Link Distance (ft)         |                                                                                   | 705                                                                               |                                                                                   |                                                                                   | 1593                                                                              |                                                                                   |                                                                                    | 631                                                                                 |                                                                                     |                                                                                     | 652                                                                                 |                                                                                     |
| Travel Time (s)            |                                                                                   | 16.0                                                                              |                                                                                   |                                                                                   | 36.2                                                                              |                                                                                   |                                                                                    | 14.3                                                                                |                                                                                     |                                                                                     | 14.8                                                                                |                                                                                     |
| Peak Hour Factor           | 0.87                                                                              | 0.87                                                                              | 0.87                                                                              | 0.93                                                                              | 0.93                                                                              | 0.93                                                                              | 0.70                                                                               | 0.70                                                                                | 0.70                                                                                | 0.45                                                                                | 0.45                                                                                | 0.45                                                                                |
| Adj. Flow (vph)            | 92                                                                                | 934                                                                               | 287                                                                               | 163                                                                               | 370                                                                               | 31                                                                                | 286                                                                                | 130                                                                                 | 414                                                                                 | 47                                                                                  | 222                                                                                 | 153                                                                                 |
| Shared Lane Traffic (%)    |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Lane Group Flow (vph)      | 92                                                                                | 934                                                                               | 287                                                                               | 163                                                                               | 370                                                                               | 31                                                                                | 286                                                                                | 130                                                                                 | 414                                                                                 | 47                                                                                  | 375                                                                                 | 0                                                                                   |
| Enter Blocked Intersection | No                                                                                | No                                                                                | No                                                                                | No                                                                                | No                                                                                | No                                                                                | No                                                                                 | No                                                                                  | No                                                                                  | No                                                                                  | No                                                                                  | No                                                                                  |
| Lane Alignment             | Left                                                                              | Left                                                                              | Right                                                                             | Left                                                                              | Left                                                                              | Right                                                                             | Left                                                                               | Left                                                                                | Right                                                                               | Left                                                                                | Left                                                                                | Right                                                                               |
| Median Width(ft)           |                                                                                   | 24                                                                                |                                                                                   |                                                                                   | 24                                                                                |                                                                                   |                                                                                    | 24                                                                                  |                                                                                     |                                                                                     | 24                                                                                  |                                                                                     |
| Link Offset(ft)            |                                                                                   | 0                                                                                 |                                                                                   |                                                                                   | 0                                                                                 |                                                                                   |                                                                                    | 0                                                                                   |                                                                                     |                                                                                     | 0                                                                                   |                                                                                     |
| Crosswalk Width(ft)        |                                                                                   | 16                                                                                |                                                                                   |                                                                                   | 16                                                                                |                                                                                   |                                                                                    | 16                                                                                  |                                                                                     |                                                                                     | 16                                                                                  |                                                                                     |
| Two way Left Turn Lane     |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Headway Factor             | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                               | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Turning Speed (mph)        | 60                                                                                |                                                                                   | 60                                                                                | 60                                                                                |                                                                                   | 60                                                                                | 60                                                                                 |                                                                                     | 60                                                                                  | 60                                                                                  |                                                                                     | 60                                                                                  |
| Turn Type                  | pm+pt                                                                             | NA                                                                                | Perm                                                                              | pm+pt                                                                             | NA                                                                                | Perm                                                                              | pm+pt                                                                              | NA                                                                                  | Perm                                                                                | pm+pt                                                                               | NA                                                                                  |                                                                                     |
| Protected Phases           | 5                                                                                 | 2                                                                                 |                                                                                   | 1                                                                                 | 6                                                                                 |                                                                                   | 3                                                                                  | 8                                                                                   |                                                                                     | 7                                                                                   | 4                                                                                   |                                                                                     |
| Permitted Phases           | 2                                                                                 |                                                                                   | 2                                                                                 | 6                                                                                 |                                                                                   | 6                                                                                 | 8                                                                                  |                                                                                     | 8                                                                                   | 4                                                                                   |                                                                                     |                                                                                     |
