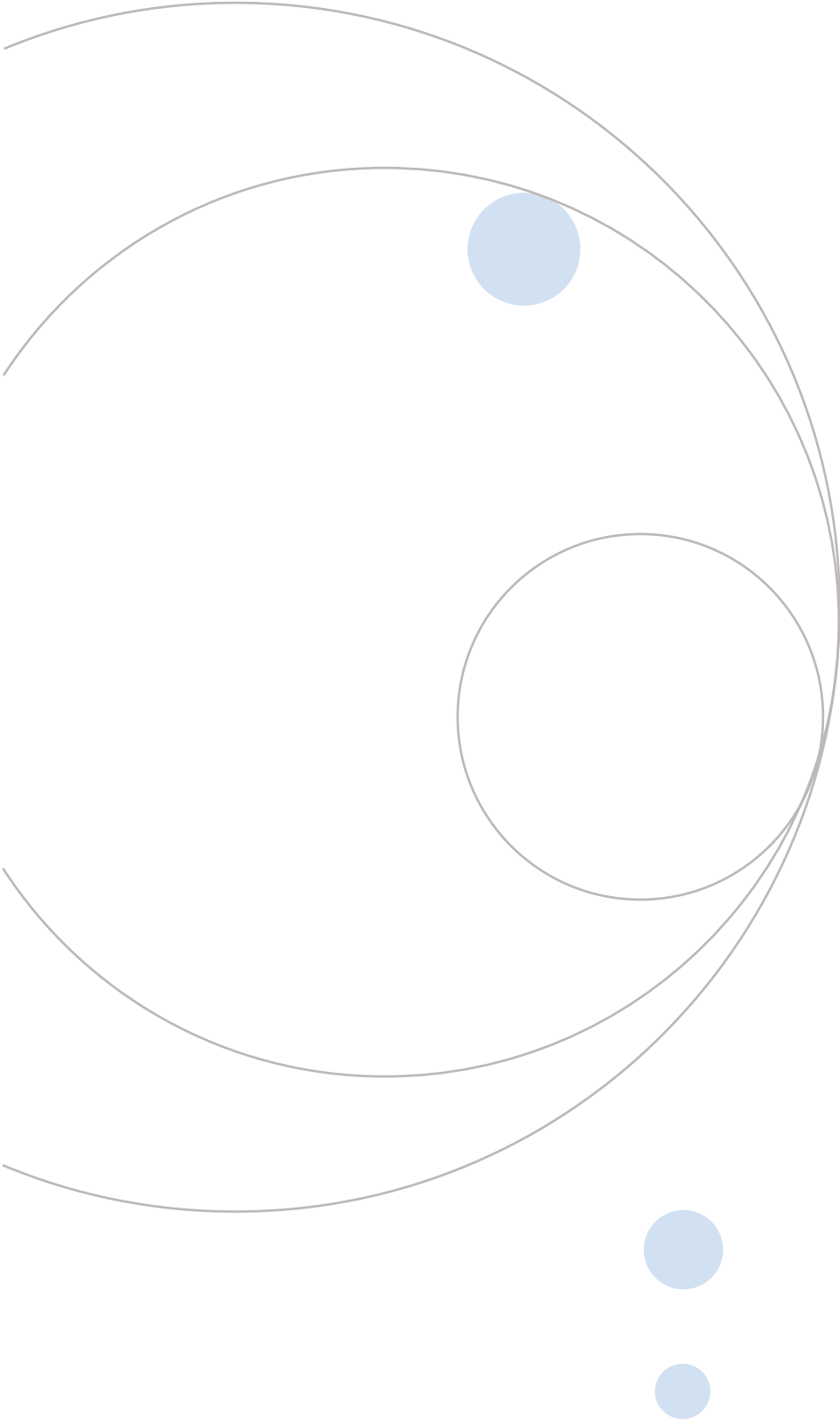




# Alliance BroadStone Silveray

Traffic Impact Analysis

South of US-60  
East of Goldfield Road  
in Apache Junction, Arizona

August 2022  
Project No. 22-1180

Prepared For:  
**Alliance Residential Company**  
7135 East Camelback Road, Suite 360  
Scottsdale, AZ 85251

For Submittal to:  
**Arizona Department of Transportation**  
**Town of Apache Junction**

Prepared By:



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# ALLIANCE BROADSTONE SILVERAY TRAFFIC IMPACT ANALYSIS

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**August 2022**

CivTech Project No. 22-1180

## TABLE OF CONTENTS

|                                                     |           |
|-----------------------------------------------------|-----------|
| <b>EXECUTIVE SUMMARY .....</b>                      | <b>1</b>  |
| <b>INTRODUCTION .....</b>                           | <b>3</b>  |
| Study Requirements.....                             | 3         |
| Study Area .....                                    | 3         |
| Horizon Years .....                                 | 3         |
| <b>EXISTING CONDITIONS .....</b>                    | <b>5</b>  |
| Land Use.....                                       | 5         |
| Surrounding Land Use .....                          | 5         |
| Roadway Network.....                                | 5         |
| Intersection Configuration .....                    | 6         |
| Traffic Volumes.....                                | 7         |
| Capacity Analysis .....                             | 10        |
| Future Roadway Improvements .....                   | 11        |
| Crash History.....                                  | 11        |
| <b>PROPOSED DEVELOPMENT.....</b>                    | <b>12</b> |
| Site Location .....                                 | 12        |
| Site Density/Intensity .....                        | 12        |
| Site Access .....                                   | 12        |
| Trip Generation .....                               | 13        |
| Vehicle Trip Distribution And Assignment .....      | 16        |
| Future Background Traffic .....                     | 16        |
| Total Traffic.....                                  | 16        |
| <b>TRAFFIC AND IMPROVEMENT ANALYSIS.....</b>        | <b>23</b> |
| Turn Lane Warranting And Queue Length Analysis..... | 24        |
| Sight Distance Analysis.....                        | 27        |
| <b>CONCLUSIONS .....</b>                            | <b>28</b> |
| <b>LIST OF REFERENCES.....</b>                      | <b>29</b> |
| <b>TECHNICAL APPENDICES.....</b>                    | <b>30</b> |

## LIST OF TABLES

|                                                                              |           |
|------------------------------------------------------------------------------|-----------|
| <b>Table 1 – Level of Service Criteria for Controlled Intersections.....</b> | <b>10</b> |
| <b>Table 2 – Existing Peak Hour Levels of Service.....</b>                   | <b>11</b> |
| <b>Table 3 – Intersection Crash Data Summary.....</b>                        | <b>12</b> |
| <b>Table 4 – Trip Generation.....</b>                                        | <b>14</b> |
| <b>Table 5 – Site Trip Distribution .....</b>                                | <b>16</b> |
| <b>Table 6 – Peak Hour Levels of Service.....</b>                            | <b>23</b> |
| <b>Table 7 – Driveway Right-Turn Lane Analysis.....</b>                      | <b>24</b> |
| <b>Table 8 – AASHTO Sight Distance Requirements .....</b>                    | <b>27</b> |

## LIST OF FIGURES

|                                                                          |           |
|--------------------------------------------------------------------------|-----------|
| <b>Figure 1 – Vicinity Map.....</b>                                      | <b>4</b>  |
| <b>Figure 2 – Existing Lane Configurations and Stop Controls .....</b>   | <b>8</b>  |
| <b>Figure 3 – Existing Peak Hour Traffic Volumes .....</b>               | <b>9</b>  |
| <b>Figure 4 – Site Plan and Access.....</b>                              | <b>15</b> |
| <b>Figure 5 – Trip Distribution .....</b>                                | <b>17</b> |
| <b>Figure 6 – Site Generated Traffic Volumes.....</b>                    | <b>18</b> |
| <b>Figure 7 – 2024 Background Traffic Volumes .....</b>                  | <b>19</b> |
| <b>Figure 8 – 2027 Background Traffic Volumes .....</b>                  | <b>20</b> |
| <b>Figure 9 – 2024 Total Traffic Volumes .....</b>                       | <b>21</b> |
| <b>Figure 10 – 2027 Total Traffic Volumes .....</b>                      | <b>22</b> |
| <b>Figure 11 – Proposed Lane Configurations and Traffic Control.....</b> | <b>26</b> |

## EXECUTIVE SUMMARY

Alliance Residential Company proposes the development of a 275-unit multi-family residential complex located south of US-60 (Superstition Freeway) and east of Goldfield Road on property that is currently undeveloped desert landscape. Access to the site is provided by four (4) future access points along Resort Boulevard and one (1) future access point along Chevron Access.

CivTech, Inc. has been retained by Alliance Residential Company to perform the traffic impact analysis for the proposed development. The purpose of this assessment is to address the traffic and transportation impacts of the proposed development on the surrounding streets and intersections.

The following conclusions and recommendations have been documented in this study.

### GENERAL

- The proposed development is anticipated to generate 2,038 daily trips, 124 (30 in/ 94 out) trips during the AM peak hour, and 139 (89 in/ 51 out) trips during the PM peak hour.
- The existing zoning of the site would be anticipated to generate 7,596 weekday daily trips, 564 (388 in/ 176 out) trips during the AM peak hour, and 747 (294 in/ 453 out) trips during the PM peak hour.
  - o The proposed land uses generate approximately 5,558 fewer daily trips, 439 (359 in/ 80 out) fewer AM peak hour volumes, and 602 (203 in/ 399 out) fewer PM peak hour trips than the existing zoning allows.

### CRASH HISTORY

- In total, there were 13 incidents within the study area from 2018-2020. There was a total of 15 injuries and 4 fatalities.

### EXISTING

- The results of the existing conditions analysis indicate that all study intersections operate with acceptable levels of service (LOS B or better).

### OPENING YEAR

- The results of the Synchro analysis indicate that all study intersections operate with overall acceptable levels of service (LOS B or better) with the lane configurations and stop controls as shown in **Figure 11**.

### 2027 CAPACITY ANALYSIS

- The results of the Synchro analysis indicate that all study intersections operate with overall acceptable levels of service (LOS B or better) with the lane configurations and stop controls as shown in **Figure 11**.

QUEUE STORAGE

- The recommended storage lengths are provided for study horizon year 2027 using the total traffic projections.

SIGHT DISTANCE

- Sight visibility should be provided at all driveways according to the distances and sight triangles at public intersections should be maintained according to Section 10-3-4 of the City Code.

## INTRODUCTION

Alliance Residential Company proposes the development of a 275-unit multi-family residential complex located south of US-60 (Superstition Freeway) and east of Goldfield Road on property that is currently undeveloped desert landscape. Access to the site is provided by four (4) future access points along Resort Boulevard and one (1) future access point along Chevron Access. The vicinity of the site is provided in **Figure 1**.

CivTech, Inc. has been retained by Alliance Residential Company to perform the traffic impact analysis for the proposed development. The purpose of this assessment is to address the traffic and transportation impacts of the proposed development on the surrounding streets and intersections.

## STUDY REQUIREMENTS

This study analyzes the traffic impact due to the proposed complex on the surrounding street network. The study has been prepared in conformance with the Arizona Department of Transportation (ADOT) *Traffic Engineering Guidelines and Processes (TGP) Section 240* Traffic Impact Analysis and Statement, August 2021. The specific objectives of the study are:

- To determine whether the planned street system in the vicinity of the site is adequate to accommodate the increased traffic that results from the proposed development.
- To recommend additional street improvements or traffic control devices, where necessary, to mitigate the additional site-generated traffic; and,
- Evaluate the internal site circulation and provide recommendations if necessary.

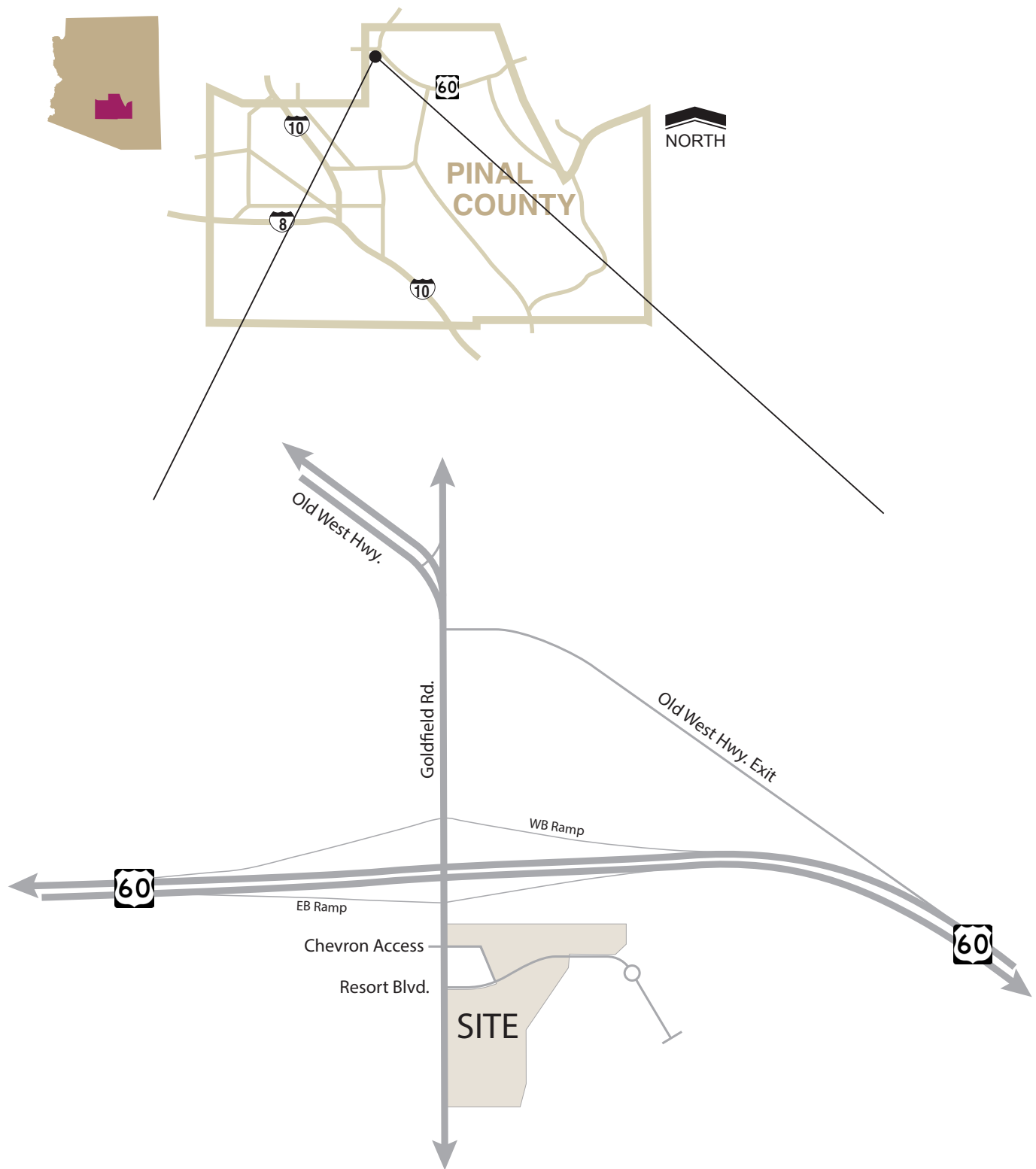
## STUDY AREA

The study area has been defined as including the following intersections:

- Goldfield Road & Old West Highway
- Goldfield Road & US 60/Old West Highway Exit
- Goldfield Road & US 60 WB Off-Ramp
- Goldfield Road & US 60 EB Off-Ramp
- Goldfield Road & Chevron Access
- Goldfield Road & Resort Boulevard
- Chevron Access & Resort Boulevard

## HORIZON YEARS

This study has been conducted to conform to ADOT TGP 240 Traffic Impact Analysis and Statement, prepared by ADOT in August 2021. Based on trip generation rates in the 11<sup>th</sup> edition of the Institute of Transportation Engineers' (ITE) *Trip Generation Manual*, the proposed development is anticipated to generate more than 100 but less than 500 trips during the highest peak hour. Therefore, ADOT requires the TIA for this development to evaluate the opening year and three years after build-out. It is assumed that the complex will open during 2024.



**Figure 1:** Vicinity Map

## EXISTING CONDITIONS

### LAND USE

The existing site is an approximately 17-acre section consisting of 7 parcels of undeveloped desert landscape.

### SURROUNDING LAND USE

Surrounding the site are primarily single-family residential developments and retail uses. Approximately a mile north of the site is Mountain View Lutheran Church, Crossroads Southern Baptist Church, and some single-family homes. The existing Chevron gas station is located in an outparcel on the western edge of the project area and southeast of the site is a mobile home resort. East of the site is predominantly undeveloped land with single-family residential homes east of Mountain View Road. West of the site is more single-family homes and Golden Vista 55+ Resort. Per TGP 240, the project corresponds to a 'Small Development' and would require a Category I analysis. Such a TIA requires analysis of site access driveways and "adjacent signalized intersections and/or major unsignalized street intersections within a minimum of ½ mile."

### ROADWAY NETWORK

The existing roadway network within the study area includes Goldfield Road, Old West Highway, US-60 Highway, Chevron Access, and Resort Boulevard.

**Goldfield Road** is a north-south road classified by the City of Apache Junction as a principal arterial roadway. South of Old West Highway, Goldfield Road consists of two travel lanes in each direction with a center two-way-left-turn lane (TWLTL); north of Old West Highway, Goldfield Road consists of only one lane in each direction of travel. Goldfield Road begins at the intersection with Baseline Road, south of the US 60, and continues north until terminating at the intersection with Lost Dutchman Boulevard. The posted speed limit is 35 miles per hour (mph) within the vicinity of the site.

**Old West Highway** is a southeast-northwest road classified by the City of Apache Junction as a principal arterial. Old West Highway consists of two lanes in each direction of travel and a bicycle lane, separated by a 65-foot median along the entire length of road. Old West Highway begins east of the intersection with State Route (SR) 88 after transitioning from Apache Trail and continues southeast until merging with Goldfield Road at the northeast corner of the proposed site. The posted speed limit is 45 mph within the vicinity of the site.

**US 60 (Superstition Freeway)** is an east-west United States highway north of the proposed site. Just east of the Goldfield Road interchange, US 60 is a divided highway with two travel lanes in each direction separated by a 45-foot raised median. West of the Goldfield interchange, the US 60 becomes an access-controlled freeway. US 60 provides direct access to SR-202, SR-87, SR-101, SR-79, SR-188, I-10, and Old West Highway via an off-shoot just before the Goldfield Road interchange. The posted speed limit is 65 mph within the vicinity of the site.

**Chevron Access** is a curvilinear unmarked driveway with a width large enough for one (1) lane of travel in direction. Chevron Access is located east of Goldfield Road and north of Resort Boulevard. There is no posted speed limit.

**Resort Boulevard** is an east-west local road with one (1) lane in each direction of travel. Resort Boulevard begins east of Goldfield Road and terminates approximately 860-feet east of Chevron Access where it becomes Dolce Vista Way. There is no posted speed limit.

## INTERSECTION CONFIGURATION

The intersection of **Goldfield Road and Old West Highway (SE bound lanes)** is a three-legged unsignalized “T” intersection with a stop sign on the southwest-bound approach. The southeast-bound approach consists of one dedicated left turn lane and two (2) through lanes. The southbound approach consists of a dedicated left turn lane only. Please note that the left turn lane intersects Goldfield Road “behind” a waiting westbound vehicle. Therefore, the movement is considered to be an approach to the next intersection.

The intersection of **Goldfield Road and Old West Highway (NW bound lanes)** operates as a three-way/four-legged unsignalized intersection with a stop sign on the southwest-bound approach. The northwest-bound approach consists of two through lanes and a bicycle lane; there is a “no left turn” sign on this approach and right turns are channelized. The southeast-bound approach is a single left turn lane. The southwest-bound approach consists of one through lane and a dedicated right turn lane. The through lane goes across this intersection to allow for left turns onto southeast-bound Old West Highway.

The intersection of **Goldfield Road and US 60/Old West Highway Exit** operates as an unsignalized “T” intersection with stop control on the westbound approach. The northbound and southbound approach consist of two (2) through lanes. The westbound approach consists of one (1) dedicated right-turn lane. The US-60 WB off ramp is a one-way road that allows access to the northbound Goldfield Road or northwest-bound Old West Highway.

The intersections of **Goldfield Road and US 60 Ramps** operate as a diamond traffic interchange within the vicinity of the site with protected-permitted left turn phasing on the northbound and southbound approaches. The northbound approach consists of one dedicated left turn lane, two through lanes and one dedicated right turn lane. The westbound approach consists of one dedicated left turn lane, one shared left-turn/through/right-turn lane and one dedicated right turn lane. The southbound approach consists of one (1) dedicated left turn lane, two (2) through lanes and a dedicated right turn lane. The eastbound approach consists of an exclusive left turn lane, one (1) shared left-turn/through/right-turn lane, and one dedicated right turn lane.

The intersection of **Goldfield Road and Chevron Access** operates as a four-legged unsignalized intersection with stop control in the eastbound and westbound approach. The northbound approach consists of two (2) through lanes and one (1) dedicated right-turn lane. The southbound approach consists of one (1) through lane and one (1) shared through/right-turn lane. The eastbound and westbound approach consist of one (1) shared left/through/right-turn lane.

The intersection of **Goldfield Road and Resort Boulevard** operates as a “T” intersection with stop control in the westbound approach. The northbound approach consists of one (1) through lane and one (1) shared through/right-turn lane. The southbound approach consists of two (2) through lanes and a TWLTL that allows storage for left-turns. The westbound approach consists of one (1) shared left/right-turn lane.

The intersection of **Chevron Access and Resort Boulevard** operates as a “T” intersection with stop control in the southbound approach. The southbound approach consists of one (1) shared left/right-turn lane. The eastbound approach consists of one (1) shared left-turn/through lane. The westbound approach consists of one (1) shared through/right-turn lane.

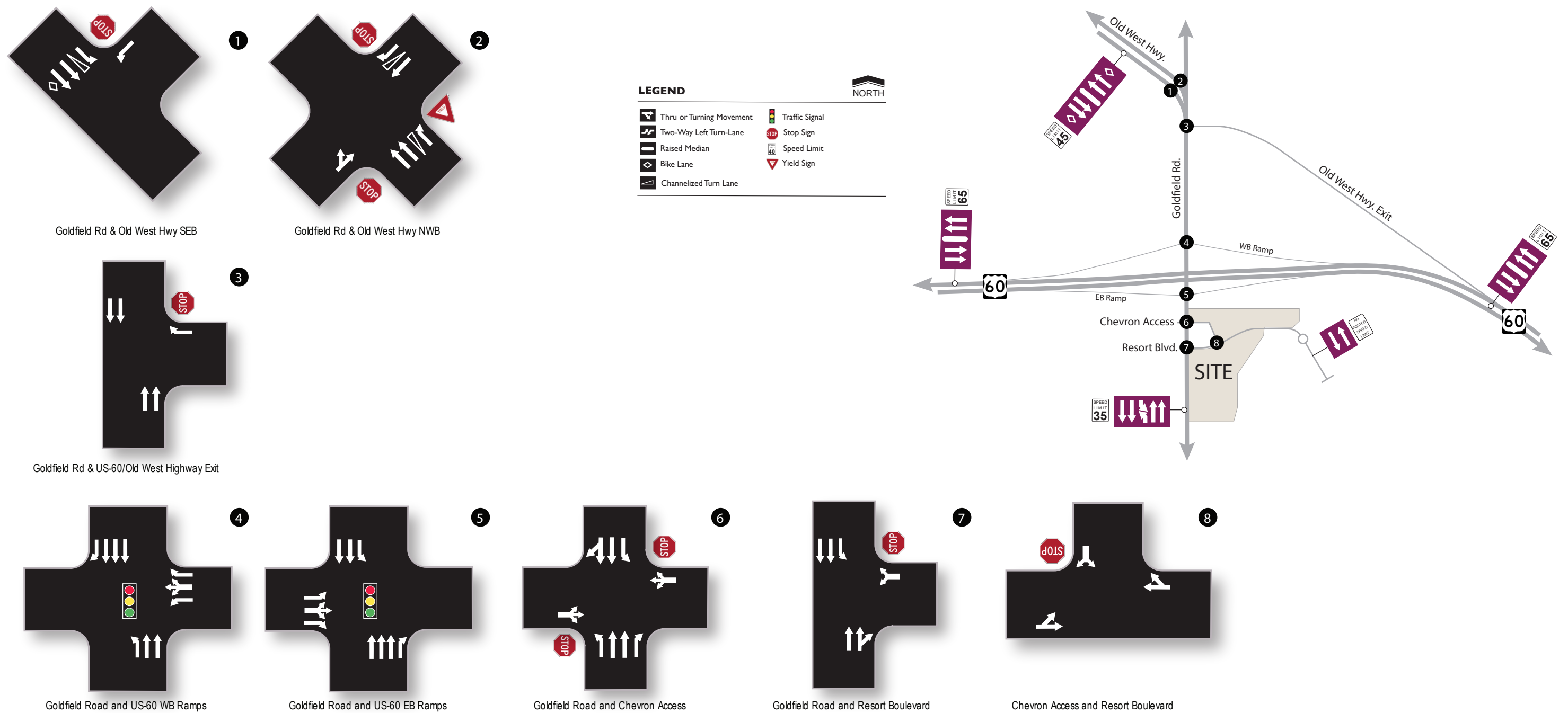
The existing intersection lane configurations and traffic control is illustrated in **Figure 2**.

## TRAFFIC VOLUMES

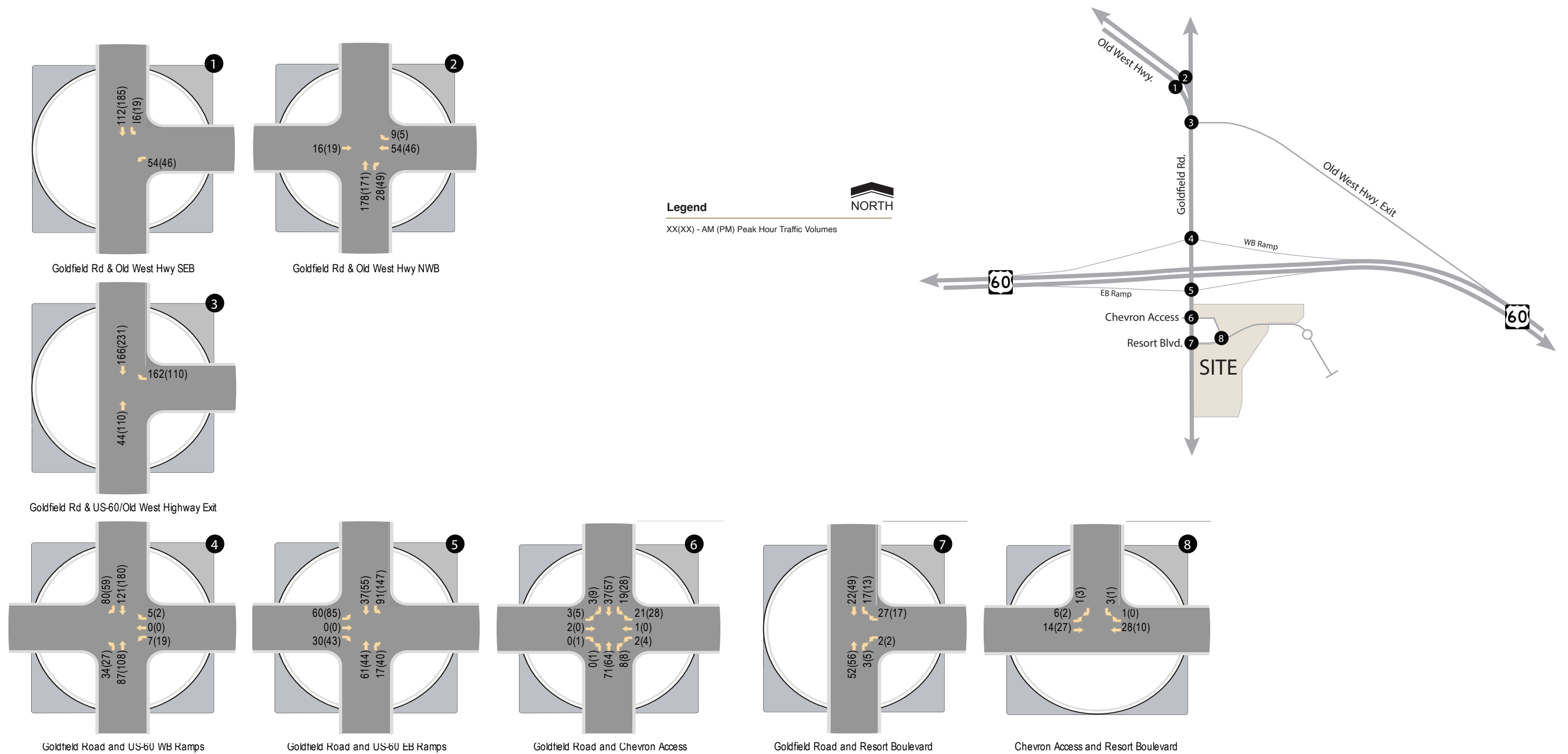
CivTech engaged Field Data Services of Arizona, Inc. to record traffic volumes at seven (7) study intersections within the project vicinity. Peak hour volume turning movement counts were performed from 7:00-9:00 AM and 4:00-6:00 PM on Thursday, July 13, 2022. Peak hour turning movement counts were conducted at the following study intersections:

- Goldfield Road & Old West Highway
- Goldfield Road & US 60 WB Off-Ramp
- Goldfield Road & Chevron Access
- Chevron Access & Resort Boulevard
- Goldfield Road & US 60 WB Off-Ramp (north)
- Goldfield Road & US 60 EB Off-Ramp
- Goldfield Road & Resort Boulevard

The existing traffic volumes observed for this study are presented in **Figure 3** for the weekday AM and PM peak hours. Traffic volume data obtained for this study have been included in **Appendix B**.



**Figure 2:** Existing Lane Configurations and Traffic controls



**Figure 3: Existing Traffic Volumes**

## CAPACITY ANALYSIS

Peak hour capacity analyses have been conducted for the study intersections based on existing intersection configurations and traffic volumes. All intersections have been analyzed using the methodologies presented in the *Highway Capacity Manual (HCM)*, Updated 2016, *Special Report 209*, and using Synchro software, version 11.0 under the HCM 6<sup>th</sup> edition (2016) methodology.

The concept of level of service (LOS) uses qualitative measures that characterize operational conditions within the traffic stream. The individual levels of service are described by factors that include speed, travel time, freedom to maneuver, traffic interruptions, and comfort and convenience. Six levels of service are defined for each type of facility for which analysis procedures are available. They are given letter designations A through F, with LOS A representing the best operating conditions and LOS F the worst. Each level of service represents a range of operating conditions. Levels of service for intersections are defined within ranges of average control delay per vehicle, the number of seconds a vehicle can expect to wait due to the presence of a traffic control device.

**Table 1** lists the level of service criteria for signalized and unsignalized intersections, respectively.

**Table 1 – Level of Service Criteria for Controlled Intersections**

| Level-of-Service | Signalized<br>Control Delay (sec/veh) | Unsignalized<br>Control Delay (sec/veh) |
|------------------|---------------------------------------|-----------------------------------------|
| A                | ≤ 10                                  | ≤ 10                                    |
| B                | > 10-20                               | > 10-15                                 |
| C                | > 20-35                               | > 15-25                                 |
| D                | > 35-55                               | > 25-35                                 |
| E                | > 55-80                               | > 35-50                                 |
| F                | > 80 (or v/c > 1)                     | > 50 (or v/c > 1)                       |

*Source: Exhibits 19-8, 20-2, 21-8, and 22-8, Highway Capacity Manual, 6<sup>th</sup> Edition (2016)*

Synchro 11.0 software calculates the LOS per the HCM 6<sup>th</sup> edition (2016) methodology. The 6<sup>th</sup> edition HCM documents the signalized LOS calculation methodology which takes into account lane geometry, traffic volumes and cycle length/phasing to compute LOS. Synchro analysis worksheets report individual movement delay/LOS and overall delay/LOS for signalized intersections; unsignalized intersection worksheets report the worst-case delay/LOS and the average overall intersection delay. Results of the existing level of service analyses are shown in **Table 2** for both AM and PM peak hours. The existing conditions analysis worksheets have been included in **Appendix C**.

**Table 2 – Existing Peak Hour Levels of Service**

| ID | Intersection                                   | Control            | Approach/<br>Movement                        | Existing LOS                     |
|----|------------------------------------------------|--------------------|----------------------------------------------|----------------------------------|
|    |                                                |                    |                                              | AM (PM)                          |
| 1  | Goldfield Road and Old West Highway SEB        | 1-way Stop (WB)    | WB Left                                      | A (A)                            |
| 2  | Goldfield Road and Old West Highway NWB        | 2-way stop (EB/WB) | EB Thru<br>WB Thru<br>WB Right               | B (B)<br>B (B)<br>A (A)          |
| 3  | Goldfield Road and US-60/Old West Highway Exit | 1-way stop (WB)    | WB Right                                     | A (A)                            |
| 4  | Goldfield Road and US-60 WB Ramp               | Signal             | NB<br>SB<br>WB                               | A (A)<br>A (A)<br>D (D)          |
|    |                                                |                    | <b>Overall</b>                               | <b>A (A)</b>                     |
| 5  | Goldfield Road and US-60 EB Ramp               | Signal             | NB<br>SB<br>EB                               | A (A)<br>A (A)<br>D (D)          |
|    |                                                |                    | <b>Overall</b>                               | <b>B (B)</b>                     |
| 6  | Goldfield Rd & Chevron Access                  | 2-way stop (EB/WB) | NB Left<br>SB Left<br>EB Shared<br>WB Shared | A (A)<br>A (A)<br>A (A)<br>A (A) |
| 7  | Goldfield Road & Resort Boulevard              | 1-way stop (WB)    | SB Left<br>WB Shared                         | A (A)<br>A (A)                   |
| 8  | Chevron Access & Resort Boulevard              | 1-way stop (SB)    | SB Shared<br>EB Left                         | A (A)<br>A (A)                   |

The results of the existing conditions analysis summarized in **Table 2** indicate that all study intersections operate with acceptable levels of service (LOS B or better).

## FUTURE ROADWAY IMPROVEMENTS

Upon review of the City of Apache Junction ongoing construction projects and current ADOT projects, there are no additional improvements proposed by ADOT or the City or Apache Junction within the study area.

## CRASH HISTORY

Crash data for the study area was obtained from the City of Apache Junction for the last three (3) calendar years for which data is available (2018-2020). Crash data for all study intersections were provided. In total, there have been 13 incidents within the study area since the beginning of 2018. All crashes occurred at intersections along the length of Goldfield Road within the vicinity of the site. The summary of intersection crash data is presented in **Table 3**.

**Table 3 – Intersection Crash Data Summary**

| Intersection                     | Total | 2020 | 2019 | 2018 | Injury | Fatality | Angle | Left Turn | Rear End | Head On | Sideswipe | Other | DUI | Pedestrian | Bicycle |
|----------------------------------|-------|------|------|------|--------|----------|-------|-----------|----------|---------|-----------|-------|-----|------------|---------|
| Goldfield Rd & Old West Hwy SEB  | 0     | 0    | 0    | 0    | 0      | 0        | 0     | 0         | 0        | 0       | 0         | 0     | 0   | 0          | 0       |
| Goldfield Rd & Old West Hwy NWB  | 3     | 1    | 2    | 0    | 4      | 1        | 0     | 2         | 0        | 0       | 0         | 0     | 1   | 0          | 0       |
| Goldfield Rd & Old West Hwy Exit | 6     | 0    | 2    | 4    | 5      | 2        | 0     | 0         | 0        | 0       | 0         | 1     | 5   | 0          | 0       |
| Goldfield Rd & US-60 WB Ramp     | 4     | 2    | 0    | 1    | 6      | 1        | 0     | 0         | 1        | 0       | 0         | 3     | 0   | 0          | 0       |
| Goldfield Rd & US-60 EB Ramp     | 0     | 0    | 0    | 0    | 0      | 0        | 0     | 0         | 0        | 0       | 0         | 0     | 0   | 0          | 0       |
| Goldfield Rd & Chevron Access    | 0     | 0    | 0    | 0    | 0      | 0        | 0     | 0         | 0        | 0       | 0         | 0     | 0   | 0          | 0       |
| Goldfield Rd & Resort Blvd       | 0     | 0    | 0    | 0    | 0      | 0        | 0     | 0         | 0        | 0       | 0         | 0     | 0   | 0          | 0       |
| Chevron Access & Resort Blvd     | 0     | 0    | 0    | 0    | 0      | 0        | 0     | 0         | 0        | 0       | 0         | 0     | 0   | 0          | 0       |

The crash analysis worksheets are included in **Appendix D**.

## PROPOSED DEVELOPMENT

### SITE LOCATION

The Alliance Residential Company proposed plan consists of a 17-acre multi-family residential complex located south of US-60 and east of Goldfield Road on currently undeveloped land. The complex is composed of approximately 275 proposed multi-family dwelling units (DU).

### SITE DENSITY/ INTENSITY

This development consists of approximately 275 units of proposed multi-family apartment complex. The complex is comprised of the following:

- 3 Bedroom Townhomes – 82 DU's
- 2 Bedroom Apartments – 104 DU's
- 1 Bedroom Apartments – 89 DU's

### SITE ACCESS

There is a total of five (5) proposed access points.

- Access A – is a full movement access located approximately 100 feet east of Goldfield Road along Chevron Access.
- Access B – is a full movement access located approximately 445 feet east of Goldfield Road along Resort Boulevard.
- Access C – is a full movement access located approximately 735 feet east of Goldfield Road along Resort Boulevard.

- Access D – is a full movement access located approximately 925 feet east of Goldfield Road along Resort Boulevard.
- Access E – is a full movement access located approximately 1055 feet east of Goldfield Road along Resort Boulevard.

The proposed development site plans are provided in **Figure 4**.

## TRIP GENERATION

The potential trip generation for the proposed development was estimated utilizing the Institute of Transportation Engineers (ITE) *Trip Generation Manual, 11<sup>th</sup> Edition* and *Trip Generation Handbook, 3<sup>d</sup> Edition*. The ITE *Trip Generation Manual* contains data collected by various transportation professionals for a wide range of different land uses. The data are summarized in the report and average rates and equations have been established that correlate the relationship between an independent variable that describes the development size and generated trips for each categorized land use. The report provides information for daily and peak hour trips. The anticipated trip generation is summarized in **Table 4**. Detailed trip generation calculations are provided in **Appendix E**.

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Table 4 – Trip Generation

| Land Use                                     | ITE Code | ITE Land Use Name     | Quantity | Units <sup>+</sup> | AM Distribution |     | PM Distribution |     |
|----------------------------------------------|----------|-----------------------|----------|--------------------|-----------------|-----|-----------------|-----|
|                                              |          |                       |          |                    | In              | Out | In              | Out |
| <b>Proposed Alliance Residential Complex</b> |          |                       |          |                    |                 |     |                 |     |
| Single-Family Rental Units                   | 220      | Apartments            | 275      | DUs                | 23%             | 67% | 63%             | 37% |
| <b>Existing Zoned Land Use</b>               |          |                       |          |                    |                 |     |                 |     |
| Lot 1: Sit Down Restaurant                   | 931      | Sit Down Restaurant   | 10.803   | KSF                | 55%             | 45% | 61%             | 39% |
| Lot 3: Hotel or Motel                        | 310      | Hotel                 | 178      | Rooms              | 56%             | 44% | 51%             | 49% |
| Lot 4: Medical Office                        | 720      | Medical-Dental Office | 8.276    | KSF                | 79%             | 21% | 30%             | 70% |
| Lot 5: Medical Office                        | 720      | Medical-Dental Office | 8.102    | KSF                | 88%             | 12% | 17%             | 83% |
| Lot 6: Medical Office                        | 720      | Medical-Dental Office | 7.928    | KSF                | 79%             | 21% | 30%             | 70% |
| Lot 7: Sit Down Restaurant                   | 931      | Sit Down Restaurant   | 6.447    | KSF                | 80%             | 20% | 67%             | 33% |
| Lot 8: Medical Office                        | 720      | Medical-Dental Office | 100.014  | KSF                | 79%             | 21% | 30%             | 70% |

| Land Use                                     | ADT        |       | AM Peak Hour |     |     |       | PM Peak Hour |     |     |       |
|----------------------------------------------|------------|-------|--------------|-----|-----|-------|--------------|-----|-----|-------|
|                                              | Avg. Rate* | Total | Avg. Rate*   | In  | Out | Total | Avg. Rate*   | In  | Out | Total |
| <b>Proposed Alliance Residential Complex</b> |            |       |              |     |     |       |              |     |     |       |
| Single-Family Rental Units                   | 7.41       | 2,038 | 0.45         | 30  | 94  | 124   | 0.50         | 89  | 51  | 139   |
| <b>Existing Zoned Land Use</b>               |            |       |              |     |     |       |              |     |     |       |
| Lot 1: Sit Down Restaurant                   | 107.2      | 1,158 | 9.57         | 57  | 46  | 103   | 9.05         | 60  | 38  | 98    |
| Lot 3: Hotel or Motel                        | 7.99       | 1,426 | 0.46         | 46  | 36  | 82    | 0.58         | 53  | 51  | 104   |
| Lot 4: Medical Office                        | 29.92      | 248   | 3.09         | 21  | 5   | 26    | 3.69         | 9   | 22  | 31    |
| Lot 5: Medical Office                        | 29.64      | 240   | 3.10         | 20  | 5   | 25    | 3.93         | 10  | 22  | 32    |
| Lot 6: Medical Office                        | 29.35      | 232   | 3.10         | 20  | 5   | 25    | 3.93         | 9   | 22  | 31    |
| Lot 7: Sit Down Restaurant                   | 107.2      | 692   | 9.57         | 34  | 28  | 62    | 9.05         | 35  | 23  | 58    |
| Lot 8: Medical Office                        | 36.0       | 3,600 | 2.41         | 190 | 51  | 241   | 3.93         | 118 | 275 | 393   |
| <b>Total Proposed Trips</b>                  |            | 2,038 |              | 30  | 94  | 124   |              | 89  | 51  | 139   |
| <b>Total Existing Zoned Trips</b>            |            | 7,596 |              | 388 | 176 | 564   |              | 294 | 453 | 747   |
| <b>Proposed Difference</b>                   |            | 5,558 |              | 359 | 80  | 439   |              | 203 | 399 | 602   |

Notes: \*All average rates were calculated by dividing total trips generated using regression equation by the number of dwelling units. (See below.)

\* KSF = 1,000 square feet; DUs = Dwelling Units

| CALCULATIONS (Equations shown only where applicable) |                                          |                                           |                                     |
|------------------------------------------------------|------------------------------------------|-------------------------------------------|-------------------------------------|
| Land Use [Units]                                     | Daily                                    | AM Peak Hour                              | PM Peak Hour                        |
| Apartments [275 DU]                                  | $T_{Day} = 275 * 7.41 = 2,038$           | $T_{AM} = 275 * 0.45 = 124$               | $T_{PM} = 275 * 0.5 = 139$          |
| Restaurant [10.803 KSF]                              | $T_{Day} = 10.803 * 107.2 = 1,158$       | $T_{AM} = 10.803 * 9.57 = 103$            | $T_{PM} = 10.803 * 9.05 = 98$       |
| Hotel [178 DU]                                       | $T_{Day} = 178 * 7.99 = 1,426$           | $T_{AM} = 0.5 * 178 - 7.45 = 82$          | $T_{PM} = 0.74 * 178 - 27.89 = 104$ |
| Medical [8.276 KSF]                                  | $T_{Day} = 42.97 * 8.276 - 108.01 = 248$ | $T_{AM} = 0.9 * LN(8.276) + 1.34 = 26$    | $T_{PM} = 4.07 * 8.276 - 3.17 = 31$ |
| Medical [8.102 KSF]                                  | $T_{Day} = 42.97 * 8.102 - 108.01 = 240$ | $T_{AM} = 8.102 * 3.1 = 25$               | $T_{PM} = 8.102 * 3.93 = 32$        |
| Medical [7.928 KSF]                                  | $T_{Day} = 42.97 * 7.928 - 108.01 = 232$ | $T_{AM} = 0.9 * LN(7.928) + 1.34 = 25$    | $T_{PM} = 7.928 * 3.93 = 31$        |
| Restaurant [6.447 KSF]                               | $T_{Day} = 6.447 * 107.2 = 692$          | $T_{AM} = 6.447 * 9.57 = 62$              | $T_{PM} = 6.447 * 9.05 = 58$        |
| Medical [100.014 KSF]                                | $T_{Day} = 100.014 * 36 = 3,600$         | $T_{AM} = 0.9 * LN(100.014) + 1.34 = 241$ | $T_{PM} = 100.014 * 3.93 = 393$     |

The proposed development is anticipated to generate 2,038 daily trips, 124 (30 in/ 94 out) trips during the AM peak hour, and 139 (89 in/ 51 out) trips during the PM peak hour. By comparison, the existing zoning of the site would be anticipated to generate 7,596 weekday daily trips, 564 (388 in/ 176 out) trips during the AM peak hour, and 747 (294 in/ 453 out) trips during the PM peak hour.

The proposed land uses generate 5,558 fewer daily trips, 439 (359 in/ 80 out) fewer AM peak hour volumes, and 602 (203 in/ 399 out) fewer PM peak hour trips than the existing zoning allows.



**Figure 4: Site Plan and Access**

## VEHICLE TRIP DISTRIBUTION AND ASSIGNMENT

A single trip distribution pattern was assumed for the proposed development. It is expected that the proposed development will generate trips based on future employment within a 7-mile radius of the site. Future total employment within a 7-mile radius of the site, as projected by the 2030 socio-economic data compiled by the Maricopa Association of Governments (MAG), was used as a basis to estimate trip distribution. The resulting trip distribution percentages for the study area are shown in **Table 5**. The trip distribution calculations are included in **Appendix F**.

**Table 5 – Site Trip Distribution**

| Direction (To/From)                                    | Percentage   |
|--------------------------------------------------------|--------------|
| North on Goldfield Road (north of Old West Highway)    | 5%           |
| Northwest on Old West Highway (west of Goldfield Road) | 25%          |
| East on US-60 (east of Goldfield Road)                 | 65%          |
| West on US-60 (west of Goldfield Road)                 | 5%           |
| <b>Total</b>                                           | <b>100 %</b> |

**Figure 5** illustrates the trip distribution percentages noted in **Table 5** on the roadway network within the study area. The percentages presented in **Figure 5** were applied to the site trips generated to determine the AM and PM peak hour site traffic at the intersections within the study area. **Figure 6** presents the resulting site generated traffic for the proposed development.

## FUTURE BACKGROUND TRAFFIC

CivTech took historical daily traffic volumes from the ADOT's Transportation Management System website to estimate an average annual growth rate. Average daily traffic volumes at US-60 Exit 198 just west of Goldfield Road (Location ID: 6980) were considered. The location experienced an average annual increase of 1.9% per year from 2018 to 2019. To be conservative, this growth rate was rounded up so that a 2% annual growth rate (1.040 annual expansion factor for 2024, 1.104 for 2027) was applied to the volumes at the study intersections to obtain the future background traffic volumes.

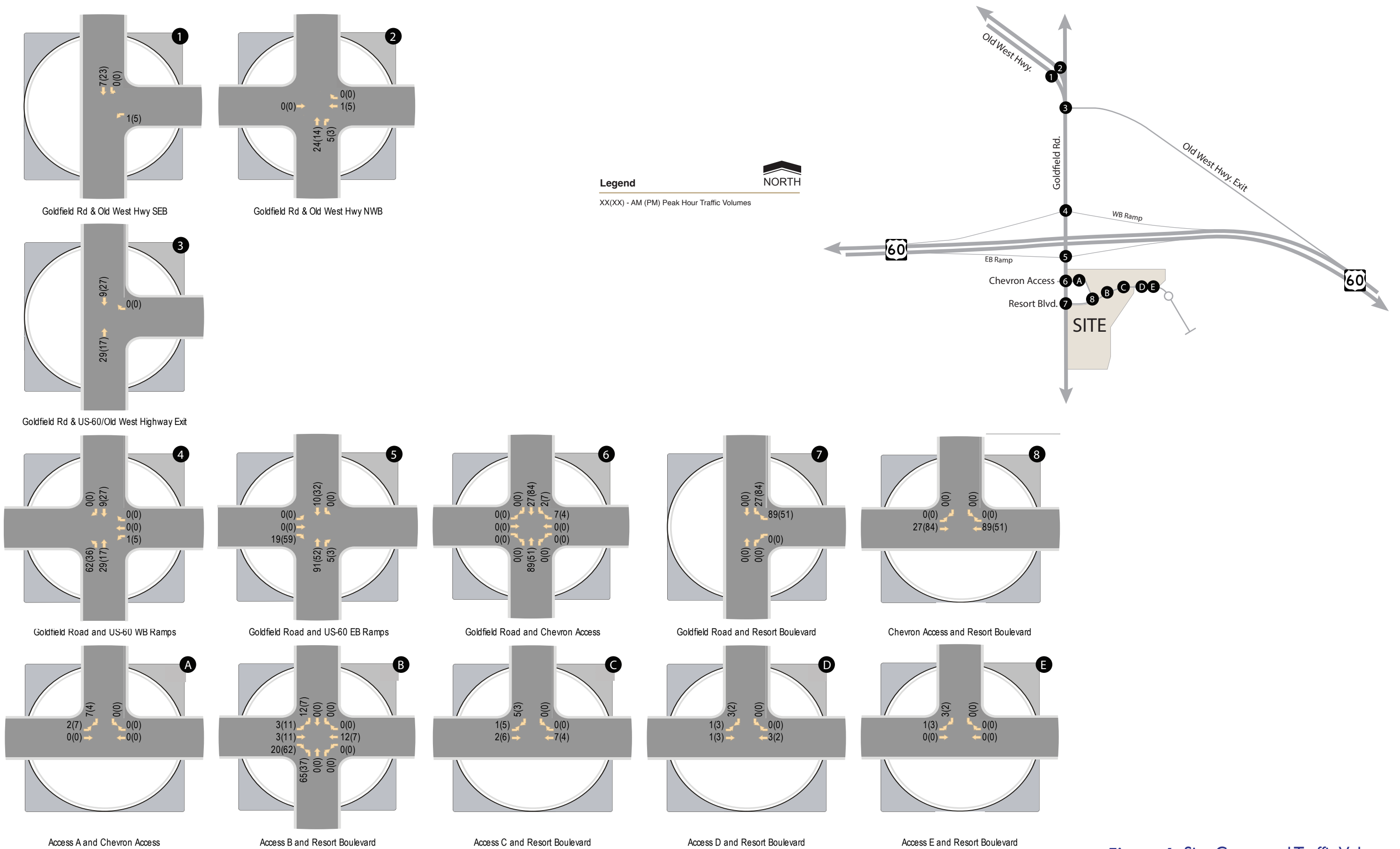
The background volumes for the opening year of 2024 are presented in **Figure 7**. The background volumes for the horizon year of 2027 are presented in **Figure 8**. Background traffic calculations are located within **Appendix G**.

## TOTAL TRAFFIC

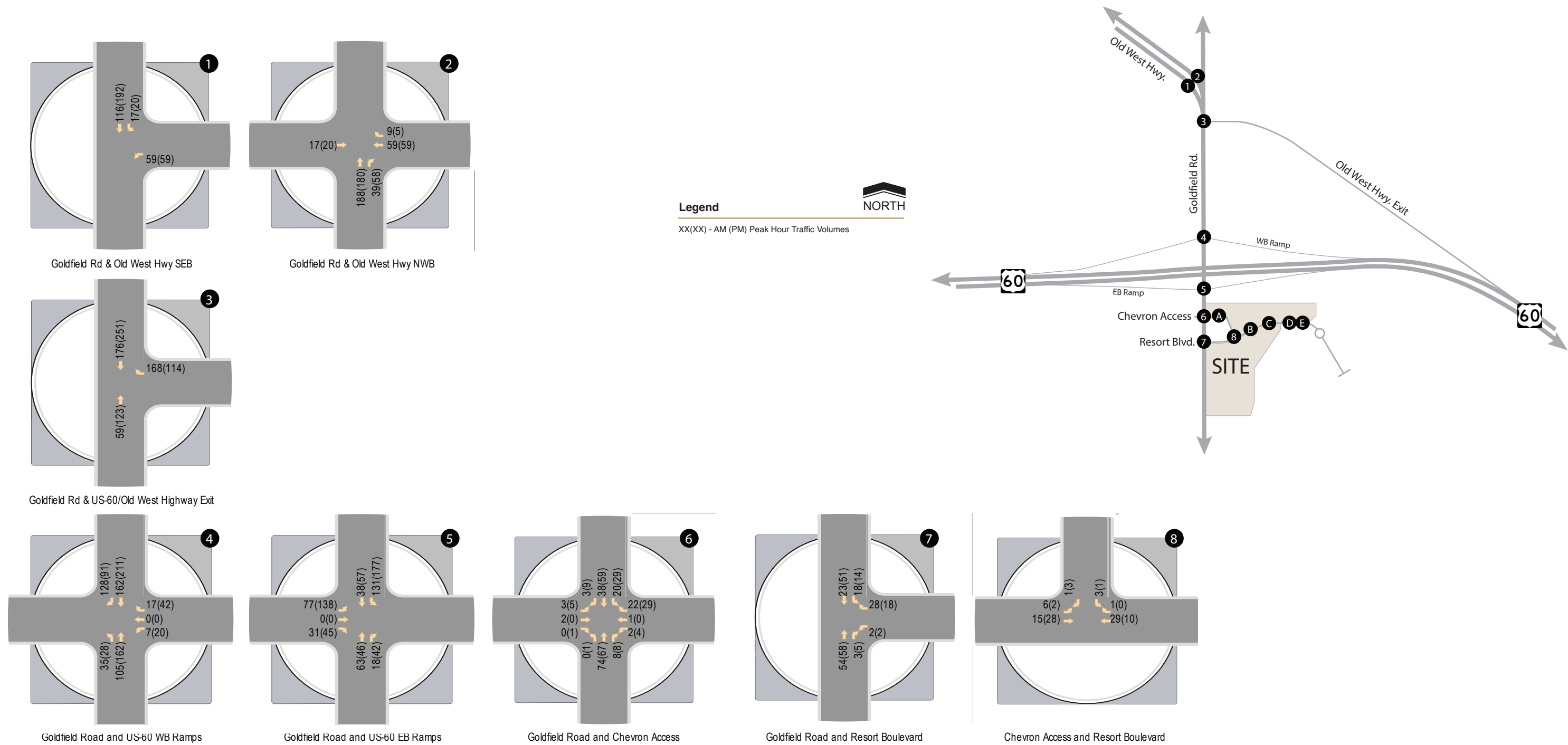
Total traffic was determined by adding the site generated traffic to the estimated projected background traffic. Total peak hour traffic volumes for the opening year of 2024 are shown in **Figure 9**. Total peak hour traffic volumes for the horizon year of 2027 are shown in **Figure 10**.



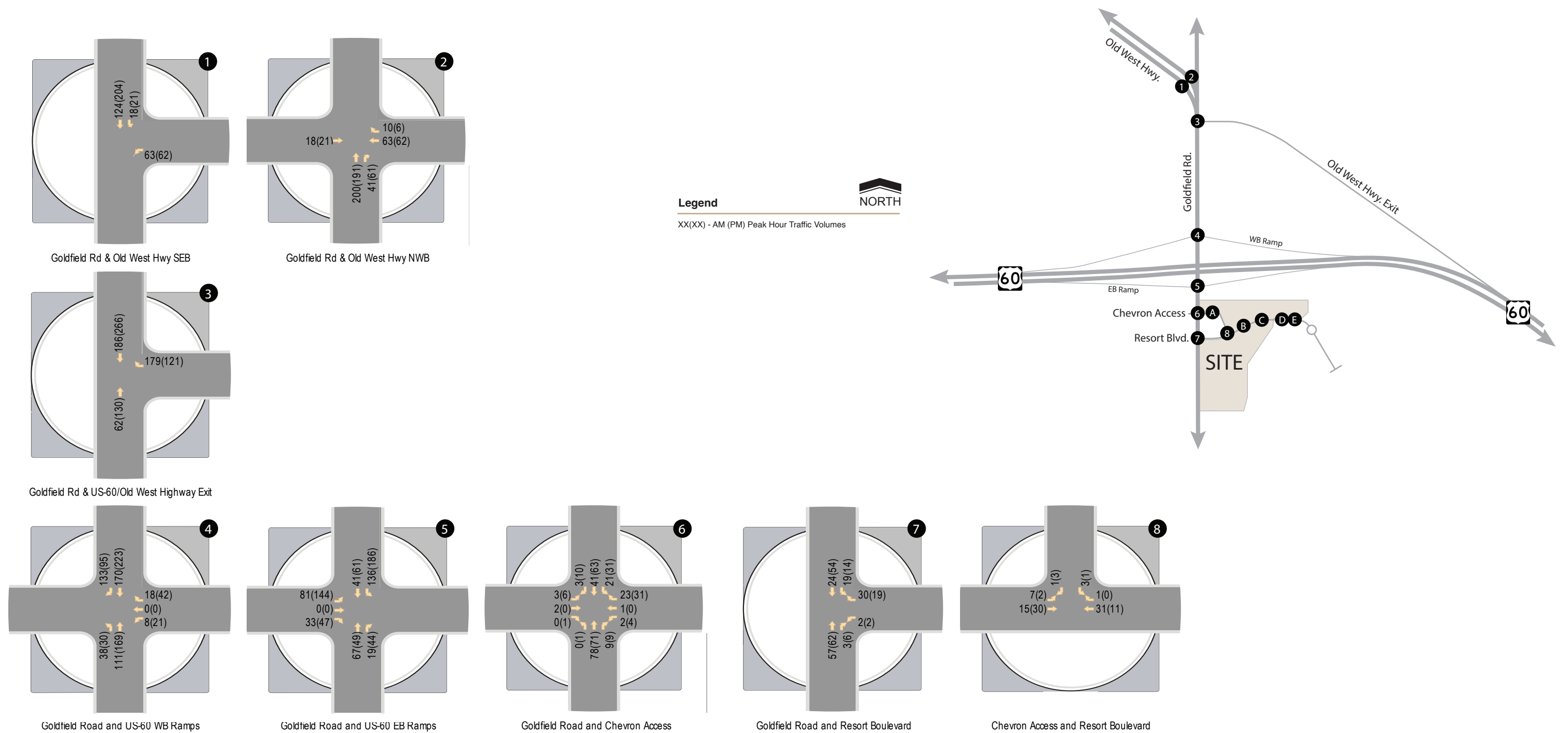
**Figure 5:** Trip Distribution



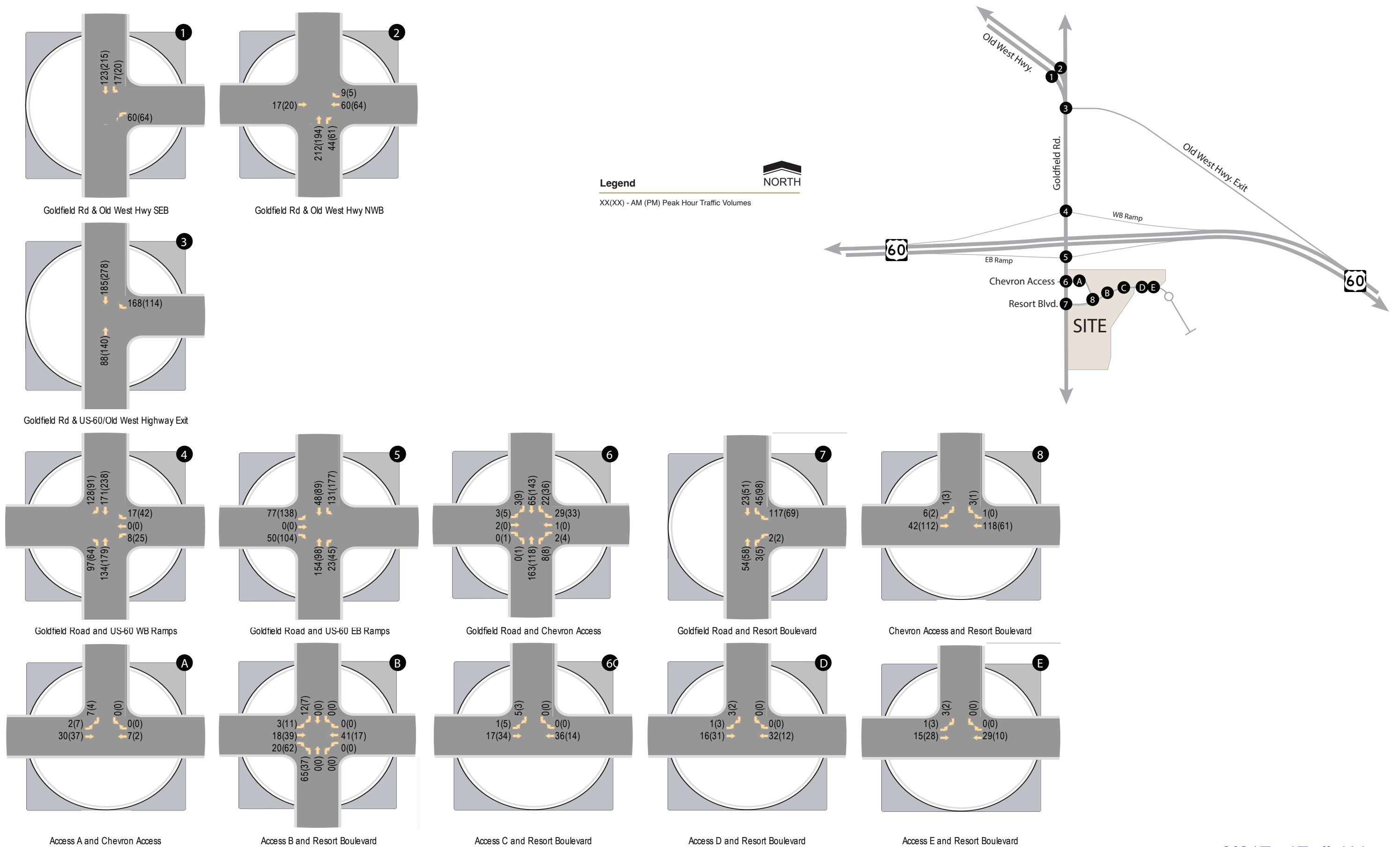
**Figure 6: Site Generated Traffic Volumes**



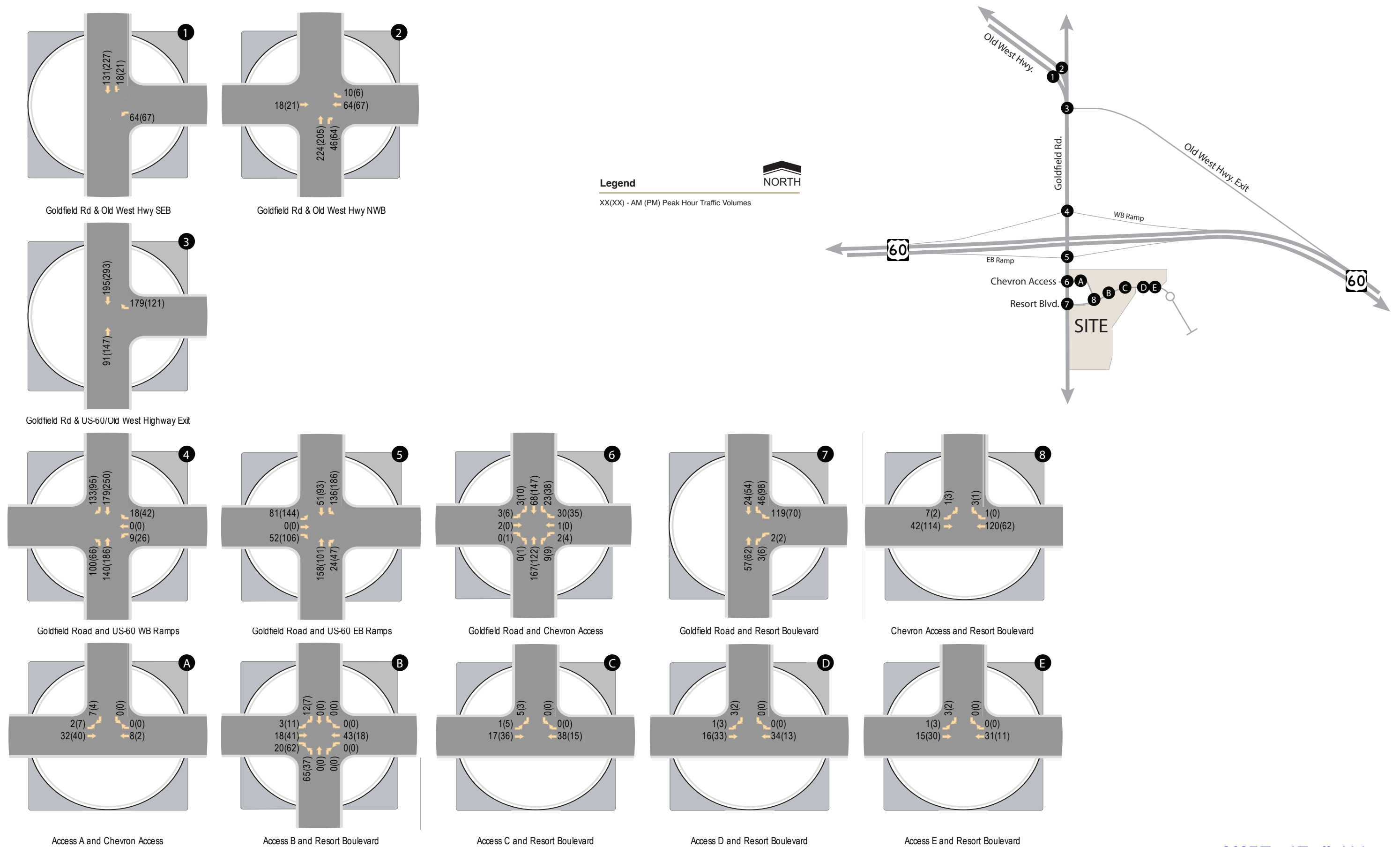
**Figure 7: 2024 Background Traffic Volumes**



**Figure 8: 2027 Background Traffic Volumes**



**Figure 9: 2024 Total Traffic Volumes**



**Figure 10: 2027 Total Traffic Volumes**

## TRAFFIC AND IMPROVEMENT ANALYSIS

The overall intersection and approach levels of service are summarized in **Table 6** for the 2024 and 2027 background and total traffic conditions. Detailed analysis worksheets for the 2024 background analysis can be found in **Appendix H**, worksheets for the 2027 background analysis can be found in **Appendix I**, worksheets for the 2024 total traffic analysis can be found in **Appendix J**, and worksheets for the 2027 total traffic analysis can be found in **Appendix K**.

**Table 6 – Peak Hour Levels of Service**

| ID   | Intersection                                   | Control            | Approach / Movement                          | 2024                             |                                  | 2027                             |                                  |
|------|------------------------------------------------|--------------------|----------------------------------------------|----------------------------------|----------------------------------|----------------------------------|----------------------------------|
|      |                                                |                    |                                              | No Build                         | Build                            | No Build                         | Build                            |
|      |                                                |                    |                                              | AM (PM)                          | AM(PM)                           | AM (PM)                          | AM(PM)                           |
| 1    | Goldfield Road and Old West Highway SEB        | 1-way Stop (WB)    | WB Left                                      | A (A)                            | A (A)                            | A (A)                            | A (A)                            |
| 2    | Goldfield Road and Old West Highway NWB        | 2-Way Stop (EB/WB) | EB Thru<br>WB Thru<br>WB Right               | B (B)<br>B (B)<br>A (A)          | B (B)<br>B (B)<br>A (A)          | B (B)<br>B (B)<br>A (A)          | B (B)<br>B (B)<br>A (A)          |
| 3    | Goldfield Road and US-60/Old West Highway Exit | 1-way stop (WB)    | WB Right                                     | A (A)                            | A (A)                            | A (A)                            | A (A)                            |
| 4    | Goldfield Road and US-60 WB Ramp               | Signal             | NB<br>SB<br>WB                               | A (A)<br>A (A)<br>D (D)          | A (A)<br>A (A)<br>D (D)          | A (A)<br>A (A)<br>D (D)          | A (A)<br>A (A)<br>D (D)          |
|      |                                                |                    | <b>Overall</b>                               | <b>A (A)</b>                     | <b>A (A)</b>                     | <b>A (A)</b>                     | <b>A (A)</b>                     |
| 5    | Goldfield Road and US-60 EB Ramp               | Signal             | NB<br>SB<br>EB                               | A (A)<br>A (A)<br>D (D)          | A (A)<br>A (A)<br>D (D)          | A (A)<br>A (A)<br>D (D)          | A (A)<br>A (A)<br>D (D)          |
|      |                                                |                    | <b>Overall</b>                               | <b>B (B)</b>                     | <b>B (B)</b>                     | <b>B (B)</b>                     | <b>B (B)</b>                     |
| 6    | Goldfield Rd & Chevron Access                  | 2-way stop (EB/WB) | NB Left<br>SB Left<br>EB Shared<br>WB Shared | A (A)<br>A (A)<br>B (A)<br>A (A) | A (A)<br>A (A)<br>B (B)<br>A (A) | A (A)<br>A (A)<br>A (A)<br>A (A) | A (A)<br>A (A)<br>B (B)<br>A (A) |
| 7    | Goldfield Road & Resort Boulevard              | 1-way stop (WB)    | SB Left<br>WB Shared                         | A (A)<br>A (A)                   | A (A)<br>A (A)                   | A (A)<br>A (A)                   | A (A)<br>A (A)                   |
| 8    | Chevron Access & Resort Boulevard              | 1-way stop (SB)    | EB Left<br>SB Shared                         | A (A)<br>A (A)                   | A (A)<br>A (A)                   | A (A)<br>A (A)                   | A (A)<br>A (A)                   |
| 9/A  | Access A & Resort Boulevard                    | 1-way stop (SB)    | EB Left<br>SB Shared                         |                                  | A (A)<br>A (A)                   |                                  | A (A)<br>A (A)                   |
| 10/B | Access B & Resort Boulevard                    | 2-way stop (NB/SB) | EB Left<br>WB Left<br>NB Shared<br>SB Shared |                                  | A (A)<br>A (A)<br>A (A)<br>A (A) |                                  | A (A)<br>A (A)<br>A (A)<br>A (A) |
| 11/C | Access C & Resort Boulevard                    | 1-way stop (SB)    | EB Left<br>SB Shared                         |                                  | A (A)<br>A (A)                   |                                  | A (A)<br>A (A)                   |
| 12/D | Access D & Resort Boulevard                    | 1-way stop (SB)    | EB Left<br>SB Shared                         |                                  | A (A)<br>A (A)                   |                                  | A (A)<br>A (A)                   |
| 13/E | Access E & Resort Boulevard                    | 1-way stop (SB)    | EB Left<br>SB Shared                         |                                  | A (A)<br>A (A)                   |                                  | A (A)<br>A (A)                   |

The results of the Synchro analysis summarized in **Table 6** indicate that all study intersections operate with overall acceptable levels of service (LOS B or better).

## TURN LANE WARRANTING AND QUEUE LENGTH ANALYSIS

### RIGHT-TURN LANE WARRANT ANALYSIS

The City of Apache Junction Land Development Code, Chapter 10: Engineering Design Guidelines and Policies do not specify criteria warranting a right turn lane. Therefore, MCDOT guidelines are considered for this analysis. Per section 7.15 of the *MCDOT Roadway Design Manual*, a driveway right-turn deceleration lane is required when either of the following is met:

- A. The outside lane has an expected volume of 250 vph or greater and the right turn volume is greater than 55 vph.
- B. Any three of the below criteria are met:
  - 1. At least 5,000 vehicles per day are using or are expected to be using the adjacent street.
  - 2. The roadway's posted speed limit is greater than 35 mph.
  - 3. At least 1,000 vehicles per day are using or are expected to use the driveway.
  - 4. At least 30 vehicles are expected to make right-turns into the driveway within a one-hour period.

All access points were evaluated under these criteria. The results are shown in **Table 7**.

**Table 7** is a summary of the 2027 peak hour right-turn volumes from the adjacent street onto the proposed driveways:

**Table 7 – Driveway Right-Turn Lane Analysis**

| Access                      | Criterion A | Criterion B |    |    |     |
|-----------------------------|-------------|-------------|----|----|-----|
|                             |             | 1.          | 2. | 3. | 4.  |
| Access A & Chevron Access   | No          | No          | No | No | No  |
| Access B & Resort Boulevard | No          | No          | No | No | Yes |
| Access C & Resort Boulevard | No          | No          | No | No | No  |
| Access D & Resort Boulevard | No          | No          | No | No | No  |
| Access E & Resort Boulevard | No          | No          | No | No | No  |

Due to the low expected future traffic volumes and low speed limit on Resort Boulevard & Chevron Access, neither criterion is met for the intersection. Therefore, a right-turn deceleration lane is not warranted for the site accesses.

### QUEUE STORAGE

Adequate turn storage should be supplied on any approach where turn lanes are permitted and/or warranted. Per ADOT TGP 430 on Turn Lane Design, the configuration of a turn lane consists of a taper, an opening or “gap”, and the storage length. A formula for calculating the length of the taper (which may not be required for right turn lanes) is provided in the TGP and the gap is specified in Table 430-1; both are based on posted or design speed, while the taper calculation also considers

the width of the lane and whether widening for it will be to one side or symmetrical. The storage is comprised of two components: braking distance (also specified in TGP 430) and the queue, which can vary depending on the projected number of turns. There are several methods of determining the appropriate queue for a turning movement. One common method is outlined in A Policy on Geometric Design of Highways and Streets (the AASHTO “Green Book”), a conservative methodology in which it is assumed that the turn lane should store the average number of turning vehicles arriving in a two-minute period, where unsignalized, or, in two signal cycles, where signalized. TGP 430 describes this method (without attributing it to the Green Book) as one way of estimating the queue, indicating that the minimum queue should be 50 feet (i.e., two passenger vehicles) where trucks are less than 10% of the total traffic volume of 85 feet (one 25-foot passenger vehicle + one 60-ft long truck) where trucks are greater than 10% of the total traffic volume.

TGP 240 allows/suggests the use of another method, one outlined in the Highway Capacity Manual. This method is used by the Synchro software to report the 95th percentile number of vehicles to the back of the queues. CivTech rounds this number up to the nearest whole number of vehicles and multiplies by 25 feet to convert the number of vehicles to a required queue. The equations used for the calculations are shown below, and the resulting turn lane storage requirements for the study intersections are summarized in **Table 8**. Detailed queue storage calculation worksheets using the AASHTO method are included in **Appendix L**. Proposed lane configurations are shown in **Figure 11**.

**Table 8 – Queue Storage Lengths**

| ID | Intersection                                   | Control            | Movement           | Existing <sup>(1)</sup> | ADOT         |            |            | AASHTO       | HCM <sup>(2)</sup> | Recommended                               |
|----|------------------------------------------------|--------------------|--------------------|-------------------------|--------------|------------|------------|--------------|--------------------|-------------------------------------------|
|    |                                                |                    |                    |                         | Taper        | Gap        | Storage    |              |                    |                                           |
| 1  | Goldfield Road and Old West Highway SEB        | 1-way Stop (WB)    | SB Left<br>WB Left | 195'<br>25'             | 405'<br>245' | 90'<br>60' | 85'<br>45' | 100'<br>150' | 25'<br>25'         | <sup>(5)</sup> 195'<br><sup>(5)</sup> 25' |
| 2  | Goldfield Road and Old West Highway NWB        | 2-Way Stop (EB/WB) | WB Right           | 55'                     | 245'         | 60'        | 40'        | 100'         | <25'               | <sup>(5)</sup> 55'                        |
| 3  | Goldfield Road and US-60/Old West Highway Exit | 1-way Stop (WB)    | WB Right           | <sup>(4)</sup> -        | 405'         | 90'        | 85'        | 225'         | 25'                | <sup>(5)</sup> -                          |
| 4  | Goldfield Road and US-60 WB Ramp               | Signal             | NB Left            | 445'                    | 245'         | 60'        | 40'        | 200'         | 25'                | <sup>(5)</sup> 445'                       |
|    |                                                |                    | WB Left            | 190'                    | 405'         | 90'        | 85'        | 125'         | 40'                | <sup>(5)</sup> 190'                       |
|    |                                                |                    | SB Right           | 140'                    | 245'         | 60'        | 40'        | 250'         | <25'               | <sup>(5)</sup> 140'                       |
|    |                                                |                    | WB Right           | 185'                    | 405'         | 90'        | 85'        | 150'         | <25'               | <sup>(5)</sup> 185'                       |
| 5  | Goldfield Road and US-60 EB Ramp               | Signal             | SB Left            | 440'                    | 245'         | 60'        | 40'        | 325'         | <25'               | <sup>(5)</sup> 440'                       |
|    |                                                |                    | EB Left            | 125'                    | 405'         | 90'        | 85'        | 275'         | 100'               | <sup>(5)</sup> 125'                       |
|    |                                                |                    | NB Right           | 120'                    | 245'         | 60'        | 40'        | 150'         | <25'               | <sup>(5)</sup> 120'                       |
|    |                                                |                    | EB Right           | 125'                    | 405'         | 90'        | 85'        | 225'         | 35'                | <sup>(5)</sup> 125'                       |
| 6  | Goldfield Rd & Chevron Access                  | 2-way Stop (EB/WB) | NB Left            | <sup>(3)</sup> TWLTL    | 245'         | 60'        | 40'        | 100'         | <25'               | <sup>(3)</sup> TWLTL                      |
|    |                                                |                    | SB Left            | <sup>(3)</sup> TWLTL    | 245'         | 60'        | 40'        | 125'         | 25'                | <sup>(3)</sup> TWLTL                      |
|    |                                                |                    | NB Right           | 75'                     | 245'         | 60'        | 40'        | 100'         | <25'               | <sup>(5)</sup> 75'                        |
| 7  | Goldfield Road & Resort Boulevard              | 1-way Stop (WB)    | SB Left            | <sup>(3)</sup> TWLTL    | 245'         | 60'        | 40'        | 175'         | 25'                | <sup>(3)</sup> TWLTL                      |

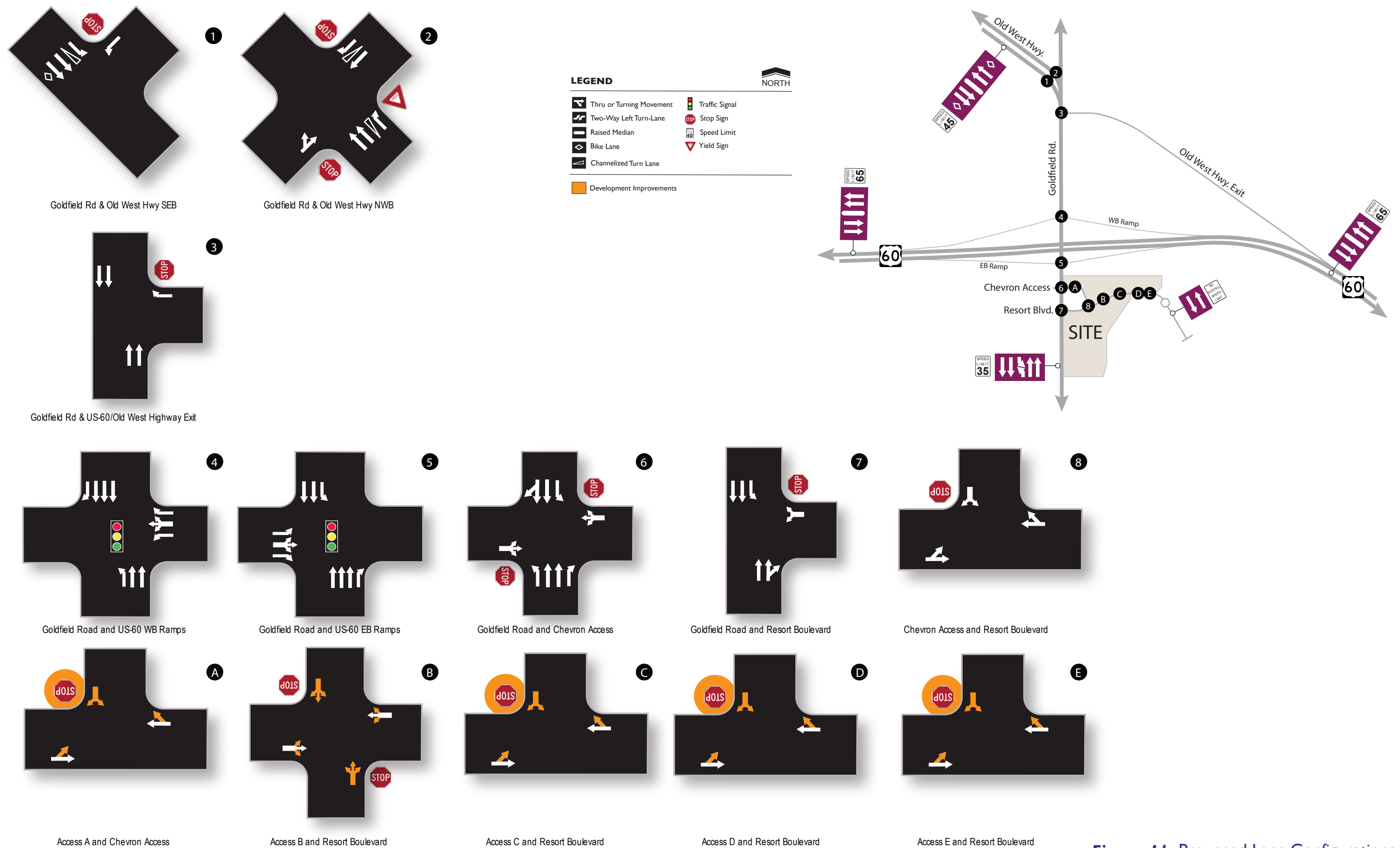
(1) Measured from beginning of stop bar

(2) HCM 95<sup>th</sup> percentile queue reported in vehicles/lane, assuming 1 vehicle ~ 25 feet.

(3) Two-way-left-turn-lane (TWLTL) provides excess storage for the left-turn lane.

(4) Queue for right turns is an exit road from the US-60.

(5) Existing conditions meet queue storage requirements.



**Figure 11:** Proposed Lane Configurations and Traffic controls

## SIGHT DISTANCE ANALYSIS

Adequate sight distance must be provided at intersections and site access driveways to allow safe turning movements. There must be sufficient unobstructed sight distance along both approaches of a street/driveway intersection and across their included corners to allow operators of vehicles to see each other in time to prevent a collision.

The City of Apache Junction maintains sight distance requirements within their Engineering and Design Guidelines and Policies Manual. The City of Apache Junction measures sight distance using AASHTO methodology. Sight distance calculations according to AASHTO guidelines are summarized in **Table 9**.

**Table 8 – AASHTO Sight Distance Requirements**

| Roadway          | Posted Speed Limit /<br>Design Speed (mph) | Sight Distance Along Roadway       |                                |                           |
|------------------|--------------------------------------------|------------------------------------|--------------------------------|---------------------------|
|                  |                                            | Left of Driveway<br>(Case B2 / B3) | Right of Driveway<br>(Case B1) | On Major Road<br>(Case F) |
| Chevron Access   | 15/25                                      | 265'                               | 310'                           | 225'                      |
| Resort Boulevard | 20/30                                      | 225'                               | 260'                           | 185'                      |

Sight visibility should be provided at all driveways according to the distances shown in **Table 9** and that sight triangles at public intersections are maintained according to Section 10-3-4 of the City Code. Sight distance worksheets and Section 10-3-4 of the City Code have been included within **Appendix M**.

## CONCLUSIONS

The following conclusions and recommendations have been documented in this study.

### GENERAL

- The proposed development is anticipated to generate 2,038 daily trips, 124 (30 in/ 94 out) trips during the AM peak hour, and 139 (89 in/ 51 out) trips during the PM peak hour.
- The existing zoning of the site would be anticipated to generate 7,596 weekday daily trips, 564 (388 in/ 176 out) trips during the AM peak hour, and 747 (294 in/ 453 out) trips during the PM peak hour.
  - o The proposed land uses generate approximately 5,558 fewer daily trips, 439 (359 in/ 80 out) fewer AM peak hour volumes, and 602 (203 in/ 399 out) fewer PM peak hour trips than the existing zoning allows.

### CRASH HISTORY

- In total, there were 13 incidents within the study area from 2018-2020. There was a total of 15 injuries and 4 fatalities.

### EXISTING

- The results of the existing conditions analysis indicate that all study intersections operate with acceptable levels of service (LOS B or better) with the existing traffic control devices.

### OPENING YEAR

- The results of the Synchro analysis indicate that all study intersections operate with overall acceptable levels of service (LOS B or better) with the lane configurations and stop controls as shown in **Figure 11**.

### 2027 CAPACITY ANALYSIS

- The results of the Synchro analysis indicate that all study intersections operate with overall acceptable levels of service (LOS B or better) with the lane configurations and stop controls as shown in **Figure 11**.

### QUEUE STORAGE

- The recommended storage lengths are provided for study horizon year 2027 using the total traffic projections.

### SIGHT DISTANCE

- Sight visibility should be provided at all driveways according to the distances and sight triangles at public intersections should be maintained according to Section 10-3-4 of the City Code.

## LIST OF REFERENCES

*Highway Capacity Manual, Sixth Edition: A Guide for Multimodal Mobility Analysis.* Transportation Research Board, Washington, D.C., 2018.

*Manual on Uniform Traffic Control Devices.* U.S. Department of Transportation, Federal Highways Administration, Washington, D.C., 2009.

*Roadway Design Manual, Maricopa County Department of Transportation,* Phoenix, Arizona, Revised April 2004.

*Trip Generation Manual, 11th Edition,* Institute of Transportation Engineers, Washington, D.C., 2017.

*Trip Generation Handbook, 3rd Edition, Institute of Transportation Engineers,* Washington, D.C., 2014.

*A Policy on Geometric Design of Highways and Streets* ("AASHTO Green Book") 6<sup>th</sup> Edition, *The American Association of Highway Transportation Officials, page 9-127,* Washington, D.C., 2011.

## **TECHNICAL APPENDICES**

|                    |                                                 |
|--------------------|-------------------------------------------------|
| <b>APPENDIX A:</b> | <b>REVIEW COMMENTS AND RESPONSES (RESERVED)</b> |
| <b>APPENDIX B:</b> | <b>EXISTING TRAFFIC COUNTS</b>                  |
| <b>APPENDIX C:</b> | <b>EXISTING PEAK HOUR ANALYSIS</b>              |
| <b>APPENDIX D:</b> | <b>CRASH ANALYSIS WORKSHEETS</b>                |
| <b>APPENDIX E:</b> | <b>TRIP GENERATION CALCULATIONS</b>             |
| <b>APPENDIX F:</b> | <b>TRIP DISTRIBUTION CALCULATIONS</b>           |
| <b>APPENDIX G:</b> | <b>BACKGROUND GROWTH CALCULATIONS</b>           |
| <b>APPENDIX H:</b> | <b>2024 NO BUILD PEAK HOUR ANALYSIS</b>         |
| <b>APPENDIX I:</b> | <b>2027 NO BUILD PEAK HOUR ANALYSIS</b>         |
| <b>APPENDIX J:</b> | <b>2024 BUILD PEAK HOUR ANALYSIS</b>            |
| <b>APPENDIX K:</b> | <b>2027 BUILD PEAK HOUR ANALYSIS</b>            |
| <b>APPENDIX L:</b> | <b>QUEUE STORAGE ANALYSIS</b>                   |
| <b>APPENDIX M:</b> | <b>SIGHT DISTANCE ANALYSIS</b>                  |

## **APPENDIX A**

### **REVIEW COMMENTS AND RESPONSES (Reserved)**

## **APPENDIX B**

### **EXISTING TRAFFIC COUNTS**

# Intersection Turning Movement

Prepared by:



**FIELD DATA SERVICES OF ARIZONA, INC.**  
520.316.6745

Project #: 22-1400-001

## TMC SUMMARY OF Goldfield Rd & Old West Highway

**Goldfield Rd**

---

**Old West Highway**

---

| APPROACH LANES |      |      |       |
|----------------|------|------|-------|
|                | Left | Thru | Right |
| TOTAL          | 14   | 100  | 0     |
| PM             | 5    | 46   | 0     |
| MD             |      |      |       |
| AM             | 9    | 54   | 0     |

**N**

|                | TOTAL | AM  | MD | PM  |
|----------------|-------|-----|----|-----|
| APPROACH LANES | 35    | 16  |    | 19  |
|                | 0     | 0   |    | 0   |
|                | 297   | 112 |    | 185 |

CONTROL

1-Way Stop

SB

|                | AM | MD | PM | TOTAL |
|----------------|----|----|----|-------|
| APPROACH LANES | 0  |    | 0  | 0     |
|                | 0  |    | 0  | 0     |
|                | 0  |    | 0  | 0     |

**Goldfield Rd**

---

|                | TOTAL | AM  | MD | PM |
|----------------|-------|-----|----|----|
| APPROACH LANES | 349   | 178 | 49 | 0  |
|                | 77    | 28  | 0  | 0  |
|                | 0     | 0   | 0  | 0  |

**LOCATION #: 22-1400-001**

**TURNING MOVEMENT COUNT**

**Goldfield Rd & Old West Highway**  
(Intersection Name)

WEDNESDAY      06/29/22  
Day                      Date

| COUNT PERIODS |       |       |
|---------------|-------|-------|
| AM            | 700AM | 900AM |
| NOON          |       |       |
| PM            | 400PM | 600PM |

AM PEAK HOUR      800 AM

NOON PEAK HOUR     

PM PEAK HOUR      400 PM

# Intersection Turning Movement

Prepared by:



**FIELD DATA SERVICES OF ARIZONA, INC.**  
520.316.6745

Project #: 22-1400-002

## TMC SUMMARY OF Goldfield Rd & US-60 WB Off-Ramp (north)

**Goldfield Rd**

**US-60 WB Off-Ramp (north)**

**US-60 WB Off-Ramp (north)**

**APPROACH LANES**

|       |   |     |   |
|-------|---|-----|---|
|       |   |     |   |
| TOTAL | 0 | 397 | 0 |
| PM    | 0 | 231 | 0 |
| MD    |   |     |   |
| AM    | 0 | 166 | 0 |

**CONTROL**  
1-Way Stop  
WB

**APPROACH LANES**

|     |    |     |       |
|-----|----|-----|-------|
| AM  | MD | PM  | TOTAL |
| 162 |    | 110 | 272   |
| 0   |    | 0   | 0     |
| 1   |    | 1   | 2     |

**APPROACH LANES**

|       |    |    |    |
|-------|----|----|----|
| TOTAL | AM | MD | PM |
| 0     | 0  |    | 0  |
| 0     | 0  |    | 0  |
| 0     | 0  |    | 0  |

**Goldfield Rd**

**APPROACH LANES**

|       |    |    |    |
|-------|----|----|----|
| TOTAL | AM | MD | PM |
| 0     | 0  |    | 0  |
| 0     | 0  |    | 0  |
| 0     | 0  |    | 0  |

**APPROACH LANES**

|       |    |    |    |
|-------|----|----|----|
| TOTAL | AM | MD | PM |
| 0     | 0  |    | 0  |
| 0     | 0  |    | 0  |
| 0     | 0  |    | 0  |

**LOCATION #: 22-1400-002**

**TURNING MOVEMENT COUNT**

**Goldfield Rd & US-60 WB Off-Ramp (north)**  
(Intersection Name)

WEDNESDAY  
Day

06/29/22  
Date

| COUNT PERIODS |               |
|---------------|---------------|
| AM            | 700AM - 900AM |
| NOON          | -             |
| PM            | 400PM - 600PM |

AM PEAK HOUR

800 AM

NOON PEAK HOUR

PM PEAK HOUR

400 PM

# Intersection Turning Movement

Prepared by:



**FIELD DATA SERVICES OF ARIZONA, INC.**  
520.316.6745

Project #: 22-1400-003

## TMC SUMMARY OF Goldfield Rd & US-60 WB Off-Ramp

**Goldfield Rd**

---

**US-60 WB Off-Ramp**

---

| APPROACH LANES |  |     |     |
|----------------|--|-----|-----|
|                |  |     |     |
| TOTAL          |  | 139 | 301 |
| PM             |  | 59  | 180 |
| MD             |  |     |     |
| AM             |  | 80  | 121 |

**N**

|  | TOTAL | AM | MD | PM |
|--|-------|----|----|----|
|  | 0     | 0  |    | 0  |
|  | 0     | 0  |    | 0  |
|  | 0     | 0  |    | 0  |

CONTROL  
Signal

|  | AM | MD | PM | TOTAL |
|--|----|----|----|-------|
|  | 5  |    | 2  | 7     |
|  | 0  |    | 0  | 0     |
|  | 7  |    | 19 | 26    |

**Goldfield Rd**

---

|  | TOTAL | AM | MD | PM  |
|--|-------|----|----|-----|
|  | 61    | 34 |    | 27  |
|  | 195   | 87 |    | 108 |
|  | 0     | 0  |    | 0   |

**US-60 WB Off-Ramp**

---

**LOCATION #:** 22-1400-003

**TURNING MOVEMENT COUNT**

**Goldfield Rd & US-60 WB Off-Ramp**  
(Intersection Name)

WEDNESDAY  
Day

06/29/22  
Date

| COUNT PERIODS |       |       |
|---------------|-------|-------|
| AM            | 700AM | 900AM |
| NOON          |       |       |
| PM            | 400PM | 600PM |

AM PEAK HOUR

715 AM

NOON PEAK HOUR

PM PEAK HOUR

500 PM

# Intersection Turning Movement

Prepared by:



**FIELD DATA SERVICES OF ARIZONA, INC.**  
520.316.6745

Project #: 22-1400-004

## TMC SUMMARY OF Goldfield Rd & US-60 EB Ramps

**Goldfield Rd**

---

**US-60 EB Ramps**

---

| APPROACH LANES |   |    |     |
|----------------|---|----|-----|
|                |   |    |     |
| TOTAL          | 0 | 92 | 238 |
| PM             | 0 | 55 | 147 |
| MD             |   |    |     |
| AM             | 0 | 37 | 91  |

**N**

|  | TOTAL | AM | MD | PM |
|--|-------|----|----|----|
|  | 145   | 60 |    | 85 |
|  | 0     | 0  |    | 0  |
|  | 73    | 30 |    | 43 |

CONTROL  
Signal

| AM | MD | PM | TOTAL |
|----|----|----|-------|
| 0  |    | 0  | 0     |
| 0  |    | 0  | 0     |
| 0  |    | 0  | 0     |

**Goldfield Rd**

---

|  | TOTAL | AM  | MD | PM |
|--|-------|-----|----|----|
|  | 0     | 44  | 40 |    |
|  | 0     | 61  | 17 |    |
|  | 0     | 105 | 57 |    |

**APPROACH LANES**

---

**LOCATION #:** 22-1400-004

**TURNING MOVEMENT COUNT**

**Goldfield Rd & US-60 EB Ramps**  
(Intersection Name)

WEDNESDAY  
Day

06/29/22  
Date

| COUNT PERIODS |       |         |
|---------------|-------|---------|
| <b>AM</b>     | 700AM | - 900AM |
| <b>NOON</b>   |       | -       |
| <b>PM</b>     | 400PM | - 600PM |

AM PEAK HOUR

NOON PEAK HOUR

PM PEAK HOUR

715 AM

415 PM

# Intersection Turning Movement

Prepared by:



**FIELD DATA SERVICES OF ARIZONA, INC.**  
520.316.6745

Project #: 22-1400-005

## TMC SUMMARY OF Goldfield Rd & Chevron Access

**Goldfield Rd**

---

**Chevron Access**

---

| APPROACH LANES |    |    |    |
|----------------|----|----|----|
|                | AM | MD | PM |
| TOTAL          | 3  | 37 | 19 |
|                | 12 | 57 | 28 |
|                | 94 |    | 47 |

**N**

**APPROACH LANES**

---

|  | TOTAL | AM | MD | PM |
|--|-------|----|----|----|
|  | 8     | 3  |    | 5  |
|  | 2     | 2  |    | 0  |
|  | 1     | 0  |    | 1  |

CONTROL

2-Way Stop

EB & WB

**Chevron Access**

---

|  | AM | MD | PM | TOTAL |
|--|----|----|----|-------|
|  | 21 |    | 28 | 49    |
|  | 1  |    | 0  | 1     |
|  | 2  |    | 4  | 6     |

**APPROACH LANES**

---

**Goldfield Rd**

---

|  | TOTAL | AM | MD | PM |
|--|-------|----|----|----|
|  | 1     | 0  |    | 1  |
|  | 135   | 71 |    | 64 |
|  | 16    | 8  |    | 8  |

**APPROACH LANES**

---

**LOCATION #:** 22-1400-005

**TURNING MOVEMENT COUNT**

**Goldfield Rd & Chevron Access**  
(Intersection Name)

WEDNESDAY      06/29/22  
Day                      Date

| COUNT PERIODS |       |       |
|---------------|-------|-------|
| AM            | 700AM | 900AM |
| NOON          |       |       |
| PM            | 400PM | 600PM |

AM PEAK HOUR

800 AM

NOON PEAK HOUR

PM PEAK HOUR

445 PM

# Intersection Turning Movement

Prepared by:



**FIELD DATA SERVICES OF ARIZONA, INC.**  
520.316.6745

Project #: 22-1400-006

## TMC SUMMARY OF Goldfield Rd & Resort Blvd

**Goldfield Rd**

---

**Resort Blvd**

---

| APPROACH LANES |   |    |    |
|----------------|---|----|----|
|                | 0 | 71 | 30 |
| TOTAL          | 0 | 71 | 30 |
| PM             | 0 | 49 | 13 |
| MD             |   |    |    |
| AM             | 0 | 22 | 17 |

**N**

|   | TOTAL | AM | MD | PM |
|---|-------|----|----|----|
| 0 | 0     |    |    | 0  |
| 0 | 0     |    |    | 0  |
| 0 | 0     |    |    | 0  |

CONTROL

1-Way Stop

WB

| AM | MD | PM | TOTAL |
|----|----|----|-------|
| 27 |    | 17 | 44    |
| 0  |    | 0  | 0     |
| 2  |    | 2  | 4     |

**Goldfield Rd**

---

|   | TOTAL | AM | MD | PM |
|---|-------|----|----|----|
| 0 | 0     |    |    | 0  |
| 0 | 0     |    |    | 0  |
| 0 | 0     |    |    | 0  |

**APPROACH LANES**

**Goldfield Rd**

---

|   | TOTAL | AM | MD | PM |
|---|-------|----|----|----|
| 0 | 0     |    |    | 0  |
| 0 | 0     |    |    | 0  |
| 0 | 0     |    |    | 0  |

**APPROACH LANES**

**LOCATION #: 22-1400-006**

**TURNING MOVEMENT COUNT**

**Goldfield Rd & Resort Blvd**  
(Intersection Name)

WEDNESDAY  
Day

06/29/22  
Date

| COUNT PERIODS |       |       |
|---------------|-------|-------|
| AM            | 700AM | 900AM |
| NOON          |       |       |
| PM            | 400PM | 600PM |

AM PEAK HOUR

800 AM

NOON PEAK HOUR

PM PEAK HOUR

445 PM

# Intersection Turning Movement

Prepared by:



**FIELD DATA SERVICES OF ARIZONA, INC.**  
520.316.6745

Project #: 22-1400-007

## TMC SUMMARY OF Chevron Access & Resort Blvd

**Chevron Access**

**Resort Blvd**

APPROACH LANES

|       | TOTAL | PM | MD | AM |
|-------|-------|----|----|----|
| Left  | 4     | 3  |    | 1  |
| Thru  | 0     | 0  | 0  | 0  |
| Right | 4     | 1  |    | 3  |

Control: 1-Way Stop SB

**N**

**Resort Blvd**

**APPROACH LANES**

| TOTAL | AM | MD | PM |
|-------|----|----|----|
| 8     | 6  |    | 2  |
| 41    | 14 |    | 27 |
| 0     | 0  |    | 0  |

Control: 1-Way Stop SB

**APPROACH LANES**

| AM | MD | PM | TOTAL |
|----|----|----|-------|
| 1  |    | 0  | 1     |
| 28 |    | 10 | 38    |
| 0  |    | 0  | 0     |

**Chevron Access**

APPROACH LANES

| TOTAL | AM | MD | PM |
|-------|----|----|----|
| 0     | 0  |    | 0  |
| 0     | 0  |    | 0  |
| 0     | 0  |    | 0  |

**LOCATION #: 22-1400-007**

**TURNING MOVEMENT COUNT**

**Chevron Access & Resort Blvd**  
(Intersection Name)

WEDNESDAY 06/29/22  
Day Date

| COUNT PERIODS |       |       |
|---------------|-------|-------|
| AM            | 700AM | 900AM |
| NOON          |       |       |
| PM            | 400PM | 600PM |

AM PEAK HOUR 800 AM

NOON PEAK HOUR

PM PEAK HOUR 415 PM

## **APPENDIX C**

### **EXISTING PEAK HOUR ANALYSIS**

Existing AM  
22-1180 Alliance Broadstone Silveray

1: Goldfield Rd/EB Old West Hwy  
HCM 6th TWSC

| Intersection             |      |      |      |      |      |      |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh         | 3.8  |      |      |      |      |      |
| Movement                 | WBL  | WBR  | NBT  | NBR  | SBL  | SBT  |
| Lane Configurations      | ↱    |      |      |      | ↱ ↱  | ↱ ↱  |
| Traffic Vol, veh/h       | 54   | 0    | 0    | 0    | 0    | 112  |
| Future Vol, veh/h        | 54   | 0    | 0    | 0    | 0    | 112  |
| 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    | -    | -    | -    | 195  | -    |
| Veh in Median Storage, # | 0    | -    | 0    | -    | -    | 0    |
| Grade, %                 | 0    | -    | 0    | -    | -    | 0    |
| Peak Hour Factor         | 63   | 63   | 25   | 25   | 91   | 91   |
| Heavy Vehicles, %        | 2    | 2    | 2    | 2    | 2    | 2    |
| Mvmt Flow                | 86   | 0    | 0    | 0    | 0    | 123  |

| Major/Minor          | Minor1 | Major2 |
|----------------------|--------|--------|
| Conflicting Flow All | 62     | 0 0    |
| Stage 1              | 0      | - -    |
| Stage 2              | 62     | - -    |
| Critical Hdwy        | 6.84   | 4.14 - |
| Critical Hdwy Stg 1  | -      | - -    |
| Critical Hdwy Stg 2  | 5.84   | - -    |
| Follow-up Hdwy       | 3.52   | 2.22 - |
| Pot Cap-1 Maneuver   | 937    | 0 -    |
| Stage 1              | -      | 0 -    |
| Stage 2              | 953    | 0 -    |
| Platoon blocked, %   |        | -      |
| Mov Cap-1 Maneuver   | 937    | - -    |
| Mov Cap-2 Maneuver   | 937    | - -    |
| Stage 1              | -      | - -    |
| Stage 2              | 953    | - -    |

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

| Minor Lane/Major Mvmt | WBLn1 | SBL | SBT |
|-----------------------|-------|-----|-----|
| Capacity (veh/h)      | 937   | -   | -   |
| HCM Lane V/C Ratio    | 0.091 | -   | -   |
| HCM Control Delay (s) | 9.2   | 0   | -   |
| HCM Lane LOS          | A     | A   | -   |
| HCM 95th %tile Q(veh) | 0.3   | -   | -   |

Existing PM  
22-1180 Alliance Broadstone Silveray

1: Goldfield Rd/EB Old West Hwy  
HCM 6th TWSC

| Intersection             |      |      |      |      |      |      |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh         | 2.9  |      |      |      |      |      |
| Movement                 | WBL  | WBR  | NBT  | NBR  | SBL  | SBT  |
| Lane Configurations      | ↱    |      |      |      | ↱ ↱  | ↱ ↱  |
| Traffic Vol, veh/h       | 46   | 0    | 0    | 0    | 0    | 185  |
| Future Vol, veh/h        | 46   | 0    | 0    | 0    | 0    | 185  |
| 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    | -    | -    | -    | 195  | -    |
| Veh in Median Storage, # | 0    | -    | 0    | -    | -    | 0    |
| Grade, %                 | 0    | -    | 0    | -    | -    | 0    |
| Peak Hour Factor         | 46   | 46   | 25   | 25   | 79   | 79   |
| Heavy Vehicles, %        | 2    | 2    | 2    | 2    | 2    | 2    |
| Mvmt Flow                | 100  | 0    | 0    | 0    | 0    | 234  |

| Major/Minor          | Minor1 | Major2 |
|----------------------|--------|--------|
| Conflicting Flow All | 117    | 0 0    |
| Stage 1              | 0      | - -    |
| Stage 2              | 117    | - -    |
| Critical Hdwy        | 6.84   | 4.14 - |
| Critical Hdwy Stg 1  | -      | - -    |
| Critical Hdwy Stg 2  | 5.84   | - -    |
| Follow-up Hdwy       | 3.52   | 2.22 - |
| Pot Cap-1 Maneuver   | 867    | 0 -    |
| Stage 1              | -      | 0 -    |
| Stage 2              | 895    | 0 -    |
| Platoon blocked, %   |        | -      |
| Mov Cap-1 Maneuver   | 867    | - -    |
| Mov Cap-2 Maneuver   | 867    | - -    |
| Stage 1              | -      | - -    |
| Stage 2              | 895    | - -    |

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

| Minor Lane/Major Mvmt | WBLn1 | SBL | SBT |
|-----------------------|-------|-----|-----|
| Capacity (veh/h)      | 867   | -   | -   |
| HCM Lane V/C Ratio    | 0.115 | -   | -   |
| HCM Control Delay (s) | 9.7   | 0   | -   |
| HCM Lane LOS          | A     | A   | -   |
| HCM 95th %tile Q(veh) | 0.4   | -   | -   |

Existing AM  
22-1180 Alliance Broadstone Silveray

2: Goldfield Rd & WB Old West Hwy  
HCM 6th TWSC

| Intersection             |      |      |      |      |      |      |      |      |       |      |      |      |
|--------------------------|------|------|------|------|------|------|------|------|-------|------|------|------|
| Int Delay, s/veh         | 3.5  |      |      |      |      |      |      |      |       |      |      |      |
| Movement                 | EBL  | EBT  | EBR  | WBL  | WBT  | WBR  | NBL  | NBT  | NBR   | SBL  | SBT  | SBR  |
| Lane Configurations      |      | ↑    |      |      | ↑    | ↑    |      | ↑↑   | ↑     |      |      |      |
| Traffic Vol, veh/h       | 0    | 16   | 0    | 0    | 54   | 9    | 0    | 178  | 28    | 0    | 0    | 0    |
| Future Vol, veh/h        | 0    | 16   | 0    | 0    | 54   | 9    | 0    | 178  | 28    | 0    | 0    | 0    |
| Conflicting Peds, #/hr   | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0     | 0    | 0    | 0    |
| Sign Control             | Stop | Stop | Stop | Stop | Stop | Stop | Free | Free | Free  | Free | Free | Free |
| RT Channelized           | -    | -    | None | -    | -    | Stop | -    | -    | Yield | -    | -    | None |
| Storage Length           | -    | -    | -    | -    | -    | 0    | -    | -    | 0     | -    | -    | -    |
| Veh in Median Storage, # | -    | 0    | -    | -    | 0    | -    | -    | 0    | -     | -    | 0    | -    |
| Grade, %                 | -    | 0    | -    | -    | 0    | -    | -    | 0    | -     | -    | 0    | -    |
| Peak Hour Factor         | 91   | 91   | 91   | 63   | 63   | 63   | 84   | 84   | 84    | 25   | 25   | 25   |
| Heavy Vehicles, %        | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2     | 2    | 2    | 2    |
| Mvmt Flow                | 0    | 18   | 0    | 0    | 86   | 14   | 0    | 212  | 33    | 0    | 0    | 0    |

| Major/Minor          | Minor2 | Minor1   | Major1     |
|----------------------|--------|----------|------------|
| Conflicting Flow All | - 212  | - - 212  | 106 - 0 0  |
| Stage 1              | - 0    | - - 212  | - - - -    |
| Stage 2              | - 212  | - - 0    | - - - -    |
| Critical Hdwy        | - 6.54 | - - 6.54 | 6.94 - - - |
| Critical Hdwy Stg 1  | - -    | - - 5.54 | - - - -    |
| Critical Hdwy Stg 2  | - 5.54 | - - -    | - - - -    |
| Follow-up Hdwy       | - 4.02 | - - 4.02 | 3.32 - - - |
| Pot Cap-1 Maneuver   | 0 684  | 0 0 684  | 928 0 - -  |
| Stage 1              | 0 -    | 0 0 726  | - 0 - -    |
| Stage 2              | 0 726  | 0 0 -    | - 0 - -    |
| Platoon blocked, %   | -      | -        | - -        |
| Mov Cap-1 Maneuver   | - 684  | - - 684  | 928 - - -  |
| Mov Cap-2 Maneuver   | - 684  | - - 684  | - - - -    |
| Stage 1              | - -    | - - 726  | - - - -    |
| Stage 2              | - 726  | - - -    | - - - -    |

| Approach             | EB   | WB   | NB |
|----------------------|------|------|----|
| HCM Control Delay, s | 10.4 | 10.7 | 0  |
| HCM LOS              | B    | B    |    |

| Minor Lane/Major Mvmt | NBT | NBR | EBLn1WBLn1WBLn2   |
|-----------------------|-----|-----|-------------------|
| Capacity (veh/h)      | -   | -   | 684 684 928       |
| HCM Lane V/C Ratio    | -   | -   | 0.026 0.125 0.015 |
| HCM Control Delay (s) | -   | -   | 10.4 11 8.9       |
| HCM Lane LOS          | -   | -   | B B A             |
| HCM 95th %tile Q(veh) | -   | -   | 0.1 0.4 0         |

Existing PM  
22-1180 Alliance Broadstone Silveray

2: Goldfield Rd & WB Old West Hwy  
HCM 6th TWSC

| Intersection             |      |      |      |      |      |      |      |      |       |      |      |      |
|--------------------------|------|------|------|------|------|------|------|------|-------|------|------|------|
| Int Delay, s/veh         | 3.8  |      |      |      |      |      |      |      |       |      |      |      |
| Movement                 | EBL  | EBT  | EBR  | WBL  | WBT  | WBR  | NBL  | NBT  | NBR   | SBL  | SBT  | SBR  |
| Lane Configurations      |      | ↑    |      |      | ↑    | ↑    |      | ↑↑   | ↑     |      |      |      |
| Traffic Vol, veh/h       | 0    | 19   | 0    | 0    | 46   | 5    | 0    | 171  | 49    | 0    | 0    | 0    |
| Future Vol, veh/h        | 0    | 19   | 0    | 0    | 46   | 5    | 0    | 171  | 49    | 0    | 0    | 0    |
| Conflicting Peds, #/hr   | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0     | 0    | 0    | 0    |
| Sign Control             | Stop | Stop | Stop | Stop | Stop | Stop | Free | Free | Free  | Free | Free | Free |
| RT Channelized           | -    | -    | None | -    | -    | Stop | -    | -    | Yield | -    | -    | None |
| Storage Length           | -    | -    | -    | -    | -    | 0    | -    | -    | 0     | -    | -    | -    |
| Veh in Median Storage, # | -    | 0    | -    | -    | 0    | -    | -    | 0    | -     | -    | 0    | -    |
| Grade, %                 | -    | 0    | -    | -    | 0    | -    | -    | 0    | -     | -    | 0    | -    |
| Peak Hour Factor         | 79   | 79   | 79   | 46   | 46   | 46   | 89   | 89   | 89    | 25   | 25   | 25   |
| Heavy Vehicles, %        | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2     | 2    | 2    | 2    |
| Mvmt Flow                | 0    | 24   | 0    | 0    | 100  | 11   | 0    | 192  | 55    | 0    | 0    | 0    |

| Major/Minor          | Minor2 | Minor1   | Major1     |
|----------------------|--------|----------|------------|
| Conflicting Flow All | - 192  | - - 192  | 96 - 0 0   |
| Stage 1              | - 0    | - - 192  | - - - -    |
| Stage 2              | - 192  | - - 0    | - - - -    |
| Critical Hdwy        | - 6.54 | - - 6.54 | 6.94 - - - |
| Critical Hdwy Stg 1  | - -    | - - 5.54 | - - - -    |
| Critical Hdwy Stg 2  | - 5.54 | - - -    | - - - -    |
| Follow-up Hdwy       | - 4.02 | - - 4.02 | 3.32 - - - |
| Pot Cap-1 Maneuver   | 0 702  | 0 0 702  | 942 0 - -  |
| Stage 1              | 0 -    | 0 0 740  | - 0 - -    |
| Stage 2              | 0 740  | 0 0 -    | - 0 - -    |
| Platoon blocked, %   | -      | -        | - -        |
| Mov Cap-1 Maneuver   | - 702  | - - 702  | 942 - - -  |
| Mov Cap-2 Maneuver   | - 702  | - - 702  | - - - -    |
| Stage 1              | - -    | - - 740  | - - - -    |
| Stage 2              | - 740  | - - -    | - - - -    |

| Approach             | EB   | WB   | NB |
|----------------------|------|------|----|
| HCM Control Delay, s | 10.3 | 10.8 | 0  |
| HCM LOS              | B    | B    |    |

| Minor Lane/Major Mvmt | NBT | NBR | EBLn1WBLn1WBLn2   |
|-----------------------|-----|-----|-------------------|
| Capacity (veh/h)      | -   | -   | 702 702 942       |
| HCM Lane V/C Ratio    | -   | -   | 0.034 0.142 0.012 |
| HCM Control Delay (s) | -   | -   | 10.3 11 8.9       |
| HCM Lane LOS          | -   | -   | B B A             |
| HCM 95th %tile Q(veh) | -   | -   | 0.1 0.5 0         |

Existing AM  
22-1180 Alliance Broadstone Silveray

3: Goldfield Rd & US-60/Old West Hwy Exit  
HCM 6th TWSC

| Intersection             |      |      |      |      |      |      |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh         | 4    |      |      |      |      |      |
| Movement                 | WBL  | WBR  | NBT  | NBR  | SBL  | SBT  |
| Lane Configurations      |      | ↗    | ↗    |      |      | ↗    |
| Traffic Vol, veh/h       | 0    | 162  | 44   | 0    | 0    | 166  |
| Future Vol, veh/h        | 0    | 162  | 44   | 0    | 0    | 166  |
| 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         | 82   | 82   | 58   | 58   | 87   | 87   |
| Heavy Vehicles, %        | 2    | 2    | 2    | 2    | 2    | 2    |
| Mvmt Flow                | 0    | 198  | 76   | 0    | 0    | 191  |

| Major/Minor          | Minor1 | Major1 | Major2 |
|----------------------|--------|--------|--------|
| Conflicting Flow All | -      | 38     | 0      |
| Stage 1              | -      | -      | -      |
| Stage 2              | -      | -      | -      |
| Critical Hdwy        | -      | 6.94   | -      |
| Critical Hdwy Stg 1  | -      | -      | -      |
| Critical Hdwy Stg 2  | -      | -      | -      |
| Follow-up Hdwy       | -      | 3.32   | -      |
| Pot Cap-1 Maneuver   | 0      | 1026   | -      |
| Stage 1              | 0      | -      | 0      |
| Stage 2              | 0      | -      | 0      |
| Platoon blocked, %   | -      | -      | -      |
| Mov Cap-1 Maneuver   | -      | 1026   | -      |
| Mov Cap-2 Maneuver   | -      | -      | -      |
| Stage 1              | -      | -      | -      |
| Stage 2              | -      | -      | -      |

| Approach             | WB  | NB | SB |
|----------------------|-----|----|----|
| HCM Control Delay, s | 9.3 | 0  | 0  |
| HCM LOS              | A   |    |    |

| Minor Lane/Major Mvmt | NBTWBLn1 | SBT   |
|-----------------------|----------|-------|
| Capacity (veh/h)      | -        | 1026  |
| HCM Lane V/C Ratio    | -        | 0.193 |
| HCM Control Delay (s) | -        | 9.3   |
| HCM Lane LOS          | -        | A     |
| HCM 95th %tile Q(veh) | -        | 0.7   |

Existing PM  
22-1180 Alliance Broadstone Silveray

3: Goldfield Rd & US-60/Old West Hwy Exit  
HCM 6th TWSC

| Intersection             |      |      |      |      |      |      |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh         | 2    |      |      |      |      |      |
| Movement                 | WBL  | WBR  | NBT  | NBR  | SBL  | SBT  |
| Lane Configurations      |      | ↗    | ↗    |      |      | ↗    |
| Traffic Vol, veh/h       | 0    | 110  | 110  | 0    | 0    | 231  |
| Future Vol, veh/h        | 0    | 110  | 110  | 0    | 0    | 231  |
| 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         | 84   | 84   | 86   | 86   | 68   | 68   |
| Heavy Vehicles, %        | 2    | 2    | 2    | 2    | 2    | 2    |
| Mvmt Flow                | 0    | 131  | 128  | 0    | 0    | 340  |

| Major/Minor          | Minor1 | Major1 | Major2 |
|----------------------|--------|--------|--------|
| Conflicting Flow All | -      | 64     | 0      |
| Stage 1              | -      | -      | -      |
| Stage 2              | -      | -      | -      |
| Critical Hdwy        | -      | 6.94   | -      |
| Critical Hdwy Stg 1  | -      | -      | -      |
| Critical Hdwy Stg 2  | -      | -      | -      |
| Follow-up Hdwy       | -      | 3.32   | -      |
| Pot Cap-1 Maneuver   | 0      | 987    | -      |
| Stage 1              | 0      | -      | 0      |
| Stage 2              | 0      | -      | 0      |
| Platoon blocked, %   | -      | -      | -      |
| Mov Cap-1 Maneuver   | -      | 987    | -      |
| Mov Cap-2 Maneuver   | -      | -      | -      |
| Stage 1              | -      | -      | -      |
| Stage 2              | -      | -      | -      |