| Minimum Split (s)          | 10.0                                                                              | 30.5                                                                              | 30.5                                                                              | 10.0                                                                              | 31.5                                                                              | 31.5                                                                              | 10.0                                                                               | 38.5                                                                                | 38.5                                                                                | 10.0                                                                                | 24.5                                                                                |                                                                                     |
| Total Split (s)            | 15.0                                                                              | 40.0                                                                              | 40.0                                                                              | 25.0                                                                              | 50.0                                                                              | 50.0                                                                              | 15.0                                                                               | 50.0                                                                                | 50.0                                                                                | 15.0                                                                                | 50.0                                                                                |                                                                                     |
| Total Split (%)            | 11.5%                                                                             | 30.8%                                                                             | 30.8%                                                                             | 19.2%                                                                             | 38.5%                                                                             | 38.5%                                                                             | 11.5%                                                                              | 38.5%                                                                               | 38.5%                                                                               | 11.5%                                                                               | 38.5%                                                                               |                                                                                     |
| Maximum Green (s)          | 10.0                                                                              | 33.5                                                                              | 33.5                                                                              | 20.0                                                                              | 43.5                                                                              | 43.5                                                                              | 10.0                                                                               | 43.5                                                                                | 43.5                                                                                | 10.0                                                                                | 43.5                                                                                |                                                                                     |
| Yellow Time (s)            | 3.0                                                                               | 4.5                                                                               | 4.5                                                                               | 3.0                                                                               | 4.5                                                                               | 4.5                                                                               | 3.0                                                                                | 4.5                                                                                 | 4.5                                                                                 | 3.0                                                                                 | 4.5                                                                                 |                                                                                     |
| All-Red Time (s)           | 2.0                                                                               | 2.0                                                                               | 2.0                                                                               | 2.0                                                                               | 2.0                                                                               | 2.0                                                                               | 2.0                                                                                | 2.0                                                                                 | 2.0                                                                                 | 2.0                                                                                 | 2.0                                                                                 |                                                                                     |
| Lost Time Adjust (s)       | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                                | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 |                                                                                     |
| Total Lost Time (s)        | 5.0                                                                               | 6.5                                                                               | 6.5                                                                               | 5.0                                                                               | 6.5                                                                               | 6.5                                                                               | 5.0                                                                                | 6.5                                                                                 | 6.5                                                                                 | 5.0                                                                                 | 6.5                                                                                 |                                                                                     |
| Lead/Lag                   | Lead                                                                              | Lag                                                                               | Lag                                                                               | Lead                                                                              | Lag                                                                               | Lag                                                                               | Lead                                                                               | Lag                                                                                 | Lag                                                                                 | Lead                                                                                | Lag                                                                                 |                                                                                     |
| Lead-Lag Optimize?         | Yes                                                                               | Yes                                                                               | Yes                                                                               | Yes                                                                               | Yes                                                                               | Yes                                                                               | Yes                                                                                | Yes                                                                                 | Yes                                                                                 | Yes                                                                                 | Yes                                                                                 |                                                                                     |
| Walk Time (s)              |                                                                                   | 5.0                                                                               | 5.0                                                                               |                                                                                   | 5.0                                                                               | 5.0                                                                               |                                                                                    | 5.0                                                                                 | 5.0                                                                                 |                                                                                     |                                                                                     |                                                                                     |
| Flash Dont Walk (s)        |                                                                                   | 19.0                                                                              | 19.0                                                                              |                                                                                   | 20.0                                                                              | 20.0                                                                              |                                                                                    | 27.0                                                                                | 27.0                                                                                |                                                                                     |                                                                                     |                                                                                     |
| Pedestrian Calls (#/hr)    |                                                                                   | 0                                                                                 | 0                                                                                 |                                                                                   | 0                                                                                 | 0                                                                                 |                                                                                    | 0                                                                                   | 0                                                                                   |                                                                                     |                                                                                     |                                                                                     |
| Act Effct Green (s)        | 45.0                                                                              | 33.5                                                                              | 33.5                                                                              | 60.0                                                                              | 43.5                                                                              | 43.5                                                                              | 55.0                                                                               | 43.5                                                                                | 43.5                                                                                | 55.0                                                                                | 43.5                                                                                |                                                                                     |
| Actuated g/C Ratio         | 0.35                                                                              | 0.26                                                                              | 0.26                                                                              | 0.46                                                                              | 0.33                                                                              | 0.33                                                                              | 0.42                                                                               | 0.33                                                                                | 0.33                                                                                | 0.42                                                                                | 0.33                                                                                |                                                                                     |
| v/c Ratio                  | 0.23                                                                              | 1.03                                                                              | 0.54                                                                              | 0.25                                                                              | 0.31                                                                              | 0.05                                                                              | 0.42                                                                               | 0.21                                                                                | 0.51                                                                                | 0.08                                                                                | 0.62                                                                                |                                                                                     |

Total AM 10:36 am 02/12/2024 Baseline

Synchro 11 Report  
Page 1

# Lanes, Volumes, Timings

## 67: Springhill Pkwy & Highlands Ranch Pkwy

12/20/2024

|                         |  |  |  |  |  |  |  |  |  |  |  |  |
|-------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Lane Group              | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | WBR                                                                               | NBL                                                                                | NBT                                                                                 | NBR                                                                                 | SBL                                                                                 | SBT                                                                                 | SBR                                                                                 |
| Control Delay           | 22.4                                                                              | 83.6                                                                              | 21.3                                                                              | 20.8                                                                              | 33.1                                                                              | 0.2                                                                               | 22.7                                                                               | 32.1                                                                                | 5.3                                                                                 | 20.0                                                                                | 38.7                                                                                |                                                                                     |
| Queue Delay             | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                                | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 |                                                                                     |
| Total Delay             | 22.4                                                                              | 83.6                                                                              | 21.3                                                                              | 20.8                                                                              | 33.1                                                                              | 0.2                                                                               | 22.7                                                                               | 32.1                                                                                | 5.3                                                                                 | 20.0                                                                                | 38.7                                                                                |                                                                                     |
| LOS                     | C                                                                                 | F                                                                                 | C                                                                                 | C                                                                                 | C                                                                                 | A                                                                                 | C                                                                                  | C                                                                                   | A                                                                                   | B                                                                                   | D                                                                                   |                                                                                     |
| Approach Delay          | 65.7                                                                              |                                                                                   |                                                                                   | 27.7                                                                              |                                                                                   |                                                                                   | 15.5                                                                               |                                                                                     |                                                                                     | 36.6                                                                                |                                                                                     |                                                                                     |
| Approach LOS            | E                                                                                 |                                                                                   |                                                                                   | C                                                                                 |                                                                                   |                                                                                   | B                                                                                  |                                                                                     |                                                                                     | D                                                                                   |                                                                                     |                                                                                     |
| Queue Length 50th (ft)  | 43                                                                                | ~440                                                                              | 85                                                                                | 39                                                                                | 121                                                                               | 0                                                                                 | 71                                                                                 | 78                                                                                  | 0                                                                                   | 22                                                                                  | 245                                                                                 |                                                                                     |
| Queue Length 95th (ft)  | 74                                                                                | #541                                                                              | 167                                                                               | 60                                                                                | 164                                                                               | 0                                                                                 | 75                                                                                 | 98                                                                                  | 0                                                                                   | 22                                                                                  | 138                                                                                 |                                                                                     |
| Internal Link Dist (ft) | 625                                                                               |                                                                                   |                                                                                   | 1513                                                                              |                                                                                   |                                                                                   | 551                                                                                |                                                                                     |                                                                                     | 572                                                                                 |                                                                                     |                                                                                     |
| Turn Bay Length (ft)    | 140                                                                               |                                                                                   | 165                                                                               | 240                                                                               |                                                                                   |                                                                                   | 250                                                                                |                                                                                     |                                                                                     | 150                                                                                 |                                                                                     |                                                                                     |
| Base Capacity (vph)     | 402                                                                               | 911                                                                               | 530                                                                               | 643                                                                               | 1184                                                                              | 604                                                                               | 685                                                                                | 623                                                                                 | 805                                                                                 | 568                                                                                 | 604                                                                                 |                                                                                     |
| Starvation Cap Reductn  | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                  | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   |                                                                                     |
| Spillback Cap Reductn   | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                  | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   |                                                                                     |
| Storage Cap Reductn     | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                  | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   |                                                                                     |
| Reduced v/c Ratio       | 0.23                                                                              | 1.03                                                                              | 0.54                                                                              | 0.25                                                                              | 0.31                                                                              | 0.05                                                                              | 0.42                                                                               | 0.21                                                                                | 0.51                                                                                | 0.08                                                                                | 0.62                                                                                |                                                                                     |

### Intersection Summary

Area Type: Other

Cycle Length: 130

Actuated Cycle Length: 130

Offset: 0 (0%), Referenced to phase 2:EBTL, Start of Green

Natural Cycle: 90

Control Type: Pretimed

Maximum v/c Ratio: 1.03

Intersection Signal Delay: 41.6

Intersection LOS: D

Intersection Capacity Utilization 62.5%

ICU Level of Service B

Analysis Period (min) 15

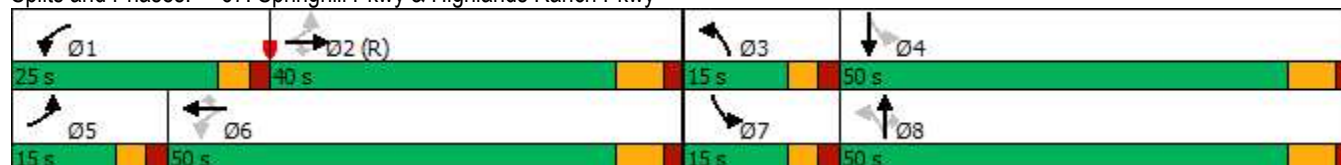
~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

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

Queue shown is maximum after two cycles.