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

| Minor Lane/Major Mvmt | NBTWBLn1 | SBT   |
|-----------------------|----------|-------|
| Capacity (veh/h)      | -        | 987   |
| HCM Lane V/C Ratio    | -        | 0.133 |
| HCM Control Delay (s) | -        | 9.2   |
| HCM Lane LOS          | -        | A     |
| HCM 95th %tile Q(veh) | -        | 0.5   |

Existing AM  
22-1180 Alliance Broadstone Silveray

4: Goldfield Rd & US-60 WB Ramps  
Timings

| Lane Group           | WBL   | WBT   | WBR   | NBL   | NBT   | SBT   | SBR   |
|----------------------|-------|-------|-------|-------|-------|-------|-------|
| Lane Configurations  | ↩     | ↩↪    | ↩     | ↩     | ↩↪    | ↩↪    | ↩     |
| Traffic Volume (vph) | 7     | 0     | 5     | 34    | 87    | 121   | 80    |
| Future Volume (vph)  | 7     | 0     | 5     | 34    | 87    | 121   | 80    |
| Turn Type            | Perm  | NA    | Perm  | pm+pt | NA    | NA    | Perm  |
| Protected Phases     |       | 3     |       | 2     | 1     | 1     |       |
| Permitted Phases     | 3     |       | 3     | 1     |       |       | 1     |
| Detector Phase       | 3     | 3     | 3     | 2     | 1     | 1     | 1     |
| Switch Phase         |       |       |       |       |       |       |       |
| Minimum Initial (s)  | 8.0   | 8.0   | 8.0   | 5.0   | 20.0  | 20.0  | 20.0  |
| Minimum Split (s)    | 44.9  | 44.9  | 44.9  | 10.6  | 31.6  | 31.6  | 31.6  |
| Total Split (s)      | 45.0  | 45.0  | 45.0  | 11.0  | 34.0  | 34.0  | 34.0  |
| Total Split (%)      | 50.0% | 50.0% | 50.0% | 12.2% | 37.8% | 37.8% | 37.8% |
| Yellow Time (s)      | 3.9   | 3.9   | 3.9   | 3.6   | 3.6   | 3.6   | 3.6   |
| All-Red Time (s)     | 2.0   | 2.0   | 2.0   | 2.0   | 2.0   | 2.0   | 2.0   |
| Lost Time Adjust (s) | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |
| Total Lost Time (s)  | 5.9   | 5.9   | 5.9   | 5.6   | 5.6   | 5.6   | 5.6   |
| Lead/Lag             |       |       |       | Lag   | Lead  | Lead  | Lead  |
| Lead-Lag Optimize?   |       |       |       | Yes   | Yes   | Yes   | Yes   |
| Recall Mode          | None  | None  | None  | Max   | C-Max | C-Max | C-Max |

Intersection Summary

Cycle Length: 90

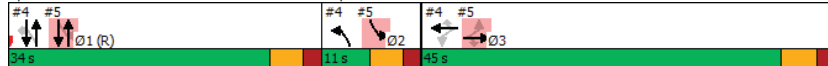
Actuated Cycle Length: 90

Offset: 0 (0%), Referenced to phase 1:NBSB, Start of Green, Master Intersection

Natural Cycle: 90

Control Type: Actuated-Coordinated

Splits and Phases: 4: Goldfield Rd & US-60 WB Ramps



Existing PM  
22-1180 Alliance Broadstone Silveray

4: Goldfield Rd & US-60 WB Ramps  
Timings

| Lane Group           | WBL   | WBT   | WBR   | NBL   | NBT   | SBT   | SBR   |
|----------------------|-------|-------|-------|-------|-------|-------|-------|
| Lane Configurations  | ↩     | ↩↪    | ↩     | ↩     | ↩↪    | ↩↪    | ↩     |
| Traffic Volume (vph) | 19    | 0     | 2     | 27    | 108   | 180   | 59    |
| Future Volume (vph)  | 19    | 0     | 2     | 27    | 108   | 180   | 59    |
| Turn Type            | Perm  | NA    | Perm  | pm+pt | NA    | NA    | Perm  |
| Protected Phases     |       | 3     |       | 2     | 1     | 1     |       |
| Permitted Phases     | 3     |       | 3     | 1     |       |       | 1     |
| Detector Phase       | 3     | 3     | 3     | 2     | 1     | 1     | 1     |
| Switch Phase         |       |       |       |       |       |       |       |
| Minimum Initial (s)  | 8.0   | 8.0   | 8.0   | 5.0   | 20.0  | 20.0  | 20.0  |
| Minimum Split (s)    | 44.9  | 44.9  | 44.9  | 10.6  | 31.6  | 31.6  | 31.6  |
| Total Split (s)      | 45.0  | 45.0  | 45.0  | 11.0  | 34.0  | 34.0  | 34.0  |
| Total Split (%)      | 50.0% | 50.0% | 50.0% | 12.2% | 37.8% | 37.8% | 37.8% |
| Yellow Time (s)      | 3.9   | 3.9   | 3.9   | 3.6   | 3.6   | 3.6   | 3.6   |
| All-Red Time (s)     | 2.0   | 2.0   | 2.0   | 2.0   | 2.0   | 2.0   | 2.0   |
| Lost Time Adjust (s) | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |
| Total Lost Time (s)  | 5.9   | 5.9   | 5.9   | 5.6   | 5.6   | 5.6   | 5.6   |
| Lead/Lag             |       |       |       | Lag   | Lead  | Lead  | Lead  |
| Lead-Lag Optimize?   |       |       |       | Yes   | Yes   | Yes   | Yes   |
| Recall Mode          | None  | None  | None  | Max   | C-Max | C-Max | C-Max |

Intersection Summary

Cycle Length: 90

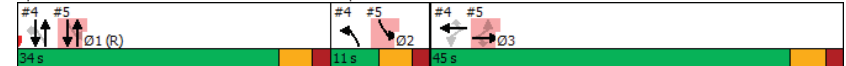
Actuated Cycle Length: 90

Offset: 0 (0%), Referenced to phase 1:NBSB, Start of Green, Master Intersection

Natural Cycle: 90

Control Type: Actuated-Coordinated

Splits and Phases: 4: Goldfield Rd & US-60 WB Ramps



Existing AM  
22-1180 Alliance Broadstone Silveray

4: Goldfield Rd & US-60 WB Ramps  
HCM Signalized Intersection Capacity Analysis

| Movement                          | EBL   | EBT  | EBR  | WBL   | WBT  | WBR  | NBL   | NBT  | NBR  | SBL  | SBT  | SBR   |
|-----------------------------------|-------|------|------|-------|------|------|-------|------|------|------|------|-------|
| Lane Configurations               |       |      |      | ↩     | ↩    | ↩    | ↩     | ↩    | ↩    | ↩    | ↩    | ↩     |
| Traffic Volume (vph)              | 0     | 0    | 0    | 7     | 0    | 5    | 34    | 87   | 0    | 0    | 121  | 80    |
| Future Volume (vph)               | 0     | 0    | 0    | 7     | 0    | 5    | 34    | 87   | 0    | 0    | 121  | 80    |
| Ideal Flow (vphpl)                | 1900  | 1900 | 1900 | 1900  | 1900 | 1900 | 1900  | 1900 | 1900 | 1900 | 1900 | 1900  |
| Total Lost time (s)               |       |      |      | 5.9   | 5.9  | 5.9  | 5.6   | 5.6  |      |      | 5.6  | 5.6   |
| Lane Util. Factor                 |       |      |      | 0.95  | 0.91 | 0.95 | 1.00  | 0.95 |      |      | 0.91 | 1.00  |
| Flt                               |       |      |      | 1.00  | 0.94 | 0.85 | 1.00  | 1.00 |      |      | 1.00 | 0.85  |
| Flt Protected                     |       |      |      | 0.95  | 0.97 | 1.00 | 0.95  | 1.00 |      |      | 1.00 | 1.00  |
| Satd. Flow (prot)                 |       |      |      | 1681  | 1547 | 1504 | 1770  | 3539 |      |      | 5085 | 1583  |
| Flt Permitted                     |       |      |      | 0.95  | 0.97 | 1.00 | 0.66  | 1.00 |      |      | 1.00 | 1.00  |
| Satd. Flow (perm)                 |       |      |      | 1681  | 1547 | 1504 | 1235  | 3539 |      |      | 5085 | 1583  |
| Peak-hour factor, PHF             | 0.25  | 0.25 | 0.25 | 0.75  | 0.75 | 0.75 | 0.89  | 0.89 | 0.89 | 0.90 | 0.90 | 0.90  |
| Adj. Flow (vph)                   | 0     | 0    | 0    | 9     | 0    | 7    | 38    | 98   | 0    | 0    | 134  | 89    |
| RTOR Reduction (vph)              | 0     | 0    | 0    | 0     | 5    | 5    | 0     | 0    | 0    | 0    | 0    | 29    |
| Lane Group Flow (vph)             | 0     | 0    | 0    | 6     | 0    | 0    | 38    | 98   | 0    | 0    | 134  | 60    |
| Turn Type                         |       |      |      | Perm  | NA   | Perm | pm+pt | NA   |      |      | NA   | Perm  |
| Protected Phases                  |       |      |      |       | 3    |      | 2     | 1    |      |      | 1    |       |
| Permitted Phases                  |       |      |      | 3     |      | 3    | 1     |      |      |      |      | 1     |
| Actuated Green, G (s)             |       |      |      | 6.8   | 6.8  | 6.8  | 66.1  | 60.7 |      |      | 60.7 | 60.7  |
| Effective Green, g (s)            |       |      |      | 6.8   | 6.8  | 6.8  | 66.1  | 60.7 |      |      | 60.7 | 60.7  |
| Actuated g/C Ratio                |       |      |      | 0.08  | 0.08 | 0.08 | 0.73  | 0.67 |      |      | 0.67 | 0.67  |
| Clearance Time (s)                |       |      |      | 5.9   | 5.9  | 5.9  | 5.6   | 5.6  |      |      | 5.6  | 5.6   |
| Vehicle Extension (s)             |       |      |      | 2.0   | 2.0  | 2.0  | 2.0   | 2.0  |      |      | 2.0  | 2.0   |
| Lane Grp Cap (vph)                |       |      |      | 127   | 116  | 113  | 939   | 2386 |      |      | 3429 | 1067  |
| v/s Ratio Prot                    |       |      |      |       |      |      | c0.00 | 0.03 |      |      | 0.03 |       |
| v/s Ratio Perm                    |       |      |      | c0.00 | 0.00 | 0.00 | 0.03  |      |      |      |      | c0.04 |
| v/c Ratio                         |       |      |      | 0.05  | 0.00 | 0.00 | 0.04  | 0.04 |      |      | 0.04 | 0.06  |
| Uniform Delay, d1                 |       |      |      | 38.6  | 38.5 | 38.5 | 3.3   | 4.9  |      |      | 4.9  | 5.0   |
| Progression Factor                |       |      |      | 1.00  | 1.00 | 1.00 | 0.46  | 0.61 |      |      | 1.00 | 1.00  |
| Incremental Delay, d2             |       |      |      | 0.1   | 0.0  | 0.0  | 0.1   | 0.0  |      |      | 0.0  | 0.1   |
| Delay (s)                         |       |      |      | 38.7  | 38.5 | 38.5 | 1.6   | 3.0  |      |      | 4.9  | 5.1   |
| Level of Service                  |       |      |      | D     | D    | D    | A     | A    |      |      | A    | A     |
| Approach Delay (s)                | 0.0   |      |      |       | 38.5 |      |       | 2.6  |      |      | 5.0  |       |
| Approach LOS                      | A     |      |      |       | D    |      |       | A    |      |      | A    |       |
| Intersection Summary              |       |      |      |       |      |      |       |      |      |      |      |       |
| HCM 2000 Control Delay            | 5.6   |      |      |       |      |      |       |      |      |      |      |       |
| HCM 2000 Volume to Capacity ratio | 0.05  |      |      |       |      |      |       |      |      |      |      |       |
| Actuated Cycle Length (s)         | 90.0  |      |      |       |      |      |       | 17.1 |      |      |      |       |
| Intersection Capacity Utilization | 42.6% |      |      |       |      |      |       |      |      |      |      |       |
| Analysis Period (min)             | 15    |      |      |       |      |      |       |      |      |      |      |       |
| c Critical Lane Group             |       |      |      |       |      |      |       |      |      |      |      |       |

Existing PM  
22-1180 Alliance Broadstone Silveray

4: Goldfield Rd & US-60 WB Ramps  
HCM Signalized Intersection Capacity Analysis

| Movement                          | EBL   | EBT  | EBR  | WBL  | WBT  | WBR  | NBL   | NBT  | NBR  | SBL  | SBT   | SBR  |
|-----------------------------------|-------|------|------|------|------|------|-------|------|------|------|-------|------|
| Lane Configurations               |       |      |      | ↩    | ↩    | ↩    | ↩     | ↩    | ↩    | ↩    | ↩     | ↩    |
| Traffic Volume (vph)              | 0     | 0    | 0    | 19   | 0    | 2    | 27    | 108  | 0    | 0    | 180   | 59   |
| Future Volume (vph)               | 0     | 0    | 0    | 19   | 0    | 2    | 27    | 108  | 0    | 0    | 180   | 59   |
| Ideal Flow (vphpl)                | 1900  | 1900 | 1900 | 1900 | 1900 | 1900 | 1900  | 1900 | 1900 | 1900 | 1900  | 1900 |
| Total Lost time (s)               |       |      |      | 5.9  | 5.9  | 5.9  | 5.6   | 5.6  |      |      | 5.6   | 5.6  |
| Lane Util. Factor                 |       |      |      | 0.95 | 0.91 | 0.95 | 1.00  | 0.95 |      |      | 0.91  | 1.00 |
| Flt                               |       |      |      | 1.00 | 1.00 | 0.85 | 1.00  | 1.00 |      |      | 1.00  | 0.85 |
| Flt Protected                     |       |      |      | 0.95 | 0.95 | 1.00 | 0.95  | 1.00 |      |      | 1.00  | 1.00 |
| Satd. Flow (prot)                 |       |      |      | 1681 | 1610 | 1504 | 1770  | 3539 |      |      | 5085  | 1583 |
| Flt Permitted                     |       |      |      | 0.95 | 0.95 | 1.00 | 0.61  | 1.00 |      |      | 1.00  | 1.00 |
| Satd. Flow (perm)                 |       |      |      | 1681 | 1610 | 1504 | 1140  | 3539 |      |      | 5085  | 1583 |
| Peak-hour factor, PHF             | 0.25  | 0.25 | 0.25 | 0.58 | 0.58 | 0.58 | 0.79  | 0.79 | 0.79 | 0.84 | 0.84  | 0.84 |
| Adj. Flow (vph)                   | 0     | 0    | 0    | 33   | 0    | 3    | 34    | 137  | 0    | 0    | 214   | 70   |
| RTOR Reduction (vph)              | 0     | 0    | 0    | 0    | 0    | 3    | 0     | 0    | 0    | 0    | 0     | 23   |
| Lane Group Flow (vph)             | 0     | 0    | 0    | 16   | 17   | 0    | 34    | 137  | 0    | 0    | 214   | 47   |
| Turn Type                         |       |      |      | Perm | NA   | Perm | pm+pt | NA   |      |      | NA    | Perm |
| Protected Phases                  |       |      |      |      | 3    |      | 2     | 1    |      |      | 1     |      |
| Permitted Phases                  |       |      |      | 3    |      | 3    | 1     |      |      |      |       | 1    |
| Actuated Green, G (s)             |       |      |      | 6.7  | 6.7  | 6.7  | 66.2  | 60.8 |      |      | 60.8  | 60.8 |
| Effective Green, g (s)            |       |      |      | 6.7  | 6.7  | 6.7  | 66.2  | 60.8 |      |      | 60.8  | 60.8 |
| Actuated g/C Ratio                |       |      |      | 0.07 | 0.07 | 0.07 | 0.74  | 0.68 |      |      | 0.68  | 0.68 |
| Clearance Time (s)                |       |      |      | 5.9  | 5.9  | 5.9  | 5.6   | 5.6  |      |      | 5.6   | 5.6  |
| Vehicle Extension (s)             |       |      |      | 1.2  | 1.2  | 1.2  | 1.2   | 1.2  |      |      | 1.2   | 1.2  |
| Lane Grp Cap (vph)                |       |      |      | 125  | 119  | 111  | 876   | 2390 |      |      | 3435  | 1069 |
| v/s Ratio Prot                    |       |      |      |      |      |      | c0.00 | 0.04 |      |      | c0.04 |      |
| v/s Ratio Perm                    |       |      |      | 0.01 | 0.01 | 0.00 | 0.03  |      |      |      |       | 0.03 |
| v/c Ratio                         |       |      |      | 0.13 | 0.14 | 0.00 | 0.04  | 0.06 |      |      | 0.06  | 0.04 |
| Uniform Delay, d1                 |       |      |      | 38.9 | 39.0 | 38.6 | 3.2   | 4.9  |      |      | 4.9   | 4.9  |
| Progression Factor                |       |      |      | 1.00 | 1.00 | 1.00 | 0.56  | 0.65 |      |      | 1.00  | 1.00 |
| Incremental Delay, d2             |       |      |      | 0.2  | 0.2  | 0.0  | 0.1   | 0.0  |      |      | 0.0   | 0.1  |
| Delay (s)                         |       |      |      | 39.1 | 39.2 | 38.6 | 1.9   | 3.3  |      |      | 5.0   | 5.0  |
| Level of Service                  |       |      |      | D    | D    | D    | A     | A    |      |      | A     | A    |
| Approach Delay (s)                | 0.0   |      |      |      | 39.1 |      |       | 3.0  |      |      | 5.0   |      |
| Approach LOS                      | A     |      |      |      | D    |      |       | A    |      |      | A     |      |
| Intersection Summary              |       |      |      |      |      |      |       |      |      |      |       |      |
| HCM 2000 Control Delay            | 6.8   |      |      |      |      |      |       |      |      |      |       |      |
| HCM 2000 Volume to Capacity ratio | 0.07  |      |      |      |      |      |       |      |      |      |       |      |
| Actuated Cycle Length (s)         | 90.0  |      |      |      |      |      |       | 17.1 |      |      |       |      |
| Intersection Capacity Utilization | 45.7% |      |      |      |      |      |       |      |      |      |       |      |
| Analysis Period (min)             | 15    |      |      |      |      |      |       |      |      |      |       |      |
| c Critical Lane Group             |       |      |      |      |      |      |       |      |      |      |       |      |

Existing AM  
22-1180 Alliance Broadstone Silveray

4: Goldfield Rd & US-60 WB Ramps  
Queues

|                         | ↙    | ←    | ↖    | ↗    | ↑    | ↓    | ↘    |
|-------------------------|------|------|------|------|------|------|------|
| Lane Group              | WBL  | WBT  | WBR  | NBL  | NBT  | SBT  | SBR  |
| Lane Group Flow (vph)   | 6    | 5    | 5    | 38   | 98   | 134  | 89   |
| v/c Ratio               | 0.04 | 0.02 | 0.02 | 0.04 | 0.04 | 0.04 | 0.08 |
| Control Delay           | 37.2 | 0.2  | 0.2  | 1.3  | 3.4  | 5.4  | 1.2  |
| Queue Delay             | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Total Delay             | 37.2 | 0.2  | 0.2  | 1.3  | 3.4  | 5.4  | 1.2  |
| Queue Length 50th (ft)  | 3    | 0    | 0    | 1    | 4    | 8    | 0    |
| Queue Length 95th (ft)  | 12   | 0    | 0    | 3    | 8    | 16   | 12   |
| Internal Link Dist (ft) | 639  |      |      | 484  |      |      | 300  |
| Turn Bay Length (ft)    | 190  | 190  |      |      | 145  |      |      |
| Base Capacity (vph)     | 730  | 728  | 709  | 955  | 2432 | 3495 | 1120 |
| Starvation Cap Reductn  | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Spillback Cap Reductn   | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Storage Cap Reductn     | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Reduced v/c Ratio       | 0.01 | 0.01 | 0.01 | 0.04 | 0.04 | 0.04 | 0.08 |
| Intersection Summary    |      |      |      |      |      |      |      |

Existing PM  
22-1180 Alliance Broadstone Silveray

4: Goldfield Rd & US-60 WB Ramps  
Queues

|                         | ↙    | ←    | ↖    | ↗    | ↑    | ↓    | ↘    |
|-------------------------|------|------|------|------|------|------|------|
| Lane Group              | WBL  | WBT  | WBR  | NBL  | NBT  | SBT  | SBR  |
| Lane Group Flow (vph)   | 16   | 17   | 3    | 34   | 137  | 214  | 70   |
| v/c Ratio               | 0.10 | 0.11 | 0.01 | 0.04 | 0.06 | 0.06 | 0.06 |
| Control Delay           | 38.8 | 39.0 | 0.0  | 1.5  | 3.6  | 5.3  | 0.7  |
| Queue Delay             | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Total Delay             | 38.8 | 39.0 | 0.0  | 1.5  | 3.6  | 5.3  | 0.7  |
| Queue Length 50th (ft)  | 9    | 9    | 0    | 1    | 6    | 13   | 0    |
| Queue Length 95th (ft)  | 18   | 19   | 0    | 3    | 10   | 21   | 5    |
| Internal Link Dist (ft) | 639  |      |      | 484  |      |      | 300  |
| Turn Bay Length (ft)    | 190  | 190  |      |      | 145  |      |      |
| Base Capacity (vph)     | 730  | 699  | 709  | 890  | 2436 | 3500 | 1122 |
| Starvation Cap Reductn  | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Spillback Cap Reductn   | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Storage Cap Reductn     | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Reduced v/c Ratio       | 0.02 | 0.02 | 0.00 | 0.04 | 0.06 | 0.06 | 0.06 |
| Intersection Summary    |      |      |      |      |      |      |      |

Existing AM  
22-1180 Alliance Broadstone Silveray

5: Goldfield Rd & US-60 EB Ramps  
Timings

|                      | EBL   | EBT   | EBR   | NBT   | NBR   | SBL   | SBT   |
|----------------------|-------|-------|-------|-------|-------|-------|-------|
| Lane Group           | EBL   | EBT   | EBR   | NBT   | NBR   | SBL   | SBT   |
| Lane Configurations  | ↩     | ↩↪    | ↪     | ↩↪↪   | ↪     | ↩     | ↪↪    |
| Traffic Volume (vph) | 60    | 0     | 30    | 61    | 17    | 91    | 37    |
| Future Volume (vph)  | 60    | 0     | 30    | 61    | 17    | 91    | 37    |
| Turn Type            | Perm  | NA    | Perm  | NA    | Perm  | pm+pt | NA    |
| Protected Phases     |       | 3     |       | 1     |       | 2     | 1     |
| Permitted Phases     | 3     |       | 3     |       | 1     | 1     |       |
| Detector Phase       | 3     | 3     | 3     | 1     | 1     | 2     | 1     |
| Switch Phase         |       |       |       |       |       |       |       |
| Minimum Initial (s)  | 8.0   | 8.0   | 8.0   | 20.0  | 20.0  | 5.0   | 20.0  |
| Minimum Split (s)    | 44.9  | 44.9  | 44.9  | 31.6  | 31.6  | 10.6  | 31.6  |
| Total Split (s)      | 45.0  | 45.0  | 45.0  | 34.0  | 34.0  | 11.0  | 34.0  |
| Total Split (%)      | 50.0% | 50.0% | 50.0% | 37.8% | 37.8% | 12.2% | 37.8% |
| Yellow Time (s)      | 3.9   | 3.9   | 3.9   | 3.6   | 3.6   | 3.6   | 3.6   |
| All-Red Time (s)     | 2.0   | 2.0   | 2.0   | 2.0   | 2.0   | 2.0   | 2.0   |
| Lost Time Adjust (s) | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |
| Total Lost Time (s)  | 5.9   | 5.9   | 5.9   | 5.6   | 5.6   | 5.6   | 5.6   |
| Lead/Lag             |       |       |       | Lead  | Lead  | Lag   | Lead  |
| Lead-Lag Optimize?   |       |       |       | Yes   | Yes   | Yes   | Yes   |
| Recall Mode          | None  | None  | None  | C-Max | C-Max | Max   | C-Max |

Intersection Summary

Cycle Length: 90

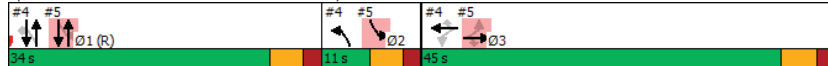
Actuated Cycle Length: 90

Offset: 0 (0%), Referenced to phase 1:NBSB, Start of Green, Master Intersection

Natural Cycle: 90

Control Type: Actuated-Coordinated

Splits and Phases: 5: Goldfield Rd & US-60 EB Ramps



Existing PM  
22-1180 Alliance Broadstone Silveray

5: Goldfield Rd & US-60 EB Ramps  
Timings

|                      | EBL   | EBT   | EBR   | NBT   | NBR   | SBL   | SBT   |
|----------------------|-------|-------|-------|-------|-------|-------|-------|
| Lane Group           | EBL   | EBT   | EBR   | NBT   | NBR   | SBL   | SBT   |
| Lane Configurations  | ↩     | ↩↪    | ↪     | ↩↪↪   | ↪     | ↩     | ↪↪    |
| Traffic Volume (vph) | 85    | 0     | 43    | 44    | 40    | 147   | 55    |
| Future Volume (vph)  | 85    | 0     | 43    | 44    | 40    | 147   | 55    |
| Turn Type            | Perm  | NA    | Perm  | NA    | Perm  | pm+pt | NA    |
| Protected Phases     |       | 3     |       | 1     |       | 2     | 1     |
| Permitted Phases     | 3     |       | 3     |       | 1     | 1     |       |
| Detector Phase       | 3     | 3     | 3     | 1     | 1     | 2     | 1     |
| Switch Phase         |       |       |       |       |       |       |       |
| Minimum Initial (s)  | 8.0   | 8.0   | 8.0   | 20.0  | 20.0  | 5.0   | 20.0  |
| Minimum Split (s)    | 44.9  | 44.9  | 44.9  | 31.6  | 31.6  | 10.6  | 31.6  |
| Total Split (s)      | 45.0  | 45.0  | 45.0  | 34.0  | 34.0  | 11.0  | 34.0  |
| Total Split (%)      | 50.0% | 50.0% | 50.0% | 37.8% | 37.8% | 12.2% | 37.8% |
| Yellow Time (s)      | 3.9   | 3.9   | 3.9   | 3.6   | 3.6   | 3.6   | 3.6   |
| All-Red Time (s)     | 2.0   | 2.0   | 2.0   | 2.0   | 2.0   | 2.0   | 2.0   |
| Lost Time Adjust (s) | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |
| Total Lost Time (s)  | 5.9   | 5.9   | 5.9   | 5.6   | 5.6   | 5.6   | 5.6   |
| Lead/Lag             |       |       |       | Lead  | Lead  | Lag   | Lead  |
| Lead-Lag Optimize?   |       |       |       | Yes   | Yes   | Yes   | Yes   |
| Recall Mode          | None  | None  | None  | C-Max | C-Max | Max   | C-Max |

Intersection Summary

Cycle Length: 90

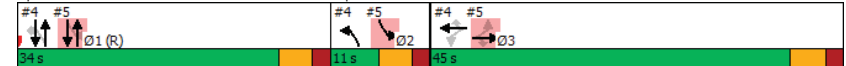
Actuated Cycle Length: 90

Offset: 0 (0%), Referenced to phase 1:NBSB, Start of Green, Master Intersection

Natural Cycle: 90

Control Type: Actuated-Coordinated

Splits and Phases: 5: Goldfield Rd & US-60 EB Ramps





Existing AM  
22-1180 Alliance Broadstone Silveray

5: Goldfield Rd & US-60 EB Ramps  
Queues

|                         |  |  |  |  |  |  |  |
|-------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|
| Lane Group              | EBL                                                                               | EBT                                                                               | EBR                                                                               | NBT                                                                               | NBR                                                                               | SBL                                                                               | SBT                                                                               |
| Lane Group Flow (vph)   | 47                                                                                | 45                                                                                | 40                                                                                | 78                                                                                | 22                                                                                | 108                                                                               | 44                                                                                |
| v/c Ratio               | 0.30                                                                              | 0.19                                                                              | 0.17                                                                              | 0.02                                                                              | 0.02                                                                              | 0.11                                                                              | 0.02                                                                              |
| Control Delay           | 43.1                                                                              | 1.7                                                                               | 1.6                                                                               | 5.5                                                                               | 0.1                                                                               | 1.3                                                                               | 3.8                                                                               |
| Queue Delay             | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               |
| Total Delay             | 43.1                                                                              | 1.7                                                                               | 1.6                                                                               | 5.5                                                                               | 0.1                                                                               | 1.3                                                                               | 3.8                                                                               |
| Queue Length 50th (ft)  | 27                                                                                | 0                                                                                 | 0                                                                                 | 4                                                                                 | 0                                                                                 | 2                                                                                 | 2                                                                                 |
| Queue Length 95th (ft)  | 45                                                                                | 0                                                                                 | 0                                                                                 | 9                                                                                 | 0                                                                                 | 4                                                                                 | 4                                                                                 |
| Internal Link Dist (ft) | 535                                                                               |                                                                                   | 222                                                                               |                                                                                   | 484                                                                               |                                                                                   |                                                                                   |
| Turn Bay Length (ft)    | 130                                                                               | 130                                                                               |                                                                                   | 115                                                                               |                                                                                   |                                                                                   |                                                                                   |
| Base Capacity (vph)     | 730                                                                               | 750                                                                               | 709                                                                               | 3495                                                                              | 1120                                                                              | 1003                                                                              | 2432                                                                              |
| Starvation Cap Reductn  | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 |
| Spillback Cap Reductn   | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 |
| Storage Cap Reductn     | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 |
| Reduced v/c Ratio       | 0.06                                                                              | 0.06                                                                              | 0.06                                                                              | 0.02                                                                              | 0.02                                                                              | 0.11                                                                              | 0.02                                                                              |
| Intersection Summary    |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |

Existing PM  
22-1180 Alliance Broadstone Silveray

5: Goldfield Rd & US-60 EB Ramps  
Queues

|                         |  |  |  |  |  |  |  |
|-------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Lane Group              | EBL                                                                                 | EBT                                                                                 | EBR                                                                                 | NBT                                                                                 | NBR                                                                                 | SBL                                                                                 | SBT                                                                                 |
| Lane Group Flow (vph)   | 52                                                                                  | 51                                                                                  | 44                                                                                  | 52                                                                                  | 48                                                                                  | 184                                                                                 | 69                                                                                  |
| v/c Ratio               | 0.34                                                                                | 0.22                                                                                | 0.19                                                                                | 0.01                                                                                | 0.04                                                                                | 0.18                                                                                | 0.03                                                                                |
| Control Delay           | 44.3                                                                                | 3.5                                                                                 | 1.9                                                                                 | 5.5                                                                                 | 0.1                                                                                 | 1.8                                                                                 | 3.0                                                                                 |
| Queue Delay             | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 |
| Total Delay             | 44.3                                                                                | 3.5                                                                                 | 1.9                                                                                 | 5.5                                                                                 | 0.1                                                                                 | 1.8                                                                                 | 3.0                                                                                 |
| Queue Length 50th (ft)  | 29                                                                                  | 0                                                                                   | 0                                                                                   | 3                                                                                   | 0                                                                                   | 0                                                                                   | 2                                                                                   |
| Queue Length 95th (ft)  | 64                                                                                  | 5                                                                                   | 0                                                                                   | 7                                                                                   | 0                                                                                   | 21                                                                                  | 6                                                                                   |
| Internal Link Dist (ft) | 535                                                                                 |                                                                                     | 222                                                                                 |                                                                                     | 484                                                                                 |                                                                                     |                                                                                     |
| Turn Bay Length (ft)    | 130                                                                                 | 130                                                                                 |                                                                                     | 115                                                                                 |                                                                                     |                                                                                     |                                                                                     |
| Base Capacity (vph)     | 730                                                                                 | 750                                                                                 | 709                                                                                 | 3500                                                                                | 1122                                                                                | 1029                                                                                | 2436                                                                                |
| Starvation Cap Reductn  | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   |
| Spillback Cap Reductn   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   |
| Storage Cap Reductn     | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   |
| Reduced v/c Ratio       | 0.07                                                                                | 0.07                                                                                | 0.06                                                                                | 0.01                                                                                | 0.04                                                                                | 0.18                                                                                | 0.03                                                                                |
| Intersection Summary    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |

Existing AM  
22-1180 Alliance Broadstone Silveray

6: Goldfield Rd & Chevron Access  
HCM 6th TWSC

| Intersection             |      |      |      |      |      |      |      |      |      |      |      |      |
|--------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Int Delay, s/veh         | 2.7  |      |      |      |      |      |      |      |      |      |      |      |
| Movement                 | EBL  | EBT  | EBR  | WBL  | WBT  | WBR  | NBL  | NBT  | NBR  | SBL  | SBT  | SBR  |
| Lane Configurations      |      | ↔    |      |      | ↔    |      | ↔    | ↔    | ↔    | ↔    | ↔    | ↔    |
| Traffic Vol, veh/h       | 3    | 2    | 0    | 2    | 1    | 21   | 0    | 71   | 8    | 19   | 37   | 3    |
| Future Vol, veh/h        | 3    | 2    | 0    | 2    | 1    | 21   | 0    | 71   | 8    | 19   | 37   | 3    |
| Conflicting Peds, #/hr   | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Sign Control             | Stop | Stop | Stop | Stop | Stop | Stop | Free | Free | Free | Free | Free | Free |
| RT Channelized           | -    | -    | None | -    | -    | None | -    | -    | None | -    | -    | None |
| Storage Length           | -    | -    | -    | -    | -    | -    | 50   | -    | 50   | 50   | -    | -    |
| Veh in Median Storage, # | -    | 0    | -    | -    | 0    | -    | -    | 0    | -    | -    | 0    | -    |
| Grade, %                 | -    | 0    | -    | -    | 0    | -    | -    | 0    | -    | -    | 0    | -    |
| Peak Hour Factor         | 63   | 63   | 63   | 75   | 75   | 75   | 90   | 90   | 90   | 74   | 74   | 92   |
| Heavy Vehicles, %        | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    |
| Mvmt Flow                | 5    | 3    | 0    | 3    | 1    | 28   | 0    | 79   | 9    | 26   | 50   | 3    |

| Major/Minor          | Minor2 |      | Minor1 |      | Major1 |      | Major2 |   |   |      |   |   |
|----------------------|--------|------|--------|------|--------|------|--------|---|---|------|---|---|
| Conflicting Flow All | 144    | 192  | 27     | 158  | 184    | 40   | 53     | 0 | 0 | 88   | 0 | 0 |
| Stage 1              | 104    | 104  | -      | 79   | 79     | -    | -      | - | - | -    | - | - |
| Stage 2              | 40     | 88   | -      | 79   | 105    | -    | -      | - | - | -    | - | - |
| Critical Hdwy        | 7.54   | 6.54 | 6.94   | 7.54 | 6.54   | 6.94 | 4.14   | - | - | 4.14 | - | - |
| Critical Hdwy Stg 1  | 6.54   | 5.54 | -      | 6.54 | 5.54   | -    | -      | - | - | -    | - | - |
| Critical Hdwy Stg 2  | 6.54   | 5.54 | -      | 6.54 | 5.54   | -    | -      | - | - | -    | - | - |
| Follow-up Hdwy       | 3.52   | 4.02 | 3.32   | 3.52 | 4.02   | 3.32 | 2.22   | - | - | 2.22 | - | - |
| Pot Cap-1 Maneuver   | 811    | 702  | 1042   | 793  | 709    | 1022 | 1551   | - | - | 1506 | - | - |
| Stage 1              | 890    | 808  | -      | 921  | 829    | -    | -      | - | - | -    | - | - |
| Stage 2              | 970    | 821  | -      | 921  | 807    | -    | -      | - | - | -    | - | - |
| Platoon blocked, %   | -      | -    | -      | -    | -      | -    | -      | - | - | -    | - | - |
| Mov Cap-1 Maneuver   | 777    | 690  | 1042   | 780  | 697    | 1022 | 1551   | - | - | 1506 | - | - |
| Mov Cap-2 Maneuver   | 777    | 690  | -      | 780  | 697    | -    | -      | - | - | -    | - | - |
| Stage 1              | 890    | 794  | -      | 921  | 829    | -    | -      | - | - | -    | - | - |
| Stage 2              | 942    | 821  | -      | 901  | 793    | -    | -      | - | - | -    | - | - |

| Approach             | EB  |  | WB  |  | NB |  | SB  |  |
|----------------------|-----|--|-----|--|----|--|-----|--|
| HCM Control Delay, s | 9.9 |  | 8.8 |  | 0  |  | 2.4 |  |
| HCM LOS              | A   |  | A   |  |    |  |     |  |

| Minor Lane/Major Mvmt | NBL  | NBT | NBR | EBLn1 | WBLn1 | SBL   | SBT | SBR |
|-----------------------|------|-----|-----|-------|-------|-------|-----|-----|
| Capacity (veh/h)      | 1551 | -   | -   | 740   | 978   | 1506  | -   | -   |
| HCM Lane V/C Ratio    | -    | -   | -   | 0.011 | 0.033 | 0.017 | -   | -   |
| HCM Control Delay (s) | 0    | -   | -   | 9.9   | 8.8   | 7.4   | -   | -   |
| HCM Lane LOS          | A    | -   | -   | A     | A     | A     | -   | -   |
| HCM 95th %tile Q(veh) | 0    | -   | -   | 0     | 0.1   | 0.1   | -   | -   |

Existing PM  
22-1180 Alliance Broadstone Silveray

6: Goldfield Rd & Chevron Access  
HCM 6th TWSC

| Intersection             |      |      |      |      |      |      |      |      |      |      |      |      |
|--------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Int Delay, s/veh         | 2.5  |      |      |      |      |      |      |      |      |      |      |      |
| Movement                 | EBL  | EBT  | EBR  | WBL  | WBT  | WBR  | NBL  | NBT  | NBR  | SBL  | SBT  | SBR  |
| Lane Configurations      |      | ↔    |      |      | ↔    |      | ↔    | ↔    | ↔    | ↔    | ↔    | ↔    |
| Traffic Vol, veh/h       | 5    | 0    | 1    | 4    | 0    | 28   | 1    | 64   | 8    | 28   | 57   | 9    |
| Future Vol, veh/h        | 5    | 0    | 1    | 4    | 0    | 28   | 1    | 64   | 8    | 28   | 57   | 9    |
| Conflicting Peds, #/hr   | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Sign Control             | Stop | Stop | Stop | Stop | Stop | Stop | Free | Free | Free | Free | Free | Free |
| RT Channelized           | -    | -    | None | -    | -    | None | -    | -    | None | -    | -    | None |
| Storage Length           | -    | -    | -    | -    | -    | -    | 50   | -    | 50   | 50   | -    | -    |
| Veh in Median Storage, # | -    | 0    | -    | -    | 0    | -    | -    | 0    | -    | -    | 0    | -    |
| Grade, %                 | -    | 0    | -    | -    | 0    | -    | -    | 0    | -    | -    | 0    | -    |
| Peak Hour Factor         | 50   | 50   | 50   | 80   | 80   | 80   | 55   | 55   | 55   | 87   | 87   | 87   |
| Heavy Vehicles, %        | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    |
| Mvmt Flow                | 10   | 0    | 2    | 5    | 0    | 35   | 2    | 116  | 15   | 32   | 66   | 10   |

| Major/Minor          | Minor2 |      | Minor1 |      | Major1 |      | Major2 |   |   |      |   |   |
|----------------------|--------|------|--------|------|--------|------|--------|---|---|------|---|---|
| Conflicting Flow All | 197    | 270  | 38     | 217  | 260    | 58   | 76     | 0 | 0 | 131  | 0 | 0 |
| Stage 1              | 135    | 135  | -      | 120  | 120    | -    | -      | - | - | -    | - | - |
| Stage 2              | 62     | 135  | -      | 97   | 140    | -    | -      | - | - | -    | - | - |
| Critical Hdwy        | 7.54   | 6.54 | 6.94   | 7.54 | 6.54   | 6.94 | 4.14   | - | - | 4.14 | - | - |
| Critical Hdwy Stg 1  | 6.54   | 5.54 | -      | 6.54 | 5.54   | -    | -      | - | - | -    | - | - |
| Critical Hdwy Stg 2  | 6.54   | 5.54 | -      | 6.54 | 5.54   | -    | -      | - | - | -    | - | - |
| Follow-up Hdwy       | 3.52   | 4.02 | 3.32   | 3.52 | 4.02   | 3.32 | 2.22   | - | - | 2.22 | - | - |
| Pot Cap-1 Maneuver   | 770    | 650  | 1058   | 745  | 659    | 996  | 1542   | - | - | 1452 | - | - |
| Stage 1              | 877    | 798  | -      | 872  | 796    | -    | -      | - | - | -    | - | - |
| Stage 2              | 942    | 784  | -      | 923  | 794    | -    | -      | - | - | -    | - | - |
| Platoon blocked, %   | 1      | 1    | 1      | 1    | 1      | 1    | 1      | - | - | -    | - | - |
| Mov Cap-1 Maneuver   | 730    | 635  | 1058   | 730  | 644    | 996  | 1542   | - | - | 1452 | - | - |
| Mov Cap-2 Maneuver   | 730    | 635  | -      | 730  | 644    | -    | -      | - | - | -    | - | - |
| Stage 1              | 876    | 780  | -      | 871  | 795    | -    | -      | - | - | -    | - | - |
| Stage 2              | 908    | 783  | -      | 901  | 776    | -    | -      | - | - | -    | - | - |

| Approach             | EB  |  | WB  |  | NB  |  | SB  |  |
|----------------------|-----|--|-----|--|-----|--|-----|--|
| HCM Control Delay, s | 9.7 |  | 8.9 |  | 0.1 |  | 2.2 |  |
| HCM LOS              | A   |  | A   |  |     |  |     |  |

| Minor Lane/Major Mvmt | NBL   | NBT | NBR | EBLn1 | WBLn1 | SBL   | SBT | SBR |
|-----------------------|-------|-----|-----|-------|-------|-------|-----|-----|
| Capacity (veh/h)      | 1542  | -   | -   | 770   | 953   | 1452  | -   | -   |
| HCM Lane V/C Ratio    | 0.001 | -   | -   | 0.016 | 0.042 | 0.022 | -   | -   |
| HCM Control Delay (s) | 7.3   | -   | -   | 9.7   | 8.9   | 7.5   | -   | -   |
| HCM Lane LOS          | A     | -   | -   | A     | A     | A     | -   | -   |
| HCM 95th %tile Q(veh) | 0     | -   | -   | 0     | 0.1   | 0.1   | -   | -   |

Existing AM  
22-1180 Alliance Broadstone Silveray

7: Goldfield Rd & Resort Blvd  
HCM 6th TWSC

| Intersection             |      |      |      |      |      |      |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh         | 3.6  |      |      |      |      |      |
| Movement                 | WBL  | WBR  | NBT  | NBR  | SBL  | SBT  |
| Lane Configurations      | W    | W    | ↑↑   | ↑↑   | ↑↑   | ↑↑   |
| Traffic Vol, veh/h       | 2    | 27   | 52   | 3    | 17   | 22   |
| Future Vol, veh/h        | 2    | 27   | 52   | 3    | 17   | 22   |
| Conflicting Peds, #/hr   | 0    | 0    | 0    | 0    | 0    | 0    |
| Sign Control             | Stop | Stop | Free | Free | Free | Free |
| RT Channelized           | -    | None | -    | None | -    | None |
| Storage Length           | 0    | -    | -    | -    | 50   | -    |
| Veh in Median Storage, # | 0    | -    | 0    | -    | -    | 0    |
| Grade, %                 | 0    | -    | 0    | -    | -    | 0    |
| Peak Hour Factor         | 60   | 60   | 86   | 86   | 70   | 70   |
| Heavy Vehicles, %        | 2    | 2    | 2    | 2    | 2    | 2    |
| Mvmt Flow                | 3    | 45   | 60   | 3    | 24   | 31   |

| Major/Minor          | Minor1 | Major1 | Major2 |
|----------------------|--------|--------|--------|
| Conflicting Flow All | 126    | 32     | 0      |
| Stage 1              | 62     | -      | -      |
| Stage 2              | 64     | -      | -      |
| Critical Hdwy        | 6.84   | 6.94   | -      |
| Critical Hdwy Stg 1  | 5.84   | -      | -      |
| Critical Hdwy Stg 2  | 5.84   | -      | -      |
| Follow-up Hdwy       | 3.52   | 3.32   | -      |
| Pot Cap-1 Maneuver   | 856    | 1035   | -      |
| Stage 1              | 953    | -      | -      |
| Stage 2              | 951    | -      | -      |
| Platoon blocked, %   | -      | -      | -      |
| Mov Cap-1 Maneuver   | 842    | 1035   | -      |
| Mov Cap-2 Maneuver   | 815    | -      | -      |
| Stage 1              | 953    | -      | -      |
| Stage 2              | 936    | -      | -      |

| Approach             | WB  | NB | SB  |
|----------------------|-----|----|-----|
| HCM Control Delay, s | 8.7 | 0  | 3.2 |
| HCM LOS              | A   |    |     |

| Minor Lane/Major Mvmt | NBT | NBRWBLn1 | SBL   | SBT   |
|-----------------------|-----|----------|-------|-------|
| Capacity (veh/h)      | -   | -        | 1016  | 1538  |
| HCM Lane V/C Ratio    | -   | -        | 0.048 | 0.016 |
| HCM Control Delay (s) | -   | -        | 8.7   | 7.4   |
| HCM Lane LOS          | -   | -        | A     | A     |
| HCM 95th %tile Q(veh) | -   | -        | 0.1   | 0     |

Existing PM  
22-1180 Alliance Broadstone Silveray

7: Goldfield Rd & Resort Blvd  
HCM 6th TWSC

| Intersection             |      |      |      |      |      |      |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh         | 2    |      |      |      |      |      |
| Movement                 | WBL  | WBR  | NBT  | NBR  | SBL  | SBT  |
| Lane Configurations      | W    | W    | ↑↑   | ↑↑   | ↑↑   | ↑↑   |
| Traffic Vol, veh/h       | 2    | 17   | 56   | 5    | 13   | 49   |
| Future Vol, veh/h        | 2    | 17   | 56   | 5    | 13   | 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    | -    | -    | -    | 50   | -    |
| Veh in Median Storage, # | 0    | -    | 0    | -    | -    | 0    |
| Grade, %                 | 0    | -    | 0    | -    | -    | 0    |
| Peak Hour Factor         | 53   | 53   | 61   | 61   | 74   | 74   |
| Heavy Vehicles, %        | 2    | 2    | 2    | 2    | 2    | 2    |
| Mvmt Flow                | 4    | 32   | 92   | 8    | 18   | 66   |

| Major/Minor          | Minor1 | Major1 | Major2 |
|----------------------|--------|--------|--------|
| Conflicting Flow All | 165    | 50     | 0      |
| Stage 1              | 96     | -      | -      |
| Stage 2              | 69     | -      | -      |
| Critical Hdwy        | 6.84   | 6.94   | -      |
| Critical Hdwy Stg 1  | 5.84   | -      | -      |
| Critical Hdwy Stg 2  | 5.84   | -      | -      |
| Follow-up Hdwy       | 3.52   | 3.32   | -      |
| Pot Cap-1 Maneuver   | 833    | 1008   | -      |
| Stage 1              | 917    | -      | -      |
| Stage 2              | 967    | -      | -      |
| Platoon blocked, %   | 1      | -      | -      |
| Mov Cap-1 Maneuver   | 823    | 1008   | -      |
| Mov Cap-2 Maneuver   | 801    | -      | -      |
| Stage 1              | 917    | -      | -      |
| Stage 2              | 955    | -      | -      |

| Approach             | WB  | NB | SB  |
|----------------------|-----|----|-----|
| HCM Control Delay, s | 8.8 | 0  | 1.6 |
| HCM LOS              | A   |    |     |

| Minor Lane/Major Mvmt | NBT | NBRWBLn1 | SBL   | SBT   |
|-----------------------|-----|----------|-------|-------|
| Capacity (veh/h)      | -   | -        | 981   | 1490  |
| HCM Lane V/C Ratio    | -   | -        | 0.037 | 0.012 |
| HCM Control Delay (s) | -   | -        | 8.8   | 7.4   |
| HCM Lane LOS          | -   | -        | A     | A     |
| HCM 95th %tile Q(veh) | -   | -        | 0.1   | 0     |

Existing AM  
22-1180 Alliance Broadstone Silveray

8: Resort Blvd & Chevron Access  
HCM 6th TWSC

| Intersection             |      |      |      |      |      |      |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh         | 1.7  |      |      |      |      |      |
| Movement                 | EBL  | EBT  | WBT  | WBR  | SBL  | SBR  |
| Lane Configurations      |      | ↔    | ↔    |      | ↔    |      |
| Traffic Vol, veh/h       | 6    | 14   | 28   | 1    | 3    | 1    |
| Future Vol, veh/h        | 6    | 14   | 28   | 1    | 3    | 1    |
| Conflicting Peds, #/hr   | 0    | 0    | 0    | 0    | 0    | 0    |
| Sign Control             | Free | Free | Free | Free | Stop | Stop |
| RT Channelized           | -    | None | -    | None | -    | None |
| Storage Length           | -    | -    | -    | -    | 0    | -    |
| Veh in Median Storage, # | -    | 0    | 0    | -    | 0    | -    |
| Grade, %                 | -    | 0    | 0    | -    | 0    | -    |
| Peak Hour Factor         | 83   | 83   | 60   | 60   | 33   | 92   |
| Heavy Vehicles, %        | 2    | 2    | 2    | 2    | 2    | 2    |
| Mvmt Flow                | 7    | 17   | 47   | 2    | 9    | 1    |

| Major/Minor          | Major1 | Major2 | Minor2 |       |       |
|----------------------|--------|--------|--------|-------|-------|
| Conflicting Flow All | 49     | 0      | 0      | 79    | 48    |
| Stage 1              | -      | -      | -      | 48    | -     |
| Stage 2              | -      | -      | -      | 31    | -     |
| Critical Hdwy        | 4.12   | -      | -      | 6.42  | 6.22  |
| Critical Hdwy Stg 1  | -      | -      | -      | 5.42  | -     |
| Critical Hdwy Stg 2  | -      | -      | -      | 5.42  | -     |
| Follow-up Hdwy       | 2.218  | -      | -      | 3.518 | 3.318 |
| Pot Cap-1 Maneuver   | 1558   | -      | -      | 924   | 1021  |
| Stage 1              | -      | -      | -      | 974   | -     |
| Stage 2              | -      | -      | -      | 992   | -     |
| Platoon blocked, %   | -      | -      | -      | -     | -     |
| Mov Cap-1 Maneuver   | 1558   | -      | -      | 919   | 1021  |
| Mov Cap-2 Maneuver   | -      | -      | -      | 919   | -     |
| Stage 1              | -      | -      | -      | 969   | -     |
| Stage 2              | -      | -      | -      | 992   | -     |

| Approach             | EB  | WB | SB  |
|----------------------|-----|----|-----|
| HCM Control Delay, s | 2.2 | 0  | 8.9 |
| HCM LOS              |     |    | A   |

| Minor Lane/Major Mvmt | EBL   | EBT | WBT | WBR | SBLn1 |
|-----------------------|-------|-----|-----|-----|-------|
| Capacity (veh/h)      | 1558  | -   | -   | -   | 929   |
| HCM Lane V/C Ratio    | 0.005 | -   | -   | -   | 0.011 |
| HCM Control Delay (s) | 7.3   | 0   | -   | -   | 8.9   |
| HCM Lane LOS          | A     | A   | -   | -   | A     |
| HCM 95th %tile Q(veh) | 0     | -   | -   | -   | 0     |

Existing PM  
22-1180 Alliance Broadstone Silveray

8: Resort Blvd & Chevron Access  
HCM 6th TWSC

| Intersection             |      |      |      |      |      |      |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh         | 0.8  |      |      |      |      |      |
| Movement                 | EBL  | EBT  | WBT  | WBR  | SBL  | SBR  |
| Lane Configurations      |      | ↔    | ↔    |      | ↔    |      |
| Traffic Vol, veh/h       | 2    | 27   | 10   | 0    | 1    | 3    |
| Future Vol, veh/h        | 2    | 27   | 10   | 0    | 1    | 3    |
| Conflicting Peds, #/hr   | 0    | 0    | 0    | 0    | 0    | 0    |
| Sign Control             | Free | Free | Free | Free | Stop | Stop |
| RT Channelized           | -    | None | -    | None | -    | None |
| Storage Length           | -    | -    | -    | -    | 0    | -    |
| Veh in Median Storage, # | -    | 0    | 0    | -    | 0    | -    |
| Grade, %                 | -    | 0    | 0    | -    | 0    | -    |
| Peak Hour Factor         | 81   | 81   | 42   | 42   | 100  | 100  |
| Heavy Vehicles, %        | 2    | 2    | 2    | 2    | 2    | 2    |
| Mvmt Flow                | 2    | 33   | 24   | 0    | 1    | 3    |

| Major/Minor          | Major1 | Major2 | Minor2 |       |       |
|----------------------|--------|--------|--------|-------|-------|
| Conflicting Flow All | 24     | 0      | 0      | 61    | 24    |
| Stage 1              | -      | -      | -      | 24    | -     |
| Stage 2              | -      | -      | -      | 37    | -     |
| Critical Hdwy        | 4.12   | -      | -      | 6.42  | 6.22  |
| Critical Hdwy Stg 1  | -      | -      | -      | 5.42  | -     |
| Critical Hdwy Stg 2  | -      | -      | -      | 5.42  | -     |
| Follow-up Hdwy       | 2.218  | -      | -      | 3.518 | 3.318 |
| Pot Cap-1 Maneuver   | 1591   | -      | -      | 945   | 1052  |
| Stage 1              | -      | -      | -      | 999   | -     |
| Stage 2              | -      | -      | -      | 985   | -     |
| Platoon blocked, %   | -      | -      | -      | -     | -     |
| Mov Cap-1 Maneuver   | 1591   | -      | -      | 944   | 1052  |
| Mov Cap-2 Maneuver   | -      | -      | -      | 944   | -     |
| Stage 1              | -      | -      | -      | 998   | -     |
| Stage 2              | -      | -      | -      | 985   | -     |

| Approach             | EB  | WB | SB  |
|----------------------|-----|----|-----|
| HCM Control Delay, s | 0.5 | 0  | 8.5 |
| HCM LOS              |     |    | A   |

| Minor Lane/Major Mvmt | EBL   | EBT | WBT | WBR | SBLn1 |
|-----------------------|-------|-----|-----|-----|-------|
| Capacity (veh/h)      | 1591  | -   | -   | -   | 1023  |
| HCM Lane V/C Ratio    | 0.002 | -   | -   | -   | 0.004 |
| HCM Control Delay (s) | 7.3   | 0   | -   | -   | 8.5   |
| HCM Lane LOS          | A     | A   | -   | -   | A     |
| HCM 95th %tile Q(veh) | 0     | -   | -   | -   | 0     |

## **APPENDIX D**

### **CRASH ANALYSIS WORKSHEETS**



Goldfield Rd & Old West Hwy NWB

## SUMMARY BY YEAR

| <b>SEVERITY / INCIDENTS</b>     | <b>2019</b> | <b>2020</b> | <b>Totals</b> | <b>Checks</b> |
|---------------------------------|-------------|-------------|---------------|---------------|
| Fatal Injury Incidents          |             |             |               |               |
| Non-fatal Injury Incidents      | 1           |             | 1             |               |
| PDO Incidents                   | 1           | 1           | 2             |               |
| TOTALS                          | 2           | 1           | 3             |               |
| Pedestrian Incidents            |             |             |               |               |
| Pedestrians Involved            |             |             |               |               |
| Bicycle Incidents               |             |             |               |               |
| Bicyclists Involved             |             |             |               |               |
| <b>SEVERITY / INVOLVMENT</b>    |             |             |               |               |
| Fatal Injuries                  |             |             |               |               |
| Non-Fatal Injuries              | 1           |             | 1             |               |
| PDO Vehicles                    | 2           | 2           | 4             |               |
| Pedestrians Fatally Injured     |             |             |               |               |
| Pedestrians Non-Fatally Injured |             |             |               |               |
| Bicyclists Fatally Injured      |             |             |               |               |
| Bicyclists Non-Fatally Injured  |             |             |               |               |
| <b>COLLISION MANNER</b>         |             |             |               |               |
| SINGLE_VEHICLE                  | 1           | 1           | 1             |               |
| ANGLE                           | 2           | 1           | 2             |               |
| LEFT_TURN                       | 3           |             |               |               |
| REAR_END                        | 4           |             |               |               |
| HEAD_ON                         | 5           |             |               |               |
| SIDESWIPE_SAME_DIRECTION        | 6           |             |               |               |
| IDESWIPE_OPPOSITE_DIRECTION     | 7           |             |               |               |
| REAR_TO_SIDE                    | 8           |             |               |               |
| REAR_TO_REAR                    | 9           |             |               |               |
| OTHER                           | 97          |             |               |               |
| UNKNOWN                         | 99          |             |               |               |
| TOTALS                          | 2           | 1           | 3             |               |



Goldfield Rd & OldWest Hwy Exit

## SUMMARY BY YEAR

| <b>SEVERITY / INCIDENTS</b>     | <b>2018</b> | <b>2019</b> | <b>Totals</b> | <b>Checks</b> |
|---------------------------------|-------------|-------------|---------------|---------------|
| Fatal Injury Incidents          |             |             |               |               |
| Non-fatal Injury Incidents      | 2           |             | 2             |               |
| PDO Incidents                   | 2           | 2           | 4             |               |
| TOTALS                          | 4           | 2           | 6             |               |
| Pedestrian Incidents            |             |             |               |               |
| Pedestrians Involved            |             |             |               |               |
| Bicycle Incidents               |             |             |               |               |
| Bicyclists Involved             |             |             |               |               |
| <b>SEVERITY / INVOLVMENT</b>    |             |             |               |               |
| Fatal Injuries                  |             |             |               |               |
| Non-Fatal Injuries              | 2           |             | 2             |               |
| PDO Vehicles                    | 2           | 3           | 5             |               |
| Pedestrians Fatally Injured     |             |             |               |               |
| Pedestrians Non-Fatally Injured |             |             |               |               |
| Bicyclists Fatally Injured      |             |             |               |               |
| Bicyclists Non-Fatally Injured  |             |             |               |               |
| <b>COLLISION MANNER</b>         |             |             |               |               |
| SINGLE_VEHICLE                  | 1           | 4           | 1             | 5             |
| ANGLE                           | 2           |             |               |               |
| LEFT_TURN                       | 3           |             |               |               |
| REAR_END                        | 4           |             |               |               |
| HEAD_ON                         | 5           |             |               |               |
| SIDESWIPE_SAME_DIRECTION        | 6           | 1           | 1             |               |
| IDESWIPE_OPPOSITE_DIRECTION     | 7           |             |               |               |
| REAR_TO_SIDE                    | 8           |             |               |               |
| REAR_TO_REAR                    | 9           |             |               |               |
| OTHER                           | 97          |             |               |               |
| UNKNOWN                         | 99          |             |               |               |
| TOTALS                          | 4           | 2           | 6             |               |



Goldfield Rd & US60 WB Off-ramp

## SUMMARY BY YEAR

| <b>SEVERITY / INCIDENTS</b>     | <b><u>2018</u></b> | <b><u>2019</u></b> | <b><u>2020</u></b> | <b><u>Totals</u></b> | <b><u>Checks</u></b> |
|---------------------------------|--------------------|--------------------|--------------------|----------------------|----------------------|
| Fatal Injury Incidents          |                    |                    |                    |                      |                      |
| Non-fatal Injury Incidents      |                    |                    | 1                  | 1                    |                      |
| PDO Incidents                   | 2                  |                    | 1                  | 3                    |                      |
| TOTALS                          | 2                  |                    | 2                  | 4                    |                      |
| Pedestrian Incidents            |                    |                    |                    |                      |                      |
| Pedestrians Involved            |                    |                    |                    |                      |                      |
| Bicycle Incidents               |                    |                    |                    |                      |                      |
| Bicyclists Involved             |                    |                    |                    |                      |                      |
| <b>SEVERITY / INVOLVMENT</b>    |                    |                    |                    |                      |                      |
| Fatal Injuries                  |                    |                    |                    |                      |                      |
| Non-Fatal Injuries              |                    |                    | 1                  | 1                    |                      |
| PDO Vehicles                    | 4                  |                    | 2                  | 6                    |                      |
| Pedestrians Fatally Injured     |                    |                    |                    |                      |                      |
| Pedestrians Non-Fatally Injured |                    |                    |                    |                      |                      |
| Bicyclists Fatally Injured      |                    |                    |                    |                      |                      |
| Bicyclists Non-Fatally Injured  |                    |                    |                    |                      |                      |
| <b>COLLISION MANNER</b>         |                    |                    |                    |                      |                      |
| SINGLE_VEHICLE                  | 1                  |                    |                    |                      |                      |
| ANGLE                           | 2                  |                    |                    |                      |                      |
| LEFT_TURN                       | 3                  |                    | 1                  | 1                    |                      |
| REAR_END                        | 4                  |                    |                    |                      |                      |
| HEAD_ON                         | 5                  |                    |                    |                      |                      |
| SIDESWIPE_SAME_DIRECTION        | 6                  | 2                  | 1                  | 3                    |                      |
| IDESWIPE_OPPOSITE_DIRECTION     | 7                  |                    |                    |                      |                      |
| REAR_TO_SIDE                    | 8                  |                    |                    |                      |                      |
| REAR_TO_REAR                    | 9                  |                    |                    |                      |                      |
| OTHER                           | 97                 |                    |                    |                      |                      |
| UNKNOWN                         | 99                 |                    |                    |                      |                      |
| TOTALS                          | 2                  |                    | 2                  | 4                    |                      |

## **APPENDIX E**

### **TRIP GENERATION CALCULATIONS**

**Methodology Overview**

This form facilitates trip generation estimation using data within the Institute of Transportation Engineer's (ITE) Trip Generation Manual, 11th Edition and methodology described within ITE's Trip Generation Handbook, 3rd Edition. These references will be referred to as Manual and Handbook, respectively. The Manual contains data collected by various transportation professionals for a wide range of different land uses, with each land use category represented by a land use code (LUC). Average rates and equations have been established that correlate the relationship between an independent variable that describes the development size and generated trips for each categorized LUC in various settings and time periods. The Handbook indicates an established methodology for how to use data contained within the Manual when to use the fitted curve instead of the average rate and when to adjustments to the volume of trips are appropriate and how to do so. The methodology steps are represented visually in boxes in Figure 3.1. This worksheet applies calculations for each box if applicable.