Splits and Phases: 67: Springhill Pkwy & Highlands Ranch Pkwy



Lanes, Volumes, Timings  
67: Springhill Pkwy & Highlands Ranch Pkwy

12/20/2024

|                            |  |  |  |  |  |  |  |  |  |  |  |  |
|----------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Lane Group                 | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | WBR                                                                               | NBL                                                                                | NBT                                                                                 | NBR                                                                                 | SBL                                                                                 | SBT                                                                                 | SBR                                                                                 |
| Lane Configurations        |  |  |  |  |  |  |  |  |  |  |  |  |
| Traffic Volume (vph)       | 74                                                                                | 599                                                                               | 237                                                                               | 232                                                                               | 667                                                                               | 47                                                                                | 378                                                                                | 114                                                                                 | 346                                                                                 | 40                                                                                  | 102                                                                                 | 86                                                                                  |
| Future Volume (vph)        | 74                                                                                | 599                                                                               | 237                                                                               | 232                                                                               | 667                                                                               | 47                                                                                | 378                                                                                | 114                                                                                 | 346                                                                                 | 40                                                                                  | 102                                                                                 | 86                                                                                  |
| Ideal Flow (vphpl)         | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                              | 1900                                                                               | 1900                                                                                | 1900                                                                                | 1900                                                                                | 1900                                                                                | 1900                                                                                |
| Storage Length (ft)        | 140                                                                               |                                                                                   | 165                                                                               | 240                                                                               |                                                                                   | 0                                                                                 | 250                                                                                |                                                                                     | 0                                                                                   | 150                                                                                 |                                                                                     | 0                                                                                   |
| Storage Lanes              | 1                                                                                 |                                                                                   | 1                                                                                 | 2                                                                                 |                                                                                   | 1                                                                                 | 2                                                                                  |                                                                                     | 1                                                                                   | 1                                                                                   |                                                                                     | 0                                                                                   |
| Taper Length (ft)          | 25                                                                                |                                                                                   |                                                                                   | 25                                                                                |                                                                                   |                                                                                   | 25                                                                                 |                                                                                     |                                                                                     | 25                                                                                  |                                                                                     |                                                                                     |
| Lane Util. Factor          | 1.00                                                                              | 0.95                                                                              | 1.00                                                                              | 0.97                                                                              | 0.95                                                                              | 1.00                                                                              | 0.97                                                                               | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Frt                        |                                                                                   |                                                                                   | 0.850                                                                             |                                                                                   |                                                                                   | 0.850                                                                             |                                                                                    |                                                                                     | 0.850                                                                               |                                                                                     | 0.931                                                                               |                                                                                     |
| Flt Protected              | 0.950                                                                             |                                                                                   |                                                                                   | 0.950                                                                             |                                                                                   |                                                                                   | 0.950                                                                              |                                                                                     |                                                                                     | 0.950                                                                               |                                                                                     |                                                                                     |
| Satd. Flow (prot)          | 1770                                                                              | 3539                                                                              | 1583                                                                              | 3433                                                                              | 3539                                                                              | 1583                                                                              | 3433                                                                               | 1863                                                                                | 1583                                                                                | 1770                                                                                | 1734                                                                                | 0                                                                                   |
| Flt Permitted              | 0.282                                                                             |                                                                                   |                                                                                   | 0.191                                                                             |                                                                                   |                                                                                   | 0.409                                                                              |                                                                                     |                                                                                     | 0.651                                                                               |                                                                                     |                                                                                     |
| Satd. Flow (perm)          | 525                                                                               | 3539                                                                              | 1583                                                                              | 690                                                                               | 3539                                                                              | 1583                                                                              | 1478                                                                               | 1863                                                                                | 1583                                                                                | 1213                                                                                | 1734                                                                                | 0                                                                                   |
| Right Turn on Red          |                                                                                   |                                                                                   | Yes                                                                               |                                                                                   |                                                                                   | Yes                                                                               |                                                                                    |                                                                                     | Yes                                                                                 |                                                                                     |                                                                                     | Yes                                                                                 |
| Satd. Flow (RTOR)          |                                                                                   |                                                                                   | 213                                                                               |                                                                                   |                                                                                   | 113                                                                               |                                                                                    |                                                                                     | 433                                                                                 |                                                                                     | 35                                                                                  |                                                                                     |
| Link Speed (mph)           |                                                                                   | 30                                                                                |                                                                                   |                                                                                   | 30                                                                                |                                                                                   |                                                                                    | 30                                                                                  |                                                                                     |                                                                                     | 30                                                                                  |                                                                                     |
| Link Distance (ft)         |                                                                                   | 705                                                                               |                                                                                   |                                                                                   | 1593                                                                              |                                                                                   |                                                                                    | 631                                                                                 |                                                                                     |                                                                                     | 652                                                                                 |                                                                                     |
| Travel Time (s)            |                                                                                   | 16.0                                                                              |                                                                                   |                                                                                   | 36.2                                                                              |                                                                                   |                                                                                    | 14.3                                                                                |                                                                                     |                                                                                     | 14.8                                                                                |                                                                                     |
| Peak Hour Factor           | 0.94                                                                              | 0.94                                                                              | 0.94                                                                              | 0.89                                                                              | 0.89                                                                              | 0.89                                                                              | 0.80                                                                               | 0.80                                                                                | 0.80                                                                                | 0.59                                                                                | 0.59                                                                                | 0.59                                                                                |
| Adj. Flow (vph)            | 79                                                                                | 637                                                                               | 252                                                                               | 261                                                                               | 749                                                                               | 53                                                                                | 473                                                                                | 143                                                                                 | 433                                                                                 | 68                                                                                  | 173                                                                                 | 146                                                                                 |
| Shared Lane Traffic (%)    |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Lane Group Flow (vph)      | 79                                                                                | 637                                                                               | 252                                                                               | 261                                                                               | 749                                                                               | 53                                                                                | 473                                                                                | 143                                                                                 | 433                                                                                 | 68                                                                                  | 319                                                                                 | 0                                                                                   |
| Enter Blocked Intersection | No                                                                                | No                                                                                | No                                                                                | No                                                                                | No                                                                                | No                                                                                | No                                                                                 | No                                                                                  | No                                                                                  | No                                                                                  | No                                                                                  | No                                                                                  |
| Lane Alignment             | Left                                                                              | Left                                                                              | Right                                                                             | Left                                                                              | Left                                                                              | Right                                                                             | Left                                                                               | Left                                                                                | Right                                                                               | Left                                                                                | Left                                                                                | Right                                                                               |
| Median Width(ft)           |                                                                                   | 24                                                                                |                                                                                   |                                                                                   | 24                                                                                |                                                                                   |                                                                                    | 24                                                                                  |                                                                                     |                                                                                     | 24                                                                                  |                                                                                     |
| Link Offset(ft)            |                                                                                   | 0                                                                                 |                                                                                   |                                                                                   | 0                                                                                 |                                                                                   |                                                                                    | 0                                                                                   |                                                                                     |                                                                                     | 0                                                                                   |                                                                                     |
| Crosswalk Width(ft)        |                                                                                   | 16                                                                                |                                                                                   |                                                                                   | 16                                                                                |                                                                                   |                                                                                    | 16                                                                                  |                                                                                     |                                                                                     | 16                                                                                  |                                                                                     |
| Two way Left Turn Lane     |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Headway Factor             | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                              | 1.00                                                                               | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                | 1.00                                                                                |
| Turning Speed (mph)        | 60                                                                                |                                                                                   | 60                                                                                | 60                                                                                |                                                                                   | 60                                                                                | 60                                                                                 |                                                                                     | 60                                                                                  | 60                                                                                  |                                                                                     | 60                                                                                  |
| Turn Type                  | pm+pt                                                                             | NA                                                                                | Perm                                                                              | pm+pt                                                                             | NA                                                                                | Perm                                                                              | pm+pt                                                                              | NA                                                                                  | Perm                                                                                | pm+pt                                                                               | NA                                                                                  |                                                                                     |
| Protected Phases           | 5                                                                                 | 2                                                                                 |                                                                                   | 1                                                                                 | 6                                                                                 |                                                                                   | 3                                                                                  | 8                                                                                   |                                                                                     | 7                                                                                   | 4                                                                                   |                                                                                     |
| Permitted Phases           | 2                                                                                 |                                                                                   | 2                                                                                 | 6                                                                                 |                                                                                   | 6                                                                                 | 8                                                                                  |                                                                                     | 8                                                                                   | 4                                                                                   |                                                                                     |                                                                                     |
| Minimum Split (s)          | 10.0                                                                              | 30.5                                                                              | 30.5                                                                              | 10.0                                                                              | 31.5                                                                              | 31.5                                                                              | 10.0                                                                               | 38.5                                                                                | 38.5                                                                                | 10.0                                                                                | 24.5                                                                                |                                                                                     |
| Total Split (s)            | 15.0                                                                              | 40.0                                                                              | 40.0                                                                              | 25.0                                                                              | 50.0                                                                              | 50.0                                                                              | 15.0                                                                               | 50.0                                                                                | 50.0                                                                                | 15.0                                                                                | 50.0                                                                                |                                                                                     |
| Total Split (%)            | 11.5%                                                                             | 30.8%                                                                             | 30.8%                                                                             | 19.2%                                                                             | 38.5%                                                                             | 38.5%                                                                             | 11.5%                                                                              | 38.5%                                                                               | 38.5%                                                                               | 11.5%                                                                               | 38.5%                                                                               |                                                                                     |
| Maximum Green (s)          | 10.0                                                                              | 33.5                                                                              | 33.5                                                                              | 20.0                                                                              | 43.5                                                                              | 43.5                                                                              | 10.0                                                                               | 43.5                                                                                | 43.5                                                                                | 10.0                                                                                | 43.5                                                                                |                                                                                     |
| Yellow Time (s)            | 3.0                                                                               | 4.5                                                                               | 4.5                                                                               | 3.0                                                                               | 4.5                                                                               | 4.5                                                                               | 3.0                                                                                | 4.5                                                                                 | 4.5                                                                                 | 3.0                                                                                 | 4.5                                                                                 |                                                                                     |
| All-Red Time (s)           | 2.0                                                                               | 2.0                                                                               | 2.0                                                                               | 2.0                                                                               | 2.0                                                                               | 2.0                                                                               | 2.0                                                                                | 2.0                                                                                 | 2.0                                                                                 | 2.0                                                                                 | 2.0                                                                                 |                                                                                     |
| Lost Time Adjust (s)       | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                                | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 |                                                                                     |
| Total Lost Time (s)        | 5.0                                                                               | 6.5                                                                               | 6.5                                                                               | 5.0                                                                               | 6.5                                                                               | 6.5                                                                               | 5.0                                                                                | 6.5                                                                                 | 6.5                                                                                 | 5.0                                                                                 | 6.5                                                                                 |                                                                                     |
| Lead/Lag                   | Lead                                                                              | Lag                                                                               | Lag                                                                               | Lead                                                                              | Lag                                                                               | Lag                                                                               | Lead                                                                               | Lag                                                                                 | Lag                                                                                 | Lead                                                                                | Lag                                                                                 |                                                                                     |
| Lead-Lag Optimize?         | Yes                                                                               | Yes                                                                               | Yes                                                                               | Yes                                                                               | Yes                                                                               | Yes                                                                               | Yes                                                                                | Yes                                                                                 | Yes                                                                                 | Yes                                                                                 | Yes                                                                                 |                                                                                     |
| Walk Time (s)              |                                                                                   | 5.0                                                                               | 5.0                                                                               |                                                                                   | 5.0                                                                               | 5.0                                                                               |                                                                                    | 5.0                                                                                 | 5.0                                                                                 |                                                                                     |                                                                                     |                                                                                     |
| Flash Dont Walk (s)        |                                                                                   | 19.0                                                                              | 19.0                                                                              |                                                                                   | 20.0                                                                              | 20.0                                                                              |                                                                                    | 27.0                                                                                | 27.0                                                                                |                                                                                     |                                                                                     |                                                                                     |
| Pedestrian Calls (#/hr)    |                                                                                   | 0                                                                                 | 0                                                                                 |                                                                                   | 0                                                                                 | 0                                                                                 |                                                                                    | 0                                                                                   | 0                                                                                   |                                                                                     |                                                                                     |                                                                                     |
| Act Effct Green (s)        | 45.0                                                                              | 33.5                                                                              | 33.5                                                                              | 60.0                                                                              | 43.5                                                                              | 43.5                                                                              | 55.0                                                                               | 43.5                                                                                | 43.5                                                                                | 55.0                                                                                | 43.5                                                                                |                                                                                     |
| Actuated g/C Ratio         | 0.35                                                                              | 0.26                                                                              | 0.26                                                                              | 0.46                                                                              | 0.33                                                                              | 0.33                                                                              | 0.42                                                                               | 0.33                                                                                | 0.33                                                                                | 0.42                                                                                | 0.33                                                                                |                                                                                     |
| v/c Ratio                  | 0.29                                                                              | 0.70                                                                              | 0.45                                                                              | 0.35                                                                              | 0.63                                                                              | 0.09                                                                              | 0.61                                                                               | 0.23                                                                                | 0.53                                                                                | 0.12                                                                                | 0.53                                                                                |                                                                                     |