**Box 1 - Define Study Site Land Use Type&Site Characteristics.****Box 2 - Define Site Context | Box 3 - Define Analysis Objectives Trip Types&Time Period**

The analyst is to pick an appropriate LUC(s) based on the subject's zoning/land use(s)/future land use(s). The size of the land use(s) is described in reference to an independent variable(s) specific to (each) the land use (example: 1,000 square feet of building area is relatively common). Context assessment is to "simply determine whether the study sites is in a multimodal setting" and "could have persons accessing the site by walking, bicycling, or riding transit." This assessment is used in Box 4. The Manual separates data into 4 setting categories - Rural, General Urban/Suburban, Dense Multi-Urban Use and Center City Core. This worksheet uses the following abbreviations, respectively: R, G, D, and C. The Manual does not have data for all settings of all land use codes. The "General Urban/Suburban" setting is used by default.

This tool will focus on vehicular trips for a 24-hour period on a typical weekday as well as its AM peak hour and PM peak hour. Other time period(s) may be of interest.

**Land Use Types and Size**

| Proposed Use          | Amount Units       | ITE LUC | ITE Land Use Name                                |
|-----------------------|--------------------|---------|--------------------------------------------------|
| LR-Apartments No Rail | 275 Dwelling Units | 220     | Multifamily Housing (Low-Rise Not Close to Rail) |
|                       |                    |         |                                                  |

**Box 4 - Is Study Site Multimodal?**

Per the Handbook, "if the objective is to establish a local trip generation rate for a particular land use or study site, the simplified approach (Box 9) may be acceptable but the Box 5 through 8 approach is required if the study site is located in an infill setting, contains a mix of uses on-site, or is near significant transit service."

**Box 5/Box 9 - Estimate Baseline Trips/Estimate Vehicular Trips** (Determine Equation)

Vehicle trips are estimated using rates/equations applicable to each LUC. When the appropriate graph has a fitted curve, the Handbook has a process (Figure 4.2) to determine when to use it versus using the weighted average rate or collecting local data. The methodology requires for engineering judgement in some circumstances and permits engineering judgement to override or make adjustments when appropriate to best project (example 1: study site is expected to operate differently than data in the applicable land use code - such as restaurant that is closed in the morning or in the evening; example 2: LUC data in a localized area fails to be represented by the typically selected fitted curve/weighted average rate - a small shop/LUC 820, AM peak hour is skewed by the high y-intercept).

**Equation Type: Equation Used [Equated Rate]** (Type Abbreviations: Weighted Average Rate ("WA"), Fitted Curve **Type: Equation Used [Equated Rate]**

| Proposed Use          | ADT                  | AM Peak Hour         | PM Peak Hour                |
|-----------------------|----------------------|----------------------|-----------------------------|
| LR-Apartments No Rail | C: $T=X*7.41$ [7.41] | C: $T=X*0.45$ [0.45] | FC: $T=0.43*X+20.55$ [0.50] |
|                       |                      |                      |                             |

**Box 5/Box 9 - Estimate Baseline Trips/Estimate Vehicular Trips** (Apply Equations and in/out Distributions)**Baseline Vehicular Trips**

| Proposed Use          | ADT  |       |       |       | AM Peak Hour |    |     |       | PM Peak Hour |    |     |       |
|-----------------------|------|-------|-------|-------|--------------|----|-----|-------|--------------|----|-----|-------|
|                       | % In | In    | Out   | Total | % In         | In | Out | Total | % In         | In | Out | Total |
| LR-Apartments No Rail | 50%  | 1,019 | 1,019 | 2,038 | 24%          | 30 | 94  | 124   | 63%          | 88 | 51  | 139   |
|                       |      |       |       |       |              |    |     |       |              |    |     |       |

**Methodology Overview**

This form facilitates trip generation estimation using data within the Institute of Transportation Engineer's (ITE) Trip Generation Manual, 11th Edition and methodology described within ITE's Trip Generation Handbook, 3rd Edition. These references will be referred to as Manual and Handbook, respectively. The Manual contains data collected by various transportation professionals for a wide range of different land uses, with each land use category represented by a land use code (LUC). Average rates and equations have been established that correlate the relationship between an independent variable that describes the development size and generated trips for each categorized LUC in various settings and time periods. The Handbook indicates an established methodology for how to use data contained within the Manual when to use the fitted curve instead of the average rate and when to adjustments to the volume of trips are appropriate and how to do so. The methodology steps are represented visually in boxes in Figure 3.1. This worksheet applies calculations for each box if applicable.

**Box 1 - Define Study Site Land Use Type & Site Characteristics**

The analyst is to pick an appropriate LUC(s) based on the subject's zoning/land use(s)/future land use(s). The size of the land use(s) is described in reference to an independent variable(s) specific to (each) the land use (example: 1,000 square feet of building area is relatively common).

| Land Use Types and Size                                       | 0.2 FAR                   | 2.4 RAR | 43560 SF                           |
|---------------------------------------------------------------|---------------------------|---------|------------------------------------|
| Proposed Use                                                  | Amount Units              | ITE LUC | ITE Land Use Name                  |
| Lot 1: High Turnover (Sit Down) Restaurant                    | 10.803 1,000 square feet  | 931     | High Turnover(Sit Down) Restaurant |
| Lot 3: Hotel or Motel                                         | 178 Rooms                 | 310     | Hotel                              |
| Lot 4: Medical, Dental or Health Office Buildings and Clinics | 8.276 1,000 square feet   | 720     | Medical-Dental Office Building     |
| Lot 5: Medical, Dental or Health Office Buildings and Clinics | 8.102 1,000 square feet   | 720     | Medical-Dental Office Building     |
| Lot 6: Medical, Dental or Health Office Buildings and Clinics | 7.928 1,000 square feet   | 720     | Medical-Dental Office Building     |
| Lot 7: High Turnover (Sit Down) Restaurant                    | 6.447 1,000 square feet   | 931     | High Turnover(Sit Down) Restaurant |
| Lot 8: Medical, Dental or Health Office Buildings and Clinics | 100.014 1,000 square feet | 720     | Medical-Dental Office Building     |

**Box 2 - Define Site Context**

Context assessment is to "simply determine whether the study sites is in a multimodal setting" and "could have persons accessing the site by walking, bicycling, or riding transit." This assessment is used in Box 4. The Manual separates data into 4 setting categories - Rural, General Urban/Suburban, Dense Multi-Urban Use and Center City Core. This worksheet uses the following abbreviations, respectively: R, G, D, and C. The Manual does not have data for all settings of all land use codes. See the table on the next page titled "Site Context and Time Periods" - if this table is not provided, the "General Urban/Suburban" setting is used by default.

**Box 3 - Define Analysis Objectives Types of Trips & Time Period**

This tool will focus on vehicular trips for a 24-hour period on a typical weekday as well as its AM peak hour and PM peak hour. Other time period(s) may be of interest.

**Site Context and Time Periods - Actual Setting, Setting Data Available for LUC, Setting Used in Analyses**

| Proposed Use                                                  | Setting                  | ADT       |      | AM Peak Hour |      | PM Peak Hour |      |
|---------------------------------------------------------------|--------------------------|-----------|------|--------------|------|--------------|------|
|                                                               |                          | Available | Used | Available    | Used | Available    | Used |
| Lot 1: High Turnover (Sit Down) Restaurant                    | General Urban/Suburban G | G         | G    | G            | G    | G            | G    |
| Lot 3: Hotel or Motel                                         | General Urban/Suburban G | G C       | G    | G D C        | G    | G C          | G    |
| Lot 4: Medical, Dental or Health Office Buildings and Clinics | General Urban/Suburban G | G         | G    | G            | G    | G            | G    |
| Lot 5: Medical, Dental or Health Office Buildings and Clinics | General Urban/Suburban G | G         | G    | G            | G    | G            | G    |
| Lot 6: Medical, Dental or Health Office Buildings and Clinics | General Urban/Suburban G | G         | G    | G            | G    | G            | G    |
| Lot 7: High Turnover (Sit Down) Restaurant                    | General Urban/Suburban G | G         | G    | G            | G    | G            | G    |
| Lot 8: Medical, Dental or Health Office Buildings and Clinics | General Urban/Suburban G | G         | G    | G            | G    | G            | G    |

If the desired setting is not available within the *Manual*, adjustments may be made in Boxes 6 through 8.

Per the Handbook, "if the objective is to establish a local trip generation rate for a particular land use or study site, the simplified approach (Box 9) may be acceptable but the Box 5 through 8 approach is

**Box 5/Box 9 - Estimate Baseline Trips/Estimate Vehicular Trips (Determine Equation)**

Vehicular trips are estimated using rates/equations applicable to each LUC. When the appropriate graph has a fitted curve, the Handbook has a process (Figure 4.2) to determine when to use it versus using the weighted average rate or collecting local data. The methodology requires for engineering judgement in some circumstances and permits engineering judgement to override or make adjustments when appropriate to best project (example 1: study site is expected to operate differently than data in the applicable land use code - such as restaurant that is closed in the morning or in the evening; example 2: LUC data in a localized area fails to be represented by the typically selected fitted curve/weighted average rate - a small shop/LUC 820, AM peak hour is skewed by the high y-intercept).

**Equation Type: Equation Used [Equated Rate]** (Type Abbreviations: Weighted Average Rate ("WA"), Fitted Curve ("FC"), or Custom ("C"))

| Proposed Use                                                  | ADT                               | AM Peak Hour                         | PM Peak Hour                   |
|---------------------------------------------------------------|-----------------------------------|--------------------------------------|--------------------------------|
| Lot 1: High Turnover (Sit Down) Restaurant                    | WA: $T=X^{*}107.2$ [107.20]       | WA: $T=X^{*}9.57$ [9.57]             | WA: $T=X^{*}9.05$ [9.05]       |
| Lot 3: Hotel or Motel                                         | WA: $T=X^{*}7.99$ [7.99]          | FC: $T=0.5^{*}X-7.45$ [0.46]         | FC: $T=0.74^{*}X-27.89$ [0.58] |
| Lot 4: Medical, Dental or Health Office Buildings and Clinics | FC: $T=42.97^{*}X-108.01$ [29.92] | FC: $LN(T)=0.9^{*}LN(X)+1.34$ [3.09] | FC: $T=4.07^{*}X-3.17$ [3.69]  |
| Lot 5: Medical, Dental or Health Office Buildings and Clinics | FC: $T=42.97^{*}X-108.01$ [29.64] | WA: $T=X^{*}3.1$ [3.10]              | WA: $T=X^{*}3.93$ [3.93]       |
| Lot 6: Medical, Dental or Health Office Buildings and Clinics | FC: $T=42.97^{*}X-108.01$ [29.35] | FC: $LN(T)=0.9^{*}LN(X)+1.34$ [3.10] | WA: $T=X^{*}3.93$ [3.93]       |
| Lot 7: High Turnover (Sit Down) Restaurant                    | WA: $T=X^{*}107.2$ [107.20]       | WA: $T=X^{*}9.57$ [9.57]             | WA: $T=X^{*}9.05$ [9.05]       |
| Lot 8: Medical, Dental or Health Office Buildings and Clinics | WA: $T=X^{*}36$ [36.00]           | FC: $LN(T)=0.9^{*}LN(X)+1.34$ [2.41] | WA: $T=X^{*}3.93$ [3.93]       |

**Box 5/Box 9 - Estimate Baseline Trips/Estimate Vehicular Trips (Apply Equations and in/out Distributions)****Baseline Vehicular Trips**

| Proposed Use                                                  | ADT  |              |              |              | AM Peak Hour |            |            |            | PM Peak Hour |            |            |            |
|---------------------------------------------------------------|------|--------------|--------------|--------------|--------------|------------|------------|------------|--------------|------------|------------|------------|
|                                                               | % In | In           | Out          | Total        | % In         | In         | Out        | Total      | % In         | In         | Out        | Total      |
| Lot 1: High Turnover (Sit Down) Restaurant                    | 50%  | 579          | 579          | 1,158        | 55%          | 57         | 46         | 103        | 61%          | 60         | 38         | 98         |
| Lot 3: Hotel or Motel                                         | 50%  | 713          | 713          | 1,426        | 56%          | 46         | 36         | 82         | 51%          | 53         | 51         | 104        |
| Lot 4: Medical, Dental or Health Office Buildings and Clinics | 50%  | 124          | 124          | 248          | 79%          | 21         | 5          | 26         | 30%          | 9          | 22         | 31         |
| Lot 5: Medical, Dental or Health Office Buildings and Clinics | 50%  | 120          | 120          | 240          | 79%          | 20         | 5          | 25         | 30%          | 10         | 22         | 32         |
| Lot 6: Medical, Dental or Health Office Buildings and Clinics | 50%  | 116          | 116          | 232          | 79%          | 20         | 5          | 25         | 30%          | 9          | 22         | 31         |
| Lot 7: High Turnover (Sit Down) Restaurant                    | 50%  | 346          | 346          | 692          | 55%          | 34         | 28         | 62         | 61%          | 35         | 23         | 58         |
| Lot 8: Medical, Dental or Health Office Buildings and Clinics | 50%  | 1,800        | 1,800        | 3,600        | 79%          | 190        | 51         | 241        | 30%          | 118        | 275        | 393        |
| <b>Totals</b>                                                 |      | <b>3,798</b> | <b>3,798</b> | <b>7,596</b> |              | <b>388</b> | <b>176</b> | <b>564</b> |              | <b>294</b> | <b>453</b> | <b>747</b> |

## **APPENDIX F**

### **TRIP DISTRIBUTION CALCULATIONS**

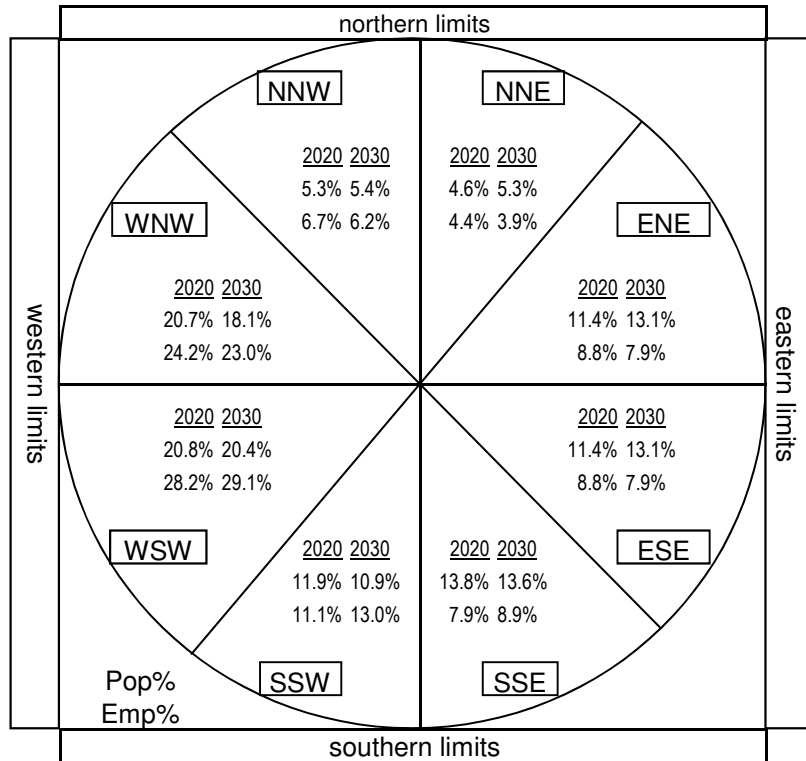


| Quadrant        | 2020       |         |            |         | 2030       |              |            |              |
|-----------------|------------|---------|------------|---------|------------|--------------|------------|--------------|
|                 | Population | Percent | Employment | Percent | Population | Percent      | Employment | Percent      |
| North Northwest | 4,283      | 5.3%    | 737        | 6.7%    | 5,550      | 5.4%         | 967        | 6.2%         |
| North Northeast | 3,691      | 4.6%    | 491        | 4.4%    | 5,420      | 5.3%         | 601        | 3.9%         |
| North           | 7,975      | 9.9%    | 1,228      | 11.1%   | 10,970     | <b>10.7%</b> | 1,567      | <b>10.1%</b> |
| East Northeast  | 9,170      | 11.4%   | 970        | 8.8%    | 13,369     | 13.1%        | 1,233      | 7.9%         |
| East Southeast  | 9,170      | 11.4%   | 970        | 8.8%    | 13,369     | 13.1%        | 1,233      | 7.9%         |
| East            | 18,340     | 22.8%   | 1,940      | 17.6%   | 26,738     | <b>26.2%</b> | 2,466      | <b>15.8%</b> |
| South Southeast | 11,069     | 13.8%   | 878        | 7.9%    | 13,883     | 13.6%        | 1,378      | 8.9%         |
| South Southwest | 9,520      | 11.9%   | 1,222      | 11.1%   | 11,095     | 10.9%        | 2,018      | 13.0%        |
| South           | 20,590     | 25.7%   | 2,099      | 19.0%   | 24,978     | <b>24.5%</b> | 3,396      | <b>21.9%</b> |
| West Southwest  | 16,675     | 20.8%   | 3,117      | 28.2%   | 20,847     | 20.4%        | 4,520      | 29.1%        |
| West Northwest  | 16,636     | 20.7%   | 2,672      | 24.2%   | 18,523     | 18.1%        | 3,563      | 23.0%        |
| West            | 33,311     | 41.5%   | 5,789      | 52.4%   | 39,370     | <b>38.5%</b> | 8,082      | <b>52.1%</b> |
| Totals          | 80,216     | 99.9%   | 11,056     | 100.1%  | 102,056    | 99.9%        | 15,512     | 99.9%        |

**Radii**

Population radius: 10 miles  
Employment radius: 10 miles

**Select Analysis Year (2020, 2030, 2040,2050)**  
2020



## **APPENDIX G**

### **BACKGROUND GROWTH CALCULATIONS**

**Location of counts:** US-60 Exit 198 A-Ramp just West of Goldfield Rd (Location ID: 6980)

ADOT Traffic Counts  
available at  
<https://adot.public.ms2soft.com/tcds/tsearch.asp?loc=Adot>

Source(s): &mod=TCDS

|            | Year | Volume |
|------------|------|--------|
| Start      | 2018 | 1,141  |
| End        | 2019 | 1,163  |
| AAGR       |      | 1.90%  |
| Exp Factor |      | 1.019  |

Growth Rate Used 2.0%  
Per-Year Multiplier 1.020

2024  
2027

| Year        | Expansion<br>Factor(s) |                 |
|-------------|------------------------|-----------------|
| <b>2022</b> | <b>1.000</b>           | <b>Existing</b> |
| 2023        | 1.020                  |                 |
| <b>2024</b> | <b>1.040</b>           | <b>Opening</b>  |
| 2025        | 1.061                  |                 |
| 2026        | 1.082                  |                 |
| <b>2027</b> | <b>1.104</b>           | <b>Horizon</b>  |
| 2028        | 1.126                  |                 |
| 2029        | 1.149                  |                 |
| 2030        | 1.172                  |                 |
| 2031        | 1.195                  |                 |
| 2032        | 1.219                  |                 |
| 2033        | 1.243                  |                 |
| 2034        | 1.268                  |                 |
| 2035        | 1.294                  |                 |
| 2036        | 1.319                  |                 |
| 2037        | 1.346                  |                 |
| 2038        | 1.373                  |                 |
| 2039        | 1.400                  |                 |
| 2040        | 1.428                  |                 |
| 2041        | 1.457                  |                 |
| 2042        | 1.486                  |                 |
| 2043        | 1.516                  |                 |
| 2044        | 1.546                  |                 |
| 2045        | 1.577                  |                 |
| 2046        | 1.608                  |                 |
| 2047        | 1.641                  |                 |
| 2048        | 1.673                  |                 |
| 2049        | 1.707                  |                 |
| 2050        | 1.741                  |                 |
| 2051        | 1.776                  |                 |
| 2052        | 1.811                  |                 |
| 2053        | 1.848                  |                 |
| 2054        | 1.885                  |                 |

## **APPENDIX H**

### **2024 NO BUILD PEAK HOUR ANALYSIS**

2024 Background AM  
22-1180 Alliance Broadstone Silveray

1: Goldfield Rd/EB Old West Hwy  
HCM 6th TWSC

| Intersection             |      |      |      |      |      |      |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh         | 3.2  |      |      |      |      |      |
| Movement                 | WBL  | WBR  | NBT  | NBR  | SBL  | SBT  |
| Lane Configurations      | ↱    |      |      |      | ↱ ↱  | ↱ ↱  |
| Traffic Vol, veh/h       | 59   | 0    | 0    | 0    | 0    | 116  |
| Future Vol, veh/h        | 59   | 0    | 0    | 0    | 0    | 116  |
| 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    | -    | -    | -    | 195  | -    |
| Veh in Median Storage, # | 0    | -    | 0    | -    | -    | 0    |
| Grade, %                 | 0    | -    | 0    | -    | -    | 0    |
| Peak Hour Factor         | 80   | 80   | 25   | 25   | 80   | 85   |
| Heavy Vehicles, %        | 2    | 2    | 2    | 2    | 2    | 2    |
| Mvmt Flow                | 74   | 0    | 0    | 0    | 0    | 136  |

| Major/Minor          | Minor1 | Major2 |        |
|----------------------|--------|--------|--------|
| Conflicting Flow All | 68     | -      | 0 0    |
| Stage 1              | 0      | -      | - -    |
| Stage 2              | 68     | -      | - -    |
| Critical Hdwy        | 6.84   | -      | 4.14 - |
| Critical Hdwy Stg 1  | -      | -      | - -    |
| Critical Hdwy Stg 2  | 5.84   | -      | - -    |
| Follow-up Hdwy       | 3.52   | -      | 2.22 - |
| Pot Cap-1 Maneuver   | 929    | 0      | - -    |
| Stage 1              | -      | 0      | - -    |
| Stage 2              | 947    | 0      | - -    |
| Platoon blocked, %   |        |        | -      |
| Mov Cap-1 Maneuver   | 929    | -      | - -    |
| Mov Cap-2 Maneuver   | 929    | -      | - -    |
| Stage 1              | -      | -      | - -    |
| Stage 2              | 947    | -      | - -    |

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

| Minor Lane/Major Mvmt | WBLn1 | SBL | SBT |
|-----------------------|-------|-----|-----|
| Capacity (veh/h)      | 929   | -   | -   |
| HCM Lane V/C Ratio    | 0.079 | -   | -   |
| HCM Control Delay (s) | 9.2   | 0   | -   |
| HCM Lane LOS          | A     | A   | -   |
| HCM 95th %tile Q(veh) | 0.3   | -   | -   |

2024 Background PM  
22-1180 Alliance Broadstone Silveray

1: Goldfield Rd/EB Old West Hwy  
HCM 6th TWSC

| Intersection             |      |      |      |      |      |      |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh         | 2.3  |      |      |      |      |      |
| Movement                 | WBL  | WBR  | NBT  | NBR  | SBL  | SBT  |
| Lane Configurations      | ↱    |      |      |      | ↱ ↱  | ↱ ↱  |
| Traffic Vol, veh/h       | 59   | 0    | 0    | 0    | 0    | 192  |
| Future Vol, veh/h        | 59   | 0    | 0    | 0    | 0    | 192  |
| 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    | -    | -    | -    | 195  | -    |
| Veh in Median Storage, # | 0    | -    | 0    | -    | -    | 0    |
| Grade, %                 | 0    | -    | 0    | -    | -    | 0    |
| Peak Hour Factor         | 80   | 80   | 25   | 25   | 80   | 85   |
| Heavy Vehicles, %        | 2    | 2    | 2    | 2    | 2    | 2    |
| Mvmt Flow                | 74   | 0    | 0    | 0    | 0    | 226  |

| Major/Minor          | Minor1 | Major2 |        |
|----------------------|--------|--------|--------|
| Conflicting Flow All | 113    | -      | 0 0    |
| Stage 1              | 0      | -      | - -    |
| Stage 2              | 113    | -      | - -    |
| Critical Hdwy        | 6.84   | -      | 4.14 - |
| Critical Hdwy Stg 1  | -      | -      | - -    |
| Critical Hdwy Stg 2  | 5.84   | -      | - -    |
| Follow-up Hdwy       | 3.52   | -      | 2.22 - |
| Pot Cap-1 Maneuver   | 872    | 0      | - -    |
| Stage 1              | -      | 0      | - -    |
| Stage 2              | 899    | 0      | - -    |
| Platoon blocked, %   |        |        | -      |
| Mov Cap-1 Maneuver   | 872    | -      | - -    |
| Mov Cap-2 Maneuver   | 872    | -      | - -    |
| Stage 1              | -      | -      | - -    |
| Stage 2              | 899    | -      | - -    |

| Approach             | WB  | SB |
|----------------------|-----|----|
| HCM Control Delay, s | 9.5 | 0  |
| HCM LOS              | A   |    |

| Minor Lane/Major Mvmt | WBLn1 | SBL | SBT |
|-----------------------|-------|-----|-----|
| Capacity (veh/h)      | 872   | -   | -   |
| HCM Lane V/C Ratio    | 0.085 | -   | -   |
| HCM Control Delay (s) | 9.5   | 0   | -   |
| HCM Lane LOS          | A     | A   | -   |
| HCM 95th %tile Q(veh) | 0.3   | -   | -   |

2024 Background AM  
22-1180 Alliance Broadstone Silveray

2: Goldfield Rd & WB Old West Hwy  
HCM 6th TWSC

| Intersection             |      |      |      |      |      |      |      |      |       |      |      |      |
|--------------------------|------|------|------|------|------|------|------|------|-------|------|------|------|
| Int Delay, s/veh         | 3    |      |      |      |      |      |      |      |       |      |      |      |
| Movement                 | EBL  | EBT  | EBR  | WBL  | WBT  | WBR  | NBL  | NBT  | NBR   | SBL  | SBT  | SBR  |
| Lane Configurations      |      | ↑    |      |      | ↑    | ↑    |      | ↑↑   | ↑     |      |      |      |
| Traffic Vol, veh/h       | 0    | 17   | 0    | 0    | 59   | 9    | 0    | 188  | 39    | 0    | 0    | 0    |
| Future Vol, veh/h        | 0    | 17   | 0    | 0    | 59   | 9    | 0    | 188  | 39    | 0    | 0    | 0    |
| Conflicting Peds, #/hr   | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0     | 0    | 0    | 0    |
| Sign Control             | Stop | Stop | Stop | Stop | Stop | Stop | Free | Free | Free  | Free | Free | Free |
| RT Channelized           | -    | -    | None | -    | -    | Stop | -    | -    | Yield | -    | -    | None |
| Storage Length           | -    | -    | -    | -    | -    | 0    | -    | -    | 0     | -    | -    | -    |
| Veh in Median Storage, # | -    | 0    | -    | -    | 0    | -    | -    | 0    | -     | -    | 0    | -    |
| Grade, %                 | -    | 0    | -    | -    | 0    | -    | -    | 0    | -     | -    | 0    | -    |
| Peak Hour Factor         | 80   | 80   | 80   | 80   | 80   | 80   | 80   | 85   | 80    | 25   | 25   | 25   |
| Heavy Vehicles, %        | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2     | 2    | 2    | 2    |
| Mvmt Flow                | 0    | 21   | 0    | 0    | 74   | 11   | 0    | 221  | 49    | 0    | 0    | 0    |

| Major/Minor          | Minor2 | Minor1   | Major1     |
|----------------------|--------|----------|------------|
| Conflicting Flow All | - 221  | - - 221  | 111 - 0 0  |
| Stage 1              | - 0    | - - 221  | - - - -    |
| Stage 2              | - 221  | - - 0    | - - - -    |
| Critical Hdwy        | - 6.54 | - - 6.54 | 6.94 - - - |
| Critical Hdwy Stg 1  | - - -  | - - 5.54 | - - - -    |
| Critical Hdwy Stg 2  | - 5.54 | - - -    | - - - -    |
| Follow-up Hdwy       | - 4.02 | - - 4.02 | 3.32 - - - |
| Pot Cap-1 Maneuver   | 0 676  | 0 0 676  | 921 0 - -  |
| Stage 1              | 0 -    | 0 0 719  | - 0 - -    |
| Stage 2              | 0 719  | 0 0 -    | - 0 - -    |
| Platoon blocked, %   | -      | -        | - -        |
| Mov Cap-1 Maneuver   | - 676  | - - 676  | 921 - - -  |
| Mov Cap-2 Maneuver   | - 676  | - - 676  | - - - -    |
| Stage 1              | - - -  | - - 719  | - - - -    |
| Stage 2              | - 719  | - - -    | - - - -    |

| Approach             | EB   | WB   | NB |
|----------------------|------|------|----|
| HCM Control Delay, s | 10.5 | 10.7 | 0  |
| HCM LOS              | B    | B    |    |

| Minor Lane/Major Mvmt | NBT | NBR | EBLn1 | WBLn1 | WBLn2 |
|-----------------------|-----|-----|-------|-------|-------|
| Capacity (veh/h)      | -   | -   | 676   | 676   | 921   |
| HCM Lane V/C Ratio    | -   | -   | 0.031 | 0.109 | 0.012 |
| HCM Control Delay (s) | -   | -   | 10.5  | 11    | 9     |
| HCM Lane LOS          | -   | -   | B     | B     | A     |
| HCM 95th %tile Q(veh) | -   | -   | 0.1   | 0.4   | 0     |

2024 Background PM  
22-1180 Alliance Broadstone Silveray

2: Goldfield Rd & WB Old West Hwy  
HCM 6th TWSC

| Intersection             |      |      |      |      |      |      |      |      |       |      |      |      |
|--------------------------|------|------|------|------|------|------|------|------|-------|------|------|------|
| Int Delay, s/veh         | 2.9  |      |      |      |      |      |      |      |       |      |      |      |
| Movement                 | EBL  | EBT  | EBR  | WBL  | WBT  | WBR  | NBL  | NBT  | NBR   | SBL  | SBT  | SBR  |
| Lane Configurations      |      | ↑    |      |      | ↑    | ↑    |      | ↑↑   | ↑     |      |      |      |
| Traffic Vol, veh/h       | 0    | 20   | 0    | 0    | 59   | 5    | 0    | 180  | 58    | 0    | 0    | 0    |
| Future Vol, veh/h        | 0    | 20   | 0    | 0    | 59   | 5    | 0    | 180  | 58    | 0    | 0    | 0    |
| Conflicting Peds, #/hr   | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0     | 0    | 0    | 0    |
| Sign Control             | Stop | Stop | Stop | Stop | Stop | Stop | Free | Free | Free  | Free | Free | Free |
| RT Channelized           | -    | -    | None | -    | -    | Stop | -    | -    | Yield | -    | -    | None |
| Storage Length           | -    | -    | -    | -    | -    | 0    | -    | -    | 0     | -    | -    | -    |
| Veh in Median Storage, # | -    | 0    | -    | -    | 0    | -    | -    | 0    | -     | -    | 0    | -    |
| Grade, %                 | -    | 0    | -    | -    | 0    | -    | -    | 0    | -     | -    | 0    | -    |
| Peak Hour Factor         | 80   | 80   | 80   | 80   | 80   | 80   | 80   | 85   | 80    | 25   | 25   | 25   |
| Heavy Vehicles, %        | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2     | 2    | 2    | 2    |
| Mvmt Flow                | 0    | 25   | 0    | 0    | 74   | 6    | 0    | 212  | 73    | 0    | 0    | 0    |

| Major/Minor          | Minor2 | Minor1   | Major1     |
|----------------------|--------|----------|------------|
| Conflicting Flow All | - 212  | - - 212  | 106 - 0 0  |
| Stage 1              | - 0    | - - 212  | - - - -    |
| Stage 2              | - 212  | - - 0    | - - - -    |
| Critical Hdwy        | - 6.54 | - - 6.54 | 6.94 - - - |
| Critical Hdwy Stg 1  | - - -  | - - 5.54 | - - - -    |
| Critical Hdwy Stg 2  | - 5.54 | - - -    | - - - -    |
| Follow-up Hdwy       | - 4.02 | - - 4.02 | 3.32 - - - |
| Pot Cap-1 Maneuver   | 0 684  | 0 0 684  | 928 0 - -  |
| Stage 1              | 0 -    | 0 0 726  | - 0 - -    |
| Stage 2              | 0 726  | 0 0 -    | - 0 - -    |
| Platoon blocked, %   | -      | -        | - -        |
| Mov Cap-1 Maneuver   | - 684  | - - 684  | 928 - - -  |
| Mov Cap-2 Maneuver   | - 684  | - - 684  | - - - -    |
| Stage 1              | - - -  | - - 726  | - - - -    |
| Stage 2              | - 726  | - - -    | - - - -    |

| Approach             | EB   | WB   | NB |
|----------------------|------|------|----|
| HCM Control Delay, s | 10.5 | 10.7 | 0  |
| HCM LOS              | B    | B    |    |

| Minor Lane/Major Mvmt | NBT | NBR | EBLn1 | WBLn1 | WBLn2 |
|-----------------------|-----|-----|-------|-------|-------|
| Capacity (veh/h)      | -   | -   | 684   | 684   | 928   |
| HCM Lane V/C Ratio    | -   | -   | 0.037 | 0.108 | 0.007 |
| HCM Control Delay (s) | -   | -   | 10.5  | 10.9  | 8.9   |
| HCM Lane LOS          | -   | -   | B     | B     | A     |
| HCM 95th %tile Q(veh) | -   | -   | 0.1   | 0.4   | 0     |

2024 Background AM  
22-1180 Alliance Broadstone Silveray

3: Goldfield Rd & US-60/Old West Hwy Exit  
HCM 6th TWSC

| Intersection             |      |      |      |      |      |      |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh         | 3.8  |      |      |      |      |      |
| Movement                 | WBL  | WBR  | NBT  | NBR  | SBL  | SBT  |
| Lane Configurations      |      | ↗    | ↗    |      |      | ↗    |
| Traffic Vol, veh/h       | 0    | 168  | 59   | 0    | 0    | 176  |
| Future Vol, veh/h        | 0    | 168  | 59   | 0    | 0    | 176  |
| 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         | 80   | 85   | 80   | 80   | 80   | 85   |
| Heavy Vehicles, %        | 2    | 2    | 2    | 2    | 2    | 2    |
| Mvmt Flow                | 0    | 198  | 74   | 0    | 0    | 207  |

| Major/Minor          | Minor1 | Major1 | Major2 |
|----------------------|--------|--------|--------|
| Conflicting Flow All | -      | 37     | 0      |
| Stage 1              | -      | -      | -      |
| Stage 2              | -      | -      | -      |
| Critical Hdwy        | -      | 6.94   | -      |
| Critical Hdwy Stg 1  | -      | -      | -      |
| Critical Hdwy Stg 2  | -      | -      | -      |
| Follow-up Hdwy       | -      | 3.32   | -      |
| Pot Cap-1 Maneuver   | 0      | 1027   | -      |
| Stage 1              | 0      | -      | 0      |
| Stage 2              | 0      | -      | 0      |
| Platoon blocked, %   | -      | -      | -      |
| Mov Cap-1 Maneuver   | -      | 1027   | -      |
| Mov Cap-2 Maneuver   | -      | -      | -      |
| Stage 1              | -      | -      | -      |
| Stage 2              | -      | -      | -      |

| Approach             | WB  | NB | SB |
|----------------------|-----|----|----|
| HCM Control Delay, s | 9.3 | 0  | 0  |
| HCM LOS              | A   |    |    |

| Minor Lane/Major Mvmt | NBTWBLn1 | SBT   |
|-----------------------|----------|-------|
| Capacity (veh/h)      | -        | 1027  |
| HCM Lane V/C Ratio    | -        | 0.192 |
| HCM Control Delay (s) | -        | 9.3   |
| HCM Lane LOS          | -        | A     |
| HCM 95th %tile Q(veh) | -        | 0.7   |

2024 Background PM  
22-1180 Alliance Broadstone Silveray

3: Goldfield Rd & US-60/Old West Hwy Exit  
HCM 6th TWSC

| Intersection             |      |      |      |      |      |      |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh         | 2.2  |      |      |      |      |      |
| Movement                 | WBL  | WBR  | NBT  | NBR  | SBL  | SBT  |
| Lane Configurations      |      | ↗    | ↗    |      |      | ↗    |
| Traffic Vol, veh/h       | 0    | 114  | 123  | 0    | 0    | 251  |
| Future Vol, veh/h        | 0    | 114  | 123  | 0    | 0    | 251  |
| 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         | 80   | 85   | 85   | 80   | 80   | 85   |
| Heavy Vehicles, %        | 2    | 2    | 2    | 2    | 2    | 2    |
| Mvmt Flow                | 0    | 134  | 145  | 0    | 0    | 295  |

| Major/Minor          | Minor1 | Major1 | Major2 |
|----------------------|--------|--------|--------|
| Conflicting Flow All | -      | 73     | 0      |
| Stage 1              | -      | -      | -      |
| Stage 2              | -      | -      | -      |
| Critical Hdwy        | -      | 6.94   | -      |
| Critical Hdwy Stg 1  | -      | -      | -      |
| Critical Hdwy Stg 2  | -      | -      | -      |
| Follow-up Hdwy       | -      | 3.32   | -      |
| Pot Cap-1 Maneuver   | 0      | 974    | -      |
| Stage 1              | 0      | -      | 0      |
| Stage 2              | 0      | -      | 0      |
| Platoon blocked, %   | -      | -      | -      |
| Mov Cap-1 Maneuver   | -      | 974    | -      |
| Mov Cap-2 Maneuver   | -      | -      | -      |
| Stage 1              | -      | -      | -      |
| Stage 2              | -      | -      | -      |

| Approach             | WB  | NB | SB |
|----------------------|-----|----|----|
| HCM Control Delay, s | 9.3 | 0  | 0  |
| HCM LOS              | A   |    |    |

| Minor Lane/Major Mvmt | NBTWBLn1 | SBT   |
|-----------------------|----------|-------|
| Capacity (veh/h)      | -        | 974   |
| HCM Lane V/C Ratio    | -        | 0.138 |
| HCM Control Delay (s) | -        | 9.3   |
| HCM Lane LOS          | -        | A     |
| HCM 95th %tile Q(veh) | -        | 0.5   |

2024 Background AM  
22-1180 Alliance Broadstone Silveray

4: Goldfield Rd & US-60 WB Ramps  
Timings

| Lane Group           | WBL   | WBT   | WBR   | NBL   | NBT   | SBT   | SBR   |
|----------------------|-------|-------|-------|-------|-------|-------|-------|
| Lane Configurations  | ↩     | ↩↪    | ↩     | ↩     | ↩↪    | ↩↪    | ↩     |
| Traffic Volume (vph) | 7     | 0     | 17    | 35    | 105   | 162   | 128   |
| Future Volume (vph)  | 7     | 0     | 17    | 35    | 105   | 162   | 128   |
| Turn Type            | Perm  | NA    | Perm  | pm+pt | NA    | NA    | Perm  |
| Protected Phases     |       | 3     |       | 2     | 1     | 1     |       |
| Permitted Phases     | 3     |       | 3     | 1     |       |       | 1     |
| Detector Phase       | 3     | 3     | 3     | 2     | 1     | 1     | 1     |
| Switch Phase         |       |       |       |       |       |       |       |
| Minimum Initial (s)  | 8.0   | 8.0   | 8.0   | 5.0   | 20.0  | 20.0  | 20.0  |
| Minimum Split (s)    | 44.9  | 44.9  | 44.9  | 10.6  | 31.6  | 31.6  | 31.6  |
| Total Split (s)      | 45.0  | 45.0  | 45.0  | 11.0  | 34.0  | 34.0  | 34.0  |
| Total Split (%)      | 50.0% | 50.0% | 50.0% | 12.2% | 37.8% | 37.8% | 37.8% |
| Yellow Time (s)      | 3.9   | 3.9   | 3.9   | 3.6   | 3.6   | 3.6   | 3.6   |
| All-Red Time (s)     | 2.0   | 2.0   | 2.0   | 2.0   | 2.0   | 2.0   | 2.0   |
| Lost Time Adjust (s) | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |
| Total Lost Time (s)  | 5.9   | 5.9   | 5.9   | 5.6   | 5.6   | 5.6   | 5.6   |
| Lead/Lag             |       |       |       | Lag   | Lead  | Lead  | Lead  |
| Lead-Lag Optimize?   |       |       |       | Yes   | Yes   | Yes   | Yes   |
| Recall Mode          | None  | None  | None  | Max   | C-Max | C-Max | C-Max |

Intersection Summary

Cycle Length: 90

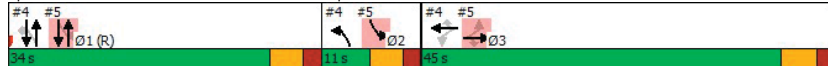
Actuated Cycle Length: 90

Offset: 0 (0%), Referenced to phase 1:NBSB, Start of Green, Master Intersection

Natural Cycle: 90

Control Type: Actuated-Coordinated

Splits and Phases: 4: Goldfield Rd & US-60 WB Ramps



2024 Background PM  
22-1180 Alliance Broadstone Silveray

4: Goldfield Rd & US-60 WB Ramps  
Timings

| Lane Group           | WBL   | WBT   | WBR   | NBL   | NBT   | SBT   | SBR   |
|----------------------|-------|-------|-------|-------|-------|-------|-------|
| Lane Configurations  | ↩     | ↩↪    | ↩     | ↩     | ↩↪    | ↩↪    | ↩     |
| Traffic Volume (vph) | 20    | 0     | 42    | 28    | 162   | 211   | 91    |
| Future Volume (vph)  | 20    | 0     | 42    | 28    | 162   | 211   | 91    |
| Turn Type            | Perm  | NA    | Perm  | pm+pt | NA    | NA    | Perm  |
| Protected Phases     |       | 3     |       | 2     | 1     | 1     |       |
| Permitted Phases     | 3     |       | 3     | 1     |       |       | 1     |
| Detector Phase       | 3     | 3     | 3     | 2     | 1     | 1     | 1     |
| Switch Phase         |       |       |       |       |       |       |       |
| Minimum Initial (s)  | 8.0   | 8.0   | 8.0   | 5.0   | 20.0  | 20.0  | 20.0  |
| Minimum Split (s)    | 44.9  | 44.9  | 44.9  | 10.6  | 31.6  | 31.6  | 31.6  |
| Total Split (s)      | 45.0  | 45.0  | 45.0  | 11.0  | 34.0  | 34.0  | 34.0  |
| Total Split (%)      | 50.0% | 50.0% | 50.0% | 12.2% | 37.8% | 37.8% | 37.8% |
| Yellow Time (s)      | 3.9   | 3.9   | 3.9   | 3.6   | 3.6   | 3.6   | 3.6   |
| All-Red Time (s)     | 2.0   | 2.0   | 2.0   | 2.0   | 2.0   | 2.0   | 2.0   |
| Lost Time Adjust (s) | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |
| Total Lost Time (s)  | 5.9   | 5.9   | 5.9   | 5.6   | 5.6   | 5.6   | 5.6   |
| Lead/Lag             |       |       |       | Lag   | Lead  | Lead  | Lead  |
| Lead-Lag Optimize?   |       |       |       | Yes   | Yes   | Yes   | Yes   |
| Recall Mode          | None  | None  | None  | Max   | C-Max | C-Max | C-Max |

Intersection Summary

Cycle Length: 90

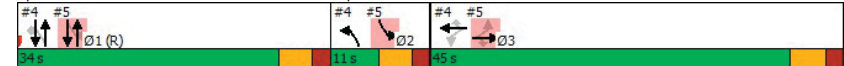
Actuated Cycle Length: 90

Offset: 0 (0%), Referenced to phase 1:NBSB, Start of Green, Master Intersection

Natural Cycle: 90

Control Type: Actuated-Coordinated

Splits and Phases: 4: Goldfield Rd & US-60 WB Ramps





2024 Background AM  
22-1180 Alliance Broadstone Silveray

4: Goldfield Rd & US-60 WB Ramps  
Queues

|                         | ↙    | ←    | ↖    | ↗    | ↑    | ↓    | ↘    |
|-------------------------|------|------|------|------|------|------|------|
| Lane Group              | WBL  | WBT  | WBR  | NBL  | NBT  | SBT  | SBR  |
| Lane Group Flow (vph)   | 8    | 11   | 11   | 44   | 124  | 191  | 151  |
| v/c Ratio               | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.13 |
| Control Delay           | 37.8 | 0.4  | 0.4  | 1.3  | 3.3  | 5.3  | 1.3  |
| Queue Delay             | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Total Delay             | 37.8 | 0.4  | 0.4  | 1.3  | 3.3  | 5.3  | 1.3  |
| Queue Length 50th (ft)  | 4    | 0    | 0    | 1    | 5    | 12   | 0    |
| Queue Length 95th (ft)  | 16   | 0    | 0    | 3    | 9    | 19   | 16   |
| Internal Link Dist (ft) | 639  |      |      | 484  |      |      | 300  |
| Turn Bay Length (ft)    | 190  | 190  |      |      |      |      | 145  |
| Base Capacity (vph)     | 730  | 688  | 709  | 911  | 2439 | 3505 | 1137 |
| Starvation Cap Reductn  | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Spillback Cap Reductn   | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Storage Cap Reductn     | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Reduced v/c Ratio       | 0.01 | 0.02 | 0.02 | 0.05 | 0.05 | 0.05 | 0.13 |
| Intersection Summary    |      |      |      |      |      |      |      |

2024 Background PM  
22-1180 Alliance Broadstone Silveray

4: Goldfield Rd & US-60 WB Ramps  
Queues

|                         | ↙    | ←    | ↖    | ↗    | ↑    | ↓    | ↘    |
|-------------------------|------|------|------|------|------|------|------|
| Lane Group              | WBL  | WBT  | WBR  | NBL  | NBT  | SBT  | SBR  |
| Lane Group Flow (vph)   | 22   | 28   | 28   | 35   | 191  | 248  | 114  |
| v/c Ratio               | 0.13 | 0.12 | 0.12 | 0.04 | 0.08 | 0.07 | 0.10 |
| Control Delay           | 37.4 | 1.0  | 1.0  | 2.2  | 3.9  | 5.8  | 1.6  |
| Queue Delay             | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Total Delay             | 37.4 | 1.0  | 1.0  | 2.2  | 3.9  | 5.8  | 1.6  |
| Queue Length 50th (ft)  | 12   | 0    | 0    | 1    | 8    | 16   | 0    |
| Queue Length 95th (ft)  | 30   | 0    | 0    | 3    | 16   | 27   | 14   |
| Internal Link Dist (ft) | 639  |      |      | 484  |      |      | 300  |
| Turn Bay Length (ft)    | 190  | 190  |      |      |      |      | 145  |
| Base Capacity (vph)     | 730  | 690  | 709  | 854  | 2400 | 3448 | 1110 |
| Starvation Cap Reductn  | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Spillback Cap Reductn   | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Storage Cap Reductn     | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Reduced v/c Ratio       | 0.03 | 0.04 | 0.04 | 0.04 | 0.08 | 0.07 | 0.10 |
| Intersection Summary    |      |      |      |      |      |      |      |

2024 Background AM  
22-1180 Alliance Broadstone Silveray

5: Goldfield Rd & US-60 EB Ramps  
Timings

|                      | ↖     | →     | ↗     | ↖     | ↗     | ↖     | ↗     |
|----------------------|-------|-------|-------|-------|-------|-------|-------|
| Lane Group           | EBL   | EBT   | EBR   | NBT   | NBR   | SBL   | SBT   |
| Lane Configurations  | ↖     | ↖     | ↖     | ↖     | ↖     | ↖     | ↖     |
| Traffic Volume (vph) | 77    | 0     | 31    | 63    | 18    | 131   | 38    |
| Future Volume (vph)  | 77    | 0     | 31    | 63    | 18    | 131   | 38    |
| Turn Type            | Perm  | NA    | Perm  | NA    | Perm  | pm+pt | NA    |
| Protected Phases     |       | 3     |       | 1     |       | 2     | 1     |
| Permitted Phases     | 3     |       | 3     |       | 1     | 1     |       |
| Detector Phase       | 3     | 3     | 3     | 1     | 1     | 2     | 1     |
| Switch Phase         |       |       |       |       |       |       |       |
| Minimum Initial (s)  | 8.0   | 8.0   | 8.0   | 20.0  | 20.0  | 5.0   | 20.0  |
| Minimum Split (s)    | 44.9  | 44.9  | 44.9  | 31.6  | 31.6  | 10.6  | 31.6  |
| Total Split (s)      | 45.0  | 45.0  | 45.0  | 34.0  | 34.0  | 11.0  | 34.0  |
| Total Split (%)      | 50.0% | 50.0% | 50.0% | 37.8% | 37.8% | 12.2% | 37.8% |
| Yellow Time (s)      | 3.9   | 3.9   | 3.9   | 3.6   | 3.6   | 3.6   | 3.6   |
| All-Red Time (s)     | 2.0   | 2.0   | 2.0   | 2.0   | 2.0   | 2.0   | 2.0   |
| Lost Time Adjust (s) | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |
| Total Lost Time (s)  | 5.9   | 5.9   | 5.9   | 5.6   | 5.6   | 5.6   | 5.6   |
| Lead/Lag             |       |       |       | Lead  | Lead  | Lag   | Lead  |
| Lead-Lag Optimize?   |       |       |       | Yes   | Yes   | Yes   | Yes   |
| Recall Mode          | None  | None  | None  | C-Max | C-Max | Max   | C-Max |

Intersection Summary

Cycle Length: 90

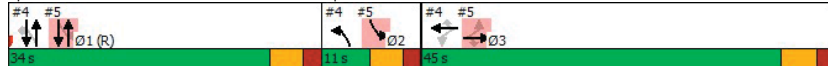
Actuated Cycle Length: 90

Offset: 0 (0%), Referenced to phase 1:NBSB, Start of Green, Master Intersection

Natural Cycle: 90

Control Type: Actuated-Coordinated

Splits and Phases: 5: Goldfield Rd & US-60 EB Ramps



2024 Background PM  
22-1180 Alliance Broadstone Silveray

5: Goldfield Rd & US-60 EB Ramps  
Timings

|                      | ↖     | →     | ↗     | ↖     | ↗     | ↖     | ↗     |
|----------------------|-------|-------|-------|-------|-------|-------|-------|
| Lane Group           | EBL   | EBT   | EBR   | NBT   | NBR   | SBL   | SBT   |
| Lane Configurations  | ↖     | ↖     | ↖     | ↖     | ↖     | ↖     | ↖     |
| Traffic Volume (vph) | 138   | 0     | 45    | 46    | 42    | 177   | 57    |
| Future Volume (vph)  | 138   | 0     | 45    | 46    | 42    | 177   | 57    |
| Turn Type            | Perm  | NA    | Perm  | NA    | Perm  | pm+pt | NA    |
| Protected Phases     |       | 3     |       | 1     |       | 2     | 1     |
| Permitted Phases     | 3     |       | 3     |       | 1     | 1     |       |
| Detector Phase       | 3     | 3     | 3     | 1     | 1     | 2     | 1     |
| Switch Phase         |       |       |       |       |       |       |       |
| Minimum Initial (s)  | 8.0   | 8.0   | 8.0   | 20.0  | 20.0  | 5.0   | 20.0  |
| Minimum Split (s)    | 44.9  | 44.9  | 44.9  | 31.6  | 31.6  | 10.6  | 31.6  |
| Total Split (s)      | 45.0  | 45.0  | 45.0  | 34.0  | 34.0  | 11.0  | 34.0  |
| Total Split (%)      | 50.0% | 50.0% | 50.0% | 37.8% | 37.8% | 12.2% | 37.8% |
| Yellow Time (s)      | 3.9   | 3.9   | 3.9   | 3.6   | 3.6   | 3.6   | 3.6   |
| All-Red Time (s)     | 2.0   | 2.0   | 2.0   | 2.0   | 2.0   | 2.0   | 2.0   |
| Lost Time Adjust (s) | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |
| Total Lost Time (s)  | 5.9   | 5.9   | 5.9   | 5.6   | 5.6   | 5.6   | 5.6   |
| Lead/Lag             |       |       |       | Lead  | Lead  | Lag   | Lead  |
| Lead-Lag Optimize?   |       |       |       | Yes   | Yes   | Yes   | Yes   |
| Recall Mode          | None  | None  | None  | C-Max | C-Max | Max   | C-Max |

Intersection Summary

Cycle Length: 90

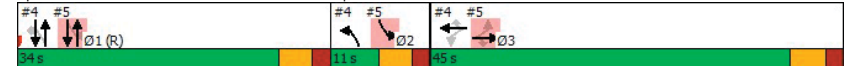
Actuated Cycle Length: 90

Offset: 0 (0%), Referenced to phase 1:NBSB, Start of Green, Master Intersection

Natural Cycle: 90

Control Type: Actuated-Coordinated

Splits and Phases: 5: Goldfield Rd & US-60 EB Ramps





2024 Background AM  
22-1180 Alliance Broadstone Silveray

5: Goldfield Rd & US-60 EB Ramps  
Queues

|                         |  |  |  |  |  |  |  |
|-------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|
| Lane Group              | EBL                                                                               | EBT                                                                               | EBR                                                                               | NBT                                                                               | NBR                                                                               | SBL                                                                               | SBT                                                                               |
| Lane Group Flow (vph)   | 47                                                                                | 48                                                                                | 35                                                                                | 79                                                                                | 23                                                                                | 154                                                                               | 48                                                                                |
| v/c Ratio               | 0.31                                                                              | 0.20                                                                              | 0.15                                                                              | 0.02                                                                              | 0.02                                                                              | 0.15                                                                              | 0.02                                                                              |
| Control Delay           | 43.7                                                                              | 2.7                                                                               | 1.4                                                                               | 5.4                                                                               | 0.1                                                                               | 1.3                                                                               | 2.8                                                                               |
| Queue Delay             | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               |
| Total Delay             | 43.7                                                                              | 2.7                                                                               | 1.4                                                                               | 5.4                                                                               | 0.1                                                                               | 1.3                                                                               | 2.8                                                                               |
| Queue Length 50th (ft)  | 27                                                                                | 0                                                                                 | 0                                                                                 | 5                                                                                 | 0                                                                                 | 0                                                                                 | 1                                                                                 |
| Queue Length 95th (ft)  | 57                                                                                | 0                                                                                 | 0                                                                                 | 9                                                                                 | 0                                                                                 | 4                                                                                 | 3                                                                                 |
| Internal Link Dist (ft) | 535                                                                               |                                                                                   | 222                                                                               |                                                                                   | 484                                                                               |                                                                                   |                                                                                   |
| Turn Bay Length (ft)    | 130                                                                               | 130                                                                               |                                                                                   | 115                                                                               |                                                                                   |                                                                                   |                                                                                   |
| Base Capacity (vph)     | 730                                                                               | 750                                                                               | 709                                                                               | 3505                                                                              | 1123                                                                              | 1006                                                                              | 2439                                                                              |
| Starvation Cap Reductn  | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 |
| Spillback Cap Reductn   | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 |
| Storage Cap Reductn     | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 |
| Reduced v/c Ratio       | 0.06                                                                              | 0.06                                                                              | 0.05                                                                              | 0.02                                                                              | 0.02                                                                              | 0.15                                                                              | 0.02                                                                              |
| Intersection Summary    |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |

2024 Background PM  
22-1180 Alliance Broadstone Silveray

5: Goldfield Rd & US-60 EB Ramps  
Queues

|                         |  |  |  |  |  |  |  |
|-------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Lane Group              | EBL                                                                                 | EBT                                                                                 | EBR                                                                                 | NBT                                                                                 | NBR                                                                                 | SBL                                                                                 | SBT                                                                                 |
| Lane Group Flow (vph)   | 84                                                                                  | 84                                                                                  | 50                                                                                  | 58                                                                                  | 53                                                                                  | 208                                                                                 | 71                                                                                  |
| v/c Ratio               | 0.49                                                                                | 0.33                                                                                | 0.21                                                                                | 0.02                                                                                | 0.05                                                                                | 0.21                                                                                | 0.03                                                                                |
| Control Delay           | 47.6                                                                                | 9.7                                                                                 | 3.0                                                                                 | 6.1                                                                                 | 0.3                                                                                 | 1.9                                                                                 | 3.2                                                                                 |
| Queue Delay             | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 |
| Total Delay             | 47.6                                                                                | 9.7                                                                                 | 3.0                                                                                 | 6.1                                                                                 | 0.3                                                                                 | 1.9                                                                                 | 3.2                                                                                 |
| Queue Length 50th (ft)  | 49                                                                                  | 0                                                                                   | 0                                                                                   | 3                                                                                   | 0                                                                                   | 1                                                                                   | 2                                                                                   |
| Queue Length 95th (ft)  | 87                                                                                  | 25                                                                                  | 0                                                                                   | 8                                                                                   | 0                                                                                   | 15                                                                                  | 6                                                                                   |
| Internal Link Dist (ft) | 535                                                                                 |                                                                                     | 222                                                                                 |                                                                                     | 484                                                                                 |                                                                                     |                                                                                     |
| Turn Bay Length (ft)    | 130                                                                                 | 130                                                                                 |                                                                                     | 115                                                                                 |                                                                                     |                                                                                     |                                                                                     |
| Base Capacity (vph)     | 730                                                                                 | 752                                                                                 | 709                                                                                 | 3448                                                                                | 1106                                                                                | 1009                                                                                | 2400                                                                                |
| Starvation Cap Reductn  | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   |
| Spillback Cap Reductn   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   |
| Storage Cap Reductn     | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   |
| Reduced v/c Ratio       | 0.12                                                                                | 0.11                                                                                | 0.07                                                                                | 0.02                                                                                | 0.05                                                                                | 0.21                                                                                | 0.03                                                                                |
| Intersection Summary    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |

2024 Background AM  
22-1180 Alliance Broadstone Silveray

6: Goldfield Rd & Chevron Access  
HCM 6th TWSC

| Intersection             |      |      |      |      |      |      |      |      |      |      |      |      |
|--------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Int Delay, s/veh         | 2.4  |      |      |      |      |      |      |      |      |      |      |      |
| Movement                 | EBL  | EBT  | EBR  | WBL  | WBT  | WBR  | NBL  | NBT  | NBR  | SBL  | SBT  | SBR  |
| Lane Configurations      |      |      |      |      |      |      |      |      |      |      |      |      |
| Traffic Vol, veh/h       | 3    | 2    | 0    | 2    | 1    | 22   | 0    | 74   | 8    | 20   | 38   | 3    |
| Future Vol, veh/h        | 3    | 2    | 0    | 2    | 1    | 22   | 0    | 74   | 8    | 20   | 38   | 3    |
| Conflicting Peds, #/hr   | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Sign Control             | Stop | Stop | Stop | Stop | Stop | Stop | Free | Free | Free | Free | Free | Free |
| RT Channelized           | -    | -    | None | -    | -    | None | -    | -    | None | -    | -    | None |
| Storage Length           | -    | -    | -    | -    | -    | -    | 50   | -    | 50   | 50   | -    | -    |
| Veh in Median Storage, # | -    | 0    | -    | -    | 0    | -    | -    | 0    | -    | -    | 0    | -    |
| Grade, %                 | -    | 0    | -    | -    | 0    | -    | -    | 0    | -    | -    | 0    | -    |
| Peak Hour Factor         | 80   | 80   | 80   | 80   | 80   | 80   | 80   | 80   | 80   | 80   | 80   | 80   |
| Heavy Vehicles, %        | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    |
| Mvmt Flow                | 4    | 3    | 0    | 3    | 1    | 28   | 0    | 93   | 10   | 25   | 48   | 4    |

| Major/Minor          | Minor2 | Minor1 | Major1 | Major2 |      |      |      |   |   |      |   |   |
|----------------------|--------|--------|--------|--------|------|------|------|---|---|------|---|---|
| Conflicting Flow All | 147    | 203    | 26     | 169    | 195  | 47   | 52   | 0 | 0 | 103  | 0 | 0 |
| Stage 1              | 100    | 100    | -      | 93     | 93   | -    | -    | - | - | -    | - | - |
| Stage 2              | 47     | 103    | -      | 76     | 102  | -    | -    | - | - | -    | - | - |
| Critical Hdwy        | 7.54   | 6.54   | 6.94   | 7.54   | 6.54 | 6.94 | 4.14 | - | - | 4.14 | - | - |
| Critical Hdwy Stg 1  | 6.54   | 5.54   | -      | 6.54   | 5.54 | -    | -    | - | - | -    | - | - |
| Critical Hdwy Stg 2  | 6.54   | 5.54   | -      | 6.54   | 5.54 | -    | -    | - | - | -    | - | - |
| Follow-up Hdwy       | 3.52   | 4.02   | 3.32   | 3.52   | 4.02 | 3.32 | 2.22 | - | - | 2.22 | - | - |
| Pot Cap-1 Maneuver   | 807    | 692    | 1044   | 779    | 699  | 1012 | 1552 | - | - | 1487 | - | - |
| Stage 1              | 895    | 811    | -      | 904    | 817  | -    | -    | - | - | -    | - | - |
| Stage 2              | 961    | 809    | -      | 924    | 810  | -    | -    | - | - | -    | - | - |
| Platoon blocked, %   | -      | -      | -      | -      | -    | -    | -    | - | - | -    | - | - |
| Mov Cap-1 Maneuver   | 774    | 680    | 1044   | 767    | 687  | 1012 | 1552 | - | - | 1487 | - | - |
| Mov Cap-2 Maneuver   | 774    | 680    | -      | 767    | 687  | -    | -    | - | - | -    | - | - |
| Stage 1              | 895    | 797    | -      | 904    | 817  | -    | -    | - | - | -    | - | - |
| Stage 2              | 933    | 809    | -      | 906    | 796  | -    | -    | - | - | -    | - | - |

| Approach             | EB | WB  | NB | SB  |
|----------------------|----|-----|----|-----|
| HCM Control Delay, s | 10 | 8.8 | 0  | 2.4 |
| HCM LOS              | B  | A   |    |     |

| Minor Lane/Major Mvmt | NBL  | NBT | NBR | EBLn1WBLn1 | SBL   | SBT   | SBR |
|-----------------------|------|-----|-----|------------|-------|-------|-----|
| Capacity (veh/h)      | 1552 | -   | -   | 733        | 969   | 1487  | -   |
| HCM Lane V/C Ratio    | -    | -   | -   | 0.009      | 0.032 | 0.017 | -   |
| HCM Control Delay (s) | 0    | -   | -   | 10         | 8.8   | 7.5   | -   |
| HCM Lane LOS          | A    | -   | -   | B          | A     | A     | -   |
| HCM 95th %tile Q(veh) | 0    | -   | -   | 0          | 0.1   | 0.1   | -   |

2024 Background PM  
22-1180 Alliance Broadstone Silveray

6: Goldfield Rd & Chevron Access  
HCM 6th TWSC

| Intersection             |      |      |      |      |      |      |      |      |      |      |      |      |
|--------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Int Delay, s/veh         | 2.7  |      |      |      |      |      |      |      |      |      |      |      |
| Movement                 | EBL  | EBT  | EBR  | WBL  | WBT  | WBR  | NBL  | NBT  | NBR  | SBL  | SBT  | SBR  |
| Lane Configurations      |      |      |      |      |      |      |      |      |      |      |      |      |
| Traffic Vol, veh/h       | 5    | 0    | 1    | 4    | 0    | 29   | 1    | 67   | 8    | 29   | 59   | 9    |
| Future Vol, veh/h        | 5    | 0    | 1    | 4    | 0    | 29   | 1    | 67   | 8    | 29   | 59   | 9    |
| Conflicting Peds, #/hr   | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Sign Control             | Stop | Stop | Stop | Stop | Stop | Stop | Free | Free | Free | Free | Free | Free |
| RT Channelized           | -    | -    | None | -    | -    | None | -    | -    | None | -    | -    | None |
| Storage Length           | -    | -    | -    | -    | -    | -    | 50   | -    | 50   | 50   | -    | -    |
| Veh in Median Storage, # | -    | 0    | -    | -    | 0    | -    | -    | 0    | -    | -    | 0    | -    |
| Grade, %                 | -    | 0    | -    | -    | 0    | -    | -    | 0    | -    | -    | 0    | -    |
| Peak Hour Factor         | 80   | 80   | 80   | 80   | 80   | 80   | 80   | 80   | 80   | 80   | 80   | 80   |
| Heavy Vehicles, %        | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    |
| Mvmt Flow                | 6    | 0    | 1    | 5    | 0    | 36   | 1    | 84   | 10   | 36   | 74   | 11   |

| Major/Minor          | Minor2 | Minor1 | Major1 | Major2 |      |      |      |   |   |      |   |   |
|----------------------|--------|--------|--------|--------|------|------|------|---|---|------|---|---|
| Conflicting Flow All | 196    | 248    | 43     | 195    | 243  | 42   | 85   | 0 | 0 | 94   | 0 | 0 |
| Stage 1              | 152    | 152    | -      | 86     | 86   | -    | -    | - | - | -    | - | - |
| Stage 2              | 44     | 96     | -      | 109    | 157  | -    | -    | - | - | -    | - | - |
| Critical Hdwy        | 7.54   | 6.54   | 6.94   | 7.54   | 6.54 | 6.94 | 4.14 | - | - | 4.14 | - | - |
| Critical Hdwy Stg 1  | 6.54   | 5.54   | -      | 6.54   | 5.54 | -    | -    | - | - | -    | - | - |
| Critical Hdwy Stg 2  | 6.54   | 5.54   | -      | 6.54   | 5.54 | -    | -    | - | - | -    | - | - |
| Follow-up Hdwy       | 3.52   | 4.02   | 3.32   | 3.52   | 4.02 | 3.32 | 2.22 | - | - | 2.22 | - | - |
| Pot Cap-1 Maneuver   | 771    | 669    | 1050   | 772    | 674  | 1019 | 1531 | - | - | 1498 | - | - |
| Stage 1              | 857    | 784    | -      | 912    | 823  | -    | -    | - | - | -    | - | - |
| Stage 2              | 965    | 815    | -      | 909    | 780  | -    | -    | - | - | -    | - | - |
| Platoon blocked, %   | 1      | 1      | 1      | 1      | 1    | 1    | 1    | - | - | -    | - | - |
| Mov Cap-1 Maneuver   | 729    | 652    | 1050   | 756    | 657  | 1019 | 1531 | - | - | 1498 | - | - |
| Mov Cap-2 Maneuver   | 729    | 652    | -      | 756    | 657  | -    | -    | - | - | -    | - | - |
| Stage 1              | 856    | 765    | -      | 911    | 822  | -    | -    | - | - | -    | - | - |
| Stage 2              | 930    | 814    | -      | 886    | 761  | -    | -    | - | - | -    | - | - |

| Approach             | EB  | WB  | NB  | SB  |
|----------------------|-----|-----|-----|-----|
| HCM Control Delay, s | 9.7 | 8.8 | 0.1 | 2.2 |
| HCM LOS              | A   | A   |     |     |

| Minor Lane/Major Mvmt | NBL   | NBT | NBR | EBLn1WBLn1 | SBL   | SBT   | SBR |
|-----------------------|-------|-----|-----|------------|-------|-------|-----|
| Capacity (veh/h)      | 1531  | -   | -   | 768        | 978   | 1498  | -   |
| HCM Lane V/C Ratio    | 0.001 | -   | -   | 0.01       | 0.042 | 0.024 | -   |
| HCM Control Delay (s) | 7.4   | -   | -   | 9.7        | 8.8   | 7.5   | -   |
| HCM Lane LOS          | A     | -   | -   | A          | A     | A     | -   |
| HCM 95th %tile Q(veh) | 0     | -   | -   | 0          | 0.1   | 0.1   | -   |

2024 Background AM  
22-1180 Alliance Broadstone Silveray

7: Goldfield Rd & Resort Blvd  
HCM 6th TWSC

| Intersection             |      |      |      |      |      |      |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh         | 3.1  |      |      |      |      |      |
| Movement                 | WBL  | WBR  | NBT  | NBR  | SBL  | SBT  |
| Lane Configurations      | ↔    |      | ↕↕   |      | ↕↕   | ↕↕   |
| Traffic Vol, veh/h       | 2    | 28   | 54   | 3    | 18   | 23   |
| Future Vol, veh/h        | 2    | 28   | 54   | 3    | 18   | 23   |
| Conflicting Peds, #/hr   | 0    | 0    | 0    | 0    | 0    | 0    |
| Sign Control             | Stop | Stop | Free | Free | Free | Free |
| RT Channelized           | -    | None | -    | None | -    | None |
| Storage Length           | 0    | -    | -    | -    | 50   | -    |
| Veh in Median Storage, # | 0    | -    | 0    | -    | -    | 0    |
| Grade, %                 | 0    | -    | 0    | -    | -    | 0    |
| Peak Hour Factor         | 80   | 80   | 80   | 80   | 80   | 80   |
| Heavy Vehicles, %        | 2    | 2    | 2    | 2    | 2    | 2    |
| Mvmt Flow                | 3    | 35   | 68   | 4    | 23   | 29   |

| Major/Minor          | Minor1 | Major1 | Major2     |
|----------------------|--------|--------|------------|
| Conflicting Flow All | 131    | 36     | 0 0 72 0   |
| Stage 1              | 70     | -      | - - - -    |
| Stage 2              | 61     | -      | - - - -    |
| Critical Hdwy        | 6.84   | 6.94   | - - 4.14 - |
| Critical Hdwy Stg 1  | 5.84   | -      | - - - -    |
| Critical Hdwy Stg 2  | 5.84   | -      | - - - -    |
| Follow-up Hdwy       | 3.52   | 3.32   | - - 2.22 - |
| Pot Cap-1 Maneuver   | 850    | 1029   | - - 1526 - |
| Stage 1              | 945    | -      | - - - -    |
| Stage 2              | 954    | -      | - - - -    |
| Platoon blocked, %   |        |        | - - - -    |
| Mov Cap-1 Maneuver   | 837    | 1029   | - - 1526 - |
| Mov Cap-2 Maneuver   | 812    | -      | - - - -    |
| Stage 1              | 945    | -      | - - - -    |
| Stage 2              | 940    | -      | - - - -    |

| Approach             | WB  | NB | SB  |
|----------------------|-----|----|-----|
| HCM Control Delay, s | 8.7 | 0  | 3.2 |
| HCM LOS              | A   |    |     |

| Minor Lane/Major Mvmt | NBT | NBRWBLn1 | SBL   | SBT |
|-----------------------|-----|----------|-------|-----|
| Capacity (veh/h)      | -   | - 1011   | 1526  | -   |
| HCM Lane V/C Ratio    | -   | - 0.037  | 0.015 | -   |
| HCM Control Delay (s) | -   | - 8.7    | 7.4   | -   |
| HCM Lane LOS          | -   | - A      | A     | -   |
| HCM 95th %tile Q(veh) | -   | - 0.1    | 0     | -   |

2024 Background PM  
22-1180 Alliance Broadstone Silveray

7: Goldfield Rd & Resort Blvd  
HCM 6th TWSC

| Intersection             |      |      |      |      |      |      |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh         | 1.9  |      |      |      |      |      |
| Movement                 | WBL  | WBR  | NBT  | NBR  | SBL  | SBT  |
| Lane Configurations      | ↔    |      | ↕↕   |      | ↕↕   | ↕↕   |
| Traffic Vol, veh/h       | 2    | 18   | 58   | 5    | 14   | 51   |
| Future Vol, veh/h        | 2    | 18   | 58   | 5    | 14   | 51   |
| Conflicting Peds, #/hr   | 0    | 0    | 0    | 0    | 0    | 0    |
| Sign Control             | Stop | Stop | Free | Free | Free | Free |
| RT Channelized           | -    | None | -    | None | -    | None |
| Storage Length           | 0    | -    | -    | -    | 50   | -    |
| Veh in Median Storage, # | 0    | -    | 0    | -    | -    | 0    |
| Grade, %                 | 0    | -    | 0    | -    | -    | 0    |
| Peak Hour Factor         | 80   | 80   | 80   | 80   | 80   | 80   |
| Heavy Vehicles, %        | 2    | 2    | 2    | 2    | 2    | 2    |
| Mvmt Flow                | 3    | 23   | 73   | 6    | 18   | 64   |

| Major/Minor          | Minor1 | Major1 | Major2     |
|----------------------|--------|--------|------------|
| Conflicting Flow All | 144    | 40     | 0 0 79 0   |
| Stage 1              | 76     | -      | - - - -    |
| Stage 2              | 68     | -      | - - - -    |
| Critical Hdwy        | 6.84   | 6.94   | - - 4.14 - |
| Critical Hdwy Stg 1  | 5.84   | -      | - - - -    |
| Critical Hdwy Stg 2  | 5.84   | -      | - - - -    |
| Follow-up Hdwy       | 3.52   | 3.32   | - - 2.22 - |
| Pot Cap-1 Maneuver   | 858    | 1022   | - - 1517 - |
| Stage 1              | 938    | -      | - - - -    |
| Stage 2              | 968    | -      | - - - -    |
| Platoon blocked, %   | 1      | -      | - - - -    |
| Mov Cap-1 Maneuver   | 848    | 1022   | - - 1517 - |
| Mov Cap-2 Maneuver   | 819    | -      | - - - -    |
| Stage 1              | 938    | -      | - - - -    |
| Stage 2              | 956    | -      | - - - -    |

| Approach             | WB  | NB | SB  |
|----------------------|-----|----|-----|
| HCM Control Delay, s | 8.7 | 0  | 1.6 |
| HCM LOS              | A   |    |     |

| Minor Lane/Major Mvmt | NBT | NBRWBLn1 | SBL   | SBT |
|-----------------------|-----|----------|-------|-----|
| Capacity (veh/h)      | -   | - 997    | 1517  | -   |
| HCM Lane V/C Ratio    | -   | - 0.025  | 0.012 | -   |
| HCM Control Delay (s) | -   | - 8.7    | 7.4   | -   |
| HCM Lane LOS          | -   | - A      | A     | -   |
| HCM 95th %tile Q(veh) | -   | - 0.1    | 0     | -   |

2024 Background AM  
22-1180 Alliance Broadstone Silveray

8: Resort Blvd & Chevron Access  
HCM 6th TWSC

| Intersection             |        |      |        |       |       |       |
|--------------------------|--------|------|--------|-------|-------|-------|
| Int Delay, s/veh         | 1.4    |      |        |       |       |       |
| Movement                 | EBL    | EBT  | WBT    | WBR   | SBL   | SBR   |
| Lane Configurations      |        | ↔    | ↔      |       | ↔     | ↔     |
| Traffic Vol, veh/h       | 6      | 15   | 29     | 1     | 3     | 1     |
| Future Vol, veh/h        | 6      | 15   | 29     | 1     | 3     | 1     |
| Conflicting Peds, #/hr   | 0      | 0    | 0      | 0     | 0     | 0     |
| Sign Control             | Free   | Free | Free   | Free  | Stop  | Stop  |
| RT Channelized           | -      | None | -      | None  | -     | None  |
| Storage Length           | -      | -    | -      | -     | 0     | -     |
| Veh in Median Storage, # | -      | 0    | 0      | -     | 0     | -     |
| Grade, %                 | -      | 0    | 0      | -     | 0     | -     |
| Peak Hour Factor         | 80     | 80   | 80     | 80    | 80    | 80    |
| Heavy Vehicles, %        | 2      | 2    | 2      | 2     | 2     | 2     |
| Mvmt Flow                | 8      | 19   | 36     | 1     | 4     | 1     |
| Major/Minor              |        |      |        |       |       |       |
| Major1                   | Major2 |      | Minor2 |       |       |       |
| Conflicting Flow All     | 37     | 0    | -      | 0     | 72    | 37    |
| Stage 1                  | -      | -    | -      | -     | 37    | -     |
| Stage 2                  | -      | -    | -      | -     | 35    | -     |
| Critical Hdwy            | 4.12   | -    | -      | -     | 6.42  | 6.22  |
| Critical Hdwy Stg 1      | -      | -    | -      | -     | 5.42  | -     |
| Critical Hdwy Stg 2      | -      | -    | -      | -     | 5.42  | -     |
| Follow-up Hdwy           | 2.218  | -    | -      | -     | 3.518 | 3.318 |
| Pot Cap-1 Maneuver       | 1574   | -    | -      | -     | 932   | 1035  |
| Stage 1                  | -      | -    | -      | -     | 985   | -     |
| Stage 2                  | -      | -    | -      | -     | 987   | -     |
| Platoon blocked, %       | -      | -    | -      | -     | -     | -     |
| Mov Cap-1 Maneuver       | 1574   | -    | -      | -     | 927   | 1035  |
| Mov Cap-2 Maneuver       | -      | -    | -      | -     | 927   | -     |
| Stage 1                  | -      | -    | -      | -     | 980   | -     |
| Stage 2                  | -      | -    | -      | -     | 987   | -     |
| Approach                 |        |      |        |       |       |       |
| EB                       | WB     |      | SB     |       |       |       |
| HCM Control Delay, s     | 2.1    | 0    | 8.8    |       |       |       |
| HCM LOS                  |        |      | A      |       |       |       |
| Minor Lane/Major Mvmt    |        |      |        |       |       |       |
| EBL                      | EBT    | WBT  | WBR    | SBLn1 |       |       |
| Capacity (veh/h)         | 1574   | -    | -      | -     | 952   |       |
| HCM Lane V/C Ratio       | 0.005  | -    | -      | -     | 0.005 |       |
| HCM Control Delay (s)    | 7.3    | 0    | -      | -     | 8.8   |       |
| HCM Lane LOS             | A      | A    | -      | -     | A     |       |
| HCM 95th %tile Q(veh)    | 0      | -    | -      | -     | 0     |       |

2024 Background PM  
22-1180 Alliance Broadstone Silveray

8: Resort Blvd & Chevron Access  
HCM 6th TWSC

| Intersection             |        |      |        |       |       |       |
|--------------------------|--------|------|--------|-------|-------|-------|
| Int Delay, s/veh         | 1.1    |      |        |       |       |       |
| Movement                 | EBL    | EBT  | WBT    | WBR   | SBL   | SBR   |
| Lane Configurations      |        | ↔    | ↔      |       | ↔     | ↔     |
| Traffic Vol, veh/h       | 2      | 28   | 10     | 0     | 1     | 3     |
| Future Vol, veh/h        | 2      | 28   | 10     | 0     | 1     | 3     |
| Conflicting Peds, #/hr   | 0      | 0    | 0      | 0     | 0     | 0     |
| Sign Control             | Free   | Free | Free   | Free  | Stop  | Stop  |
| RT Channelized           | -      | None | -      | None  | -     | None  |
| Storage Length           | -      | -    | -      | -     | 0     | -     |
| Veh in Median Storage, # | -      | 0    | 0      | -     | 0     | -     |
| Grade, %                 | -      | 0    | 0      | -     | 0     | -     |
| Peak Hour Factor         | 80     | 80   | 80     | 80    | 80    | 80    |
| Heavy Vehicles, %        | 2      | 2    | 2      | 2     | 2     | 2     |
| Mvmt Flow                | 3      | 35   | 13     | 0     | 1     | 4     |
| Major/Minor              |        |      |        |       |       |       |
| Major1                   | Major2 |      | Minor2 |       |       |       |
| Conflicting Flow All     | 13     | 0    | -      | 0     | 54    | 13    |
| Stage 1                  | -      | -    | -      | -     | 13    | -     |
| Stage 2                  | -      | -    | -      | -     | 41    | -     |
| Critical Hdwy            | 4.12   | -    | -      | -     | 6.42  | 6.22  |
| Critical Hdwy Stg 1      | -      | -    | -      | -     | 5.42  | -     |
| Critical Hdwy Stg 2      | -      | -    | -      | -     | 5.42  | -     |
| Follow-up Hdwy           | 2.218  | -    | -      | -     | 3.518 | 3.318 |
| Pot Cap-1 Maneuver       | 1606   | -    | -      | -     | 954   | 1067  |
| Stage 1                  | -      | -    | -      | -     | 1010  | -     |
| Stage 2                  | -      | -    | -      | -     | 981   | -     |
| Platoon blocked, %       | -      | -    | -      | -     | -     | -     |
| Mov Cap-1 Maneuver       | 1606   | -    | -      | -     | 952   | 1067  |
| Mov Cap-2 Maneuver       | -      | -    | -      | -     | 952   | -     |
| Stage 1                  | -      | -    | -      | -     | 1008  | -     |
| Stage 2                  | -      | -    | -      | -     | 981   | -     |
| Approach                 |        |      |        |       |       |       |
| EB                       | WB     |      | SB     |       |       |       |
| HCM Control Delay, s     | 0.5    | 0    | 8.5    |       |       |       |
| HCM LOS                  |        |      | A      |       |       |       |
| Minor Lane/Major Mvmt    |        |      |        |       |       |       |
| EBL                      | EBT    | WBT  | WBR    | SBLn1 |       |       |
| Capacity (veh/h)         | 1606   | -    | -      | -     | 1036  |       |
| HCM Lane V/C Ratio       | 0.002  | -    | -      | -     | 0.005 |       |
| HCM Control Delay (s)    | 7.2    | 0    | -      | -     | 8.5   |       |
| HCM Lane LOS             | A      | A    | -      | -     | A     |       |
| HCM 95th %tile Q(veh)    | 0      | -    | -      | -     | 0     |       |

## **APPENDIX I**

### **2027 NO BUILD PEAK HOUR ANALYSIS**

2027 Background AM  
22-1180 Alliance Broadstone Silveray

1: Goldfield Rd/EB Old West Hwy  
HCM 6th TWSC

| Intersection             |      |      |      |      |      |      |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh         | 3.3  |      |      |      |      |      |
| Movement                 | WBL  | WBR  | NBT  | NBR  | SBL  | SBT  |
| Lane Configurations      | ↱    |      |      |      | ↱ ↱  | ↱ ↱  |
| Traffic Vol, veh/h       | 63   | 0    | 0    | 0    | 0    | 124  |
| Future Vol, veh/h        | 63   | 0    | 0    | 0    | 0    | 124  |
| 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    | -    | -    | -    | 195  | -    |
| Veh in Median Storage, # | 0    | -    | 0    | -    | -    | 0    |
| Grade, %                 | 0    | -    | 0    | -    | -    | 0    |
| Peak Hour Factor         | 80   | 80   | 25   | 25   | 80   | 85   |
| Heavy Vehicles, %        | 2    | 2    | 2    | 2    | 2    | 2    |
| Mvmt Flow                | 79   | 0    | 0    | 0    | 0    | 146  |

| Major/Minor          | Minor1 | Major2 |        |
|----------------------|--------|--------|--------|
| Conflicting Flow All | 73     | -      | 0 0    |
| Stage 1              | 0      | -      | -      |
| Stage 2              | 73     | -      | -      |
| Critical Hdwy        | 6.84   | -      | 4.14 - |
| Critical Hdwy Stg 1  | -      | -      | -      |
| Critical Hdwy Stg 2  | 5.84   | -      | -      |
| Follow-up Hdwy       | 3.52   | -      | 2.22 - |
| Pot Cap-1 Maneuver   | 922    | 0      | - -    |
| Stage 1              | -      | 0      | -      |
| Stage 2              | 941    | 0      | -      |
| Platoon blocked, %   |        |        | -      |
| Mov Cap-1 Maneuver   | 922    | -      | - -    |
| Mov Cap-2 Maneuver   | 922    | -      | - -    |
| Stage 1              | -      | -      | -      |
| Stage 2              | 941    | -      | -      |

| Approach             | WB  | SB |
|----------------------|-----|----|
| HCM Control Delay, s | 9.3 | 0  |
| HCM LOS              | A   |    |

| Minor Lane/Major Mvmt | WBLn1 | SBL | SBT |
|-----------------------|-------|-----|-----|
| Capacity (veh/h)      | 922   | -   | -   |
| HCM Lane V/C Ratio    | 0.085 | -   | -   |
| HCM Control Delay (s) | 9.3   | 0   | -   |
| HCM Lane LOS          | A     | A   | -   |
| HCM 95th %tile Q(veh) | 0.3   | -   | -   |

2027 Background PM  
22-1180 Alliance Broadstone Silveray

1: Goldfield Rd/EB Old West Hwy  
HCM 6th TWSC

| Intersection             |      |      |      |      |      |      |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh         | 2.3  |      |      |      |      |      |
| Movement                 | WBL  | WBR  | NBT  | NBR  | SBL  | SBT  |
| Lane Configurations      | ↱    |      |      |      | ↱ ↱  | ↱ ↱  |
| Traffic Vol, veh/h       | 62   | 0    | 0    | 0    | 0    | 204  |
| Future Vol, veh/h        | 62   | 0    | 0    | 0    | 0    | 204  |
| 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    | -    | -    | -    | 195  | -    |
| Veh in Median Storage, # | 0    | -    | 0    | -    | -    | 0    |
| Grade, %                 | 0    | -    | 0    | -    | -    | 0    |
| Peak Hour Factor         | 80   | 80   | 25   | 25   | 80   | 85   |
| Heavy Vehicles, %        | 2    | 2    | 2    | 2    | 2    | 2    |
| Mvmt Flow                | 78   | 0    | 0    | 0    | 0    | 240  |

| Major/Minor          | Minor1 | Major2 |        |
|----------------------|--------|--------|--------|
| Conflicting Flow All | 120    | -      | 0 0    |
| Stage 1              | 0      | -      | -      |
| Stage 2              | 120    | -      | -      |
| Critical Hdwy        | 6.84   | -      | 4.14 - |
| Critical Hdwy Stg 1  | -      | -      | -      |
| Critical Hdwy Stg 2  | 5.84   | -      | -      |
| Follow-up Hdwy       | 3.52   | -      | 2.22 - |
| Pot Cap-1 Maneuver   | 863    | 0      | - -    |
| Stage 1              | -      | 0      | -      |
| Stage 2              | 892    | 0      | -      |
| Platoon blocked, %   |        |        | -      |
| Mov Cap-1 Maneuver   | 863    | -      | - -    |
| Mov Cap-2 Maneuver   | 863    | -      | - -    |
| Stage 1              | -      | -      | -      |
| Stage 2              | 892    | -      | -      |

| Approach             | WB  | SB |
|----------------------|-----|----|
| HCM Control Delay, s | 9.6 | 0  |
| HCM LOS              | A   |    |

| Minor Lane/Major Mvmt | WBLn1 | SBL | SBT |
|-----------------------|-------|-----|-----|
| Capacity (veh/h)      | 863   | -   | -   |
| HCM Lane V/C Ratio    | 0.09  | -   | -   |
| HCM Control Delay (s) | 9.6   | 0   | -   |
| HCM Lane LOS          | A     | A   | -   |
| HCM 95th %tile Q(veh) | 0.3   | -   | -   |

2027 Background AM  
22-1180 Alliance Broadstone Silveray

2: Goldfield Rd & WB Old West Hwy  
HCM 6th TWSC

| Intersection             |      |      |      |      |      |      |      |      |       |      |      |      |
|--------------------------|------|------|------|------|------|------|------|------|-------|------|------|------|
| Int Delay, s/veh         | 3.1  |      |      |      |      |      |      |      |       |      |      |      |
| Movement                 | EBL  | EBT  | EBR  | WBL  | WBT  | WBR  | NBL  | NBT  | NBR   | SBL  | SBT  | SBR  |
| Lane Configurations      |      | ↑    |      |      | ↑    | ↑    |      | ↑↑   | ↑     |      |      |      |
| Traffic Vol, veh/h       | 0    | 18   | 0    | 0    | 63   | 10   | 0    | 200  | 41    | 0    | 0    | 0    |
| Future Vol, veh/h        | 0    | 18   | 0    | 0    | 63   | 10   | 0    | 200  | 41    | 0    | 0    | 0    |
| Conflicting Peds, #/hr   | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0     | 0    | 0    | 0    |
| Sign Control             | Stop | Stop | Stop | Stop | Stop | Stop | Free | Free | Free  | Free | Free | Free |
| RT Channelized           | -    | -    | None | -    | -    | Stop | -    | -    | Yield | -    | -    | None |
| Storage Length           | -    | -    | -    | -    | -    | 0    | -    | -    | 0     | -    | -    | -    |
| Veh in Median Storage, # | -    | 0    | -    | -    | 0    | -    | -    | 0    | -     | -    | 0    | -    |
| Grade, %                 | -    | 0    | -    | -    | 0    | -    | -    | 0    | -     | -    | 0    | -    |
| Peak Hour Factor         | 80   | 80   | 80   | 80   | 80   | 80   | 80   | 85   | 80    | 25   | 25   | 25   |
| Heavy Vehicles, %        | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2     | 2    | 2    | 2    |
| Mvmt Flow                | 0    | 23   | 0    | 0    | 79   | 13   | 0    | 235  | 51    | 0    | 0    | 0    |

| Major/Minor          | Minor2 | Minor1   | Major1     |
|----------------------|--------|----------|------------|
| Conflicting Flow All | - 235  | - - 235  | 118 - 0 0  |
| Stage 1              | - 0    | - - 235  | - - - -    |
| Stage 2              | - 235  | - - 0    | - - - -    |
| Critical Hdwy        | - 6.54 | - - 6.54 | 6.94 - - - |
| Critical Hdwy Stg 1  | - -    | - - 5.54 | - - - -    |
| Critical Hdwy Stg 2  | - 5.54 | - - -    | - - - -    |
| Follow-up Hdwy       | - 4.02 | - - 4.02 | 3.32 - - - |
| Pot Cap-1 Maneuver   | 0 664  | 0 0 664  | 912 0 - -  |
| Stage 1              | 0 -    | 0 0 709  | - 0 - -    |
| Stage 2              | 0 709  | 0 0 -    | - 0 - -    |
| Platoon blocked, %   | -      | -        | - -        |
| Mov Cap-1 Maneuver   | - 664  | - - 664  | 912 - - -  |
| Mov Cap-2 Maneuver   | - 664  | - - 664  | - - - -    |
| Stage 1              | - -    | - - 709  | - - - -    |
| Stage 2              | - 709  | - - -    | - - - -    |

| Approach             | EB   | WB   | NB |
|----------------------|------|------|----|
| HCM Control Delay, s | 10.6 | 10.9 | 0  |
| HCM LOS              | B    | B    |    |

| Minor Lane/Major Mvmt | NBT | NBR | EBLn1WBLn1WBLn2   |
|-----------------------|-----|-----|-------------------|
| Capacity (veh/h)      | -   | -   | 664 664 912       |
| HCM Lane V/C Ratio    | -   | -   | 0.034 0.119 0.014 |
| HCM Control Delay (s) | -   | -   | 10.6 11.2 9       |
| HCM Lane LOS          | -   | -   | B B A             |
| HCM 95th %tile Q(veh) | -   | -   | 0.1 0.4 0         |

2027 Background PM  
22-1180 Alliance Broadstone Silveray

2: Goldfield Rd & WB Old West Hwy  
HCM 6th TWSC

| Intersection             |      |      |      |      |      |      |      |      |       |      |      |      |
|--------------------------|------|------|------|------|------|------|------|------|-------|------|------|------|
| Int Delay, s/veh         | 2.9  |      |      |      |      |      |      |      |       |      |      |      |
| Movement                 | EBL  | EBT  | EBR  | WBL  | WBT  | WBR  | NBL  | NBT  | NBR   | SBL  | SBT  | SBR  |
| Lane Configurations      |      | ↑    |      |      | ↑    | ↑    |      | ↑↑   | ↑     |      |      |      |
| Traffic Vol, veh/h       | 0    | 21   | 0    | 0    | 62   | 6    | 0    | 191  | 61    | 0    | 0    | 0    |
| Future Vol, veh/h        | 0    | 21   | 0    | 0    | 62   | 6    | 0    | 191  | 61    | 0    | 0    | 0    |
| Conflicting Peds, #/hr   | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0     | 0    | 0    | 0    |
| Sign Control             | Stop | Stop | Stop | Stop | Stop | Stop | Free | Free | Free  | Free | Free | Free |
| RT Channelized           | -    | -    | None | -    | -    | Stop | -    | -    | Yield | -    | -    | None |
| Storage Length           | -    | -    | -    | -    | -    | 0    | -    | -    | 0     | -    | -    | -    |
| Veh in Median Storage, # | -    | 0    | -    | -    | 0    | -    | -    | 0    | -     | -    | 0    | -    |
| Grade, %                 | -    | 0    | -    | -    | 0    | -    | -    | 0    | -     | -    | 0    | -    |
| Peak Hour Factor         | 80   | 80   | 80   | 80   | 80   | 80   | 80   | 85   | 80    | 25   | 25   | 25   |
| Heavy Vehicles, %        | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2     | 2    | 2    | 2    |
| Mvmt Flow                | 0    | 26   | 0    | 0    | 78   | 8    | 0    | 225  | 76    | 0    | 0    | 0    |

| Major/Minor          | Minor2 | Minor1   | Major1     |
|----------------------|--------|----------|------------|
| Conflicting Flow All | - 225  | - - 225  | 113 - 0 0  |
| Stage 1              | - 0    | - - 225  | - - - -    |
| Stage 2              | - 225  | - - 0    | - - - -    |
| Critical Hdwy        | - 6.54 | - - 6.54 | 6.94 - - - |
| Critical Hdwy Stg 1  | - -    | - - 5.54 | - - - -    |
| Critical Hdwy Stg 2  | - 5.54 | - - -    | - - - -    |
| Follow-up Hdwy       | - 4.02 | - - 4.02 | 3.32 - - - |
| Pot Cap-1 Maneuver   | 0 673  | 0 0 673  | 918 0 - -  |
| Stage 1              | 0 -    | 0 0 716  | - 0 - -    |
| Stage 2              | 0 716  | 0 0 -    | - 0 - -    |
| Platoon blocked, %   | -      | -        | - -        |
| Mov Cap-1 Maneuver   | - 673  | - - 673  | 918 - - -  |
| Mov Cap-2 Maneuver   | - 673  | - - 673  | - - - -    |
| Stage 1              | - -    | - - 716  | - - - -    |
| Stage 2              | - 716  | - - -    | - - - -    |

| Approach             | EB   | WB   | NB |
|----------------------|------|------|----|
| HCM Control Delay, s | 10.6 | 10.8 | 0  |
| HCM LOS              | B    | B    |    |

| Minor Lane/Major Mvmt | NBT | NBR | EBLn1WBLn1WBLn2   |
|-----------------------|-----|-----|-------------------|
| Capacity (veh/h)      | -   | -   | 673 673 918       |
| HCM Lane V/C Ratio    | -   | -   | 0.039 0.115 0.008 |
| HCM Control Delay (s) | -   | -   | 10.6 11 9         |
| HCM Lane LOS          | -   | -   | B B A             |
| HCM 95th %tile Q(veh) | -   | -   | 0.1 0.4 0         |

2027 Background AM  
22-1180 Alliance Broadstone Silveray

3: Goldfield Rd & US-60/Old West Hwy Exit  
HCM 6th TWSC

| Intersection             |      |      |      |      |      |      |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh         | 3.9  |      |      |      |      |      |
| Movement                 | WBL  | WBR  | NBT  | NBR  | SBL  | SBT  |
| Lane Configurations      |      | ↗    | ↗    |      |      | ↗    |
| Traffic Vol, veh/h       | 0    | 179  | 62   | 0    | 0    | 186  |
| Future Vol, veh/h        | 0    | 179  | 62   | 0    | 0    | 186  |
| 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         | 80   | 85   | 80   | 80   | 80   | 85   |
| Heavy Vehicles, %        | 2    | 2    | 2    | 2    | 2    | 2    |
| Mvmt Flow                | 0    | 211  | 78   | 0    | 0    | 219  |

| Major/Minor          | Minor1 | Major1 | Major2 |
|----------------------|--------|--------|--------|
| Conflicting Flow All | -      | 39     | 0      |
| Stage 1              | -      | -      | -      |
| Stage 2              | -      | -      | -      |
| Critical Hdwy        | -      | 6.94   | -      |
| Critical Hdwy Stg 1  | -      | -      | -      |
| Critical Hdwy Stg 2  | -      | -      | -      |
| Follow-up Hdwy       | -      | 3.32   | -      |
| Pot Cap-1 Maneuver   | 0      | 1024   | -      |
| Stage 1              | 0      | -      | 0      |
| Stage 2              | 0      | -      | 0      |
| Platoon blocked, %   | -      | -      | -      |
| Mov Cap-1 Maneuver   | -      | 1024   | -      |
| Mov Cap-2 Maneuver   | -      | -      | -      |
| Stage 1              | -      | -      | -      |
| Stage 2              | -      | -      | -      |

| Approach             | WB  | NB | SB |
|----------------------|-----|----|----|
| HCM Control Delay, s | 9.4 | 0  | 0  |
| HCM LOS              | A   |    |    |

| Minor Lane/Major Mvmt | NBTWBLn1 | SBT   |
|-----------------------|----------|-------|
| Capacity (veh/h)      | -        | 1024  |
| HCM Lane V/C Ratio    | -        | 0.206 |
| HCM Control Delay (s) | -        | 9.4   |
| HCM Lane LOS          | -        | A     |
| HCM 95th %tile Q(veh) | -        | 0.8   |

2027 Background PM  
22-1180 Alliance Broadstone Silveray

3: Goldfield Rd & US-60/Old West Hwy Exit  
HCM 6th TWSC

| Intersection             |      |      |      |      |      |      |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh         | 2.2  |      |      |      |      |      |
| Movement                 | WBL  | WBR  | NBT  | NBR  | SBL  | SBT  |
| Lane Configurations      |      | ↗    | ↗    |      |      | ↗    |
| Traffic Vol, veh/h       | 0    | 121  | 130  | 0    | 0    | 266  |
| Future Vol, veh/h        | 0    | 121  | 130  | 0    | 0    | 266  |
| 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         | 80   | 85   | 85   | 80   | 80   | 85   |
| Heavy Vehicles, %        | 2    | 2    | 2    | 2    | 2    | 2    |
| Mvmt Flow                | 0    | 142  | 153  | 0    | 0    | 313  |

| Major/Minor          | Minor1 | Major1 | Major2 |
|----------------------|--------|--------|--------|
| Conflicting Flow All | -      | 77     | 0      |
| Stage 1              | -      | -      | -      |
| Stage 2              | -      | -      | -      |
| Critical Hdwy        | -      | 6.94   | -      |
| Critical Hdwy Stg 1  | -      | -      | -      |
| Critical Hdwy Stg 2  | -      | -      | -      |
| Follow-up Hdwy       | -      | 3.32   | -      |
| Pot Cap-1 Maneuver   | 0      | 968    | -      |
| Stage 1              | 0      | -      | 0      |
| Stage 2              | 0      | -      | 0      |
| Platoon blocked, %   | -      | -      | -      |
| Mov Cap-1 Maneuver   | -      | 968    | -      |
| Mov Cap-2 Maneuver   | -      | -      | -      |
| Stage 1              | -      | -      | -      |
| Stage 2              | -      | -      | -      |

| Approach             | WB  | NB | SB |
|----------------------|-----|----|----|
| HCM Control Delay, s | 9.4 | 0  | 0  |
| HCM LOS              | A   |    |    |

| Minor Lane/Major Mvmt | NBTWBLn1 | SBT   |
|-----------------------|----------|-------|
| Capacity (veh/h)      | -        | 968   |
| HCM Lane V/C Ratio    | -        | 0.147 |
| HCM Control Delay (s) | -        | 9.4   |
| HCM Lane LOS          | -        | A     |
| HCM 95th %tile Q(veh) | -        | 0.5   |

2027 Background AM  
22-1180 Alliance Broadstone Silveray

4: Goldfield Rd & US-60 WB Ramps  
Timings

| Lane Group           | WBL   | WBT   | WBR   | NBL   | NBT   | SBT   | SBR   |
|----------------------|-------|-------|-------|-------|-------|-------|-------|
| Lane Configurations  | ↩     | ↩↪    | ↩     | ↩     | ↩↪    | ↩↪    | ↩     |
| Traffic Volume (vph) | 8     | 0     | 18    | 38    | 111   | 170   | 133   |
| Future Volume (vph)  | 8     | 0     | 18    | 38    | 111   | 170   | 133   |
| Turn Type            | Perm  | NA    | Perm  | pm+pt | NA    | NA    | Perm  |
| Protected Phases     |       | 3     |       | 2     | 1     | 1     |       |
| Permitted Phases     | 3     |       | 3     | 1     |       |       | 1     |
| Detector Phase       | 3     | 3     | 3     | 2     | 1     | 1     | 1     |
| Switch Phase         |       |       |       |       |       |       |       |
| Minimum Initial (s)  | 8.0   | 8.0   | 8.0   | 5.0   | 20.0  | 20.0  | 20.0  |
| Minimum Split (s)    | 44.9  | 44.9  | 44.9  | 10.6  | 31.6  | 31.6  | 31.6  |
| Total Split (s)      | 45.0  | 45.0  | 45.0  | 11.0  | 34.0  | 34.0  | 34.0  |
| Total Split (%)      | 50.0% | 50.0% | 50.0% | 12.2% | 37.8% | 37.8% | 37.8% |
| Yellow Time (s)      | 3.9   | 3.9   | 3.9   | 3.6   | 3.6   | 3.6   | 3.6   |
| All-Red Time (s)     | 2.0   | 2.0   | 2.0   | 2.0   | 2.0   | 2.0   | 2.0   |
| Lost Time Adjust (s) | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |
| Total Lost Time (s)  | 5.9   | 5.9   | 5.9   | 5.6   | 5.6   | 5.6   | 5.6   |
| Lead/Lag             |       |       |       | Lag   | Lead  | Lead  | Lead  |
| Lead-Lag Optimize?   |       |       |       | Yes   | Yes   | Yes   | Yes   |
| Recall Mode          | None  | None  | None  | Max   | C-Max | C-Max | C-Max |

Intersection Summary

Cycle Length: 90

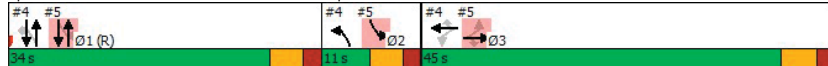
Actuated Cycle Length: 90

Offset: 0 (0%), Referenced to phase 1:NBSB, Start of Green, Master Intersection

Natural Cycle: 90

Control Type: Actuated-Coordinated

Splits and Phases: 4: Goldfield Rd & US-60 WB Ramps



2027 Background PM  
22-1180 Alliance Broadstone Silveray

4: Goldfield Rd & US-60 WB Ramps  
Timings

| Lane Group           | WBL   | WBT   | WBR   | NBL   | NBT   | SBT   | SBR   |
|----------------------|-------|-------|-------|-------|-------|-------|-------|
| Lane Configurations  | ↩     | ↩↪    | ↩     | ↩     | ↩↪    | ↩↪    | ↩     |
| Traffic Volume (vph) | 21    | 0     | 42    | 30    | 169   | 223   | 95    |
| Future Volume (vph)  | 21    | 0     | 42    | 30    | 169   | 223   | 95    |
| Turn Type            | Perm  | NA    | Perm  | pm+pt | NA    | NA    | Perm  |
| Protected Phases     |       | 3     |       | 2     | 1     | 1     |       |
| Permitted Phases     | 3     |       | 3     | 1     |       |       | 1     |
| Detector Phase       | 3     | 3     | 3     | 2     | 1     | 1     | 1     |
| Switch Phase         |       |       |       |       |       |       |       |
| Minimum Initial (s)  | 8.0   | 8.0   | 8.0   | 5.0   | 20.0  | 20.0  | 20.0  |
| Minimum Split (s)    | 44.9  | 44.9  | 44.9  | 10.6  | 31.6  | 31.6  | 31.6  |
| Total Split (s)      | 45.0  | 45.0  | 45.0  | 11.0  | 34.0  | 34.0  | 34.0  |
| Total Split (%)      | 50.0% | 50.0% | 50.0% | 12.2% | 37.8% | 37.8% | 37.8% |
| Yellow Time (s)      | 3.9   | 3.9   | 3.9   | 3.6   | 3.6   | 3.6   | 3.6   |
| All-Red Time (s)     | 2.0   | 2.0   | 2.0   | 2.0   | 2.0   | 2.0   | 2.0   |
| Lost Time Adjust (s) | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |
| Total Lost Time (s)  | 5.9   | 5.9   | 5.9   | 5.6   | 5.6   | 5.6   | 5.6   |
| Lead/Lag             |       |       |       | Lag   | Lead  | Lead  | Lead  |
| Lead-Lag Optimize?   |       |       |       | Yes   | Yes   | Yes   | Yes   |
| Recall Mode          | None  | None  | None  | Max   | C-Max | C-Max | C-Max |

Intersection Summary

Cycle Length: 90

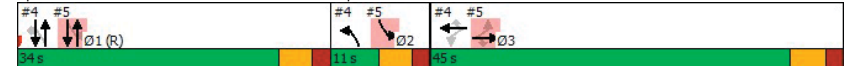
Actuated Cycle Length: 90

Offset: 0 (0%), Referenced to phase 1:NBSB, Start of Green, Master Intersection

Natural Cycle: 90

Control Type: Actuated-Coordinated

Splits and Phases: 4: Goldfield Rd & US-60 WB Ramps



2027 Background AM  
22-1180 Alliance Broadstone Silveray

4: Goldfield Rd & US-60 WB Ramps  
HCM Signalized Intersection Capacity Analysis

| Movement                          | EBL  | EBT  | EBR  | WBL   | WBT  | WBR  | NBL                       | NBT  | NBR  | SBL  | SBT  | SBR   |
|-----------------------------------|------|------|------|-------|------|------|---------------------------|------|------|------|------|-------|
| Lane Configurations               |      |      |      |       |      |      |                           |      |      |      |      |       |
| Traffic Volume (vph)              | 0    | 0    | 0    | 8     | 0    | 18   | 38                        | 111  | 0    | 0    | 170  | 133   |
| Future Volume (vph)               | 0    | 0    | 0    | 8     | 0    | 18   | 38                        | 111  | 0    | 0    | 170  | 133   |
| Ideal Flow (vphpl)                | 1900 | 1900 | 1900 | 1900  | 1900 | 1900 | 1900                      | 1900 | 1900 | 1900 | 1900 | 1900  |
| Total Lost time (s)               |      |      |      | 5.9   | 5.9  | 5.9  | 5.6                       | 5.6  |      |      | 5.6  | 5.6   |
| Lane Util. Factor                 |      |      |      | 0.95  | 0.91 | 0.95 | 1.00                      | 0.95 |      |      | 0.91 | 1.00  |
| Flt Protected                     |      |      |      | 0.95  | 1.00 | 1.00 | 0.95                      | 1.00 |      |      | 1.00 | 1.00  |
| Satd. Flow (prot)                 |      |      |      | 1681  | 1456 | 1504 | 1770                      | 3539 |      |      | 5085 | 1583  |
| Flt Permitted                     |      |      |      | 0.95  | 1.00 | 1.00 | 0.62                      | 1.00 |      |      | 1.00 | 1.00  |
| Satd. Flow (perm)                 |      |      |      | 1681  | 1456 | 1504 | 1157                      | 3539 |      |      | 5085 | 1583  |
| Peak-hour factor, PHF             | 0.25 | 0.25 | 0.25 | 0.80  | 0.80 | 0.80 | 0.80                      | 0.85 | 0.80 | 0.80 | 0.85 | 0.85  |
| Adj. Flow (vph)                   | 0    | 0    | 0    | 10    | 0    | 22   | 48                        | 131  | 0    | 0    | 200  | 156   |
| RTOR Reduction (vph)              | 0    | 0    | 0    | 0     | 11   | 11   | 0                         | 0    | 0    | 0    | 0    | 51    |
| Lane Group Flow (vph)             | 0    | 0    | 0    | 9     | 1    | 1    | 48                        | 131  | 0    | 0    | 200  | 105   |
| Turn Type                         |      |      |      | Perm  | NA   | Perm | pm+pt                     | NA   |      |      | NA   | Perm  |
| Protected Phases                  |      |      |      |       | 3    |      | 2                         | 1    |      |      | 1    |       |
| Permitted Phases                  |      |      |      | 3     |      | 3    | 1                         |      |      |      |      | 1     |
| Actuated Green, G (s)             |      |      |      | 6.7   | 6.7  | 6.7  | 66.2                      | 60.8 |      |      | 60.8 | 60.8  |
| Effective Green, g (s)            |      |      |      | 6.7   | 6.7  | 6.7  | 66.2                      | 60.8 |      |      | 60.8 | 60.8  |
| Actuated g/C Ratio                |      |      |      | 0.07  | 0.07 | 0.07 | 0.74                      | 0.68 |      |      | 0.68 | 0.68  |
| Clearance Time (s)                |      |      |      | 5.9   | 5.9  | 5.9  | 5.6                       | 5.6  |      |      | 5.6  | 5.6   |
| Vehicle Extension (s)             |      |      |      | 1.2   | 1.2  | 1.2  | 1.2                       | 1.2  |      |      | 1.2  | 1.2   |
| Lane Grp Cap (vph)                |      |      |      | 125   | 108  | 111  | 887                       | 2390 |      |      | 3435 | 1069  |
| v/s Ratio Prot                    |      |      |      |       |      |      | c0.01                     | 0.04 |      |      | 0.04 |       |
| v/s Ratio Perm                    |      |      |      | c0.01 | 0.00 | 0.00 | 0.04                      |      |      |      |      | c0.07 |
| v/c Ratio                         |      |      |      | 0.07  | 0.01 | 0.01 | 0.05                      | 0.05 |      |      | 0.06 | 0.10  |
| Uniform Delay, d1                 |      |      |      | 38.8  | 38.6 | 38.6 | 3.3                       | 4.9  |      |      | 4.9  | 5.1   |
| Progression Factor                |      |      |      | 1.00  | 1.00 | 1.00 | 0.46                      | 0.61 |      |      | 1.00 | 1.00  |
| Incremental Delay, d2             |      |      |      | 0.1   | 0.0  | 0.0  | 0.1                       | 0.0  |      |      | 0.0  | 0.2   |
| Delay (s)                         |      |      |      | 38.8  | 38.6 | 38.6 | 1.6                       | 3.0  |      |      | 5.0  | 5.3   |
| Level of Service                  |      |      |      | D     | D    | D    | A                         | A    |      |      | A    | A     |
| Approach Delay (s)                |      | 0.0  |      |       |      |      |                           | 2.7  |      |      | 5.1  |       |
| Approach LOS                      |      | A    |      |       |      | D    |                           | A    |      |      | A    |       |
| Intersection Summary              |      |      |      |       |      |      |                           |      |      |      |      |       |
| HCM 2000 Control Delay            |      |      |      | 6.3   |      |      | HCM 2000 Level of Service |      |      |      | A    |       |
| HCM 2000 Volume to Capacity ratio |      |      |      | 0.09  |      |      |                           |      |      |      |      |       |
| Actuated Cycle Length (s)         |      |      |      | 90.0  |      |      | Sum of lost time (s)      |      |      |      | 17.1 |       |
| Intersection Capacity Utilization |      |      |      | 45.1% |      |      | ICU Level of Service      |      |      |      | A    |       |
| Analysis Period (min)             |      |      |      | 15    |      |      |                           |      |      |      |      |       |
| c Critical Lane Group             |      |      |      |       |      |      |                           |      |      |      |      |       |

2027 Background PM  
22-1180 Alliance Broadstone Silveray

4: Goldfield Rd & US-60 WB Ramps  
HCM Signalized Intersection Capacity Analysis

| Movement                          | EBL  | EBT  | EBR  | WBL   | WBT  | WBR  | NBL                       | NBT   | NBR  | SBL  | SBT  | SBR  |
|-----------------------------------|------|------|------|-------|------|------|---------------------------|-------|------|------|------|------|
| Lane Configurations               |      |      |      |       |      |      |                           |       |      |      |      |      |
| Traffic Volume (vph)              | 0    | 0    | 0    | 21    | 0    | 42   | 30                        | 169   | 0    | 0    | 223  | 95   |
| Future Volume (vph)               | 0    | 0    | 0    | 21    | 0    | 42   | 30                        | 169   | 0    | 0    | 223  | 95   |
| Ideal Flow (vphpl)                | 1900 | 1900 | 1900 | 1900  | 1900 | 1900 | 1900                      | 1900  | 1900 | 1900 | 1900 | 1900 |
| Total Lost time (s)               |      |      |      | 5.9   | 5.9  | 5.9  | 5.6                       | 5.6   |      |      | 5.6  | 5.6  |
| Lane Util. Factor                 |      |      |      | 0.95  | 0.91 | 0.95 | 1.00                      | 0.95  |      |      | 0.91 | 1.00 |
| Flt Protected                     |      |      |      | 0.95  | 0.99 | 1.00 | 0.95                      | 1.00  |      |      | 1.00 | 1.00 |
| Satd. Flow (prot)                 |      |      |      | 1681  | 1460 | 1504 | 1770                      | 3539  |      |      | 5085 | 1583 |
| Flt Permitted                     |      |      |      | 0.95  | 0.99 | 1.00 | 0.58                      | 1.00  |      |      | 1.00 | 1.00 |
| Satd. Flow (perm)                 |      |      |      | 1681  | 1460 | 1504 | 1087                      | 3539  |      |      | 5085 | 1583 |
| Peak-hour factor, PHF             | 0.25 | 0.25 | 0.25 | 0.80  | 0.80 | 0.80 | 0.80                      | 0.85  | 0.80 | 0.80 | 0.85 | 0.85 |
| Adj. Flow (vph)                   | 0    | 0    | 0    | 26    | 0    | 52   | 38                        | 199   | 0    | 0    | 262  | 112  |
| RTOR Reduction (vph)              | 0    | 0    | 0    | 0     | 26   | 26   | 0                         | 0     | 0    | 0    | 0    | 38   |
| Lane Group Flow (vph)             | 0    | 0    | 0    | 23    | 2    | 2    | 38                        | 199   | 0    | 0    | 262  | 74   |
| Turn Type                         |      |      |      | Perm  | NA   | Perm | pm+pt                     | NA    |      |      | NA   | Perm |
| Protected Phases                  |      |      |      |       | 3    |      | 2                         | 1     |      |      | 1    |      |
| Permitted Phases                  |      |      |      | 3     |      | 3    | 1                         |       |      |      |      | 1    |
| Actuated Green, G (s)             |      |      |      | 7.8   | 7.8  | 7.8  | 65.1                      | 59.7  |      |      | 59.7 | 59.7 |
| Effective Green, g (s)            |      |      |      | 7.8   | 7.8  | 7.8  | 65.1                      | 59.7  |      |      | 59.7 | 59.7 |
| Actuated g/C Ratio                |      |      |      | 0.09  | 0.09 | 0.09 | 0.72                      | 0.66  |      |      | 0.66 | 0.66 |
| Clearance Time (s)                |      |      |      | 5.9   | 5.9  | 5.9  | 5.6                       | 5.6   |      |      | 5.6  | 5.6  |
| Vehicle Extension (s)             |      |      |      | 1.2   | 1.2  | 1.2  | 1.2                       | 1.2   |      |      | 1.2  | 1.2  |
| Lane Grp Cap (vph)                |      |      |      | 145   | 126  | 130  | 827                       | 2347  |      |      | 3373 | 1050 |
| v/s Ratio Prot                    |      |      |      |       |      |      | c0.01                     | c0.06 |      |      | 0.05 |      |
| v/s Ratio Perm                    |      |      |      | c0.01 | 0.00 | 0.00 | 0.03                      |       |      |      |      | 0.05 |
| v/c Ratio                         |      |      |      | 0.16  | 0.02 | 0.02 | 0.05                      | 0.08  |      |      | 0.08 | 0.07 |
| Uniform Delay, d1                 |      |      |      | 38.1  | 37.6 | 37.6 | 3.6                       | 5.4   |      |      | 5.4  | 5.4  |
| Progression Factor                |      |      |      | 1.00  | 1.00 | 1.00 | 0.72                      | 0.65  |      |      | 1.00 | 1.00 |
| Incremental Delay, d2             |      |      |      | 0.2   | 0.0  | 0.0  | 0.1                       | 0.1   |      |      | 0.0  | 0.1  |
| Delay (s)                         |      |      |      | 38.2  | 37.6 | 37.6 | 2.7                       | 3.6   |      |      | 5.4  | 5.5  |
| Level of Service                  |      |      |      | D     | D    | D    | A                         | A     |      |      | A    | A    |
| Approach Delay (s)                |      | 0.0  |      |       |      |      |                           | 3.4   |      |      | 5.4  |      |
| Approach LOS                      |      | A    |      |       |      | D    |                           | A     |      |      | A    |      |
| Intersection Summary              |      |      |      |       |      |      |                           |       |      |      |      |      |
| HCM 2000 Control Delay            |      |      |      | 8.5   |      |      | HCM 2000 Level of Service |       |      |      | A    |      |
| HCM 2000 Volume to Capacity ratio |      |      |      | 0.09  |      |      |                           |       |      |      |      |      |
| Actuated Cycle Length (s)         |      |      |      | 90.0  |      |      | Sum of lost time (s)      |       |      |      | 17.1 |      |
| Intersection Capacity Utilization |      |      |      | 47.9% |      |      | ICU Level of Service      |       |      |      | A    |      |
| Analysis Period (min)             |      |      |      | 15    |      |      |                           |       |      |      |      |      |
| c Critical Lane Group             |      |      |      |       |      |      |                           |       |      |      |      |      |