Total PM 4:45 pm 11/05/2024

Synchro 11 Report  
Page 1

# Lanes, Volumes, Timings

## 67: Springhill Pkwy & Highlands Ranch Pkwy

12/20/2024

|                         |  |  |  |  |  |  |  |  |  |  |  |  |
|-------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Lane Group              | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | WBR                                                                               | NBL                                                                                 | NBT                                                                                 | NBR                                                                                 | SBL                                                                                 | SBT                                                                                 | SBR                                                                                 |
| Control Delay           | 23.6                                                                              | 48.5                                                                              | 10.8                                                                              | 21.9                                                                              | 39.4                                                                              | 0.3                                                                               | 26.9                                                                                | 32.4                                                                                | 5.4                                                                                 | 20.4                                                                                | 34.7                                                                                |                                                                                     |
| Queue Delay             | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 |                                                                                     |
| Total Delay             | 23.6                                                                              | 48.5                                                                              | 10.8                                                                              | 21.9                                                                              | 39.4                                                                              | 0.3                                                                               | 26.9                                                                                | 32.4                                                                                | 5.4                                                                                 | 20.4                                                                                | 34.7                                                                                |                                                                                     |
| LOS                     | C                                                                                 | D                                                                                 | B                                                                                 | C                                                                                 | D                                                                                 | A                                                                                 | C                                                                                   | C                                                                                   | A                                                                                   | C                                                                                   | C                                                                                   |                                                                                     |
| Approach Delay          | 36.7                                                                              |                                                                                   |                                                                                   | 33.2                                                                              |                                                                                   |                                                                                   | 18.8                                                                                |                                                                                     |                                                                                     | 32.2                                                                                |                                                                                     |                                                                                     |
| Approach LOS            | D                                                                                 |                                                                                   |                                                                                   | C                                                                                 |                                                                                   |                                                                                   | B                                                                                   |                                                                                     |                                                                                     | C                                                                                   |                                                                                     |                                                                                     |
| Queue Length 50th (ft)  | 37                                                                                | 256                                                                               | 25                                                                                | 64                                                                                | 279                                                                               | 0                                                                                 | 125                                                                                 | 87                                                                                  | 0                                                                                   | 31                                                                                  | 193                                                                                 |                                                                                     |
| Queue Length 95th (ft)  | 68                                                                                | 325                                                                               | 99                                                                                | 91                                                                                | 343                                                                               | 0                                                                                 | 143                                                                                 | 124                                                                                 | 33                                                                                  | 38                                                                                  | 162                                                                                 |                                                                                     |
| Internal Link Dist (ft) | 625                                                                               |                                                                                   |                                                                                   | 1513                                                                              |                                                                                   |                                                                                   | 551                                                                                 |                                                                                     |                                                                                     | 572                                                                                 |                                                                                     |                                                                                     |
| Turn Bay Length (ft)    | 140                                                                               |                                                                                   | 165                                                                               | 240                                                                               |                                                                                   |                                                                                   | 250                                                                                 |                                                                                     |                                                                                     | 150                                                                                 |                                                                                     |                                                                                     |
| Base Capacity (vph)     | 277                                                                               | 911                                                                               | 566                                                                               | 740                                                                               | 1184                                                                              | 604                                                                               | 775                                                                                 | 623                                                                                 | 817                                                                                 | 556                                                                                 | 603                                                                                 |                                                                                     |
| Starvation Cap Reductn  | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   |                                                                                     |
| Spillback Cap Reductn   | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   |                                                                                     |
| Storage Cap Reductn     | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   |                                                                                     |
| Reduced v/c Ratio       | 0.29                                                                              | 0.70                                                                              | 0.45                                                                              | 0.35                                                                              | 0.63                                                                              | 0.09                                                                              | 0.61                                                                                | 0.23                                                                                | 0.53                                                                                | 0.12                                                                                | 0.53                                                                                |                                                                                     |