## 2027 Background AM

## 22-1180 Alliance Broadstone Silveray

## 4: Goldfield Rd &amp; US-60 WB Ramps

Queues



| Lane Group              | WBL  | WBT  | WBR  | NBL  | NBT  | SBT  | SBR  |
|-------------------------|------|------|------|------|------|------|------|
| Lane Group Flow (vph)   | 9    | 12   | 12   | 48   | 131  | 200  | 156  |
| v/c Ratio               | 0.06 | 0.05 | 0.05 | 0.05 | 0.05 | 0.06 | 0.14 |
| Control Delay           | 38.0 | 0.5  | 0.4  | 1.3  | 3.3  | 5.3  | 1.3  |
| Queue Delay             | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Total Delay             | 38.0 | 0.5  | 0.4  | 1.3  | 3.3  | 5.3  | 1.3  |
| Queue Length 50th (ft)  | 5    | 0    | 0    | 1    | 5    | 12   | 0    |
| Queue Length 95th (ft)  | 17   | 0    | 0    | 3    | 9    | 20   | 17   |
| Internal Link Dist (ft) | 639  |      |      | 484  |      |      | 300  |
| Turn Bay Length (ft)    | 190  | 190  |      |      |      |      | 145  |
| Base Capacity (vph)     | 730  | 688  | 709  | 903  | 2438 | 3504 | 1139 |
| Starvation Cap Reductn  | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Spillback Cap Reductn   | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Storage Cap Reductn     | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Reduced v/c Ratio       | 0.01 | 0.02 | 0.02 | 0.05 | 0.05 | 0.06 | 0.14 |
| Intersection Summary    |      |      |      |      |      |      |      |

## 2027 Background PM

## 22-1180 Alliance Broadstone Silveray

## 4: Goldfield Rd &amp; US-60 WB Ramps

Queues



| Lane Group              | WBL  | WBT  | WBR  | NBL  | NBT  | SBT  | SBR  |
|-------------------------|------|------|------|------|------|------|------|
| Lane Group Flow (vph)   | 23   | 28   | 28   | 38   | 199  | 262  | 112  |
| v/c Ratio               | 0.13 | 0.12 | 0.11 | 0.05 | 0.08 | 0.08 | 0.10 |
| Control Delay           | 37.3 | 1.0  | 1.0  | 2.3  | 4.0  | 5.9  | 1.7  |
| Queue Delay             | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Total Delay             | 37.3 | 1.0  | 1.0  | 2.3  | 4.0  | 5.9  | 1.7  |
| Queue Length 50th (ft)  | 12   | 0    | 0    | 2    | 9    | 17   | 0    |
| Queue Length 95th (ft)  | 31   | 0    | 0    | 3    | 22   | 29   | 16   |
| Internal Link Dist (ft) | 639  |      |      | 484  |      |      | 300  |
| Turn Bay Length (ft)    | 190  | 190  |      |      |      |      | 145  |
| Base Capacity (vph)     | 730  | 690  | 709  | 840  | 2393 | 3439 | 1107 |
| Starvation Cap Reductn  | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Spillback Cap Reductn   | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Storage Cap Reductn     | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Reduced v/c Ratio       | 0.03 | 0.04 | 0.04 | 0.05 | 0.08 | 0.08 | 0.10 |
| Intersection Summary    |      |      |      |      |      |      |      |

2027 Background AM  
22-1180 Alliance Broadstone Silveray

5: Goldfield Rd & US-60 EB Ramps  
Timings

|                      | ↖     | →     | ↗     | ↖     | ↗     | ↖     | ↗     |
|----------------------|-------|-------|-------|-------|-------|-------|-------|
| Lane Group           | EBL   | EBT   | EBR   | NBT   | NBR   | SBL   | SBT   |
| Lane Configurations  | ↖     | ↔     | ↗     | ↖↖↖   | ↗     | ↖     | ↗     |
| Traffic Volume (vph) | 81    | 0     | 33    | 67    | 19    | 136   | 41    |
| Future Volume (vph)  | 81    | 0     | 33    | 67    | 19    | 136   | 41    |
| Turn Type            | Perm  | NA    | Perm  | NA    | Perm  | pm+pt | NA    |
| Protected Phases     |       | 3     |       | 1     |       | 2     | 1     |
| Permitted Phases     | 3     |       | 3     |       | 1     | 1     |       |
| Detector Phase       | 3     | 3     | 3     | 1     | 1     | 2     | 1     |
| Switch Phase         |       |       |       |       |       |       |       |
| Minimum Initial (s)  | 8.0   | 8.0   | 8.0   | 20.0  | 20.0  | 5.0   | 20.0  |
| Minimum Split (s)    | 44.9  | 44.9  | 44.9  | 31.6  | 31.6  | 10.6  | 31.6  |
| Total Split (s)      | 45.0  | 45.0  | 45.0  | 34.0  | 34.0  | 11.0  | 34.0  |
| Total Split (%)      | 50.0% | 50.0% | 50.0% | 37.8% | 37.8% | 12.2% | 37.8% |
| Yellow Time (s)      | 3.9   | 3.9   | 3.9   | 3.6   | 3.6   | 3.6   | 3.6   |
| All-Red Time (s)     | 2.0   | 2.0   | 2.0   | 2.0   | 2.0   | 2.0   | 2.0   |
| Lost Time Adjust (s) | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |
| Total Lost Time (s)  | 5.9   | 5.9   | 5.9   | 5.6   | 5.6   | 5.6   | 5.6   |
| Lead/Lag             |       |       |       | Lead  | Lead  | Lag   | Lead  |
| Lead-Lag Optimize?   |       |       |       | Yes   | Yes   | Yes   | Yes   |
| Recall Mode          | None  | None  | None  | C-Max | C-Max | Max   | C-Max |

Intersection Summary

Cycle Length: 90

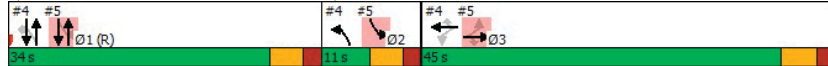
Actuated Cycle Length: 90

Offset: 0 (0%), Referenced to phase 1:NBSB, Start of Green, Master Intersection

Natural Cycle: 90

Control Type: Actuated-Coordinated

Splits and Phases: 5: Goldfield Rd & US-60 EB Ramps



2027 Background PM  
22-1180 Alliance Broadstone Silveray

5: Goldfield Rd & US-60 EB Ramps  
Timings

|                      | ↖     | →     | ↗     | ↖     | ↗     | ↖     | ↗     |
|----------------------|-------|-------|-------|-------|-------|-------|-------|
| Lane Group           | EBL   | EBT   | EBR   | NBT   | NBR   | SBL   | SBT   |
| Lane Configurations  | ↖     | ↔     | ↗     | ↖↖↖   | ↗     | ↖     | ↗     |
| Traffic Volume (vph) | 144   | 0     | 47    | 49    | 44    | 186   | 61    |
| Future Volume (vph)  | 144   | 0     | 47    | 49    | 44    | 186   | 61    |
| Turn Type            | Perm  | NA    | Perm  | NA    | Perm  | pm+pt | NA    |
| Protected Phases     |       | 3     |       | 1     |       | 2     | 1     |
| Permitted Phases     | 3     |       | 3     |       | 1     | 1     |       |
| Detector Phase       | 3     | 3     | 3     | 1     | 1     | 2     | 1     |
| Switch Phase         |       |       |       |       |       |       |       |
| Minimum Initial (s)  | 8.0   | 8.0   | 8.0   | 20.0  | 20.0  | 5.0   | 20.0  |
| Minimum Split (s)    | 44.9  | 44.9  | 44.9  | 31.6  | 31.6  | 10.6  | 31.6  |
| Total Split (s)      | 45.0  | 45.0  | 45.0  | 34.0  | 34.0  | 11.0  | 34.0  |
| Total Split (%)      | 50.0% | 50.0% | 50.0% | 37.8% | 37.8% | 12.2% | 37.8% |
| Yellow Time (s)      | 3.9   | 3.9   | 3.9   | 3.6   | 3.6   | 3.6   | 3.6   |
| All-Red Time (s)     | 2.0   | 2.0   | 2.0   | 2.0   | 2.0   | 2.0   | 2.0   |
| Lost Time Adjust (s) | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |
| Total Lost Time (s)  | 5.9   | 5.9   | 5.9   | 5.6   | 5.6   | 5.6   | 5.6   |
| Lead/Lag             |       |       |       | Lead  | Lead  | Lag   | Lead  |
| Lead-Lag Optimize?   |       |       |       | Yes   | Yes   | Yes   | Yes   |
| Recall Mode          | None  | None  | None  | C-Max | C-Max | Max   | C-Max |

Intersection Summary

Cycle Length: 90

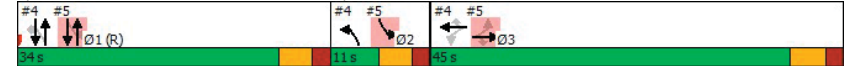
Actuated Cycle Length: 90

Offset: 0 (0%), Referenced to phase 1:NBSB, Start of Green, Master Intersection

Natural Cycle: 90

Control Type: Actuated-Coordinated

Splits and Phases: 5: Goldfield Rd & US-60 EB Ramps



2027 Background AM  
22-1180 Alliance Broadstone Silveray

5: Goldfield Rd & US-60 EB Ramps  
HCM Signalized Intersection Capacity Analysis

| Movement                          | EBL   | EBT   | EBR  | WBL  | WBT                       | WBR  | NBL  | NBT  | NBR  | SBL   | SBT  | SBR  |
|-----------------------------------|-------|-------|------|------|---------------------------|------|------|------|------|-------|------|------|
| Lane Configurations               | ↰     | ↱     | ↲    |      |                           |      |      | ↰    | ↱    | ↲     | ↰    | ↱    |
| Traffic Volume (vph)              | 81    | 0     | 33   | 0    | 0                         | 0    | 0    | 67   | 19   | 136   | 41   | 0    |
| Future Volume (vph)               | 81    | 0     | 33   | 0    | 0                         | 0    | 0    | 67   | 19   | 136   | 41   | 0    |
| Ideal Flow (vphpl)                | 1900  | 1900  | 1900 | 1900 | 1900                      | 1900 | 1900 | 1900 | 1900 | 1900  | 1900 | 1900 |
| Total Lost time (s)               | 5.9   | 5.9   | 5.9  |      |                           |      |      | 5.6  | 5.6  | 5.6   | 5.6  |      |
| Lane Util. Factor                 | 0.95  | 0.91  | 0.95 |      |                           |      |      | 0.91 | 1.00 | 1.00  | 0.95 |      |
| Frt                               | 1.00  | 0.99  | 0.85 |      |                           |      |      | 1.00 | 0.85 | 1.00  | 1.00 |      |
| Flt Protected                     | 0.95  | 0.96  | 1.00 |      |                           |      |      | 1.00 | 1.00 | 0.95  | 1.00 |      |
| Satd. Flow (prot)                 | 1681  | 1601  | 1504 |      |                           |      |      | 5085 | 1583 | 1770  | 3539 |      |
| Flt Permitted                     | 0.95  | 0.96  | 1.00 |      |                           |      |      | 1.00 | 1.00 | 0.70  | 1.00 |      |
| Satd. Flow (perm)                 | 1681  | 1601  | 1504 |      |                           |      |      | 5085 | 1583 | 1299  | 3539 |      |
| Peak-hour factor, PHF             | 0.85  | 0.80  | 0.80 | 0.25 | 0.25                      | 0.25 | 0.80 | 0.80 | 0.80 | 0.85  | 0.80 | 0.80 |
| Adj. Flow (vph)                   | 95    | 0     | 41   | 0    | 0                         | 0    | 0    | 84   | 24   | 160   | 51   | 0    |
| RTOR Reduction (vph)              | 0     | 46    | 34   | 0    | 0                         | 0    | 0    | 0    | 8    | 0     | 0    | 0    |
| Lane Group Flow (vph)             | 49    | 4     | 3    | 0    | 0                         | 0    | 0    | 84   | 16   | 160   | 51   | 0    |
| Turn Type                         | Perm  | NA    | Perm |      |                           |      |      | NA   | Perm | pm+pt | NA   |      |
| Protected Phases                  |       | 3     |      |      |                           |      |      | 1    |      | 2     | 1    |      |
| Permitted Phases                  | 3     |       | 3    |      |                           |      |      | 1    | 1    |       |      |      |
| Actuated Green, G (s)             | 6.7   | 6.7   | 6.7  |      |                           |      |      | 60.8 | 60.8 | 66.2  | 60.8 |      |
| Effective Green, g (s)            | 6.7   | 6.7   | 6.7  |      |                           |      |      | 60.8 | 60.8 | 66.2  | 60.8 |      |
| Actuated g/C Ratio                | 0.07  | 0.07  | 0.07 |      |                           |      |      | 0.68 | 0.68 | 0.74  | 0.68 |      |
| Clearance Time (s)                | 5.9   | 5.9   | 5.9  |      |                           |      |      | 5.6  | 5.6  | 5.6   | 5.6  |      |
| Vehicle Extension (s)             | 1.2   | 1.2   | 1.2  |      |                           |      |      | 1.2  | 1.2  | 1.2   | 1.2  |      |
| Lane Grp Cap (vph)                | 125   | 119   | 111  |      |                           |      |      | 3435 | 1069 | 983   | 2390 |      |
| v/s Ratio Prot                    |       |       |      |      |                           |      |      | 0.02 |      | c0.01 | 0.01 |      |
| v/s Ratio Perm                    | c0.03 | 0.00  | 0.00 |      |                           |      |      |      | 0.01 | c0.11 |      |      |
| v/c Ratio                         | 0.39  | 0.03  | 0.02 |      |                           |      |      | 0.02 | 0.02 | 0.16  | 0.02 |      |
| Uniform Delay, d1                 | 39.7  | 38.6  | 38.6 |      |                           |      |      | 4.8  | 4.8  | 3.6   | 4.8  |      |
| Progression Factor                | 1.00  | 1.00  | 1.00 |      |                           |      |      | 1.00 | 1.00 | 0.37  | 0.50 |      |
| Incremental Delay, d2             | 0.7   | 0.0   | 0.0  |      |                           |      |      | 0.0  | 0.0  | 0.4   | 0.0  |      |
| Delay (s)                         | 40.4  | 38.7  | 38.7 |      |                           |      |      | 4.8  | 4.8  | 1.7   | 2.4  |      |
| Level of Service                  | D     | D     | D    |      |                           |      |      | A    | A    | A     | A    |      |
| Approach Delay (s)                |       | 39.3  |      |      | 0.0                       |      |      | 4.8  |      |       | 1.9  |      |
| Approach LOS                      |       | D     |      |      | A                         |      |      | A    |      |       | A    |      |
| <b>Intersection Summary</b>       |       |       |      |      |                           |      |      |      |      |       |      |      |
| HCM 2000 Control Delay            |       | 13.8  |      |      | HCM 2000 Level of Service |      |      | B    |      |       |      |      |
| HCM 2000 Volume to Capacity ratio |       | 0.18  |      |      |                           |      |      |      |      |       |      |      |
| Actuated Cycle Length (s)         |       | 90.0  |      |      | Sum of lost time (s)      |      |      | 17.1 |      |       |      |      |
| Intersection Capacity Utilization |       | 45.1% |      |      | ICU Level of Service      |      |      | A    |      |       |      |      |
| Analysis Period (min)             |       | 15    |      |      |                           |      |      |      |      |       |      |      |

c Critical Lane Group

2027 Background PM  
22-1180 Alliance Broadstone Silveray

5: Goldfield Rd & US-60 EB Ramps  
HCM Signalized Intersection Capacity Analysis

| Movement                          | EBL   | EBT   | EBR  | WBL  | WBT                       | WBR  | NBL  | NBT  | NBR  | SBL   | SBT  | SBR  |
|-----------------------------------|-------|-------|------|------|---------------------------|------|------|------|------|-------|------|------|
| Lane Configurations               | ↰     | ↱     | ↲    |      |                           |      |      | ↰    | ↱    | ↲     | ↰    | ↱    |
| Traffic Volume (vph)              | 144   | 0     | 47   | 0    | 0                         | 0    | 0    | 49   | 44   | 186   | 61   | 0    |
| Future Volume (vph)               | 144   | 0     | 47   | 0    | 0                         | 0    | 0    | 49   | 44   | 186   | 61   | 0    |
| Ideal Flow (vphpl)                | 1900  | 1900  | 1900 | 1900 | 1900                      | 1900 | 1900 | 1900 | 1900 | 1900  | 1900 | 1900 |
| Total Lost time (s)               | 5.9   | 5.9   | 5.9  |      |                           |      |      | 5.6  | 5.6  | 5.6   | 5.6  |      |
| Lane Util. Factor                 | 0.95  | 0.91  | 0.95 |      |                           |      |      | 0.91 | 1.00 | 1.00  | 0.95 |      |
| Frt                               | 1.00  | 0.99  | 0.85 |      |                           |      |      | 1.00 | 0.85 | 1.00  | 1.00 |      |
| Flt Protected                     | 0.95  | 0.96  | 1.00 |      |                           |      |      | 1.00 | 1.00 | 0.95  | 1.00 |      |
| Satd. Flow (prot)                 | 1681  | 1603  | 1504 |      |                           |      |      | 5085 | 1583 | 1770  | 3539 |      |
| Flt Permitted                     | 0.95  | 0.96  | 1.00 |      |                           |      |      | 1.00 | 1.00 | 0.71  | 1.00 |      |
| Satd. Flow (perm)                 | 1681  | 1603  | 1504 |      |                           |      |      | 5085 | 1583 | 1329  | 3539 |      |
| Peak-hour factor, PHF             | 0.85  | 0.80  | 0.80 | 0.25 | 0.25                      | 0.25 | 0.80 | 0.80 | 0.80 | 0.85  | 0.80 | 0.80 |
| Adj. Flow (vph)                   | 169   | 0     | 59   | 0    | 0                         | 0    | 0    | 61   | 55   | 219   | 76   | 0    |
| RTOR Reduction (vph)              | 0     | 79    | 48   | 0    | 0                         | 0    | 0    | 0    | 19   | 0     | 0    | 0    |
| Lane Group Flow (vph)             | 88    | 8     | 5    | 0    | 0                         | 0    | 0    | 61   | 36   | 219   | 76   | 0    |
| Turn Type                         | Perm  | NA    | Perm |      |                           |      |      | NA   | Perm | pm+pt | NA   |      |
| Protected Phases                  |       | 3     |      |      |                           |      |      | 1    |      | 2     | 1    |      |
| Permitted Phases                  | 3     |       | 3    |      |                           |      |      | 1    | 1    |       |      |      |
| Actuated Green, G (s)             | 7.8   | 7.8   | 7.8  |      |                           |      |      | 59.7 | 59.7 | 65.1  | 59.7 |      |
| Effective Green, g (s)            | 7.8   | 7.8   | 7.8  |      |                           |      |      | 59.7 | 59.7 | 65.1  | 59.7 |      |
| Actuated g/C Ratio                | 0.09  | 0.09  | 0.09 |      |                           |      |      | 0.66 | 0.66 | 0.72  | 0.66 |      |
| Clearance Time (s)                | 5.9   | 5.9   | 5.9  |      |                           |      |      | 5.6  | 5.6  | 5.6   | 5.6  |      |
| Vehicle Extension (s)             | 1.2   | 1.2   | 1.2  |      |                           |      |      | 1.2  | 1.2  | 1.2   | 1.2  |      |
| Lane Grp Cap (vph)                | 145   | 138   | 130  |      |                           |      |      | 3373 | 1050 | 987   | 2347 |      |
| v/s Ratio Prot                    |       |       |      |      |                           |      |      | 0.01 |      | c0.01 | 0.02 |      |
| v/s Ratio Perm                    | c0.05 | 0.00  | 0.00 |      |                           |      |      |      | 0.02 | c0.15 |      |      |
| v/c Ratio                         | 0.61  | 0.05  | 0.04 |      |                           |      |      | 0.02 | 0.03 | 0.22  | 0.03 |      |
| Uniform Delay, d1                 | 39.6  | 37.7  | 37.7 |      |                           |      |      | 5.2  | 5.2  | 4.1   | 5.2  |      |
| Progression Factor                | 1.00  | 1.00  | 1.00 |      |                           |      |      | 1.00 | 1.00 | 0.47  | 0.51 |      |
| Incremental Delay, d2             | 4.8   | 0.1   | 0.0  |      |                           |      |      | 0.0  | 0.1  | 0.5   | 0.0  |      |
| Delay (s)                         | 44.5  | 37.8  | 37.7 |      |                           |      |      | 5.2  | 5.3  | 2.5   | 2.7  |      |
| Level of Service                  | D     | D     | D    |      |                           |      |      | A    | A    | A     | A    |      |
| Approach Delay (s)                |       | 40.3  |      |      | 0.0                       |      |      | 5.2  |      |       | 2.5  |      |
| Approach LOS                      |       | D     |      |      | A                         |      |      | A    |      |       | A    |      |
| <b>Intersection Summary</b>       |       |       |      |      |                           |      |      |      |      |       |      |      |
| HCM 2000 Control Delay            |       | 16.5  |      |      | HCM 2000 Level of Service |      |      | B    |      |       |      |      |
| HCM 2000 Volume to Capacity ratio |       | 0.26  |      |      |                           |      |      |      |      |       |      |      |
| Actuated Cycle Length (s)         |       | 90.0  |      |      | Sum of lost time (s)      |      |      | 17.1 |      |       |      |      |
| Intersection Capacity Utilization |       | 47.9% |      |      | ICU Level of Service      |      |      | A    |      |       |      |      |
| Analysis Period (min)             |       | 15    |      |      |                           |      |      |      |      |       |      |      |

c Critical Lane Group

2027 Background AM  
22-1180 Alliance Broadstone Silveray

5: Goldfield Rd & US-60 EB Ramps  
Queues

|                         |  |  |  |  |  |  |  |
|-------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|
| Lane Group              | EBL                                                                               | EBT                                                                               | EBR                                                                               | NBT                                                                               | NBR                                                                               | SBL                                                                               | SBT                                                                               |
| Lane Group Flow (vph)   | 49                                                                                | 50                                                                                | 37                                                                                | 84                                                                                | 24                                                                                | 160                                                                               | 51                                                                                |
| v/c Ratio               | 0.32                                                                              | 0.21                                                                              | 0.16                                                                              | 0.02                                                                              | 0.02                                                                              | 0.16                                                                              | 0.02                                                                              |
| Control Delay           | 44.0                                                                              | 3.2                                                                               | 1.5                                                                               | 5.4                                                                               | 0.1                                                                               | 1.3                                                                               | 2.7                                                                               |
| Queue Delay             | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               |
| Total Delay             | 44.0                                                                              | 3.2                                                                               | 1.5                                                                               | 5.4                                                                               | 0.1                                                                               | 1.3                                                                               | 2.7                                                                               |
| Queue Length 50th (ft)  | 28                                                                                | 0                                                                                 | 0                                                                                 | 5                                                                                 | 0                                                                                 | 0                                                                                 | 1                                                                                 |
| Queue Length 95th (ft)  | 61                                                                                | 0                                                                                 | 0                                                                                 | 9                                                                                 | 0                                                                                 | 4                                                                                 | 3                                                                                 |
| Internal Link Dist (ft) | 535                                                                               |                                                                                   | 222                                                                               |                                                                                   | 484                                                                               |                                                                                   |                                                                                   |
| Turn Bay Length (ft)    | 130                                                                               | 130                                                                               |                                                                                   | 115                                                                               |                                                                                   |                                                                                   |                                                                                   |
| Base Capacity (vph)     | 730                                                                               | 751                                                                               | 709                                                                               | 3504                                                                              | 1123                                                                              | 1000                                                                              | 2438                                                                              |
| Starvation Cap Reductn  | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 |
| Spillback Cap Reductn   | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 |
| Storage Cap Reductn     | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 |
| Reduced v/c Ratio       | 0.07                                                                              | 0.07                                                                              | 0.05                                                                              | 0.02                                                                              | 0.02                                                                              | 0.16                                                                              | 0.02                                                                              |
| Intersection Summary    |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |

2027 Background PM  
22-1180 Alliance Broadstone Silveray

5: Goldfield Rd & US-60 EB Ramps  
Queues

|                         |  |  |  |  |  |  |  |
|-------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Lane Group              | EBL                                                                                 | EBT                                                                                 | EBR                                                                                 | NBT                                                                                 | NBR                                                                                 | SBL                                                                                 | SBT                                                                                 |
| Lane Group Flow (vph)   | 88                                                                                  | 87                                                                                  | 53                                                                                  | 61                                                                                  | 55                                                                                  | 219                                                                                 | 76                                                                                  |
| v/c Ratio               | 0.50                                                                                | 0.34                                                                                | 0.22                                                                                | 0.02                                                                                | 0.05                                                                                | 0.22                                                                                | 0.03                                                                                |
| Control Delay           | 47.8                                                                                | 10.3                                                                                | 3.6                                                                                 | 6.2                                                                                 | 0.4                                                                                 | 2.0                                                                                 | 3.2                                                                                 |
| Queue Delay             | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 |
| Total Delay             | 47.8                                                                                | 10.3                                                                                | 3.6                                                                                 | 6.2                                                                                 | 0.4                                                                                 | 2.0                                                                                 | 3.2                                                                                 |
| Queue Length 50th (ft)  | 51                                                                                  | 0                                                                                   | 0                                                                                   | 4                                                                                   | 0                                                                                   | 1                                                                                   | 2                                                                                   |
| Queue Length 95th (ft)  | 91                                                                                  | 27                                                                                  | 2                                                                                   | 8                                                                                   | 1                                                                                   | 16                                                                                  | 7                                                                                   |
| Internal Link Dist (ft) | 535                                                                                 |                                                                                     | 222                                                                                 |                                                                                     | 484                                                                                 |                                                                                     |                                                                                     |
| Turn Bay Length (ft)    | 130                                                                                 | 130                                                                                 |                                                                                     | 115                                                                                 |                                                                                     |                                                                                     |                                                                                     |
| Base Capacity (vph)     | 730                                                                                 | 752                                                                                 | 709                                                                                 | 3439                                                                                | 1104                                                                                | 1004                                                                                | 2393                                                                                |
| Starvation Cap Reductn  | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   |
| Spillback Cap Reductn   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   |
| Storage Cap Reductn     | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   |
| Reduced v/c Ratio       | 0.12                                                                                | 0.12                                                                                | 0.07                                                                                | 0.02                                                                                | 0.05                                                                                | 0.22                                                                                | 0.03                                                                                |
| Intersection Summary    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |

2027 Background AM  
22-1180 Alliance Broadstone Silveray

6: Goldfield Rd & Chevron Access  
HCM 6th TWSC

| Intersection             |      |      |      |      |      |      |      |      |      |      |      |      |
|--------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Int Delay, s/veh         | 2.4  |      |      |      |      |      |      |      |      |      |      |      |
| Movement                 | EBL  | EBT  | EBR  | WBL  | WBT  | WBR  | NBL  | NBT  | NBR  | SBL  | SBT  | SBR  |
| Lane Configurations      |      |      |      |      |      |      |      |      |      |      |      |      |
| Traffic Vol, veh/h       | 3    | 2    | 0    | 2    | 1    | 23   | 0    | 78   | 9    | 21   | 41   | 3    |
| Future Vol, veh/h        | 3    | 2    | 0    | 2    | 1    | 23   | 0    | 78   | 9    | 21   | 41   | 3    |
| Conflicting Peds, #/hr   | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Sign Control             | Stop | Stop | Stop | Stop | Stop | Stop | Free | Free | Free | Free | Free | Free |
| RT Channelized           | -    | -    | None | -    | -    | None | -    | -    | None | -    | -    | None |
| Storage Length           | -    | -    | -    | -    | -    | -    | 50   | -    | 50   | 50   | -    | -    |
| Veh in Median Storage, # | -    | 0    | -    | -    | 0    | -    | -    | 0    | -    | -    | 0    | -    |
| Grade, %                 | -    | 0    | -    | -    | 0    | -    | -    | 0    | -    | -    | 0    | -    |
| Peak Hour Factor         | 80   | 80   | 80   | 80   | 80   | 80   | 80   | 85   | 80   | 80   | 80   | 80   |
| Heavy Vehicles, %        | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    |
| Mvmt Flow                | 4    | 3    | 0    | 3    | 1    | 29   | 0    | 92   | 11   | 26   | 51   | 4    |

| Major/Minor          | Minor2 |      | Minor1 |      | Major1 |      | Major2 |   |   |      |
|----------------------|--------|------|--------|------|--------|------|--------|---|---|------|
| Conflicting Flow All | 152    | 208  | 28     | 171  | 199    | 46   | 55     | 0 | 0 | 103  |
| Stage 1              | 105    | 105  | -      | 92   | 92     | -    | -      | - | - | -    |
| Stage 2              | 47     | 103  | -      | 79   | 107    | -    | -      | - | - | -    |
| Critical Hdwy        | 7.54   | 6.54 | 6.94   | 7.54 | 6.54   | 6.94 | 4.14   | - | - | 4.14 |
| Critical Hdwy Stg 1  | 6.54   | 5.54 | -      | 6.54 | 5.54   | -    | -      | - | - | -    |
| Critical Hdwy Stg 2  | 6.54   | 5.54 | -      | 6.54 | 5.54   | -    | -      | - | - | -    |
| Follow-up Hdwy       | 3.52   | 4.02 | 3.32   | 3.52 | 4.02   | 3.32 | 2.22   | - | - | 2.22 |
| Pot Cap-1 Maneuver   | 828    | 704  | 1074   | 802  | 712    | 1014 | 1570   | - | - | 1487 |
| Stage 1              | 913    | 821  | -      | 905  | 818    | -    | -      | - | - | -    |
| Stage 2              | 961    | 809  | -      | 946  | 820    | -    | -      | - | - | -    |
| Platoon blocked, %   | 1      | 1    | 1      | 1    | 1      | 1    | 1      | - | - | -    |
| Mov Cap-1 Maneuver   | 793    | 692  | 1074   | 790  | 700    | 1014 | 1570   | - | - | 1487 |
| Mov Cap-2 Maneuver   | 793    | 692  | -      | 790  | 700    | -    | -      | - | - | -    |
| Stage 1              | 913    | 807  | -      | 905  | 818    | -    | -      | - | - | -    |
| Stage 2              | 932    | 809  | -      | 927  | 806    | -    | -      | - | - | -    |

| Approach             | EB  | WB  | NB | SB  |
|----------------------|-----|-----|----|-----|
| HCM Control Delay, s | 9.8 | 8.8 | 0  | 2.4 |
| HCM LOS              | A   | A   |    |     |

| Minor Lane/Major Mvmt | NBL  | NBT | NBR | EBLn1WBLn1 | SBL   | SBT   | SBR |
|-----------------------|------|-----|-----|------------|-------|-------|-----|
| Capacity (veh/h)      | 1570 | -   | -   | 749        | 976   | 1487  | -   |
| HCM Lane V/C Ratio    | -    | -   | -   | 0.008      | 0.033 | 0.018 | -   |
| HCM Control Delay (s) | 0    | -   | -   | 9.8        | 8.8   | 7.5   | -   |
| HCM Lane LOS          | A    | -   | -   | A          | A     | A     | -   |
| HCM 95th %tile Q(veh) | 0    | -   | -   | 0          | 0.1   | 0.1   | -   |

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6: Goldfield Rd & Chevron Access  
HCM 6th TWSC

| Intersection             |      |      |      |      |      |      |      |      |      |      |      |      |
|--------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Int Delay, s/veh         | 2.7  |      |      |      |      |      |      |      |      |      |      |      |
| Movement                 | EBL  | EBT  | EBR  | WBL  | WBT  | WBR  | NBL  | NBT  | NBR  | SBL  | SBT  | SBR  |
| Lane Configurations      |      |      |      |      |      |      |      |      |      |      |      |      |
| Traffic Vol, veh/h       | 6    | 0    | 1    | 4    | 0    | 31   | 1    | 71   | 9    | 31   | 63   | 10   |
| Future Vol, veh/h        | 6    | 0    | 1    | 4    | 0    | 31   | 1    | 71   | 9    | 31   | 63   | 10   |
| Conflicting Peds, #/hr   | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Sign Control             | Stop | Stop | Stop | Stop | Stop | Stop | Free | Free | Free | Free | Free | Free |
| RT Channelized           | -    | -    | None | -    | -    | None | -    | -    | None | -    | -    | None |
| Storage Length           | -    | -    | -    | -    | -    | -    | 50   | -    | 50   | 50   | -    | -    |
| Veh in Median Storage, # | -    | 0    | -    | -    | 0    | -    | -    | 0    | -    | -    | 0    | -    |
| Grade, %                 | -    | 0    | -    | -    | 0    | -    | -    | 0    | -    | -    | 0    | -    |
| Peak Hour Factor         | 80   | 80   | 80   | 80   | 80   | 80   | 80   | 80   | 80   | 80   | 80   | 80   |
| Heavy Vehicles, %        | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    |
| Mvmt Flow                | 8    | 0    | 1    | 5    | 0    | 39   | 1    | 89   | 11   | 39   | 79   | 13   |

| Major/Minor          | Minor2 |      | Minor1 |      | Major1 |      | Major2 |   |   |      |
|----------------------|--------|------|--------|------|--------|------|--------|---|---|------|
| Conflicting Flow All | 211    | 266  | 46     | 209  | 261    | 45   | 92     | 0 | 0 | 100  |
| Stage 1              | 164    | 164  | -      | 91   | 91     | -    | -      | - | - | -    |
| Stage 2              | 47     | 102  | -      | 118  | 170    | -    | -      | - | - | -    |
| Critical Hdwy        | 7.54   | 6.54 | 6.94   | 7.54 | 6.54   | 6.94 | 4.14   | - | - | 4.14 |
| Critical Hdwy Stg 1  | 6.54   | 5.54 | -      | 6.54 | 5.54   | -    | -      | - | - | -    |
| Critical Hdwy Stg 2  | 6.54   | 5.54 | -      | 6.54 | 5.54   | -    | -      | - | - | -    |
| Follow-up Hdwy       | 3.52   | 4.02 | 3.32   | 3.52 | 4.02   | 3.32 | 2.22   | - | - | 2.22 |
| Pot Cap-1 Maneuver   | 752    | 654  | 1045   | 754  | 658    | 1015 | 1521   | - | - | 1490 |
| Stage 1              | 843    | 775  | -      | 906  | 819    | -    | -      | - | - | -    |
| Stage 2              | 961    | 810  | -      | 898  | 770    | -    | -      | - | - | -    |
| Platoon blocked, %   | 1      | 1    | 1      | 1    | 1      | 1    | 1      | - | - | -    |
| Mov Cap-1 Maneuver   | 708    | 636  | 1045   | 737  | 640    | 1015 | 1521   | - | - | 1490 |
| Mov Cap-2 Maneuver   | 708    | 636  | -      | 737  | 640    | -    | -      | - | - | -    |
| Stage 1              | 842    | 755  | -      | 905  | 818    | -    | -      | - | - | -    |
| Stage 2              | 924    | 809  | -      | 873  | 750    | -    | -      | - | - | -    |

| Approach             | EB  | WB  | NB  | SB  |
|----------------------|-----|-----|-----|-----|
| HCM Control Delay, s | 9.9 | 8.9 | 0.1 | 2.2 |
| HCM LOS              | A   | A   |     |     |

| Minor Lane/Major Mvmt | NBL   | NBT | NBR | EBLn1WBLn1 | SBL   | SBT   | SBR |
|-----------------------|-------|-----|-----|------------|-------|-------|-----|
| Capacity (veh/h)      | 1521  | -   | -   | 742        | 973   | 1490  | -   |
| HCM Lane V/C Ratio    | 0.001 | -   | -   | 0.012      | 0.045 | 0.026 | -   |
| HCM Control Delay (s) | 7.4   | -   | -   | 9.9        | 8.9   | 7.5   | -   |
| HCM Lane LOS          | A     | -   | -   | A          | A     | A     | -   |
| HCM 95th %tile Q(veh) | 0     | -   | -   | 0          | 0.1   | 0.1   | -   |

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7: Goldfield Rd & Resort Blvd  
HCM 6th TWSC

| Intersection             |      |      |      |      |      |      |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh         | 3.1  |      |      |      |      |      |
| Movement                 | WBL  | WBR  | NBT  | NBR  | SBL  | SBT  |
| Lane Configurations      | ↔    | ↔    | ↕    | ↕    | ↕    | ↕    |
| Traffic Vol, veh/h       | 2    | 30   | 57   | 3    | 19   | 24   |
| Future Vol, veh/h        | 2    | 30   | 57   | 3    | 19   | 24   |
| Conflicting Peds, #/hr   | 0    | 0    | 0    | 0    | 0    | 0    |
| Sign Control             | Stop | Stop | Free | Free | Free | Free |
| RT Channelized           | -    | None | -    | None | -    | None |
| Storage Length           | 0    | -    | -    | -    | 50   | -    |
| Veh in Median Storage, # | 0    | -    | 0    | -    | -    | 0    |
| Grade, %                 | 0    | -    | 0    | -    | -    | 0    |
| Peak Hour Factor         | 80   | 80   | 80   | 80   | 80   | 80   |
| Heavy Vehicles, %        | 2    | 2    | 2    | 2    | 2    | 2    |
| Mvmt Flow                | 3    | 38   | 71   | 4    | 24   | 30   |

| Major/Minor          | Minor1 | Major1 | Major2 |
|----------------------|--------|--------|--------|
| Conflicting Flow All | 136    | 38     | 0      |
| Stage 1              | 73     | -      | -      |
| Stage 2              | 63     | -      | -      |
| Critical Hdwy        | 6.84   | 6.94   | -      |
| Critical Hdwy Stg 1  | 5.84   | -      | -      |
| Critical Hdwy Stg 2  | 5.84   | -      | -      |
| Follow-up Hdwy       | 3.52   | 3.32   | -      |
| Pot Cap-1 Maneuver   | 844    | 1026   | -      |
| Stage 1              | 941    | -      | -      |
| Stage 2              | 952    | -      | -      |
| Platoon blocked, %   | -      | -      | -      |
| Mov Cap-1 Maneuver   | 830    | 1026   | -      |
| Mov Cap-2 Maneuver   | 807    | -      | -      |
| Stage 1              | 941    | -      | -      |
| Stage 2              | 937    | -      | -      |

| Approach             | WB  | NB | SB  |
|----------------------|-----|----|-----|
| HCM Control Delay, s | 8.7 | 0  | 3.3 |
| HCM LOS              | A   |    |     |

| Minor Lane/Major Mvmt | NBT | NBRWBLn1 | SBL  | SBT   |
|-----------------------|-----|----------|------|-------|
| Capacity (veh/h)      | -   | -        | 1009 | 1522  |
| HCM Lane V/C Ratio    | -   | -        | 0.04 | 0.016 |
| HCM Control Delay (s) | -   | -        | 8.7  | 7.4   |
| HCM Lane LOS          | -   | -        | A    | A     |
| HCM 95th %tile Q(veh) | -   | -        | 0.1  | 0     |

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7: Goldfield Rd & Resort Blvd  
HCM 6th TWSC

| Intersection             |      |      |      |      |      |      |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh         | 1.8  |      |      |      |      |      |
| Movement                 | WBL  | WBR  | NBT  | NBR  | SBL  | SBT  |
| Lane Configurations      | ↔    | ↔    | ↕    | ↕    | ↕    | ↕    |
| Traffic Vol, veh/h       | 2    | 19   | 62   | 6    | 14   | 54   |
| Future Vol, veh/h        | 2    | 19   | 62   | 6    | 14   | 54   |
| Conflicting Peds, #/hr   | 0    | 0    | 0    | 0    | 0    | 0    |
| Sign Control             | Stop | Stop | Free | Free | Free | Free |
| RT Channelized           | -    | None | -    | None | -    | None |
| Storage Length           | 0    | -    | -    | -    | 50   | -    |
| Veh in Median Storage, # | 0    | -    | 0    | -    | -    | 0    |
| Grade, %                 | 0    | -    | 0    | -    | -    | 0    |
| Peak Hour Factor         | 80   | 80   | 80   | 80   | 80   | 80   |
| Heavy Vehicles, %        | 2    | 2    | 2    | 2    | 2    | 2    |
| Mvmt Flow                | 3    | 24   | 78   | 8    | 18   | 68   |

| Major/Minor          | Minor1 | Major1 | Major2 |
|----------------------|--------|--------|--------|
| Conflicting Flow All | 152    | 43     | 0      |
| Stage 1              | 82     | -      | -      |
| Stage 2              | 70     | -      | -      |
| Critical Hdwy        | 6.84   | 6.94   | -      |
| Critical Hdwy Stg 1  | 5.84   | -      | -      |
| Critical Hdwy Stg 2  | 5.84   | -      | -      |
| Follow-up Hdwy       | 3.52   | 3.32   | -      |
| Pot Cap-1 Maneuver   | 848    | 1018   | -      |
| Stage 1              | 932    | -      | -      |
| Stage 2              | 965    | -      | -      |
| Platoon blocked, %   | 1      | -      | -      |
| Mov Cap-1 Maneuver   | 838    | 1018   | -      |
| Mov Cap-2 Maneuver   | 812    | -      | -      |
| Stage 1              | 932    | -      | -      |
| Stage 2              | 953    | -      | -      |

| Approach             | WB  | NB | SB  |
|----------------------|-----|----|-----|
| HCM Control Delay, s | 8.7 | 0  | 1.5 |
| HCM LOS              | A   |    |     |

| Minor Lane/Major Mvmt | NBT | NBRWBLn1 | SBL   | SBT   |
|-----------------------|-----|----------|-------|-------|
| Capacity (veh/h)      | -   | -        | 994   | 1508  |
| HCM Lane V/C Ratio    | -   | -        | 0.026 | 0.012 |
| HCM Control Delay (s) | -   | -        | 8.7   | 7.4   |
| HCM Lane LOS          | -   | -        | A     | A     |
| HCM 95th %tile Q(veh) | -   | -        | 0.1   | 0     |

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8: Resort Blvd & Chevron Access  
HCM 6th TWSC

| Intersection             |      |      |      |      |      |      |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh         | 1.5  |      |      |      |      |      |
| Movement                 | EBL  | EBT  | WBT  | WBR  | SBL  | SBR  |
| Lane Configurations      |      | ↔    | ↔    |      | ↔    | ↔    |
| Traffic Vol, veh/h       | 7    | 15   | 31   | 1    | 3    | 1    |
| Future Vol, veh/h        | 7    | 15   | 31   | 1    | 3    | 1    |
| Conflicting Peds, #/hr   | 0    | 0    | 0    | 0    | 0    | 0    |
| Sign Control             | Free | Free | Free | Free | Stop | Stop |
| RT Channelized           | -    | None | -    | None | -    | None |
| Storage Length           | -    | -    | -    | -    | 0    | -    |
| Veh in Median Storage, # | -    | 0    | 0    | -    | 0    | -    |
| Grade, %                 | -    | 0    | 0    | -    | 0    | -    |
| Peak Hour Factor         | 80   | 80   | 80   | 80   | 80   | 80   |
| Heavy Vehicles, %        | 2    | 2    | 2    | 2    | 2    | 2    |
| Mvmt Flow                | 9    | 19   | 39   | 1    | 4    | 1    |

| Major/Minor          | Major1 | Major2 | Minor2 |
|----------------------|--------|--------|--------|
| Conflicting Flow All | 40     | 0      | 77     |
| Stage 1              | -      | -      | 40     |
| Stage 2              | -      | -      | 37     |
| Critical Hdwy        | 4.12   | -      | 6.42   |
| Critical Hdwy Stg 1  | -      | -      | 5.42   |
| Critical Hdwy Stg 2  | -      | -      | 5.42   |
| Follow-up Hdwy       | 2.218  | -      | 3.318  |
| Pot Cap-1 Maneuver   | 1570   | -      | 926    |
| Stage 1              | -      | -      | 982    |
| Stage 2              | -      | -      | 985    |
| Platoon blocked, %   | -      | -      | -      |
| Mov Cap-1 Maneuver   | 1570   | -      | 920    |
| Mov Cap-2 Maneuver   | -      | -      | 920    |
| Stage 1              | -      | -      | 976    |
| Stage 2              | -      | -      | 985    |

| Approach             | EB  | WB | SB  |
|----------------------|-----|----|-----|
| HCM Control Delay, s | 2.3 | 0  | 8.8 |
| HCM LOS              |     |    | A   |

| Minor Lane/Major Mvmt | EBL   | EBT | WBT | WBR | SBLn1 |
|-----------------------|-------|-----|-----|-----|-------|
| Capacity (veh/h)      | 1570  | -   | -   | -   | 945   |
| HCM Lane V/C Ratio    | 0.006 | -   | -   | -   | 0.005 |
| HCM Control Delay (s) | 7.3   | 0   | -   | -   | 8.8   |
| HCM Lane LOS          | A     | A   | -   | -   | A     |
| HCM 95th %tile Q(veh) | 0     | -   | -   | -   | 0     |

2027 Background PM  
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8: Resort Blvd & Chevron Access  
HCM 6th TWSC

| Intersection             |      |      |      |      |      |      |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh         | 1.1  |      |      |      |      |      |
| Movement                 | EBL  | EBT  | WBT  | WBR  | SBL  | SBR  |
| Lane Configurations      |      | ↔    | ↔    |      | ↔    | ↔    |
| Traffic Vol, veh/h       | 2    | 30   | 11   | 0    | 1    | 3    |
| Future Vol, veh/h        | 2    | 30   | 11   | 0    | 1    | 3    |
| Conflicting Peds, #/hr   | 0    | 0    | 0    | 0    | 0    | 0    |
| Sign Control             | Free | Free | Free | Free | Stop | Stop |
| RT Channelized           | -    | None | -    | None | -    | None |
| Storage Length           | -    | -    | -    | -    | 0    | -    |
| Veh in Median Storage, # | -    | 0    | 0    | -    | 0    | -    |
| Grade, %                 | -    | 0    | 0    | -    | 0    | -    |
| Peak Hour Factor         | 80   | 80   | 80   | 80   | 80   | 80   |
| Heavy Vehicles, %        | 2    | 2    | 2    | 2    | 2    | 2    |
| Mvmt Flow                | 3    | 38   | 14   | 0    | 1    | 4    |

| Major/Minor          | Major1 | Major2 | Minor2 |
|----------------------|--------|--------|--------|
| Conflicting Flow All | 14     | 0      | 58     |
| Stage 1              | -      | -      | 14     |
| Stage 2              | -      | -      | 44     |
| Critical Hdwy        | 4.12   | -      | 6.42   |
| Critical Hdwy Stg 1  | -      | -      | 5.42   |
| Critical Hdwy Stg 2  | -      | -      | 5.42   |
| Follow-up Hdwy       | 2.218  | -      | 3.318  |
| Pot Cap-1 Maneuver   | 1604   | -      | 949    |
| Stage 1              | -      | -      | 1009   |
| Stage 2              | -      | -      | 978    |
| Platoon blocked, %   | -      | -      | -      |
| Mov Cap-1 Maneuver   | 1604   | -      | 947    |
| Mov Cap-2 Maneuver   | -      | -      | 947    |
| Stage 1              | -      | -      | 1007   |
| Stage 2              | -      | -      | 978    |

| Approach             | EB  | WB | SB  |
|----------------------|-----|----|-----|
| HCM Control Delay, s | 0.5 | 0  | 8.5 |
| HCM LOS              |     |    | A   |

| Minor Lane/Major Mvmt | EBL   | EBT | WBT | WBR | SBLn1 |
|-----------------------|-------|-----|-----|-----|-------|
| Capacity (veh/h)      | 1604  | -   | -   | -   | 1034  |
| HCM Lane V/C Ratio    | 0.002 | -   | -   | -   | 0.005 |
| HCM Control Delay (s) | 7.2   | 0   | -   | -   | 8.5   |
| HCM Lane LOS          | A     | A   | -   | -   | A     |
| HCM 95th %tile Q(veh) | 0     | -   | -   | -   | 0     |

## **APPENDIX J**

### **2024 BUILD PEAK HOUR ANALYSIS**

2024 Total AM  
22-1180 Alliance Broadstone Silveray

1: Goldfield Rd/EB Old West Hwy  
HCM 6th TWSC

| Intersection             |      |      |      |      |      |      |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh         | 3.2  |      |      |      |      |      |
| Movement                 | WBL  | WBR  | NBT  | NBR  | SBL  | SBT  |
| Lane Configurations      | ↱    |      |      |      | ↱ ↱  | ↱ ↱  |
| Traffic Vol, veh/h       | 60   | 0    | 0    | 0    | 0    | 123  |
| Future Vol, veh/h        | 60   | 0    | 0    | 0    | 0    | 123  |
| 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    | -    | -    | -    | 195  | -    |
| Veh in Median Storage, # | 0    | -    | 0    | -    | -    | 0    |
| Grade, %                 | 0    | -    | 0    | -    | -    | 0    |
| Peak Hour Factor         | 80   | 80   | 25   | 25   | 80   | 85   |
| Heavy Vehicles, %        | 2    | 2    | 2    | 2    | 2    | 2    |
| Mvmt Flow                | 75   | 0    | 0    | 0    | 0    | 145  |

| Major/Minor          | Minor1 | Major2 |        |
|----------------------|--------|--------|--------|
| Conflicting Flow All | 73     | -      | 0 0    |
| Stage 1              | 0      | -      | -      |
| Stage 2              | 73     | -      | -      |
| Critical Hdwy        | 6.84   | -      | 4.14 - |
| Critical Hdwy Stg 1  | -      | -      | -      |
| Critical Hdwy Stg 2  | 5.84   | -      | -      |
| Follow-up Hdwy       | 3.52   | -      | 2.22 - |
| Pot Cap-1 Maneuver   | 922    | 0      | - -    |
| Stage 1              | -      | 0      | - -    |
| Stage 2              | 941    | 0      | - -    |
| Platoon blocked, %   |        |        | -      |
| Mov Cap-1 Maneuver   | 922    | -      | - -    |
| Mov Cap-2 Maneuver   | 922    | -      | - -    |
| Stage 1              | -      | -      | - -    |
| Stage 2              | 941    | -      | - -    |

| Approach             | WB  | SB |
|----------------------|-----|----|
| HCM Control Delay, s | 9.3 | 0  |
| HCM LOS              | A   |    |

| Minor Lane/Major Mvmt | WBLn1 | SBL | SBT |
|-----------------------|-------|-----|-----|
| Capacity (veh/h)      | 922   | -   | -   |
| HCM Lane V/C Ratio    | 0.081 | -   | -   |
| HCM Control Delay (s) | 9.3   | 0   | -   |
| HCM Lane LOS          | A     | A   | -   |
| HCM 95th %tile Q(veh) | 0.3   | -   | -   |

2024 Total PM  
22-1180 Alliance Broadstone Silveray

1: Goldfield Rd/EB Old West Hwy  
HCM 6th TWSC

| Intersection             |      |      |      |      |      |      |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh         | 2.3  |      |      |      |      |      |
| Movement                 | WBL  | WBR  | NBT  | NBR  | SBL  | SBT  |
| Lane Configurations      | ↱    |      |      |      | ↱ ↱  | ↱ ↱  |
| Traffic Vol, veh/h       | 64   | 0    | 0    | 0    | 0    | 215  |
| Future Vol, veh/h        | 64   | 0    | 0    | 0    | 0    | 215  |
| 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    | -    | -    | -    | 195  | -    |
| Veh in Median Storage, # | 0    | -    | 0    | -    | -    | 0    |
| Grade, %                 | 0    | -    | 0    | -    | -    | 0    |
| Peak Hour Factor         | 80   | 80   | 25   | 25   | 80   | 85   |
| Heavy Vehicles, %        | 2    | 2    | 2    | 2    | 2    | 2    |
| Mvmt Flow                | 80   | 0    | 0    | 0    | 0    | 253  |

| Major/Minor          | Minor1 | Major2 |        |
|----------------------|--------|--------|--------|
| Conflicting Flow All | 127    | -      | 0 0    |
| Stage 1              | 0      | -      | -      |
| Stage 2              | 127    | -      | -      |
| Critical Hdwy        | 6.84   | -      | 4.14 - |
| Critical Hdwy Stg 1  | -      | -      | -      |
| Critical Hdwy Stg 2  | 5.84   | -      | -      |
| Follow-up Hdwy       | 3.52   | -      | 2.22 - |
| Pot Cap-1 Maneuver   | 854    | 0      | - -    |
| Stage 1              | -      | 0      | - -    |
| Stage 2              | 885    | 0      | - -    |
| Platoon blocked, %   |        |        | -      |
| Mov Cap-1 Maneuver   | 854    | -      | - -    |
| Mov Cap-2 Maneuver   | 854    | -      | - -    |
| Stage 1              | -      | -      | - -    |
| Stage 2              | 885    | -      | - -    |

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

| Minor Lane/Major Mvmt | WBLn1 | SBL | SBT |
|-----------------------|-------|-----|-----|
| Capacity (veh/h)      | 854   | -   | -   |
| HCM Lane V/C Ratio    | 0.094 | -   | -   |
| HCM Control Delay (s) | 9.7   | 0   | -   |
| HCM Lane LOS          | A     | A   | -   |
| HCM 95th %tile Q(veh) | 0.3   | -   | -   |

2024 Total AM  
22-1180 Alliance Broadstone Silveray

2: Goldfield Rd & WB Old West Hwy  
HCM 6th TWSC

| Intersection             |      |      |      |      |      |      |      |      |       |      |      |      |
|--------------------------|------|------|------|------|------|------|------|------|-------|------|------|------|
| Int Delay, s/veh         | 2.8  |      |      |      |      |      |      |      |       |      |      |      |
| Movement                 | EBL  | EBT  | EBR  | WBL  | WBT  | WBR  | NBL  | NBT  | NBR   | SBL  | SBT  | SBR  |
| Lane Configurations      |      | ↑    |      |      | ↑    | ↑    |      | ↑↑   | ↑     |      |      |      |
| Traffic Vol, veh/h       | 0    | 17   | 0    | 0    | 60   | 9    | 0    | 212  | 44    | 0    | 0    | 0    |
| Future Vol, veh/h        | 0    | 17   | 0    | 0    | 60   | 9    | 0    | 212  | 44    | 0    | 0    | 0    |
| Conflicting Peds, #/hr   | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0     | 0    | 0    | 0    |
| Sign Control             | Stop | Stop | Stop | Stop | Stop | Stop | Free | Free | Free  | Free | Free | Free |
| RT Channelized           | -    | -    | None | -    | -    | Stop | -    | -    | Yield | -    | -    | None |
| Storage Length           | -    | -    | -    | -    | -    | 0    | -    | -    | 0     | -    | -    | -    |
| Veh in Median Storage, # | -    | 0    | -    | -    | 0    | -    | -    | 0    | -     | -    | 0    | -    |
| Grade, %                 | -    | 0    | -    | -    | 0    | -    | -    | 0    | -     | -    | 0    | -    |
| Peak Hour Factor         | 80   | 80   | 80   | 80   | 80   | 80   | 80   | 85   | 80    | 25   | 25   | 25   |
| Heavy Vehicles, %        | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2     | 2    | 2    | 2    |
| Mvmt Flow                | 0    | 21   | 0    | 0    | 75   | 11   | 0    | 249  | 55    | 0    | 0    | 0    |

| Major/Minor          | Minor2 | Minor1   | Major1      |
|----------------------|--------|----------|-------------|
| Conflicting Flow All | - 249  | - - 249  | 125 - 0 0   |
| Stage 1              | - 0    | - - 249  | - - - -     |
| Stage 2              | - 249  | - - 0    | - - - -     |
| Critical Hdwy        | - 6.54 | - - 6.54 | 6.94 - - -  |
| Critical Hdwy Stg 1  | - -    | - - 5.54 | - - - -     |
| Critical Hdwy Stg 2  | - 5.54 | - - -    | - - - -     |
| Follow-up Hdwy       | - 4.02 | - - 4.02 | 3.32 - - -  |
| Pot Cap-1 Maneuver   | 0 653  | 0 0 653  | 902 0 - - - |
| Stage 1              | 0 -    | 0 0 699  | - 0 - - -   |
| Stage 2              | 0 699  | 0 0 -    | - 0 - - -   |
| Platoon blocked, %   | -      | -        | - - -       |
| Mov Cap-1 Maneuver   | - 653  | - - 653  | 902 - - -   |
| Mov Cap-2 Maneuver   | - 653  | - - 653  | - - - -     |
| Stage 1              | - -    | - - 699  | - - - -     |
| Stage 2              | - 699  | - - -    | - - - -     |

| Approach             | EB   | WB   | NB |
|----------------------|------|------|----|
| HCM Control Delay, s | 10.7 | 10.9 | 0  |
| HCM LOS              | B    | B    |    |

| Minor Lane/Major Mvmt | NBT | NBR | EBLn1 | WBLn1 | WBLn2 |
|-----------------------|-----|-----|-------|-------|-------|
| Capacity (veh/h)      | -   | -   | 653   | 653   | 902   |
| HCM Lane V/C Ratio    | -   | -   | 0.033 | 0.115 | 0.012 |
| HCM Control Delay (s) | -   | -   | 10.7  | 11.2  | 9     |
| HCM Lane LOS          | -   | -   | B     | B     | A     |
| HCM 95th %tile Q(veh) | -   | -   | 0.1   | 0.4   | 0     |

2024 Total PM  
22-1180 Alliance Broadstone Silveray

2: Goldfield Rd & WB Old West Hwy  
HCM 6th TWSC

| Intersection             |      |      |      |      |      |      |      |      |       |      |      |      |
|--------------------------|------|------|------|------|------|------|------|------|-------|------|------|------|
| Int Delay, s/veh         | 2.9  |      |      |      |      |      |      |      |       |      |      |      |
| Movement                 | EBL  | EBT  | EBR  | WBL  | WBT  | WBR  | NBL  | NBT  | NBR   | SBL  | SBT  | SBR  |
| Lane Configurations      |      | ↑    |      |      | ↑    | ↑    |      | ↑↑   | ↑     |      |      |      |
| Traffic Vol, veh/h       | 0    | 20   | 0    | 0    | 64   | 5    | 0    | 194  | 61    | 0    | 0    | 0    |
| Future Vol, veh/h        | 0    | 20   | 0    | 0    | 64   | 5    | 0    | 194  | 61    | 0    | 0    | 0    |
| Conflicting Peds, #/hr   | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0     | 0    | 0    | 0    |
| Sign Control             | Stop | Stop | Stop | Stop | Stop | Stop | Free | Free | Free  | Free | Free | Free |
| RT Channelized           | -    | -    | None | -    | -    | Stop | -    | -    | Yield | -    | -    | None |
| Storage Length           | -    | -    | -    | -    | -    | 0    | -    | -    | 0     | -    | -    | -    |
| Veh in Median Storage, # | -    | 0    | -    | -    | 0    | -    | -    | 0    | -     | -    | 0    | -    |
| Grade, %                 | -    | 0    | -    | -    | 0    | -    | -    | 0    | -     | -    | 0    | -    |
| Peak Hour Factor         | 80   | 80   | 80   | 80   | 80   | 80   | 80   | 85   | 80    | 25   | 25   | 25   |
| Heavy Vehicles, %        | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2     | 2    | 2    | 2    |
| Mvmt Flow                | 0    | 25   | 0    | 0    | 80   | 6    | 0    | 228  | 76    | 0    | 0    | 0    |

| Major/Minor          | Minor2 | Minor1   | Major1      |
|----------------------|--------|----------|-------------|
| Conflicting Flow All | - 228  | - - 228  | 114 - 0 0   |
| Stage 1              | - 0    | - - 228  | - - - -     |
| Stage 2              | - 228  | - - 0    | - - - -     |
| Critical Hdwy        | - 6.54 | - - 6.54 | 6.94 - - -  |
| Critical Hdwy Stg 1  | - -    | - - 5.54 | - - - -     |
| Critical Hdwy Stg 2  | - 5.54 | - - -    | - - - -     |
| Follow-up Hdwy       | - 4.02 | - - 4.02 | 3.32 - - -  |
| Pot Cap-1 Maneuver   | 0 670  | 0 0 670  | 917 0 - - - |
| Stage 1              | 0 -    | 0 0 714  | - 0 - - -   |
| Stage 2              | 0 714  | 0 0 -    | - 0 - - -   |
| Platoon blocked, %   | -      | -        | - - -       |
| Mov Cap-1 Maneuver   | - 670  | - - 670  | 917 - - -   |
| Mov Cap-2 Maneuver   | - 670  | - - 670  | - - - -     |
| Stage 1              | - -    | - - 714  | - - - -     |
| Stage 2              | - 714  | - - -    | - - - -     |

| Approach             | EB   | WB   | NB |
|----------------------|------|------|----|
| HCM Control Delay, s | 10.6 | 10.9 | 0  |
| HCM LOS              | B    | B    |    |

| Minor Lane/Major Mvmt | NBT | NBR | EBLn1 | WBLn1 | WBLn2 |
|-----------------------|-----|-----|-------|-------|-------|
| Capacity (veh/h)      | -   | -   | 670   | 670   | 917   |
| HCM Lane V/C Ratio    | -   | -   | 0.037 | 0.119 | 0.007 |
| HCM Control Delay (s) | -   | -   | 10.6  | 11.1  | 9     |
| HCM Lane LOS          | -   | -   | B     | B     | A     |
| HCM 95th %tile Q(veh) | -   | -   | 0.1   | 0.4   | 0     |

2024 Total AM  
22-1180 Alliance Broadstone Silveray

3: Goldfield Rd & US-60/Old West Hwy Exit  
HCM 6th TWSC

| Intersection             |      |      |      |      |      |      |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh         | 3.6  |      |      |      |      |      |
| Movement                 | WBL  | WBR  | NBT  | NBR  | SBL  | SBT  |
| Lane Configurations      |      | ↗    | ↗    |      |      | ↗    |
| Traffic Vol, veh/h       | 0    | 168  | 88   | 0    | 0    | 185  |
| Future Vol, veh/h        | 0    | 168  | 88   | 0    | 0    | 185  |
| 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         | 80   | 85   | 85   | 80   | 80   | 85   |
| Heavy Vehicles, %        | 2    | 2    | 2    | 2    | 2    | 2    |
| Mvmt Flow                | 0    | 198  | 104  | 0    | 0    | 218  |

| Major/Minor          | Minor1 | Major1 | Major2 |
|----------------------|--------|--------|--------|
| Conflicting Flow All | -      | 52     | 0      |
| Stage 1              | -      | -      | -      |
| Stage 2              | -      | -      | -      |
| Critical Hdwy        | -      | 6.94   | -      |
| Critical Hdwy Stg 1  | -      | -      | -      |
| Critical Hdwy Stg 2  | -      | -      | -      |
| Follow-up Hdwy       | -      | 3.32   | -      |
| Pot Cap-1 Maneuver   | 0      | 1005   | 0      |
| Stage 1              | 0      | -      | 0      |
| Stage 2              | 0      | -      | 0      |
| Platoon blocked, %   | -      | -      | -      |
| Mov Cap-1 Maneuver   | -      | 1005   | -      |
| Mov Cap-2 Maneuver   | -      | -      | -      |
| Stage 1              | -      | -      | -      |
| Stage 2              | -      | -      | -      |

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

| Minor Lane/Major Mvmt | NBTWBLn1 | SBT   |
|-----------------------|----------|-------|
| Capacity (veh/h)      | -        | 1005  |
| HCM Lane V/C Ratio    | -        | 0.197 |
| HCM Control Delay (s) | -        | 9.5   |
| HCM Lane LOS          | -        | A     |
| HCM 95th %tile Q(veh) | -        | 0.7   |

2024 Total PM  
22-1180 Alliance Broadstone Silveray

3: Goldfield Rd & US-60/Old West Hwy Exit  
HCM 6th TWSC

| Intersection             |      |      |      |      |      |      |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh         | 2    |      |      |      |      |      |
| Movement                 | WBL  | WBR  | NBT  | NBR  | SBL  | SBT  |
| Lane Configurations      |      | ↗    | ↗    |      |      | ↗    |
| Traffic Vol, veh/h       | 0    | 114  | 140  | 0    | 0    | 278  |
| Future Vol, veh/h        | 0    | 114  | 140  | 0    | 0    | 278  |
| 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         | 80   | 85   | 85   | 80   | 80   | 85   |
| Heavy Vehicles, %        | 2    | 2    | 2    | 2    | 2    | 2    |
| Mvmt Flow                | 0    | 134  | 165  | 0    | 0    | 327  |

| Major/Minor          | Minor1 | Major1 | Major2 |
|----------------------|--------|--------|--------|
| Conflicting Flow All | -      | 83     | 0      |
| Stage 1              | -      | -      | -      |
| Stage 2              | -      | -      | -      |
| Critical Hdwy        | -      | 6.94   | -      |
| Critical Hdwy Stg 1  | -      | -      | -      |
| Critical Hdwy Stg 2  | -      | -      | -      |
| Follow-up Hdwy       | -      | 3.32   | -      |
| Pot Cap-1 Maneuver   | 0      | 960    | 0      |
| Stage 1              | 0      | -      | 0      |
| Stage 2              | 0      | -      | 0      |
| Platoon blocked, %   | -      | -      | -      |
| Mov Cap-1 Maneuver   | -      | 960    | -      |
| Mov Cap-2 Maneuver   | -      | -      | -      |
| Stage 1              | -      | -      | -      |
| Stage 2              | -      | -      | -      |

| Approach             | WB  | NB | SB |
|----------------------|-----|----|----|
| HCM Control Delay, s | 9.4 | 0  | 0  |
| HCM LOS              | A   |    |    |

| Minor Lane/Major Mvmt | NBTWBLn1 | SBT  |
|-----------------------|----------|------|
| Capacity (veh/h)      | -        | 960  |
| HCM Lane V/C Ratio    | -        | 0.14 |
| HCM Control Delay (s) | -        | 9.4  |
| HCM Lane LOS          | -        | A    |
| HCM 95th %tile Q(veh) | -        | 0.5  |

2024 Total AM  
22-1180 Alliance Broadstone Silveray

4: Goldfield Rd & US-60 WB Ramps  
Timings

| Lane Group           | WBL   | WBT   | WBR   | NBL   | NBT   | SBT   | SBR   |
|----------------------|-------|-------|-------|-------|-------|-------|-------|
| Lane Configurations  | ↩     | ↩↪    | ↩     | ↩     | ↩↪    | ↩↪    | ↩     |
| Traffic Volume (vph) | 8     | 0     | 17    | 97    | 134   | 171   | 128   |
| Future Volume (vph)  | 8     | 0     | 17    | 97    | 134   | 171   | 128   |
| Turn Type            | Perm  | NA    | Perm  | pm+pt | NA    | NA    | Perm  |
| Protected Phases     |       | 3     |       | 2     | 1     | 1     |       |
| Permitted Phases     | 3     |       | 3     | 1     |       |       | 1     |
| Detector Phase       | 3     | 3     | 3     | 2     | 1     | 1     | 1     |
| Switch Phase         |       |       |       |       |       |       |       |
| Minimum Initial (s)  | 8.0   | 8.0   | 8.0   | 5.0   | 20.0  | 20.0  | 20.0  |
| Minimum Split (s)    | 44.9  | 44.9  | 44.9  | 10.6  | 31.6  | 31.6  | 31.6  |
| Total Split (s)      | 45.0  | 45.0  | 45.0  | 11.0  | 34.0  | 34.0  | 34.0  |
| Total Split (%)      | 50.0% | 50.0% | 50.0% | 12.2% | 37.8% | 37.8% | 37.8% |
| Yellow Time (s)      | 3.9   | 3.9   | 3.9   | 3.6   | 3.6   | 3.6   | 3.6   |
| All-Red Time (s)     | 2.0   | 2.0   | 2.0   | 2.0   | 2.0   | 2.0   | 2.0   |
| Lost Time Adjust (s) | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |
| Total Lost Time (s)  | 5.9   | 5.9   | 5.9   | 5.6   | 5.6   | 5.6   | 5.6   |
| Lead/Lag             |       |       |       | Lag   | Lead  | Lead  | Lead  |
| Lead-Lag Optimize?   |       |       |       | Yes   | Yes   | Yes   | Yes   |
| Recall Mode          | None  | None  | None  | Max   | C-Max | C-Max | C-Max |

Intersection Summary

Cycle Length: 90

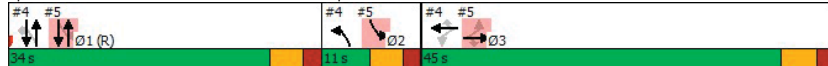
Actuated Cycle Length: 90

Offset: 0 (0%), Referenced to phase 1:NBSB, Start of Green, Master Intersection

Natural Cycle: 90

Control Type: Actuated-Coordinated

Splits and Phases: 4: Goldfield Rd & US-60 WB Ramps



2024 Total PM  
22-1180 Alliance Broadstone Silveray

4: Goldfield Rd & US-60 WB Ramps  
Timings

| Lane Group           | WBL   | WBT   | WBR   | NBL   | NBT   | SBT   | SBR   |
|----------------------|-------|-------|-------|-------|-------|-------|-------|
| Lane Configurations  | ↩     | ↩↪    | ↩     | ↩     | ↩↪    | ↩↪    | ↩     |
| Traffic Volume (vph) | 25    | 0     | 42    | 64    | 179   | 238   | 91    |
| Future Volume (vph)  | 25    | 0     | 42    | 64    | 179   | 238   | 91    |
| Turn Type            | Perm  | NA    | Perm  | pm+pt | NA    | NA    | Perm  |
| Protected Phases     |       | 3     |       | 2     | 1     | 1     |       |
| Permitted Phases     | 3     |       | 3     | 1     |       |       | 1     |
| Detector Phase       | 3     | 3     | 3     | 2     | 1     | 1     | 1     |
| Switch Phase         |       |       |       |       |       |       |       |
| Minimum Initial (s)  | 8.0   | 8.0   | 8.0   | 5.0   | 20.0  | 20.0  | 20.0  |
| Minimum Split (s)    | 44.9  | 44.9  | 44.9  | 10.6  | 31.6  | 31.6  | 31.6  |
| Total Split (s)      | 45.0  | 45.0  | 45.0  | 11.0  | 34.0  | 34.0  | 34.0  |
| Total Split (%)      | 50.0% | 50.0% | 50.0% | 12.2% | 37.8% | 37.8% | 37.8% |
| Yellow Time (s)      | 3.9   | 3.9   | 3.9   | 3.6   | 3.6   | 3.6   | 3.6   |
| All-Red Time (s)     | 2.0   | 2.0   | 2.0   | 2.0   | 2.0   | 2.0   | 2.0   |
| Lost Time Adjust (s) | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |
| Total Lost Time (s)  | 5.9   | 5.9   | 5.9   | 5.6   | 5.6   | 5.6   | 5.6   |
| Lead/Lag             |       |       |       | Lag   | Lead  | Lead  | Lead  |
| Lead-Lag Optimize?   |       |       |       | Yes   | Yes   | Yes   | Yes   |
| Recall Mode          | None  | None  | None  | Max   | C-Max | C-Max | C-Max |

Intersection Summary

Cycle Length: 90

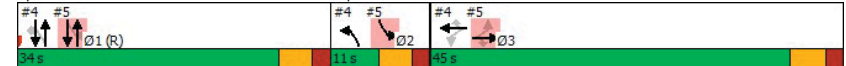
Actuated Cycle Length: 90

Offset: 0 (0%), Referenced to phase 1:NBSB, Start of Green, Master Intersection

Natural Cycle: 90

Control Type: Actuated-Coordinated

Splits and Phases: 4: Goldfield Rd & US-60 WB Ramps



2024 Total AM  
22-1180 Alliance Broadstone Silveray

4: Goldfield Rd & US-60 WB Ramps  
HCM Signalized Intersection Capacity Analysis

| Movement                          | EBL   | EBT  | EBR  | WBL   | WBT  | WBR  | NBL   | NBT  | NBR  | SBL  | SBT  | SBR  |
|-----------------------------------|-------|------|------|-------|------|------|-------|------|------|------|------|------|
| Lane Configurations               |       |      |      |       |      |      |       |      |      |      |      |      |
| Traffic Volume (vph)              | 0     | 0    | 0    | 8     | 0    | 17   | 97    | 134  | 0    | 0    | 171  | 128  |
| Future Volume (vph)               | 0     | 0    | 0    | 8     | 0    | 17   | 97    | 134  | 0    | 0    | 171  | 128  |
| Ideal Flow (vphpl)                | 1900  | 1900 | 1900 | 1900  | 1900 | 1900 | 1900  | 1900 | 1900 | 1900 | 1900 | 1900 |
| Total Lost time (s)               |       |      |      | 5.9   | 5.9  | 5.9  | 5.6   | 5.6  |      |      | 5.6  | 5.6  |
| Lane Util. Factor                 |       |      |      | 0.95  | 0.91 | 0.95 | 1.00  | 0.95 |      |      | 0.91 | 1.00 |
| Flt Protected                     |       |      |      | 0.95  | 1.00 | 1.00 | 0.95  | 1.00 |      |      | 1.00 | 1.00 |
| Satd. Flow (prot)                 |       |      |      | 1681  | 1457 | 1504 | 1770  | 3539 |      |      | 5085 | 1583 |
| Flt Permitted                     |       |      |      | 0.95  | 1.00 | 1.00 | 0.62  | 1.00 |      |      | 1.00 | 1.00 |
| Satd. Flow (perm)                 |       |      |      | 1681  | 1457 | 1504 | 1155  | 3539 |      |      | 5085 | 1583 |
| Peak-hour factor, PHF             | 0.25  | 0.25 | 0.25 | 0.80  | 0.80 | 0.80 | 0.85  | 0.85 | 0.80 | 0.80 | 0.85 | 0.85 |
| Adj. Flow (vph)                   | 0     | 0    | 0    | 10    | 0    | 21   | 114   | 158  | 0    | 0    | 201  | 151  |
| RTOR Reduction (vph)              | 0     | 0    | 0    | 0     | 10   | 10   | 0     | 0    | 0    | 0    | 0    | 49   |
| Lane Group Flow (vph)             | 0     | 0    | 0    | 9     | 1    | 1    | 114   | 158  | 0    | 0    | 201  | 102  |
| Turn Type                         |       |      |      | Perm  | NA   | Perm | pm+pt | NA   |      |      | NA   | Perm |
| Protected Phases                  |       |      |      |       | 3    |      | 2     | 1    |      |      | 1    |      |
| Permitted Phases                  |       |      |      | 3     |      | 3    | 1     |      |      |      |      | 1    |
| Actuated Green, G (s)             |       |      |      | 6.8   | 6.8  | 6.8  | 66.1  | 60.7 |      |      | 60.7 | 60.7 |
| Effective Green, g (s)            |       |      |      | 6.8   | 6.8  | 6.8  | 66.1  | 60.7 |      |      | 60.7 | 60.7 |
| Actuated g/C Ratio                |       |      |      | 0.08  | 0.08 | 0.08 | 0.73  | 0.67 |      |      | 0.67 | 0.67 |
| Clearance Time (s)                |       |      |      | 5.9   | 5.9  | 5.9  | 5.6   | 5.6  |      |      | 5.6  | 5.6  |
| Vehicle Extension (s)             |       |      |      | 1.2   | 1.2  | 1.2  | 1.2   | 1.2  |      |      | 1.2  | 1.2  |
| Lane Grp Cap (vph)                |       |      |      | 127   | 110  | 113  | 885   | 2386 |      |      | 3429 | 1067 |
| v/s Ratio Prot                    |       |      |      |       |      |      | c0.01 | 0.04 |      |      | 0.04 |      |
| v/s Ratio Perm                    |       |      |      | c0.01 | 0.00 | 0.00 | c0.09 |      |      |      |      | 0.06 |
| v/c Ratio                         |       |      |      | 0.07  | 0.01 | 0.01 | 0.13  | 0.07 |      |      | 0.06 | 0.10 |
| Uniform Delay, d1                 |       |      |      | 38.7  | 38.5 | 38.5 | 3.5   | 5.0  |      |      | 5.0  | 5.1  |
| Progression Factor                |       |      |      | 1.00  | 1.00 | 1.00 | 0.44  | 0.60 |      |      | 1.00 | 1.00 |
| Incremental Delay, d2             |       |      |      | 0.1   | 0.0  | 0.0  | 0.3   | 0.1  |      |      | 0.0  | 0.2  |
| Delay (s)                         |       |      |      | 38.8  | 38.5 | 38.5 | 1.8   | 3.0  |      |      | 5.0  | 5.3  |
| Level of Service                  |       |      |      | D     | D    | D    | A     | A    |      |      | A    | A    |
| Approach Delay (s)                | 0.0   |      |      |       | 38.6 |      |       | 2.5  |      |      | 5.1  |      |
| Approach LOS                      | A     |      |      |       | D    |      |       | A    |      |      | A    |      |
| Intersection Summary              |       |      |      |       |      |      |       |      |      |      |      |      |
| HCM 2000 Control Delay            | 5.6   |      |      |       |      |      |       |      |      |      |      |      |
| HCM 2000 Level of Service         |       |      |      |       |      |      |       | A    |      |      |      |      |
| HCM 2000 Volume to Capacity ratio | 0.12  |      |      |       |      |      |       |      |      |      |      |      |
| Actuated Cycle Length (s)         | 90.0  |      |      |       |      |      |       | 17.1 |      |      |      |      |
| Intersection Capacity Utilization | 44.8% |      |      |       |      |      |       | A    |      |      |      |      |
| Analysis Period (min)             | 15    |      |      |       |      |      |       |      |      |      |      |      |

c Critical Lane Group

2024 Total PM  
22-1180 Alliance Broadstone Silveray

4: Goldfield Rd & US-60 WB Ramps  
HCM Signalized Intersection Capacity Analysis

| Movement                          | EBL   | EBT  | EBR  | WBL   | WBT  | WBR  | NBL   | NBT  | NBR  | SBL  | SBT  | SBR  |
|-----------------------------------|-------|------|------|-------|------|------|-------|------|------|------|------|------|
| Lane Configurations               |       |      |      |       |      |      |       |      |      |      |      |      |
| Traffic Volume (vph)              | 0     | 0    | 0    | 25    | 0    | 42   | 64    | 179  | 0    | 0    | 238  | 91   |
| Future Volume (vph)               | 0     | 0    | 0    | 25    | 0    | 42   | 64    | 179  | 0    | 0    | 238  | 91   |
| Ideal Flow (vphpl)                | 1900  | 1900 | 1900 | 1900  | 1900 | 1900 | 1900  | 1900 | 1900 | 1900 | 1900 | 1900 |
| Total Lost time (s)               |       |      |      | 5.9   | 5.9  | 5.9  | 5.6   | 5.6  |      |      | 5.6  | 5.6  |
| Lane Util. Factor                 |       |      |      | 0.95  | 0.91 | 0.95 | 1.00  | 0.95 |      |      | 0.91 | 1.00 |
| Flt Protected                     |       |      |      | 0.95  | 0.99 | 1.00 | 0.95  | 1.00 |      |      | 1.00 | 1.00 |
| Satd. Flow (prot)                 |       |      |      | 1681  | 1460 | 1504 | 1770  | 3539 |      |      | 5085 | 1583 |
| Flt Permitted                     |       |      |      | 0.95  | 0.99 | 1.00 | 0.57  | 1.00 |      |      | 1.00 | 1.00 |
| Satd. Flow (perm)                 |       |      |      | 1681  | 1460 | 1504 | 1067  | 3539 |      |      | 5085 | 1583 |
| Peak-hour factor, PHF             | 0.25  | 0.25 | 0.25 | 0.80  | 0.80 | 0.80 | 0.85  | 0.85 | 0.80 | 0.80 | 0.85 | 0.85 |
| Adj. Flow (vph)                   | 0     | 0    | 0    | 31    | 0    | 52   | 80    | 211  | 0    | 0    | 280  | 107  |
| RTOR Reduction (vph)              | 0     | 0    | 0    | 0     | 25   | 25   | 0     | 0    | 0    | 0    | 0    | 39   |
| Lane Group Flow (vph)             | 0     | 0    | 0    | 28    | 3    | 3    | 80    | 211  | 0    | 0    | 280  | 68   |
| Turn Type                         |       |      |      | Perm  | NA   | Perm | pm+pt | NA   |      |      | NA   | Perm |
| Protected Phases                  |       |      |      |       | 3    |      | 2     | 1    |      |      | 1    |      |
| Permitted Phases                  |       |      |      | 3     |      | 3    | 1     |      |      |      |      | 1    |
| Actuated Green, G (s)             |       |      |      | 10.0  | 10.0 | 10.0 | 62.9  | 57.5 |      |      | 57.5 | 57.5 |
| Effective Green, g (s)            |       |      |      | 10.0  | 10.0 | 10.0 | 62.9  | 57.5 |      |      | 57.5 | 57.5 |
| Actuated g/C Ratio                |       |      |      | 0.11  | 0.11 | 0.11 | 0.70  | 0.64 |      |      | 0.64 | 0.64 |
| Clearance Time (s)                |       |      |      | 5.9   | 5.9  | 5.9  | 5.6   | 5.6  |      |      | 5.6  | 5.6  |
| Vehicle Extension (s)             |       |      |      | 1.2   | 1.2  | 1.2  | 1.2   | 1.2  |      |      | 1.2  | 1.2  |
| Lane Grp Cap (vph)                |       |      |      | 186   | 162  | 167  | 787   | 2261 |      |      | 3248 | 1011 |
| v/s Ratio Prot                    |       |      |      |       |      |      | c0.01 | 0.06 |      |      | 0.06 |      |
| v/s Ratio Perm                    |       |      |      | c0.02 | 0.00 | 0.00 | c0.06 |      |      |      |      | 0.04 |
| v/c Ratio                         |       |      |      | 0.15  | 0.02 | 0.02 | 0.10  | 0.09 |      |      | 0.09 | 0.07 |
| Uniform Delay, d1                 |       |      |      | 36.2  | 35.6 | 35.6 | 4.4   | 6.2  |      |      | 6.2  | 6.1  |
| Progression Factor                |       |      |      | 1.00  | 1.00 | 1.00 | 0.71  | 0.63 |      |      | 1.00 | 1.00 |
| Incremental Delay, d2             |       |      |      | 0.1   | 0.0  | 0.0  | 0.3   | 0.1  |      |      | 0.1  | 0.1  |
| Delay (s)                         |       |      |      | 36.3  | 35.6 | 35.6 | 3.4   | 4.0  |      |      | 6.3  | 6.3  |
| Level of Service                  |       |      |      | D     | D    | D    | A     | A    |      |      | A    | A    |
| Approach Delay (s)                | 0.0   |      |      |       | 35.9 |      |       | 3.8  |      |      | 6.3  |      |
| Approach LOS                      | A     |      |      |       | D    |      |       | A    |      |      | A    |      |
| Intersection Summary              |       |      |      |       |      |      |       |      |      |      |      |      |
| HCM 2000 Control Delay            | 8.6   |      |      |       |      |      |       |      |      |      |      |      |
| HCM 2000 Level of Service         |       |      |      |       |      |      |       | A    |      |      |      |      |
| HCM 2000 Volume to Capacity ratio | 0.11  |      |      |       |      |      |       |      |      |      |      |      |
| Actuated Cycle Length (s)         | 90.0  |      |      |       |      |      |       | 17.1 |      |      |      |      |
| Intersection Capacity Utilization | 47.4% |      |      |       |      |      |       | A    |      |      |      |      |
| Analysis Period (min)             | 15    |      |      |       |      |      |       |      |      |      |      |      |

c Critical Lane Group

2024 Total AM

4: Goldfield Rd & US-60 WB Ramps

22-1180 Alliance Broadstone Silveray

Queues

|                         |  |      |      |      |      |      |      |
|-------------------------|-----------------------------------------------------------------------------------|------|------|------|------|------|------|
| Lane Group              | WBL                                                                               | WBT  | WBR  | NBL  | NBT  | SBT  | SBR  |
| Lane Group Flow (vph)   | 9                                                                                 | 11   | 11   | 114  | 158  | 201  | 151  |
| v/c Ratio               | 0.06                                                                              | 0.05 | 0.05 | 0.13 | 0.06 | 0.06 | 0.13 |
| Control Delay           | 37.6                                                                              | 0.4  | 0.4  | 1.5  | 3.3  | 5.4  | 1.4  |
| Queue Delay             | 0.0                                                                               | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Total Delay             | 37.6                                                                              | 0.4  | 0.4  | 1.5  | 3.3  | 5.4  | 1.4  |
| Queue Length 50th (ft)  | 5                                                                                 | 0    | 0    | 2    | 6    | 13   | 0    |
| Queue Length 95th (ft)  | 17                                                                                | 0    | 0    | 4    | 11   | 21   | 17   |
| Internal Link Dist (ft) | 639                                                                               |      |      | 484  |      |      | 300  |
| Turn Bay Length (ft)    | 190                                                                               | 190  |      |      |      |      | 145  |
| Base Capacity (vph)     | 730                                                                               | 688  | 709  | 900  | 2433 | 3496 | 1135 |
| Starvation Cap Reductn  | 0                                                                                 | 0    | 0    | 0    | 0    | 0    | 0    |
| Spillback Cap Reductn   | 0                                                                                 | 0    | 0    | 0    | 0    | 0    | 0    |
| Storage Cap Reductn     | 0                                                                                 | 0    | 0    | 0    | 0    | 0    | 0    |
| Reduced v/c Ratio       | 0.01                                                                              | 0.02 | 0.02 | 0.13 | 0.06 | 0.06 | 0.13 |

Intersection Summary

2024 Total PM

4: Goldfield Rd & US-60 WB Ramps

22-1180 Alliance Broadstone Silveray

Queues

|                         |  |      |      |      |      |      |      |
|-------------------------|-------------------------------------------------------------------------------------|------|------|------|------|------|------|
| Lane Group              | WBL                                                                                 | WBT  | WBR  | NBL  | NBT  | SBT  | SBR  |
| Lane Group Flow (vph)   | 28                                                                                  | 28   | 28   | 80   | 211  | 280  | 107  |
| v/c Ratio               | 0.15                                                                                | 0.11 | 0.11 | 0.10 | 0.09 | 0.09 | 0.10 |
| Control Delay           | 36.6                                                                                | 0.9  | 0.9  | 2.7  | 4.3  | 6.6  | 1.9  |
| Queue Delay             | 0.0                                                                                 | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Total Delay             | 36.6                                                                                | 0.9  | 0.9  | 2.7  | 4.3  | 6.6  | 1.9  |
| Queue Length 50th (ft)  | 15                                                                                  | 0    | 0    | 3    | 9    | 19   | 0    |
| Queue Length 95th (ft)  | 34                                                                                  | 0    | 0    | 20   | 36   | 32   | 17   |
| Internal Link Dist (ft) | 639                                                                                 |      |      | 484  |      |      | 300  |
| Turn Bay Length (ft)    | 190                                                                                 | 190  |      |      |      |      | 145  |
| Base Capacity (vph)     | 730                                                                                 | 690  | 709  | 787  | 2260 | 3247 | 1049 |
| Starvation Cap Reductn  | 0                                                                                   | 0    | 0    | 0    | 0    | 0    | 0    |
| Spillback Cap Reductn   | 0                                                                                   | 0    | 0    | 0    | 0    | 0    | 0    |
| Storage Cap Reductn     | 0                                                                                   | 0    | 0    | 0    | 0    | 0    | 0    |
| Reduced v/c Ratio       | 0.04                                                                                | 0.04 | 0.04 | 0.10 | 0.09 | 0.09 | 0.10 |

Intersection Summary

2024 Total AM  
22-1180 Alliance Broadstone Silveray

5: Goldfield Rd & US-60 EB Ramps  
Timings

|                      | ↖     | →     | ↗     | ↖     | ↗     | ↘     | ↘     |
|----------------------|-------|-------|-------|-------|-------|-------|-------|
| Lane Group           | EBL   | EBT   | EBR   | NBT   | NBR   | SBL   | SBT   |
| Lane Configurations  | ↖     | ↖     | ↖     | ↖     | ↖     | ↖     | ↖     |
| Traffic Volume (vph) | 77    | 0     | 50    | 154   | 23    | 131   | 48    |
| Future Volume (vph)  | 77    | 0     | 50    | 154   | 23    | 131   | 48    |
| Turn Type            | Perm  | NA    | Perm  | NA    | Perm  | pm+pt | NA    |
| Protected Phases     |       | 3     |       | 1     |       | 2     | 1     |
| Permitted Phases     | 3     |       | 3     |       | 1     | 1     |       |
| Detector Phase       | 3     | 3     | 3     | 1     | 1     | 2     | 1     |
| Switch Phase         |       |       |       |       |       |       |       |
| Minimum Initial (s)  | 8.0   | 8.0   | 8.0   | 20.0  | 20.0  | 5.0   | 20.0  |
| Minimum Split (s)    | 44.9  | 44.9  | 44.9  | 31.6  | 31.6  | 10.6  | 31.6  |
| Total Split (s)      | 45.0  | 45.0  | 45.0  | 34.0  | 34.0  | 11.0  | 34.0  |
| Total Split (%)      | 50.0% | 50.0% | 50.0% | 37.8% | 37.8% | 12.2% | 37.8% |
| Yellow Time (s)      | 3.9   | 3.9   | 3.9   | 3.6   | 3.6   | 3.6   | 3.6   |
| All-Red Time (s)     | 2.0   | 2.0   | 2.0   | 2.0   | 2.0   | 2.0   | 2.0   |
| Lost Time Adjust (s) | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |
| Total Lost Time (s)  | 5.9   | 5.9   | 5.9   | 5.6   | 5.6   | 5.6   | 5.6   |
| Lead/Lag             |       |       |       | Lead  | Lead  | Lag   | Lead  |
| Lead-Lag Optimize?   |       |       |       | Yes   | Yes   | Yes   | Yes   |
| Recall Mode          | None  | None  | None  | C-Max | C-Max | Max   | C-Max |

Intersection Summary

Cycle Length: 90

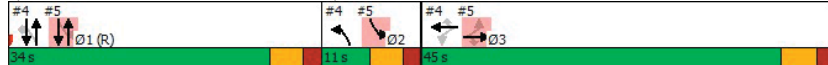
Actuated Cycle Length: 90

Offset: 0 (0%), Referenced to phase 1:NBSB, Start of Green, Master Intersection

Natural Cycle: 90

Control Type: Actuated-Coordinated

Splits and Phases: 5: Goldfield Rd & US-60 EB Ramps



2024 Total PM  
22-1180 Alliance Broadstone Silveray

5: Goldfield Rd & US-60 EB Ramps  
Timings

|                      | ↖     | →     | ↗     | ↖     | ↗     | ↘     | ↘     |
|----------------------|-------|-------|-------|-------|-------|-------|-------|
| Lane Group           | EBL   | EBT   | EBR   | NBT   | NBR   | SBL   | SBT   |
| Lane Configurations  | ↖     | ↖     | ↖     | ↖     | ↖     | ↖     | ↖     |
| Traffic Volume (vph) | 138   | 0     | 104   | 98    | 45    | 177   | 89    |
| Future Volume (vph)  | 138   | 0     | 104   | 98    | 45    | 177   | 89    |
| Turn Type            | Perm  | NA    | Perm  | NA    | Perm  | pm+pt | NA    |
| Protected Phases     |       | 3     |       | 1     |       | 2     | 1     |
| Permitted Phases     | 3     |       | 3     |       | 1     | 1     |       |
| Detector Phase       | 3     | 3     | 3     | 1     | 1     | 2     | 1     |
| Switch Phase         |       |       |       |       |       |       |       |
| Minimum Initial (s)  | 8.0   | 8.0   | 8.0   | 20.0  | 20.0  | 5.0   | 20.0  |
| Minimum Split (s)    | 44.9  | 44.9  | 44.9  | 31.6  | 31.6  | 10.6  | 31.6  |
| Total Split (s)      | 45.0  | 45.0  | 45.0  | 34.0  | 34.0  | 11.0  | 34.0  |
| Total Split (%)      | 50.0% | 50.0% | 50.0% | 37.8% | 37.8% | 12.2% | 37.8% |
| Yellow Time (s)      | 3.9   | 3.9   | 3.9   | 3.6   | 3.6   | 3.6   | 3.6   |
| All-Red Time (s)     | 2.0   | 2.0   | 2.0   | 2.0   | 2.0   | 2.0   | 2.0   |
| Lost Time Adjust (s) | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |
| Total Lost Time (s)  | 5.9   | 5.9   | 5.9   | 5.6   | 5.6   | 5.6   | 5.6   |
| Lead/Lag             |       |       |       | Lead  | Lead  | Lag   | Lead  |
| Lead-Lag Optimize?   |       |       |       | Yes   | Yes   | Yes   | Yes   |
| Recall Mode          | None  | None  | None  | C-Max | C-Max | Max   | C-Max |

Intersection Summary

Cycle Length: 90

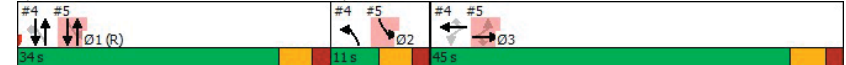
Actuated Cycle Length: 90

Offset: 0 (0%), Referenced to phase 1:NBSB, Start of Green, Master Intersection

Natural Cycle: 90

Control Type: Actuated-Coordinated

Splits and Phases: 5: Goldfield Rd & US-60 EB Ramps





2024 Total AM  
22-1180 Alliance Broadstone Silveray

5: Goldfield Rd & US-60 EB Ramps  
Queues

|                         |  |  |  |  |  |  |  |
|-------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|
| Lane Group              | EBL                                                                               | EBT                                                                               | EBR                                                                               | NBT                                                                               | NBR                                                                               | SBL                                                                               | SBT                                                                               |
| Lane Group Flow (vph)   | 56                                                                                | 54                                                                                | 49                                                                                | 181                                                                               | 29                                                                                | 154                                                                               | 60                                                                                |
| v/c Ratio               | 0.36                                                                              | 0.23                                                                              | 0.21                                                                              | 0.05                                                                              | 0.03                                                                              | 0.17                                                                              | 0.02                                                                              |
| Control Delay           | 44.8                                                                              | 4.2                                                                               | 3.1                                                                               | 5.4                                                                               | 0.0                                                                               | 1.5                                                                               | 2.8                                                                               |
| Queue Delay             | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               |
| Total Delay             | 44.8                                                                              | 4.2                                                                               | 3.1                                                                               | 5.4                                                                               | 0.0                                                                               | 1.5                                                                               | 2.8                                                                               |
| Queue Length 50th (ft)  | 32                                                                                | 0                                                                                 | 0                                                                                 | 11                                                                                | 0                                                                                 | 0                                                                                 | 2                                                                                 |
| Queue Length 95th (ft)  | 62                                                                                | 3                                                                                 | 0                                                                                 | 19                                                                                | 0                                                                                 | 7                                                                                 | 4                                                                                 |
| Internal Link Dist (ft) | 535                                                                               |                                                                                   | 222                                                                               |                                                                                   | 484                                                                               |                                                                                   |                                                                                   |
| Turn Bay Length (ft)    | 130                                                                               | 130                                                                               |                                                                                   | 115                                                                               |                                                                                   |                                                                                   |                                                                                   |
| Base Capacity (vph)     | 730                                                                               | 738                                                                               | 709                                                                               | 3496                                                                              | 1120                                                                              | 916                                                                               | 2433                                                                              |
| Starvation Cap Reductn  | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 |
| Spillback Cap Reductn   | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 |
| Storage Cap Reductn     | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 |
| Reduced v/c Ratio       | 0.08                                                                              | 0.07                                                                              | 0.07                                                                              | 0.05                                                                              | 0.03                                                                              | 0.17                                                                              | 0.02                                                                              |
| Intersection Summary    |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |

2024 Total PM  
22-1180 Alliance Broadstone Silveray

5: Goldfield Rd & US-60 EB Ramps  
Queues

|                         |  |  |  |  |  |  |  |
|-------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Lane Group              | EBL                                                                                 | EBT                                                                                 | EBR                                                                                 | NBT                                                                                 | NBR                                                                                 | SBL                                                                                 | SBT                                                                                 |
| Lane Group Flow (vph)   | 99                                                                                  | 96                                                                                  | 89                                                                                  | 115                                                                                 | 56                                                                                  | 208                                                                                 | 105                                                                                 |
| v/c Ratio               | 0.53                                                                                | 0.37                                                                                | 0.35                                                                                | 0.04                                                                                | 0.05                                                                                | 0.23                                                                                | 0.05                                                                                |
| Control Delay           | 47.7                                                                                | 11.5                                                                                | 10.4                                                                                | 6.5                                                                                 | 0.5                                                                                 | 2.3                                                                                 | 3.3                                                                                 |
| Queue Delay             | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 |
| Total Delay             | 47.7                                                                                | 11.5                                                                                | 10.4                                                                                | 6.5                                                                                 | 0.5                                                                                 | 2.3                                                                                 | 3.3                                                                                 |
| Queue Length 50th (ft)  | 57                                                                                  | 0                                                                                   | 0                                                                                   | 7                                                                                   | 0                                                                                   | 9                                                                                   | 4                                                                                   |
| Queue Length 95th (ft)  | 97                                                                                  | 32                                                                                  | 31                                                                                  | 15                                                                                  | 1                                                                                   | 17                                                                                  | 10                                                                                  |
| Internal Link Dist (ft) | 535                                                                                 |                                                                                     | 222                                                                                 |                                                                                     | 484                                                                                 |                                                                                     |                                                                                     |
| Turn Bay Length (ft)    | 130                                                                                 | 130                                                                                 |                                                                                     | 115                                                                                 |                                                                                     |                                                                                     |                                                                                     |
| Base Capacity (vph)     | 730                                                                                 | 731                                                                                 | 709                                                                                 | 3247                                                                                | 1048                                                                                | 910                                                                                 | 2260                                                                                |
| Starvation Cap Reductn  | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   |
| Spillback Cap Reductn   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   |
| Storage Cap Reductn     | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   |
| Reduced v/c Ratio       | 0.14                                                                                | 0.13                                                                                | 0.13                                                                                | 0.04                                                                                | 0.05                                                                                | 0.23                                                                                | 0.05                                                                                |
| Intersection Summary    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |

2024 Total AM  
22-1180 Alliance Broadstone Silveray

6: Goldfield Rd & Chevron Access  
HCM 6th TWSC

| Intersection             |      |      |      |      |      |      |      |      |      |      |      |      |
|--------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Int Delay, s/veh         | 1.8  |      |      |      |      |      |      |      |      |      |      |      |
| Movement                 | EBL  | EBT  | EBR  | WBL  | WBT  | WBR  | NBL  | NBT  | NBR  | SBL  | SBT  | SBR  |
| Lane Configurations      |      |      |      |      |      |      |      |      |      |      |      |      |
| Traffic Vol, veh/h       | 3    | 2    | 0    | 2    | 1    | 29   | 0    | 163  | 8    | 22   | 65   | 3    |
| Future Vol, veh/h        | 3    | 2    | 0    | 2    | 1    | 29   | 0    | 163  | 8    | 22   | 65   | 3    |
| Conflicting Peds, #/hr   | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Sign Control             | Stop | Stop | Stop | Stop | Stop | Stop | Free | Free | Free | Free | Free | Free |
| RT Channelized           | -    | -    | None | -    | -    | None | -    | -    | None | -    | -    | None |
| Storage Length           | -    | -    | -    | -    | -    | -    | 50   | -    | 50   | 50   | -    | -    |
| Veh in Median Storage, # | -    | 0    | -    | -    | 0    | -    | -    | 0    | -    | -    | 0    | -    |
| Grade, %                 | -    | 0    | -    | -    | 0    | -    | -    | 0    | -    | -    | 0    | -    |
| Peak Hour Factor         | 80   | 80   | 80   | 80   | 80   | 80   | 80   | 85   | 80   | 80   | 80   | 80   |
| Heavy Vehicles, %        | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    |
| Mvmt Flow                | 4    | 3    | 0    | 3    | 1    | 36   | 0    | 192  | 10   | 28   | 81   | 4    |

| Major/Minor          | Minor2 | Minor1 | Major1 | Major2 |      |      |      |   |   |      |   |   |
|----------------------|--------|--------|--------|--------|------|------|------|---|---|------|---|---|
| Conflicting Flow All | 236    | 341    | 43     | 290    | 333  | 96   | 85   | 0 | 0 | 202  | 0 | 0 |
| Stage 1              | 139    | 139    | -      | 192    | 192  | -    | -    | - | - | -    | - | - |
| Stage 2              | 97     | 202    | -      | 98     | 141  | -    | -    | - | - | -    | - | - |
| Critical Hdwy        | 7.54   | 6.54   | 6.94   | 7.54   | 6.54 | 6.94 | 4.14 | - | - | 4.14 | - | - |
| Critical Hdwy Stg 1  | 6.54   | 5.54   | -      | 6.54   | 5.54 | -    | -    | - | - | -    | - | - |
| Critical Hdwy Stg 2  | 6.54   | 5.54   | -      | 6.54   | 5.54 | -    | -    | - | - | -    | - | - |
| Follow-up Hdwy       | 3.52   | 4.02   | 3.32   | 3.52   | 4.02 | 3.32 | 2.22 | - | - | 2.22 | - | - |
| Pot Cap-1 Maneuver   | 722    | 592    | 1050   | 661    | 599  | 942  | 1531 | - | - | 1367 | - | - |
| Stage 1              | 873    | 795    | -      | 791    | 740  | -    | -    | - | - | -    | - | - |
| Stage 2              | 899    | 733    | -      | 922    | 793  | -    | -    | - | - | -    | - | - |
| Platoon blocked, %   | 1      | 1      | 1      | 1      | 1    | 1    | 1    | - | - | -    | - | - |
| Mov Cap-1 Maneuver   | 683    | 581    | 1050   | 648    | 587  | 942  | 1531 | - | - | 1367 | - | - |
| Mov Cap-2 Maneuver   | 683    | 581    | -      | 648    | 587  | -    | -    | - | - | -    | - | - |
| Stage 1              | 873    | 779    | -      | 791    | 740  | -    | -    | - | - | -    | - | - |
| Stage 2              | 863    | 733    | -      | 901    | 777  | -    | -    | - | - | -    | - | - |

| Approach             | EB   | WB  | NB | SB  |
|----------------------|------|-----|----|-----|
| HCM Control Delay, s | 10.7 | 9.2 | 0  | 1.9 |
| HCM LOS              | B    | A   |    |     |

| Minor Lane/Major Mvmt | NBL  | NBT | NBR | EBLn1WBLn1 | SBL   | SBT  | SBR |
|-----------------------|------|-----|-----|------------|-------|------|-----|
| Capacity (veh/h)      | 1531 | -   | -   | 638        | 899   | 1367 | -   |
| HCM Lane V/C Ratio    | -    | -   | -   | 0.01       | 0.044 | 0.02 | -   |
| HCM Control Delay (s) | 0    | -   | -   | 10.7       | 9.2   | 7.7  | -   |
| HCM Lane LOS          | A    | -   | -   | B          | A     | A    | -   |
| HCM 95th %tile Q(veh) | 0    | -   | -   | 0          | 0.1   | 0.1  | -   |

2024 Total PM  
22-1180 Alliance Broadstone Silveray

6: Goldfield Rd & Chevron Access  
HCM 6th TWSC

| Intersection             |      |      |      |      |      |      |      |      |      |      |      |      |
|--------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Int Delay, s/veh         | 2    |      |      |      |      |      |      |      |      |      |      |      |
| Movement                 | EBL  | EBT  | EBR  | WBL  | WBT  | WBR  | NBL  | NBT  | NBR  | SBL  | SBT  | SBR  |
| Lane Configurations      |      |      |      |      |      |      |      |      |      |      |      |      |
| Traffic Vol, veh/h       | 5    | 0    | 1    | 4    | 0    | 33   | 1    | 118  | 8    | 36   | 143  | 9    |
| Future Vol, veh/h        | 5    | 0    | 1    | 4    | 0    | 33   | 1    | 118  | 8    | 36   | 143  | 9    |
| Conflicting Peds, #/hr   | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Sign Control             | Stop | Stop | Stop | Stop | Stop | Stop | Free | Free | Free | Free | Free | Free |
| RT Channelized           | -    | -    | None | -    | -    | None | -    | -    | None | -    | -    | None |
| Storage Length           | -    | -    | -    | -    | -    | -    | 50   | -    | 50   | 50   | -    | -    |
| Veh in Median Storage, # | -    | 0    | -    | -    | 0    | -    | -    | 0    | -    | -    | 0    | -    |
| Grade, %                 | -    | 0    | -    | -    | 0    | -    | -    | 0    | -    | -    | 0    | -    |
| Peak Hour Factor         | 80   | 80   | 80   | 80   | 80   | 80   | 80   | 85   | 80   | 80   | 85   | 80   |
| Heavy Vehicles, %        | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    |
| Mvmt Flow                | 6    | 0    | 1    | 5    | 0    | 41   | 1    | 139  | 10   | 45   | 168  | 11   |

| Major/Minor          | Minor2 | Minor1 | Major1 | Major2 |      |      |      |   |   |      |   |   |
|----------------------|--------|--------|--------|--------|------|------|------|---|---|------|---|---|
| Conflicting Flow All | 336    | 415    | 90     | 315    | 410  | 70   | 179  | 0 | 0 | 149  | 0 | 0 |
| Stage 1              | 264    | 264    | -      | 141    | 141  | -    | -    | - | - | -    | - | - |
| Stage 2              | 72     | 151    | -      | 174    | 269  | -    | -    | - | - | -    | - | - |
| Critical Hdwy        | 7.54   | 6.54   | 6.94   | 7.54   | 6.54 | 6.94 | 4.14 | - | - | 4.14 | - | - |
| Critical Hdwy Stg 1  | 6.54   | 5.54   | -      | 6.54   | 5.54 | -    | -    | - | - | -    | - | - |
| Critical Hdwy Stg 2  | 6.54   | 5.54   | -      | 6.54   | 5.54 | -    | -    | - | - | -    | - | - |
| Follow-up Hdwy       | 3.52   | 4.02   | 3.32   | 3.52   | 4.02 | 3.32 | 2.22 | - | - | 2.22 | - | - |
| Pot Cap-1 Maneuver   | 686    | 583    | *1038  | 711    | 587  | 978  | 1481 | - | - | 1430 | - | - |
| Stage 1              | 807    | 743    | -      | 847    | 779  | -    | -    | - | - | -    | - | - |
| Stage 2              | 929    | 771    | -      | 915    | 739  | -    | -    | - | - | -    | - | - |
| Platoon blocked, %   | 1      | 1      | 1      | 1      | 1    | 1    | 1    | - | - | -    | - | - |
| Mov Cap-1 Maneuver   | 641    | 564    | *1038  | 693    | 568  | 978  | 1481 | - | - | 1430 | - | - |
| Mov Cap-2 Maneuver   | 641    | 564    | -      | 693    | 568  | -    | -    | - | - | -    | - | - |
| Stage 1              | 806    | 720    | -      | 846    | 778  | -    | -    | - | - | -    | - | - |
| Stage 2              | 889    | 770    | -      | 885    | 716  | -    | -    | - | - | -    | - | - |

| Approach             | EB   | WB | NB  | SB  |
|----------------------|------|----|-----|-----|
| HCM Control Delay, s | 10.3 | 9  | 0.1 | 1.5 |
| HCM LOS              | B    | A  |     |     |

| Minor Lane/Major Mvmt | NBL   | NBT | NBR | EBLn1WBLn1 | SBL   | SBT   | SBR |
|-----------------------|-------|-----|-----|------------|-------|-------|-----|
| Capacity (veh/h)      | 1481  | -   | -   | 685        | 936   | 1430  | -   |
| HCM Lane V/C Ratio    | 0.001 | -   | -   | 0.011      | 0.049 | 0.031 | -   |
| HCM Control Delay (s) | 7.4   | -   | -   | 10.3       | 9     | 7.6   | -   |
| HCM Lane LOS          | A     | -   | -   | B          | A     | A     | -   |
| HCM 95th %tile Q(veh) | 0     | -   | -   | 0          | 0.2   | 0.1   | -   |

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

2024 Total AM  
22-1180 Alliance Broadstone Silveray

7: Goldfield Rd & Resort Blvd  
HCM 6th TWSC

| Intersection             |      |      |      |      |      |      |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh         | 5.7  |      |      |      |      |      |
| Movement                 | WBL  | WBR  | NBT  | NBR  | SBL  | SBT  |
| Lane Configurations      | ↔    |      | ↕↕   |      | ↕↕   | ↕↕   |
| Traffic Vol, veh/h       | 2    | 117  | 54   | 3    | 45   | 23   |
| Future Vol, veh/h        | 2    | 117  | 54   | 3    | 45   | 23   |
| Conflicting Peds, #/hr   | 0    | 0    | 0    | 0    | 0    | 0    |
| Sign Control             | Stop | Stop | Free | Free | Free | Free |
| RT Channelized           | -    | None | -    | None | -    | None |
| Storage Length           | 0    | -    | -    | -    | 50   | -    |
| Veh in Median Storage, # | 0    | -    | 0    | -    | -    | 0    |
| Grade, %                 | 0    | -    | 0    | -    | -    | 0    |
| Peak Hour Factor         | 80   | 85   | 80   | 80   | 80   | 80   |
| Heavy Vehicles, %        | 2    | 2    | 2    | 2    | 2    | 2    |
| Mvmt Flow                | 3    | 138  | 68   | 4    | 56   | 29   |

| Major/Minor          | Minor1 | Major1 | Major2     |
|----------------------|--------|--------|------------|
| Conflicting Flow All | 197    | 36     | 0 0 72 0   |
| Stage 1              | 70     | -      | - - - -    |
| Stage 2              | 127    | -      | - - - -    |
| Critical Hdwy        | 6.84   | 6.94   | - - 4.14 - |
| Critical Hdwy Stg 1  | 5.84   | -      | - - - -    |
| Critical Hdwy Stg 2  | 5.84   | -      | - - - -    |
| Follow-up Hdwy       | 3.52   | 3.32   | - - 2.22 - |
| Pot Cap-1 Maneuver   | 773    | 1029   | - - 1526 - |
| Stage 1              | 945    | -      | - - - -    |
| Stage 2              | 885    | -      | - - - -    |
| Platoon blocked, %   |        |        | - - - -    |
| Mov Cap-1 Maneuver   | 744    | 1029   | - - 1526 - |
| Mov Cap-2 Maneuver   | 743    | -      | - - - -    |
| Stage 1              | 945    | -      | - - - -    |
| Stage 2              | 852    | -      | - - - -    |

| Approach             | WB  | NB | SB  |
|----------------------|-----|----|-----|
| HCM Control Delay, s | 9.1 | 0  | 4.9 |
| HCM LOS              | A   |    |     |

| Minor Lane/Major Mvmt | NBT | NBRWBLn1 | SBL   | SBT |
|-----------------------|-----|----------|-------|-----|
| Capacity (veh/h)      | -   | - 1022   | 1526  | -   |
| HCM Lane V/C Ratio    | -   | - 0.137  | 0.037 | -   |
| HCM Control Delay (s) | -   | - 9.1    | 7.4   | -   |
| HCM Lane LOS          | -   | - A      | A     | -   |
| HCM 95th %tile Q(veh) | -   | - 0.5    | 0.1   | -   |

2024 Total PM  
22-1180 Alliance Broadstone Silveray

7: Goldfield Rd & Resort Blvd  
HCM 6th TWSC

| Intersection             |      |      |      |      |      |      |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh         | 4.8  |      |      |      |      |      |
| Movement                 | WBL  | WBR  | NBT  | NBR  | SBL  | SBT  |
| Lane Configurations      | ↔    |      | ↕↕   |      | ↕↕   | ↕↕   |
| Traffic Vol, veh/h       | 2    | 69   | 58   | 5    | 98   | 51   |
| Future Vol, veh/h        | 2    | 69   | 58   | 5    | 98   | 51   |
| Conflicting Peds, #/hr   | 0    | 0    | 0    | 0    | 0    | 0    |
| Sign Control             | Stop | Stop | Free | Free | Free | Free |
| RT Channelized           | -    | None | -    | None | -    | None |
| Storage Length           | 0    | -    | -    | -    | 50   | -    |
| Veh in Median Storage, # | 0    | -    | 0    | -    | -    | 0    |
| Grade, %                 | 0    | -    | 0    | -    | -    | 0    |
| Peak Hour Factor         | 80   | 80   | 80   | 80   | 85   | 80   |
| Heavy Vehicles, %        | 2    | 2    | 2    | 2    | 2    | 2    |
| Mvmt Flow                | 3    | 86   | 73   | 6    | 115  | 64   |

| Major/Minor          | Minor1 | Major1 | Major2     |
|----------------------|--------|--------|------------|
| Conflicting Flow All | 338    | 40     | 0 0 79 0   |
| Stage 1              | 76     | -      | - - - -    |
| Stage 2              | 262    | -      | - - - -    |
| Critical Hdwy        | 6.84   | 6.94   | - - 4.14 - |
| Critical Hdwy Stg 1  | 5.84   | -      | - - - -    |
| Critical Hdwy Stg 2  | 5.84   | -      | - - - -    |
| Follow-up Hdwy       | 3.52   | 3.32   | - - 2.22 - |
| Pot Cap-1 Maneuver   | 649    | 1022   | - - 1517 - |
| Stage 1              | 938    | -      | - - - -    |
| Stage 2              | 774    | -      | - - - -    |
| Platoon blocked, %   | 1      | -      | - - - -    |
| Mov Cap-1 Maneuver   | 600    | 1022   | - - 1517 - |
| Mov Cap-2 Maneuver   | 626    | -      | - - - -    |
| Stage 1              | 938    | -      | - - - -    |
| Stage 2              | 715    | -      | - - - -    |

| Approach             | WB  | NB | SB  |
|----------------------|-----|----|-----|
| HCM Control Delay, s | 8.9 | 0  | 4.9 |
| HCM LOS              | A   |    |     |

| Minor Lane/Major Mvmt | NBT | NBRWBLn1 | SBL   | SBT |
|-----------------------|-----|----------|-------|-----|
| Capacity (veh/h)      | -   | - 1004   | 1517  | -   |
| HCM Lane V/C Ratio    | -   | - 0.088  | 0.076 | -   |
| HCM Control Delay (s) | -   | - 8.9    | 7.6   | -   |
| HCM Lane LOS          | -   | - A      | A     | -   |
| HCM 95th %tile Q(veh) | -   | - 0.3    | 0.2   | -   |