### Intersection Summary

Area Type: Other

Cycle Length: 130

Actuated Cycle Length: 130

Offset: 13 (10%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green

Natural Cycle: 90

Control Type: Pretimed

Maximum v/c Ratio: 0.70

Intersection Signal Delay: 29.7

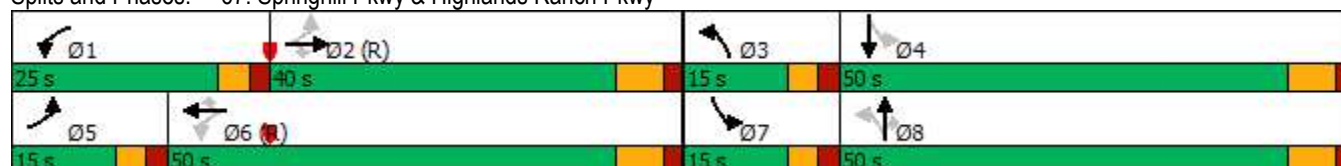
Intersection LOS: C

Intersection Capacity Utilization 64.0%

ICU Level of Service B

Analysis Period (min) 15

### Splits and Phases: 67: Springhill Pkwy & Highlands Ranch Pkwy



HCM 2010 AWSC  
59: Hackberry St & Springhill Pkwy

12/20/2024

| Intersection              |      |  |  |  |  |  |  |  |  |  |  |  |
|---------------------------|------|--|--|--|--|--|--|--|--|--|--|--|
| Intersection Delay, s/veh | 15.7 |  |  |  |  |  |  |  |  |  |  |  |
| Intersection LOS          | C    |  |  |  |  |  |  |  |  |  |  |  |

| Movement            | EBL  | EBT                                                                               | EBR  | WBL  | WBT                                                                               | WBR  | NBL  | NBT                                                                                 | NBR  | SBL                                                                                 | SBT                                                                                 | SBR  |
|---------------------|------|-----------------------------------------------------------------------------------|------|------|-----------------------------------------------------------------------------------|------|------|-------------------------------------------------------------------------------------|------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|------|
| Lane Configurations |      |  |      |      |  |      |      |  |      |  |  |      |
| Traffic Vol, veh/h  | 36   | 25                                                                                | 160  | 16   | 10                                                                                | 33   | 38   | 137                                                                                 | 9    | 0                                                                                   | 33                                                                                  | 3    |
| Future Vol, veh/h   | 36   | 25                                                                                | 160  | 16   | 10                                                                                | 33   | 38   | 137                                                                                 | 9    | 0                                                                                   | 33                                                                                  | 3    |
| Peak Hour Factor    | 0.44 | 0.44                                                                              | 0.44 | 0.61 | 0.61                                                                              | 0.61 | 0.64 | 0.64                                                                                | 0.64 | 0.27                                                                                | 0.27                                                                                | 0.27 |
| Heavy Vehicles, %   | 2    | 2                                                                                 | 2    | 2    | 2                                                                                 | 2    | 2    | 2                                                                                   | 2    | 2                                                                                   | 2                                                                                   | 2    |
| Mvmt Flow           | 82   | 57                                                                                | 364  | 26   | 16                                                                                | 54   | 59   | 214                                                                                 | 14   | 0                                                                                   | 122                                                                                 | 11   |
| Number of Lanes     | 0    | 1                                                                                 | 0    | 0    | 1                                                                                 | 0    | 0    | 1                                                                                   | 0    | 1                                                                                   | 1                                                                                   | 0    |

| Approach                   | EB   | WB  | NB   | SB   |
|----------------------------|------|-----|------|------|
| Opposing Approach          | WB   | EB  | SB   | NB   |
| Opposing Lanes             | 1    | 1   | 2    | 1    |
| Conflicting Approach Left  | SB   | NB  | EB   | WB   |
| Conflicting Lanes Left     | 2    | 1   | 1    | 1    |
| Conflicting Approach Right | NB   | SB  | WB   | EB   |
| Conflicting Lanes Right    | 1    | 2   | 1    | 1    |
| HCM Control Delay          | 18.7 | 9.9 | 14.2 | 11.5 |
| HCM LOS                    | C    | A   | B    | B    |

| Lane                   | NBLn1 | EBLn1 | WBLn1 | SBLn1 | SBLn2 |
|------------------------|-------|-------|-------|-------|-------|
| Vol Left, %            | 21%   | 16%   | 27%   | 0%    | 0%    |
| Vol Thru, %            | 74%   | 11%   | 17%   | 100%  | 92%   |
| Vol Right, %           | 5%    | 72%   | 56%   | 0%    | 8%    |
| Sign Control           | Stop  | Stop  | Stop  | Stop  | Stop  |
| Traffic Vol by Lane    | 184   | 221   | 59    | 0     | 36    |
| LT Vol                 | 38    | 36    | 16    | 0     | 0     |
| Through Vol            | 137   | 25    | 10    | 0     | 33    |
| RT Vol                 | 9     | 160   | 33    | 0     | 3     |
| Lane Flow Rate         | 288   | 502   | 97    | 0     | 133   |
| Geometry Grp           | 4a    | 2     | 2     | 5     | 5     |
| Degree of Util (X)     | 0.471 | 0.696 | 0.155 | 0     | 0.243 |
| Departure Headway (Hd) | 5.9   | 4.988 | 5.761 | 6.622 | 6.563 |
| Convergence, Y/N       | Yes   | Yes   | Yes   | Yes   | Yes   |
| Cap                    | 610   | 723   | 618   | 0     | 544   |
| Service Time           | 3.96  | 3.042 | 3.841 | 4.395 | 4.335 |
| HCM Lane V/C Ratio     | 0.472 | 0.694 | 0.157 | 0     | 0.244 |
| HCM Control Delay      | 14.2  | 18.7  | 9.9   | 9.4   | 11.5  |
| HCM Lane LOS           | B     | C     | A     | N     | B     |
| HCM 95th-tile Q        | 2.5   | 5.7   | 0.5   | 0     | 0.9   |



Intersection

|                           |      |
|---------------------------|------|
| Intersection Delay, s/veh | 11.2 |
| Intersection LOS          | B    |

| Movement            | EBL  | EBT                                                                               | EBR  | WBL  | WBT                                                                               | WBR  | NBL  | NBT                                                                                 | NBR  | SBL                                                                                 | SBT                                                                                 | SBR  |
|---------------------|------|-----------------------------------------------------------------------------------|------|------|-----------------------------------------------------------------------------------|------|------|-------------------------------------------------------------------------------------|------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|------|
| Lane Configurations |      |  |      |      |  |      |      |  |      |  |  |      |
| Traffic Vol, veh/h  | 25   | 13                                                                                | 131  | 14   | 11                                                                                | 11   | 72   | 130                                                                                 | 20   | 0                                                                                   | 57                                                                                  | 0    |
| Future Vol, veh/h   | 25   | 13                                                                                | 131  | 14   | 11                                                                                | 11   | 72   | 130                                                                                 | 20   | 0                                                                                   | 57                                                                                  | 0    |
| Peak Hour Factor    | 0.57 | 0.57                                                                              | 0.57 | 0.45 | 0.45                                                                              | 0.45 | 0.73 | 0.73                                                                                | 0.73 | 0.48                                                                                | 0.48                                                                                | 0.48 |
| Heavy Vehicles, %   | 2    | 2                                                                                 | 2    | 2    | 2                                                                                 | 2    | 2    | 2                                                                                   | 2    | 2                                                                                   | 2                                                                                   | 2    |
| Mvmt Flow           | 44   | 23                                                                                | 230  | 31   | 24                                                                                | 24   | 99   | 178                                                                                 | 27   | 0                                                                                   | 119                                                                                 | 0    |
| Number of Lanes     | 0    | 1                                                                                 | 0    | 0    | 1                                                                                 | 0    | 0    | 1                                                                                   | 0    | 1                                                                                   | 1                                                                                   | 0    |

| Approach                   | EB | WB  | NB   | SB   |
|----------------------------|----|-----|------|------|
| Opposing Approach          | WB | EB  | SB   | NB   |
| Opposing Lanes             | 1  | 1   | 2    | 1    |
| Conflicting Approach Left  | SB | NB  | EB   | WB   |
| Conflicting Lanes Left     | 2  | 1   | 1    | 1    |
| Conflicting Approach Right | NB | SB  | WB   | EB   |
| Conflicting Lanes Right    | 1  | 2   | 1    | 1    |
| HCM Control Delay          | 11 | 9.2 | 12.3 | 10.1 |
| HCM LOS                    | B  | A   | B    | B    |

| Lane                   | NBLn1 | EBLn1 | WBLn1 | SBLn1 | SBLn2 |
|------------------------|-------|-------|-------|-------|-------|
| Vol Left, %            | 32%   | 15%   | 39%   | 0%    | 0%    |
| Vol Thru, %            | 59%   | 8%    | 31%   | 100%  | 100%  |
| Vol Right, %           | 9%    | 78%   | 31%   | 0%    | 0%    |
| Sign Control           | Stop  | Stop  | Stop  | Stop  | Stop  |
| Traffic Vol by Lane    | 222   | 169   | 36    | 0     | 57    |
| LT Vol                 | 72    | 25    | 14    | 0     | 0     |
| Through Vol            | 130   | 13    | 11    | 0     | 57    |
| RT Vol                 | 20    | 131   | 11    | 0     | 0     |
| Lane Flow Rate         | 304   | 296   | 80    | 0     | 119   |
| Geometry Grp           | 4a    | 2     | 2     | 5     | 5     |
| Degree of Util (X)     | 0.441 | 0.397 | 0.121 | 0     | 0.195 |
| Departure Headway (Hd) | 5.215 | 4.825 | 5.449 | 5.897 | 5.897 |
| Convergence, Y/N       | Yes   | Yes   | Yes   | Yes   | Yes   |
| Cap                    | 690   | 750   | 657   | 0     | 609   |
| Service Time           | 3.244 | 2.825 | 3.488 | 3.631 | 3.631 |
| HCM Lane V/C Ratio     | 0.441 | 0.395 | 0.122 | 0     | 0.195 |
| HCM Control Delay      | 12.3  | 11    | 9.2   | 8.6   | 10.1  |
| HCM Lane LOS           | B     | B     | A     | N     | B     |
| HCM 95th-tile Q        | 2.3   | 1.9   | 0.4   | 0     | 0.7   |