2024 Total AM  
22-1180 Alliance Broadstone Silveray

8: Resort Blvd & Chevron Access  
HCM 6th TWSC

| Intersection             |        |                                                                                   |                                                                                   |        |                                                                                   |                                                                                   |
|--------------------------|--------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|--------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|
| Int Delay, s/veh         | 0.5    |                                                                                   |                                                                                   |        |                                                                                   |                                                                                   |
| Movement                 | EBL    | EBT                                                                               | WBT                                                                               | WBR    | SBL                                                                               | SBR                                                                               |
| Lane Configurations      |        |  |  |        |  |  |
| Traffic Vol, veh/h       | 6      | 42                                                                                | 118                                                                               | 1      | 3                                                                                 | 1                                                                                 |
| Future Vol, veh/h        | 6      | 42                                                                                | 118                                                                               | 1      | 3                                                                                 | 1                                                                                 |
| Conflicting Peds, #/hr   | 0      | 0                                                                                 | 0                                                                                 | 0      | 0                                                                                 | 0                                                                                 |
| Sign Control             | Free   | Free                                                                              | Free                                                                              | Free   | Stop                                                                              | Stop                                                                              |
| RT Channelized           | -      | None                                                                              | -                                                                                 | None   | -                                                                                 | None                                                                              |
| Storage Length           | -      | -                                                                                 | -                                                                                 | -      | 0                                                                                 | -                                                                                 |
| Veh in Median Storage, # | -      | 0                                                                                 | 0                                                                                 | -      | 0                                                                                 | -                                                                                 |
| Grade, %                 | -      | 0                                                                                 | 0                                                                                 | -      | 0                                                                                 | -                                                                                 |
| Peak Hour Factor         | 80     | 80                                                                                | 85                                                                                | 80     | 80                                                                                | 80                                                                                |
| Heavy Vehicles, %        | 2      | 2                                                                                 | 2                                                                                 | 2      | 2                                                                                 | 2                                                                                 |
| Mvmt Flow                | 8      | 53                                                                                | 139                                                                               | 1      | 4                                                                                 | 1                                                                                 |
| Major/Minor              |        |                                                                                   |                                                                                   |        |                                                                                   |                                                                                   |
|                          | Major1 | Major2                                                                            |                                                                                   | Minor2 |                                                                                   |                                                                                   |
| Conflicting Flow All     | 140    | 0                                                                                 | -                                                                                 | 0      | 209                                                                               | 140                                                                               |
| Stage 1                  | -      | -                                                                                 | -                                                                                 | -      | 140                                                                               | -                                                                                 |
| Stage 2                  | -      | -                                                                                 | -                                                                                 | -      | 69                                                                                | -                                                                                 |
| Critical Hdwy            | 4.12   | -                                                                                 | -                                                                                 | -      | 6.42                                                                              | 6.22                                                                              |
| Critical Hdwy Stg 1      | -      | -                                                                                 | -                                                                                 | -      | 5.42                                                                              | -                                                                                 |
| Critical Hdwy Stg 2      | -      | -                                                                                 | -                                                                                 | -      | 5.42                                                                              | -                                                                                 |
| Follow-up Hdwy           | 2.218  | -                                                                                 | -                                                                                 | -      | 3.518                                                                             | 3.318                                                                             |
| Pot Cap-1 Maneuver       | 1443   | -                                                                                 | -                                                                                 | -      | 779                                                                               | 908                                                                               |
| Stage 1                  | -      | -                                                                                 | -                                                                                 | -      | 887                                                                               | -                                                                                 |
| Stage 2                  | -      | -                                                                                 | -                                                                                 | -      | 954                                                                               | -                                                                                 |
| Platoon blocked, %       | -      | -                                                                                 | -                                                                                 | -      | -                                                                                 | -                                                                                 |
| Mov Cap-1 Maneuver       | 1443   | -                                                                                 | -                                                                                 | -      | 774                                                                               | 908                                                                               |
| Mov Cap-2 Maneuver       | -      | -                                                                                 | -                                                                                 | -      | 774                                                                               | -                                                                                 |
| Stage 1                  | -      | -                                                                                 | -                                                                                 | -      | 882                                                                               | -                                                                                 |
| Stage 2                  | -      | -                                                                                 | -                                                                                 | -      | 954                                                                               | -                                                                                 |
| Approach                 |        |                                                                                   |                                                                                   |        |                                                                                   |                                                                                   |
|                          | EB     | WB                                                                                |                                                                                   | SB     |                                                                                   |                                                                                   |
| HCM Control Delay, s     | 0.9    | 0                                                                                 |                                                                                   | 9.5    |                                                                                   |                                                                                   |
| HCM LOS                  | A      |                                                                                   |                                                                                   |        |                                                                                   |                                                                                   |
| Minor Lane/Major Mvmt    |        |                                                                                   |                                                                                   |        |                                                                                   |                                                                                   |
|                          | EBL    | EBT                                                                               | WBT                                                                               | WBR    | SBLn1                                                                             |                                                                                   |
| Capacity (veh/h)         | 1443   | -                                                                                 | -                                                                                 | -      | 804                                                                               |                                                                                   |
| HCM Lane V/C Ratio       | 0.005  | -                                                                                 | -                                                                                 | -      | 0.006                                                                             |                                                                                   |
| HCM Control Delay (s)    | 7.5    | 0                                                                                 | -                                                                                 | -      | 9.5                                                                               |                                                                                   |
| HCM Lane LOS             | A      | A                                                                                 | -                                                                                 | -      | A                                                                                 |                                                                                   |
| HCM 95th %tile Q(veh)    | 0      | -                                                                                 | -                                                                                 | -      | 0                                                                                 |                                                                                   |

2024 Total PM  
22-1180 Alliance Broadstone Silveray

8: Resort Blvd & Chevron Access  
HCM 6th TWSC

| Intersection             |        |                                                                                     |                                                                                     |        |                                                                                     |       |
|--------------------------|--------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|--------|-------------------------------------------------------------------------------------|-------|
| Int Delay, s/veh         | 0.3    |                                                                                     |                                                                                     |        |                                                                                     |       |
| Movement                 | EBL    | EBT                                                                                 | WBT                                                                                 | WBR    | SBL                                                                                 | SBR   |
| Lane Configurations      |        |  |  |        |  |       |
| Traffic Vol, veh/h       | 2      | 112                                                                                 | 61                                                                                  | 0      | 1                                                                                   | 3     |
| Future Vol, veh/h        | 2      | 112                                                                                 | 61                                                                                  | 0      | 1                                                                                   | 3     |
| Conflicting Peds, #/hr   | 0      | 0                                                                                   | 0                                                                                   | 0      | 0                                                                                   | 0     |
| Sign Control             | Free   | Free                                                                                | Free                                                                                | Free   | Stop                                                                                | Stop  |
| RT Channelized           | -      | None                                                                                | -                                                                                   | None   | -                                                                                   | None  |
| Storage Length           | -      | -                                                                                   | -                                                                                   | -      | 0                                                                                   | -     |
| Veh in Median Storage, # | -      | 0                                                                                   | 0                                                                                   | -      | 0                                                                                   | -     |
| Grade, %                 | -      | 0                                                                                   | 0                                                                                   | -      | 0                                                                                   | -     |
| Peak Hour Factor         | 80     | 85                                                                                  | 80                                                                                  | 80     | 80                                                                                  | 80    |
| Heavy Vehicles, %        | 2      | 2                                                                                   | 2                                                                                   | 2      | 2                                                                                   | 2     |
| Mvmt Flow                | 3      | 132                                                                                 | 76                                                                                  | 0      | 1                                                                                   | 4     |
| Major/Minor              |        |                                                                                     |                                                                                     |        |                                                                                     |       |
|                          | Major1 | Major2                                                                              |                                                                                     | Minor2 |                                                                                     |       |
| Conflicting Flow All     | 76     | 0                                                                                   | -                                                                                   | 0      | 214                                                                                 | 76    |
| Stage 1                  | -      | -                                                                                   | -                                                                                   | -      | 76                                                                                  | -     |
| Stage 2                  | -      | -                                                                                   | -                                                                                   | -      | 138                                                                                 | -     |
| Critical Hdwy            | 4.12   | -                                                                                   | -                                                                                   | -      | 6.42                                                                                | 6.22  |
| Critical Hdwy Stg 1      | -      | -                                                                                   | -                                                                                   | -      | 5.42                                                                                | -     |
| Critical Hdwy Stg 2      | -      | -                                                                                   | -                                                                                   | -      | 5.42                                                                                | -     |
| Follow-up Hdwy           | 2.218  | -                                                                                   | -                                                                                   | -      | 3.518                                                                               | 3.318 |
| Pot Cap-1 Maneuver       | 1523   | -                                                                                   | -                                                                                   | -      | 774                                                                                 | 985   |
| Stage 1                  | -      | -                                                                                   | -                                                                                   | -      | 947                                                                                 | -     |
| Stage 2                  | -      | -                                                                                   | -                                                                                   | -      | 889                                                                                 | -     |
| Platoon blocked, %       |        | -                                                                                   | -                                                                                   | -      |                                                                                     |       |
| Mov Cap-1 Maneuver       | 1523   | -                                                                                   | -                                                                                   | -      | 772                                                                                 | 985   |
| Mov Cap-2 Maneuver       | -      | -                                                                                   | -                                                                                   | -      | 772                                                                                 | -     |
| Stage 1                  | -      | -                                                                                   | -                                                                                   | -      | 945                                                                                 | -     |
| Stage 2                  | -      | -                                                                                   | -                                                                                   | -      | 889                                                                                 | -     |
|                          |        |                                                                                     |                                                                                     |        |                                                                                     |       |
| Approach                 | EB     | WB                                                                                  |                                                                                     | SB     |                                                                                     |       |
| HCM Control Delay, s     | 0.1    | 0                                                                                   |                                                                                     | 8.9    |                                                                                     |       |
| HCM LOS                  | A      |                                                                                     |                                                                                     |        |                                                                                     |       |
|                          |        |                                                                                     |                                                                                     |        |                                                                                     |       |
| Minor Lane/Major Mvmt    | EBL    | EBT                                                                                 | WBT                                                                                 | WBR    | SBLn1                                                                               |       |
| Capacity (veh/h)         | 1523   | -                                                                                   | -                                                                                   | -      | 921                                                                                 |       |
| HCM Lane V/C Ratio       | 0.002  | -                                                                                   | -                                                                                   | -      | 0.005                                                                               |       |
| HCM Control Delay (s)    | 7.4    | 0                                                                                   | -                                                                                   | -      | 8.9                                                                                 |       |
| HCM Lane LOS             | A      | A                                                                                   | -                                                                                   | -      | A                                                                                   |       |
| HCM 95th %tile Q(veh)    | 0      | -                                                                                   | -                                                                                   | -      | 0                                                                                   |       |

2024 Total AM  
22-1180 Alliance Broadstone Silveray

9: Chevron Access & Access A  
HCM 6th TWSC

| Intersection             |      |      |      |      |      |      |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh         | 1.6  |      |      |      |      |      |
| Movement                 | EBL  | EBT  | WBT  | WBR  | SBL  | SBR  |
| Lane Configurations      |      | ↔    | ↔    |      | ↔    |      |
| Traffic Vol, veh/h       | 2    | 30   | 7    | 0    | 0    | 7    |
| Future Vol, veh/h        | 2    | 30   | 7    | 0    | 0    | 7    |
| Conflicting Peds, #/hr   | 0    | 0    | 0    | 0    | 0    | 0    |
| Sign Control             | Free | Free | Free | Free | Stop | Stop |
| RT Channelized           | -    | None | -    | None | -    | None |
| Storage Length           | -    | -    | -    | -    | 0    | -    |
| Veh in Median Storage, # | -    | 0    | 0    | -    | 0    | -    |
| Grade, %                 | -    | 0    | 0    | -    | 0    | -    |
| Peak Hour Factor         | 80   | 80   | 80   | 80   | 80   | 80   |
| Heavy Vehicles, %        | 2    | 2    | 2    | 2    | 2    | 2    |
| Mvmt Flow                | 3    | 38   | 9    | 0    | 0    | 9    |

| Major/Minor          | Major1 | Major2 | Minor2        |
|----------------------|--------|--------|---------------|
| Conflicting Flow All | 9      | 0      | 0 53 9        |
| Stage 1              | -      | -      | - 9 -         |
| Stage 2              | -      | -      | - 44 -        |
| Critical Hdwy        | 4.12   | -      | - 6.42 6.22   |
| Critical Hdwy Stg 1  | -      | -      | - 5.42 -      |
| Critical Hdwy Stg 2  | -      | -      | - 5.42 -      |
| Follow-up Hdwy       | 2.218  | -      | - 3.518 3.318 |
| Pot Cap-1 Maneuver   | 1611   | -      | - 955 1073    |
| Stage 1              | -      | -      | - 1014 -      |
| Stage 2              | -      | -      | - 978 -       |
| Platoon blocked, %   | -      | -      | - -           |
| Mov Cap-1 Maneuver   | 1611   | -      | - 953 1073    |
| Mov Cap-2 Maneuver   | -      | -      | - 953 -       |
| Stage 1              | -      | -      | - 1012 -      |
| Stage 2              | -      | -      | - 978 -       |

| Approach             | EB  | WB | SB  |
|----------------------|-----|----|-----|
| HCM Control Delay, s | 0.5 | 0  | 8.4 |
| HCM LOS              |     |    | A   |

| Minor Lane/Major Mvmt | EBL   | EBT | WBT | WBR | SBLn1 |
|-----------------------|-------|-----|-----|-----|-------|
| Capacity (veh/h)      | 1611  | -   | -   | -   | 1073  |
| HCM Lane V/C Ratio    | 0.002 | -   | -   | -   | 0.008 |
| HCM Control Delay (s) | 7.2   | 0   | -   | -   | 8.4   |
| HCM Lane LOS          | A     | A   | -   | -   | A     |
| HCM 95th %tile Q(veh) | 0     | -   | -   | -   | 0     |

2024 Total PM  
22-1180 Alliance Broadstone Silveray

9: Chevron Access & Access A  
HCM 6th TWSC

| Intersection             |      |      |      |      |      |      |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh         | 1.7  |      |      |      |      |      |
| Movement                 | EBL  | EBT  | WBT  | WBR  | SBL  | SBR  |
| Lane Configurations      |      | ↔    | ↔    |      | ↔    |      |
| Traffic Vol, veh/h       | 7    | 37   | 2    | 0    | 0    | 4    |
| Future Vol, veh/h        | 7    | 37   | 2    | 0    | 0    | 4    |
| Conflicting Peds, #/hr   | 0    | 0    | 0    | 0    | 0    | 0    |
| Sign Control             | Free | Free | Free | Free | Stop | Stop |
| RT Channelized           | -    | None | -    | None | -    | None |
| Storage Length           | -    | -    | -    | -    | 0    | -    |
| Veh in Median Storage, # | -    | 0    | 0    | -    | 0    | -    |
| Grade, %                 | -    | 0    | 0    | -    | 0    | -    |
| Peak Hour Factor         | 80   | 80   | 80   | 80   | 80   | 80   |
| Heavy Vehicles, %        | 2    | 2    | 2    | 2    | 2    | 2    |
| Mvmt Flow                | 9    | 46   | 3    | 0    | 0    | 5    |

| Major/Minor          | Major1 | Major2 | Minor2        |
|----------------------|--------|--------|---------------|
| Conflicting Flow All | 3      | 0      | 0 67 3        |
| Stage 1              | -      | -      | - 3 -         |
| Stage 2              | -      | -      | - 64 -        |
| Critical Hdwy        | 4.12   | -      | - 6.42 6.22   |
| Critical Hdwy Stg 1  | -      | -      | - 5.42 -      |
| Critical Hdwy Stg 2  | -      | -      | - 5.42 -      |
| Follow-up Hdwy       | 2.218  | -      | - 3.518 3.318 |
| Pot Cap-1 Maneuver   | 1619   | -      | - 938 1081    |
| Stage 1              | -      | -      | - 1020 -      |
| Stage 2              | -      | -      | - 959 -       |
| Platoon blocked, %   | -      | -      | - -           |
| Mov Cap-1 Maneuver   | 1619   | -      | - 932 1081    |
| Mov Cap-2 Maneuver   | -      | -      | - 932 -       |
| Stage 1              | -      | -      | - 1014 -      |
| Stage 2              | -      | -      | - 959 -       |

| Approach             | EB  | WB | SB  |
|----------------------|-----|----|-----|
| HCM Control Delay, s | 1.2 | 0  | 8.3 |
| HCM LOS              |     |    | A   |

| Minor Lane/Major Mvmt | EBL   | EBT | WBT | WBR | SBLn1 |
|-----------------------|-------|-----|-----|-----|-------|
| Capacity (veh/h)      | 1619  | -   | -   | -   | 1081  |
| HCM Lane V/C Ratio    | 0.005 | -   | -   | -   | 0.005 |
| HCM Control Delay (s) | 7.2   | 0   | -   | -   | 8.3   |
| HCM Lane LOS          | A     | A   | -   | -   | A     |
| HCM 95th %tile Q(veh) | 0     | -   | -   | -   | 0     |



2024 Total AM  
22-1180 Alliance Broadstone Silveray

11: Resort Blvd & Access C  
HCM 6th TWSC

| Intersection             |      |      |      |      |      |      |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh         | 0.8  |      |      |      |      |      |
| Movement                 | EBL  | EBT  | WBT  | WBR  | SBL  | SBR  |
| Lane Configurations      |      | ↔    | ↔    |      | ↔    | ↔    |
| Traffic Vol, veh/h       | 1    | 17   | 36   | 0    | 0    | 5    |
| Future Vol, veh/h        | 1    | 17   | 36   | 0    | 0    | 5    |
| Conflicting Peds, #/hr   | 0    | 0    | 0    | 0    | 0    | 0    |
| Sign Control             | Free | Free | Free | Free | Stop | Stop |
| RT Channelized           | -    | None | -    | None | -    | None |
| Storage Length           | -    | -    | -    | -    | 0    | -    |
| Veh in Median Storage, # | -    | 0    | 0    | -    | 0    | -    |
| Grade, %                 | -    | 0    | 0    | -    | 0    | -    |
| Peak Hour Factor         | 80   | 80   | 80   | 80   | 80   | 80   |
| Heavy Vehicles, %        | 2    | 2    | 2    | 2    | 2    | 2    |
| Mvmt Flow                | 1    | 21   | 45   | 0    | 0    | 6    |

| Major/Minor          | Major1 | Major2 | Minor2 |
|----------------------|--------|--------|--------|
| Conflicting Flow All | 45     | 0      | 68     |
| Stage 1              | -      | -      | 45     |
| Stage 2              | -      | -      | 23     |
| Critical Hdwy        | 4.12   | -      | 6.42   |
| Critical Hdwy Stg 1  | -      | -      | 5.42   |
| Critical Hdwy Stg 2  | -      | -      | 5.42   |
| Follow-up Hdwy       | 2.218  | -      | 3.518  |
| Pot Cap-1 Maneuver   | 1563   | -      | 937    |
| Stage 1              | -      | -      | 977    |
| Stage 2              | -      | -      | 1000   |
| Platoon blocked, %   | -      | -      | -      |
| Mov Cap-1 Maneuver   | 1563   | -      | 936    |
| Mov Cap-2 Maneuver   | -      | -      | 936    |
| Stage 1              | -      | -      | 976    |
| Stage 2              | -      | -      | 1000   |

| Approach             | EB  | WB | SB  |
|----------------------|-----|----|-----|
| HCM Control Delay, s | 0.4 | 0  | 8.5 |
| HCM LOS              |     |    | A   |

| Minor Lane/Major Mvmt | EBL   | EBT | WBT | WBR | SBLn1 |
|-----------------------|-------|-----|-----|-----|-------|
| Capacity (veh/h)      | 1563  | -   | -   | -   | 1025  |
| HCM Lane V/C Ratio    | 0.001 | -   | -   | -   | 0.006 |
| HCM Control Delay (s) | 7.3   | 0   | -   | -   | 8.5   |
| HCM Lane LOS          | A     | A   | -   | -   | A     |
| HCM 95th %tile Q(veh) | 0     | -   | -   | -   | 0     |

2024 Total PM  
22-1180 Alliance Broadstone Silveray

11: Resort Blvd & Access C  
HCM 6th TWSC

| Intersection             |      |      |      |      |      |      |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh         | 1.1  |      |      |      |      |      |
| Movement                 | EBL  | EBT  | WBT  | WBR  | SBL  | SBR  |
| Lane Configurations      |      | ↔    | ↔    |      | ↔    | ↔    |
| Traffic Vol, veh/h       | 5    | 34   | 14   | 0    | 0    | 3    |
| Future Vol, veh/h        | 5    | 34   | 14   | 0    | 0    | 3    |
| Conflicting Peds, #/hr   | 0    | 0    | 0    | 0    | 0    | 0    |
| Sign Control             | Free | Free | Free | Free | Stop | Stop |
| RT Channelized           | -    | None | -    | None | -    | None |
| Storage Length           | -    | -    | -    | -    | 0    | -    |
| Veh in Median Storage, # | -    | 0    | 0    | -    | 0    | -    |
| Grade, %                 | -    | 0    | 0    | -    | 0    | -    |
| Peak Hour Factor         | 80   | 80   | 80   | 80   | 80   | 80   |
| Heavy Vehicles, %        | 2    | 2    | 2    | 2    | 2    | 2    |
| Mvmt Flow                | 6    | 43   | 18   | 0    | 0    | 4    |

| Major/Minor          | Major1 | Major2 | Minor2 |
|----------------------|--------|--------|--------|
| Conflicting Flow All | 18     | 0      | 73     |
| Stage 1              | -      | -      | 18     |
| Stage 2              | -      | -      | 55     |
| Critical Hdwy        | 4.12   | -      | 6.42   |
| Critical Hdwy Stg 1  | -      | -      | 5.42   |
| Critical Hdwy Stg 2  | -      | -      | 5.42   |
| Follow-up Hdwy       | 2.218  | -      | 3.518  |
| Pot Cap-1 Maneuver   | 1599   | -      | 931    |
| Stage 1              | -      | -      | 1005   |
| Stage 2              | -      | -      | 968    |
| Platoon blocked, %   | -      | -      | -      |
| Mov Cap-1 Maneuver   | 1599   | -      | 927    |
| Mov Cap-2 Maneuver   | -      | -      | 927    |
| Stage 1              | -      | -      | 1001   |
| Stage 2              | -      | -      | 968    |

| Approach             | EB  | WB | SB  |
|----------------------|-----|----|-----|
| HCM Control Delay, s | 0.9 | 0  | 8.4 |
| HCM LOS              |     |    | A   |

| Minor Lane/Major Mvmt | EBL   | EBT | WBT | WBR | SBLn1 |
|-----------------------|-------|-----|-----|-----|-------|
| Capacity (veh/h)      | 1599  | -   | -   | -   | 1061  |
| HCM Lane V/C Ratio    | 0.004 | -   | -   | -   | 0.004 |
| HCM Control Delay (s) | 7.3   | 0   | -   | -   | 8.4   |
| HCM Lane LOS          | A     | A   | -   | -   | A     |
| HCM 95th %tile Q(veh) | 0     | -   | -   | -   | 0     |

2024 Total AM  
22-1180 Alliance Broadstone Silveray

12: Resort Blvd & Access D  
HCM 6th TWSC

| Intersection             |      |      |      |      |      |      |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh         | 0.6  |      |      |      |      |      |
| Movement                 | EBL  | EBT  | WBT  | WBR  | SBL  | SBR  |
| Lane Configurations      |      | ↔    | ↔    |      | ↔    | ↔    |
| Traffic Vol, veh/h       | 1    | 16   | 32   | 0    | 0    | 3    |
| Future Vol, veh/h        | 1    | 16   | 32   | 0    | 0    | 3    |
| Conflicting Peds, #/hr   | 0    | 0    | 0    | 0    | 0    | 0    |
| Sign Control             | Free | Free | Free | Free | Stop | Stop |
| RT Channelized           | -    | None | -    | None | -    | None |
| Storage Length           | -    | -    | -    | -    | 0    | -    |
| Veh in Median Storage, # | -    | 0    | 0    | -    | 0    | -    |
| Grade, %                 | -    | 0    | 0    | -    | 0    | -    |
| Peak Hour Factor         | 80   | 80   | 80   | 80   | 80   | 80   |
| Heavy Vehicles, %        | 2    | 2    | 2    | 2    | 2    | 2    |
| Mvmt Flow                | 1    | 20   | 40   | 0    | 0    | 4    |

| Major/Minor          | Major1 | Major2 | Minor2 |
|----------------------|--------|--------|--------|
| Conflicting Flow All | 40     | 0      | 62     |
| Stage 1              | -      | -      | 40     |
| Stage 2              | -      | -      | 22     |
| Critical Hdwy        | 4.12   | -      | 6.42   |
| Critical Hdwy Stg 1  | -      | -      | 5.42   |
| Critical Hdwy Stg 2  | -      | -      | 5.42   |
| Follow-up Hdwy       | 2.218  | -      | 3.518  |
| Pot Cap-1 Maneuver   | 1570   | -      | 944    |
| Stage 1              | -      | -      | 982    |
| Stage 2              | -      | -      | 1001   |
| Platoon blocked, %   | -      | -      | -      |
| Mov Cap-1 Maneuver   | 1570   | -      | 943    |
| Mov Cap-2 Maneuver   | -      | -      | 943    |
| Stage 1              | -      | -      | 981    |
| Stage 2              | -      | -      | 1001   |

| Approach             | EB  | WB | SB  |
|----------------------|-----|----|-----|
| HCM Control Delay, s | 0.4 | 0  | 8.5 |
| HCM LOS              |     |    | A   |

| Minor Lane/Major Mvmt | EBL   | EBT | WBT | WBR | SBLn1 |
|-----------------------|-------|-----|-----|-----|-------|
| Capacity (veh/h)      | 1570  | -   | -   | -   | 1031  |
| HCM Lane V/C Ratio    | 0.001 | -   | -   | -   | 0.004 |
| HCM Control Delay (s) | 7.3   | 0   | -   | -   | 8.5   |
| HCM Lane LOS          | A     | A   | -   | -   | A     |
| HCM 95th %tile Q(veh) | 0     | -   | -   | -   | 0     |

2024 Total PM  
22-1180 Alliance Broadstone Silveray

12: Resort Blvd & Access D  
HCM 6th TWSC

| Intersection             |      |      |      |      |      |      |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh         | 0.8  |      |      |      |      |      |
| Movement                 | EBL  | EBT  | WBT  | WBR  | SBL  | SBR  |
| Lane Configurations      |      | ↔    | ↔    |      | ↔    | ↔    |
| Traffic Vol, veh/h       | 3    | 31   | 12   | 0    | 0    | 2    |
| Future Vol, veh/h        | 3    | 31   | 12   | 0    | 0    | 2    |
| Conflicting Peds, #/hr   | 0    | 0    | 0    | 0    | 0    | 0    |
| Sign Control             | Free | Free | Free | Free | Stop | Stop |
| RT Channelized           | -    | None | -    | None | -    | None |
| Storage Length           | -    | -    | -    | -    | 0    | -    |
| Veh in Median Storage, # | -    | 0    | 0    | -    | 0    | -    |
| Grade, %                 | -    | 0    | 0    | -    | 0    | -    |
| Peak Hour Factor         | 80   | 80   | 80   | 80   | 80   | 80   |
| Heavy Vehicles, %        | 2    | 2    | 2    | 2    | 2    | 2    |
| Mvmt Flow                | 4    | 39   | 15   | 0    | 0    | 3    |

| Major/Minor          | Major1 | Major2 | Minor2 |
|----------------------|--------|--------|--------|
| Conflicting Flow All | 15     | 0      | 62     |
| Stage 1              | -      | -      | 15     |
| Stage 2              | -      | -      | 47     |
| Critical Hdwy        | 4.12   | -      | 6.42   |
| Critical Hdwy Stg 1  | -      | -      | 5.42   |
| Critical Hdwy Stg 2  | -      | -      | 5.42   |
| Follow-up Hdwy       | 2.218  | -      | 3.518  |
| Pot Cap-1 Maneuver   | 1603   | -      | 944    |
| Stage 1              | -      | -      | 1008   |
| Stage 2              | -      | -      | 975    |
| Platoon blocked, %   | -      | -      | -      |
| Mov Cap-1 Maneuver   | 1603   | -      | 941    |
| Mov Cap-2 Maneuver   | -      | -      | 941    |
| Stage 1              | -      | -      | 1005   |
| Stage 2              | -      | -      | 975    |

| Approach             | EB  | WB | SB  |
|----------------------|-----|----|-----|
| HCM Control Delay, s | 0.6 | 0  | 8.4 |
| HCM LOS              |     |    | A   |

| Minor Lane/Major Mvmt | EBL   | EBT | WBT | WBR | SBLn1 |
|-----------------------|-------|-----|-----|-----|-------|
| Capacity (veh/h)      | 1603  | -   | -   | -   | 1065  |
| HCM Lane V/C Ratio    | 0.002 | -   | -   | -   | 0.002 |
| HCM Control Delay (s) | 7.3   | 0   | -   | -   | 8.4   |
| HCM Lane LOS          | A     | A   | -   | -   | A     |
| HCM 95th %tile Q(veh) | 0     | -   | -   | -   | 0     |

2024 Total AM  
22-1180 Alliance Broadstone Silveray

13: Resort Blvd & Access E  
HCM 6th TWSC

| Intersection             |        |                                                                                   |                                                                                   |      |                                                                                   |                                                                                   |
|--------------------------|--------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|
| Int Delay, s/veh         | 0.7    |                                                                                   |                                                                                   |      |                                                                                   |                                                                                   |
| Movement                 | EBL    | EBT                                                                               | WBT                                                                               | WBR  | SBL                                                                               | SBR                                                                               |
| Lane Configurations      |        |  |  |      |  |  |
| Traffic Vol, veh/h       | 1      | 15                                                                                | 29                                                                                | 0    | 0                                                                                 | 3                                                                                 |
| Future Vol, veh/h        | 1      | 15                                                                                | 29                                                                                | 0    | 0                                                                                 | 3                                                                                 |
| Conflicting Peds, #/hr   | 0      | 0                                                                                 | 0                                                                                 | 0    | 0                                                                                 | 0                                                                                 |
| Sign Control             | Free   | Free                                                                              | Free                                                                              | Free | Stop                                                                              | Stop                                                                              |
| RT Channelized           | -      | None                                                                              | -                                                                                 | None | -                                                                                 | None                                                                              |
| Storage Length           | -      | -                                                                                 | -                                                                                 | -    | 0                                                                                 | -                                                                                 |
| Veh in Median Storage, # | -      | 0                                                                                 | 0                                                                                 | -    | 0                                                                                 | -                                                                                 |
| Grade, %                 | -      | 0                                                                                 | 0                                                                                 | -    | 0                                                                                 | -                                                                                 |
| Peak Hour Factor         | 80     | 80                                                                                | 80                                                                                | 80   | 80                                                                                | 80                                                                                |
| Heavy Vehicles, %        | 2      | 2                                                                                 | 2                                                                                 | 2    | 2                                                                                 | 2                                                                                 |
| Mvmt Flow                | 1      | 19                                                                                | 36                                                                                | 0    | 0                                                                                 | 4                                                                                 |
|                          |        |                                                                                   |                                                                                   |      |                                                                                   |                                                                                   |
| Major/Minor              | Major1 | Major2                                                                            | Minor2                                                                            |      |                                                                                   |                                                                                   |
| Conflicting Flow All     | 36     | 0                                                                                 | -                                                                                 | 0    | 57                                                                                | 36                                                                                |
| Stage 1                  | -      | -                                                                                 | -                                                                                 | -    | 36                                                                                | -                                                                                 |
| Stage 2                  | -      | -                                                                                 | -                                                                                 | -    | 21                                                                                | -                                                                                 |
| Critical Hdwy            | 4.12   | -                                                                                 | -                                                                                 | -    | 6.42                                                                              | 6.22                                                                              |
| Critical Hdwy Stg 1      | -      | -                                                                                 | -                                                                                 | -    | 5.42                                                                              | -                                                                                 |
| Critical Hdwy Stg 2      | -      | -                                                                                 | -                                                                                 | -    | 5.42                                                                              | -                                                                                 |
| Follow-up Hdwy           | 2.218  | -                                                                                 | -                                                                                 | -    | 3.518                                                                             | 3.318                                                                             |
| Pot Cap-1 Maneuver       | 1575   | -                                                                                 | -                                                                                 | -    | 950                                                                               | 1037                                                                              |
| Stage 1                  | -      | -                                                                                 | -                                                                                 | -    | 986                                                                               | -                                                                                 |
| Stage 2                  | -      | -                                                                                 | -                                                                                 | -    | 1002                                                                              | -                                                                                 |
| Platoon blocked, %       | -      | -                                                                                 | -                                                                                 | -    | -                                                                                 | -                                                                                 |
| Mov Cap-1 Maneuver       | 1575   | -                                                                                 | -                                                                                 | -    | 949                                                                               | 1037                                                                              |
| Mov Cap-2 Maneuver       | -      | -                                                                                 | -                                                                                 | -    | 949                                                                               | -                                                                                 |
| Stage 1                  | -      | -                                                                                 | -                                                                                 | -    | 985                                                                               | -                                                                                 |
| Stage 2                  | -      | -                                                                                 | -                                                                                 | -    | 1002                                                                              | -                                                                                 |
|                          |        |                                                                                   |                                                                                   |      |                                                                                   |                                                                                   |
| Approach                 | EB     | WB                                                                                |                                                                                   | SB   |                                                                                   |                                                                                   |
| HCM Control Delay, s     | 0.5    | 0                                                                                 |                                                                                   | 8.5  |                                                                                   |                                                                                   |
| HCM LOS                  | A      |                                                                                   |                                                                                   |      |                                                                                   |                                                                                   |
|                          |        |                                                                                   |                                                                                   |      |                                                                                   |                                                                                   |
| Minor Lane/Major Mvmt    | EBL    | EBT                                                                               | WBT                                                                               | WBR  | SBLn1                                                                             |                                                                                   |
| Capacity (veh/h)         | 1575   | -                                                                                 | -                                                                                 | -    | 1037                                                                              |                                                                                   |
| HCM Lane V/C Ratio       | 0.001  | -                                                                                 | -                                                                                 | -    | 0.004                                                                             |                                                                                   |
| HCM Control Delay (s)    | 7.3    | 0                                                                                 | -                                                                                 | -    | 8.5                                                                               |                                                                                   |
| HCM Lane LOS             | A      | A                                                                                 | -                                                                                 | -    | A                                                                                 |                                                                                   |
| HCM 95th %tile Q(veh)    | 0      | -                                                                                 | -                                                                                 | -    | 0                                                                                 |                                                                                   |

2024 Total PM  
22-1180 Alliance Broadstone Silveray

13: Resort Blvd & Access E  
HCM 6th TWSC

| Intersection             |        |                                                                                     |                                                                                     |      |                                                                                     |                                                                                     |
|--------------------------|--------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Int Delay, s/veh         | 0.9    |                                                                                     |                                                                                     |      |                                                                                     |                                                                                     |
| Movement                 | EBL    | EBT                                                                                 | WBT                                                                                 | WBR  | SBL                                                                                 | SBR                                                                                 |
| Lane Configurations      |        |  |  |      |  |  |
| Traffic Vol, veh/h       | 3      | 28                                                                                  | 10                                                                                  | 0    | 0                                                                                   | 2                                                                                   |
| Future Vol, veh/h        | 3      | 28                                                                                  | 10                                                                                  | 0    | 0                                                                                   | 2                                                                                   |
| Conflicting Peds, #/hr   | 0      | 0                                                                                   | 0                                                                                   | 0    | 0                                                                                   | 0                                                                                   |
| Sign Control             | Free   | Free                                                                                | Free                                                                                | Free | Stop                                                                                | Stop                                                                                |
| RT Channelized           | -      | None                                                                                | -                                                                                   | None | -                                                                                   | None                                                                                |
| Storage Length           | -      | -                                                                                   | -                                                                                   | -    | 0                                                                                   | -                                                                                   |
| Veh in Median Storage, # | -      | 0                                                                                   | 0                                                                                   | -    | 0                                                                                   | -                                                                                   |
| Grade, %                 | -      | 0                                                                                   | 0                                                                                   | -    | 0                                                                                   | -                                                                                   |
| Peak Hour Factor         | 80     | 80                                                                                  | 80                                                                                  | 80   | 80                                                                                  | 80                                                                                  |
| Heavy Vehicles, %        | 2      | 2                                                                                   | 2                                                                                   | 2    | 2                                                                                   | 2                                                                                   |
| Mvmt Flow                | 4      | 35                                                                                  | 13                                                                                  | 0    | 0                                                                                   | 3                                                                                   |
|                          |        |                                                                                     |                                                                                     |      |                                                                                     |                                                                                     |
| Major/Minor              | Major1 | Major2                                                                              | Minor2                                                                              |      |                                                                                     |                                                                                     |
| Conflicting Flow All     | 13     | 0                                                                                   | -                                                                                   | 0    | 56                                                                                  | 13                                                                                  |
| Stage 1                  | -      | -                                                                                   | -                                                                                   | -    | 13                                                                                  | -                                                                                   |
| Stage 2                  | -      | -                                                                                   | -                                                                                   | -    | 43                                                                                  | -                                                                                   |
| Critical Hdwy            | 4.12   | -                                                                                   | -                                                                                   | -    | 6.42                                                                                | 6.22                                                                                |
| Critical Hdwy Stg 1      | -      | -                                                                                   | -                                                                                   | -    | 5.42                                                                                | -                                                                                   |
| Critical Hdwy Stg 2      | -      | -                                                                                   | -                                                                                   | -    | 5.42                                                                                | -                                                                                   |
| Follow-up Hdwy           | 2.218  | -                                                                                   | -                                                                                   | -    | 3.518                                                                               | 3.318                                                                               |
| Pot Cap-1 Maneuver       | 1606   | -                                                                                   | -                                                                                   | -    | 952                                                                                 | 1067                                                                                |
| Stage 1                  | -      | -                                                                                   | -                                                                                   | -    | 1010                                                                                | -                                                                                   |
| Stage 2                  | -      | -                                                                                   | -                                                                                   | -    | 979                                                                                 | -                                                                                   |
| Platoon blocked, %       |        | -                                                                                   | -                                                                                   | -    |                                                                                     |                                                                                     |
| Mov Cap-1 Maneuver       | 1606   | -                                                                                   | -                                                                                   | -    | 949                                                                                 | 1067                                                                                |
| Mov Cap-2 Maneuver       | -      | -                                                                                   | -                                                                                   | -    | 949                                                                                 | -                                                                                   |
| Stage 1                  | -      | -                                                                                   | -                                                                                   | -    | 1007                                                                                | -                                                                                   |
| Stage 2                  | -      | -                                                                                   | -                                                                                   | -    | 979                                                                                 | -                                                                                   |
|                          |        |                                                                                     |                                                                                     |      |                                                                                     |                                                                                     |
| Approach                 | EB     | WB                                                                                  |                                                                                     | SB   |                                                                                     |                                                                                     |
| HCM Control Delay, s     | 0.7    | 0                                                                                   |                                                                                     | 8.4  |                                                                                     |                                                                                     |
| HCM LOS                  | A      |                                                                                     |                                                                                     |      |                                                                                     |                                                                                     |
|                          |        |                                                                                     |                                                                                     |      |                                                                                     |                                                                                     |
| Minor Lane/Major Mvmt    | EBL    | EBT                                                                                 | WBT                                                                                 | WBR  | SBLn1                                                                               |                                                                                     |
| Capacity (veh/h)         | 1606   | -                                                                                   | -                                                                                   | -    | 1067                                                                                |                                                                                     |
| HCM Lane V/C Ratio       | 0.002  | -                                                                                   | -                                                                                   | -    | 0.002                                                                               |                                                                                     |
| HCM Control Delay (s)    | 7.2    | 0                                                                                   | -                                                                                   | -    | 8.4                                                                                 |                                                                                     |
| HCM Lane LOS             | A      | A                                                                                   | -                                                                                   | -    | A                                                                                   |                                                                                     |
| HCM 95th %tile Q(veh)    | 0      | -                                                                                   | -                                                                                   | -    | 0                                                                                   |                                                                                     |

## **APPENDIX K**

### **2027 BUILD PEAK HOUR ANALYSIS**

2027 Total AM  
22-1180 Alliance Broadstone Silveray

1: Goldfield Rd/EB Old West Hwy  
HCM 6th TWSC

| Intersection             |      |      |      |      |      |      |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh         | 3.2  |      |      |      |      |      |
| Movement                 | WBL  | WBR  | NBT  | NBR  | SBL  | SBT  |
| Lane Configurations      | ↱    |      |      |      | ↱ ↱  | ↱ ↱  |
| Traffic Vol, veh/h       | 64   | 0    | 0    | 0    | 0    | 131  |
| Future Vol, veh/h        | 64   | 0    | 0    | 0    | 0    | 131  |
| 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    | -    | -    | -    | 195  | -    |
| Veh in Median Storage, # | 0    | -    | 0    | -    | -    | 0    |
| Grade, %                 | 0    | -    | 0    | -    | -    | 0    |
| Peak Hour Factor         | 80   | 80   | 25   | 25   | 80   | 85   |
| Heavy Vehicles, %        | 2    | 2    | 2    | 2    | 2    | 2    |
| Mvmt Flow                | 80   | 0    | 0    | 0    | 0    | 154  |

| Major/Minor          | Minor1 | Major2 |        |
|----------------------|--------|--------|--------|
| Conflicting Flow All | 77     | -      | 0 0    |
| Stage 1              | 0      | -      | -      |
| Stage 2              | 77     | -      | -      |
| Critical Hdwy        | 6.84   | -      | 4.14 - |
| Critical Hdwy Stg 1  | -      | -      | -      |
| Critical Hdwy Stg 2  | 5.84   | -      | -      |
| Follow-up Hdwy       | 3.52   | -      | 2.22 - |
| Pot Cap-1 Maneuver   | 917    | 0      | -      |
| Stage 1              | -      | 0      | -      |
| Stage 2              | 937    | 0      | -      |
| Platoon blocked, %   |        |        | -      |
| Mov Cap-1 Maneuver   | 917    | -      | -      |
| Mov Cap-2 Maneuver   | 917    | -      | -      |
| Stage 1              | -      | -      | -      |
| Stage 2              | 937    | -      | -      |

| Approach             | WB  | SB |
|----------------------|-----|----|
| HCM Control Delay, s | 9.3 | 0  |
| HCM LOS              | A   |    |

| Minor Lane/Major Mvmt | WBLn1 | SBL | SBT |
|-----------------------|-------|-----|-----|
| Capacity (veh/h)      | 917   | -   | -   |
| HCM Lane V/C Ratio    | 0.087 | -   | -   |
| HCM Control Delay (s) | 9.3   | 0   | -   |
| HCM Lane LOS          | A     | A   | -   |
| HCM 95th %tile Q(veh) | 0.3   | -   | -   |

2027 Total PM  
22-1180 Alliance Broadstone Silveray

1: Goldfield Rd/EB Old West Hwy  
HCM 6th TWSC

| Intersection             |      |      |      |      |      |      |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh         | 2.3  |      |      |      |      |      |
| Movement                 | WBL  | WBR  | NBT  | NBR  | SBL  | SBT  |
| Lane Configurations      | ↱    |      |      |      | ↱ ↱  | ↱ ↱  |
| Traffic Vol, veh/h       | 67   | 0    | 0    | 0    | 0    | 227  |
| Future Vol, veh/h        | 67   | 0    | 0    | 0    | 0    | 227  |
| 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    | -    | -    | -    | 195  | -    |
| Veh in Median Storage, # | 0    | -    | 0    | -    | -    | 0    |
| Grade, %                 | 0    | -    | 0    | -    | -    | 0    |
| Peak Hour Factor         | 80   | 80   | 25   | 25   | 80   | 85   |
| Heavy Vehicles, %        | 2    | 2    | 2    | 2    | 2    | 2    |
| Mvmt Flow                | 84   | 0    | 0    | 0    | 0    | 267  |

| Major/Minor          | Minor1 | Major2 |        |
|----------------------|--------|--------|--------|
| Conflicting Flow All | 134    | -      | 0 0    |
| Stage 1              | 0      | -      | -      |
| Stage 2              | 134    | -      | -      |
| Critical Hdwy        | 6.84   | -      | 4.14 - |
| Critical Hdwy Stg 1  | -      | -      | -      |
| Critical Hdwy Stg 2  | 5.84   | -      | -      |
| Follow-up Hdwy       | 3.52   | -      | 2.22 - |
| Pot Cap-1 Maneuver   | 846    | 0      | -      |
| Stage 1              | -      | 0      | -      |
| Stage 2              | 878    | 0      | -      |
| Platoon blocked, %   |        |        | -      |
| Mov Cap-1 Maneuver   | 846    | -      | -      |
| Mov Cap-2 Maneuver   | 846    | -      | -      |
| Stage 1              | -      | -      | -      |
| Stage 2              | 878    | -      | -      |

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

| Minor Lane/Major Mvmt | WBLn1 | SBL | SBT |
|-----------------------|-------|-----|-----|
| Capacity (veh/h)      | 846   | -   | -   |
| HCM Lane V/C Ratio    | 0.099 | -   | -   |
| HCM Control Delay (s) | 9.7   | 0   | -   |
| HCM Lane LOS          | A     | A   | -   |
| HCM 95th %tile Q(veh) | 0.3   | -   | -   |

2027 Total AM  
22-1180 Alliance Broadstone Silveray

2: Goldfield Rd & WB Old West Hwy  
HCM 6th TWSC

| Intersection             |      |      |      |      |      |      |      |      |       |      |      |      |
|--------------------------|------|------|------|------|------|------|------|------|-------|------|------|------|
| Int Delay, s/veh         | 2.9  |      |      |      |      |      |      |      |       |      |      |      |
| Movement                 | EBL  | EBT  | EBR  | WBL  | WBT  | WBR  | NBL  | NBT  | NBR   | SBL  | SBT  | SBR  |
| Lane Configurations      |      | ↑    |      |      | ↑    | ↑    |      | ↑↑   | ↑     |      |      |      |
| Traffic Vol, veh/h       | 0    | 18   | 0    | 0    | 64   | 10   | 0    | 224  | 46    | 0    | 0    | 0    |
| Future Vol, veh/h        | 0    | 18   | 0    | 0    | 64   | 10   | 0    | 224  | 46    | 0    | 0    | 0    |
| Conflicting Peds, #/hr   | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0     | 0    | 0    | 0    |
| Sign Control             | Stop | Stop | Stop | Stop | Stop | Stop | Free | Free | Free  | Free | Free | Free |
| RT Channelized           | -    | -    | None | -    | -    | Stop | -    | -    | Yield | -    | -    | None |
| Storage Length           | -    | -    | -    | -    | -    | 0    | -    | -    | 0     | -    | -    | -    |
| Veh in Median Storage, # | -    | 0    | -    | -    | 0    | -    | -    | 0    | -     | -    | 0    | -    |
| Grade, %                 | -    | 0    | -    | -    | 0    | -    | -    | 0    | -     | -    | 0    | -    |
| Peak Hour Factor         | 80   | 80   | 80   | 80   | 80   | 80   | 80   | 85   | 80    | 25   | 25   | 25   |
| Heavy Vehicles, %        | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2     | 2    | 2    | 2    |
| Mvmt Flow                | 0    | 23   | 0    | 0    | 80   | 13   | 0    | 264  | 58    | 0    | 0    | 0    |

| Major/Minor          | Minor2 | Minor1   | Major1     |
|----------------------|--------|----------|------------|
| Conflicting Flow All | - 264  | - - 264  | 132 - 0 0  |
| Stage 1              | - 0    | - - 264  | - - - -    |
| Stage 2              | - 264  | - - 0    | - - - -    |
| Critical Hdwy        | - 6.54 | - - 6.54 | 6.94 - - - |
| Critical Hdwy Stg 1  | - -    | - - 5.54 | - - - -    |
| Critical Hdwy Stg 2  | - 5.54 | - - -    | - - - -    |
| Follow-up Hdwy       | - 4.02 | - - 4.02 | 3.32 - - - |
| Pot Cap-1 Maneuver   | 0 640  | 0 0 640  | 893 0 - -  |
| Stage 1              | 0 -    | 0 0 689  | - 0 - -    |
| Stage 2              | 0 689  | 0 0 -    | - 0 - -    |
| Platoon blocked, %   | -      | -        | -          |
| Mov Cap-1 Maneuver   | - 640  | - - 640  | 893 - - -  |
| Mov Cap-2 Maneuver   | - 640  | - - 640  | - - - -    |
| Stage 1              | - -    | - - 689  | - - - -    |
| Stage 2              | - 689  | - - -    | - - - -    |

| Approach             | EB   | WB   | NB |
|----------------------|------|------|----|
| HCM Control Delay, s | 10.8 | 11.1 | 0  |
| HCM LOS              | B    | B    |    |

| Minor Lane/Major Mvmt | NBT | NBR | EBLn1 | WBLn1 | WBLn2 |
|-----------------------|-----|-----|-------|-------|-------|
| Capacity (veh/h)      | -   | -   | 640   | 640   | 893   |
| HCM Lane V/C Ratio    | -   | -   | 0.035 | 0.125 | 0.014 |
| HCM Control Delay (s) | -   | -   | 10.8  | 11.4  | 9.1   |
| HCM Lane LOS          | -   | -   | B     | B     | A     |
| HCM 95th %tile Q(veh) | -   | -   | 0.1   | 0.4   | 0     |

2027 Total PM  
22-1180 Alliance Broadstone Silveray

2: Goldfield Rd & WB Old West Hwy  
HCM 6th TWSC

| Intersection             |      |      |      |      |      |      |      |      |       |      |      |      |
|--------------------------|------|------|------|------|------|------|------|------|-------|------|------|------|
| Int Delay, s/veh         | 2.9  |      |      |      |      |      |      |      |       |      |      |      |
| Movement                 | EBL  | EBT  | EBR  | WBL  | WBT  | WBR  | NBL  | NBT  | NBR   | SBL  | SBT  | SBR  |
| Lane Configurations      |      | ↑    |      |      | ↑    | ↑    |      | ↑↑   | ↑     |      |      |      |
| Traffic Vol, veh/h       | 0    | 21   | 0    | 0    | 67   | 6    | 0    | 205  | 64    | 0    | 0    | 0    |
| Future Vol, veh/h        | 0    | 21   | 0    | 0    | 67   | 6    | 0    | 205  | 64    | 0    | 0    | 0    |
| Conflicting Peds, #/hr   | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0     | 0    | 0    | 0    |
| Sign Control             | Stop | Stop | Stop | Stop | Stop | Stop | Free | Free | Free  | Free | Free | Free |
| RT Channelized           | -    | -    | None | -    | -    | Stop | -    | -    | Yield | -    | -    | None |
| Storage Length           | -    | -    | -    | -    | -    | 0    | -    | -    | 0     | -    | -    | -    |
| Veh in Median Storage, # | -    | 0    | -    | -    | 0    | -    | -    | 0    | -     | -    | 0    | -    |
| Grade, %                 | -    | 0    | -    | -    | 0    | -    | -    | 0    | -     | -    | 0    | -    |
| Peak Hour Factor         | 80   | 80   | 80   | 80   | 80   | 80   | 80   | 85   | 80    | 25   | 25   | 25   |
| Heavy Vehicles, %        | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2     | 2    | 2    | 2    |
| Mvmt Flow                | 0    | 26   | 0    | 0    | 84   | 8    | 0    | 241  | 80    | 0    | 0    | 0    |

| Major/Minor          | Minor2 | Minor1   | Major1     |
|----------------------|--------|----------|------------|
| Conflicting Flow All | - 241  | - - 241  | 121 - 0 0  |
| Stage 1              | - 0    | - - 241  | - - - -    |
| Stage 2              | - 241  | - - 0    | - - - -    |
| Critical Hdwy        | - 6.54 | - - 6.54 | 6.94 - - - |
| Critical Hdwy Stg 1  | - -    | - - 5.54 | - - - -    |
| Critical Hdwy Stg 2  | - 5.54 | - - -    | - - - -    |
| Follow-up Hdwy       | - 4.02 | - - 4.02 | 3.32 - - - |
| Pot Cap-1 Maneuver   | 0 659  | 0 0 659  | 908 0 - -  |
| Stage 1              | 0 -    | 0 0 705  | - 0 - -    |
| Stage 2              | 0 705  | 0 0 -    | - 0 - -    |
| Platoon blocked, %   | -      | -        | -          |
| Mov Cap-1 Maneuver   | - 659  | - - 659  | 908 - - -  |
| Mov Cap-2 Maneuver   | - 659  | - - 659  | - - - -    |
| Stage 1              | - -    | - - 705  | - - - -    |
| Stage 2              | - 705  | - - -    | - - - -    |

| Approach             | EB   | WB   | NB |
|----------------------|------|------|----|
| HCM Control Delay, s | 10.7 | 11.1 | 0  |
| HCM LOS              | B    | B    |    |

| Minor Lane/Major Mvmt | NBT | NBR | EBLn1 | WBLn1 | WBLn2 |
|-----------------------|-----|-----|-------|-------|-------|
| Capacity (veh/h)      | -   | -   | 659   | 659   | 908   |
| HCM Lane V/C Ratio    | -   | -   | 0.04  | 0.127 | 0.008 |
| HCM Control Delay (s) | -   | -   | 10.7  | 11.3  | 9     |
| HCM Lane LOS          | -   | -   | B     | B     | A     |
| HCM 95th %tile Q(veh) | -   | -   | 0.1   | 0.4   | 0     |

2027 Total AM  
22-1180 Alliance Broadstone Silveray

3: Goldfield Rd & US-60/Old West Hwy Exit  
HCM 6th TWSC

| Intersection             |      |      |      |      |      |      |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh         | 3.7  |      |      |      |      |      |
| Movement                 | WBL  | WBR  | NBT  | NBR  | SBL  | SBT  |
| Lane Configurations      |      | ↗    | ↗    |      |      | ↗    |
| Traffic Vol, veh/h       | 0    | 179  | 91   | 0    | 0    | 195  |
| Future Vol, veh/h        | 0    | 179  | 91   | 0    | 0    | 195  |
| 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         | 80   | 85   | 85   | 80   | 80   | 85   |
| Heavy Vehicles, %        | 2    | 2    | 2    | 2    | 2    | 2    |
| Mvmt Flow                | 0    | 211  | 107  | 0    | 0    | 229  |

| Major/Minor          | Minor1 | Major1 | Major2 |
|----------------------|--------|--------|--------|
| Conflicting Flow All | -      | 54     | 0      |
| Stage 1              | -      | -      | -      |
| Stage 2              | -      | -      | -      |
| Critical Hdwy        | -      | 6.94   | -      |
| Critical Hdwy Stg 1  | -      | -      | -      |
| Critical Hdwy Stg 2  | -      | -      | -      |
| Follow-up Hdwy       | -      | 3.32   | -      |
| Pot Cap-1 Maneuver   | 0      | 1002   | -      |
| Stage 1              | 0      | -      | 0      |
| Stage 2              | 0      | -      | 0      |
| Platoon blocked, %   | -      | -      | -      |
| Mov Cap-1 Maneuver   | -      | 1002   | -      |
| Mov Cap-2 Maneuver   | -      | -      | -      |
| Stage 1              | -      | -      | -      |
| Stage 2              | -      | -      | -      |

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

| Minor Lane/Major Mvmt | NBTWBLn1 | SBT  |
|-----------------------|----------|------|
| Capacity (veh/h)      | -        | 1002 |
| HCM Lane V/C Ratio    | -        | 0.21 |
| HCM Control Delay (s) | -        | 9.5  |
| HCM Lane LOS          | -        | A    |
| HCM 95th %tile Q(veh) | -        | 0.8  |

2027 Total PM  
22-1180 Alliance Broadstone Silveray

3: Goldfield Rd & US-60/Old West Hwy Exit  
HCM 6th TWSC

| Intersection             |      |      |      |      |      |      |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh         | 2    |      |      |      |      |      |
| Movement                 | WBL  | WBR  | NBT  | NBR  | SBL  | SBT  |
| Lane Configurations      |      | ↗    | ↗    |      |      | ↗    |
| Traffic Vol, veh/h       | 0    | 121  | 147  | 0    | 0    | 293  |
| Future Vol, veh/h        | 0    | 121  | 147  | 0    | 0    | 293  |
| 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         | 80   | 85   | 85   | 80   | 80   | 85   |
| Heavy Vehicles, %        | 2    | 2    | 2    | 2    | 2    | 2    |
| Mvmt Flow                | 0    | 142  | 173  | 0    | 0    | 345  |

| Major/Minor          | Minor1 | Major1 | Major2 |
|----------------------|--------|--------|--------|
| Conflicting Flow All | -      | 87     | 0      |
| Stage 1              | -      | -      | -      |
| Stage 2              | -      | -      | -      |
| Critical Hdwy        | -      | 6.94   | -      |
| Critical Hdwy Stg 1  | -      | -      | -      |
| Critical Hdwy Stg 2  | -      | -      | -      |
| Follow-up Hdwy       | -      | 3.32   | -      |
| Pot Cap-1 Maneuver   | 0      | 954    | -      |
| Stage 1              | 0      | -      | 0      |
| Stage 2              | 0      | -      | 0      |
| Platoon blocked, %   | -      | -      | -      |
| Mov Cap-1 Maneuver   | -      | 954    | -      |
| Mov Cap-2 Maneuver   | -      | -      | -      |
| Stage 1              | -      | -      | -      |
| Stage 2              | -      | -      | -      |

| Approach             | WB  | NB | SB |
|----------------------|-----|----|----|
| HCM Control Delay, s | 9.4 | 0  | 0  |
| HCM LOS              | A   |    |    |

| Minor Lane/Major Mvmt | NBTWBLn1 | SBT   |
|-----------------------|----------|-------|
| Capacity (veh/h)      | -        | 954   |
| HCM Lane V/C Ratio    | -        | 0.149 |
| HCM Control Delay (s) | -        | 9.4   |
| HCM Lane LOS          | -        | A     |
| HCM 95th %tile Q(veh) | -        | 0.5   |

2027 Total AM  
22-1180 Alliance Broadstone Silveray

4: Goldfield Rd & US-60 WB Ramps  
Timings

| Lane Group           | WBL   | WBT   | WBR   | NBL   | NBT   | SBT   | SBR   |
|----------------------|-------|-------|-------|-------|-------|-------|-------|
| Lane Configurations  | ↩     | ↩↩    | ↩     | ↩     | ↩↩    | ↩↩    | ↩     |
| Traffic Volume (vph) | 9     | 0     | 18    | 100   | 140   | 179   | 133   |
| Future Volume (vph)  | 9     | 0     | 18    | 100   | 140   | 179   | 133   |
| Turn Type            | Perm  | NA    | Perm  | pm+pt | NA    | NA    | Perm  |
| Protected Phases     |       | 3     |       | 2     | 1     | 1     |       |
| Permitted Phases     | 3     |       | 3     | 1     |       |       | 1     |
| Detector Phase       | 3     | 3     | 3     | 2     | 1     | 1     | 1     |
| Switch Phase         |       |       |       |       |       |       |       |
| Minimum Initial (s)  | 8.0   | 8.0   | 8.0   | 5.0   | 20.0  | 20.0  | 20.0  |
| Minimum Split (s)    | 44.9  | 44.9  | 44.9  | 10.6  | 31.6  | 31.6  | 31.6  |
| Total Split (s)      | 45.0  | 45.0  | 45.0  | 11.0  | 34.0  | 34.0  | 34.0  |
| Total Split (%)      | 50.0% | 50.0% | 50.0% | 12.2% | 37.8% | 37.8% | 37.8% |
| Yellow Time (s)      | 3.9   | 3.9   | 3.9   | 3.6   | 3.6   | 3.6   | 3.6   |
| All-Red Time (s)     | 2.0   | 2.0   | 2.0   | 2.0   | 2.0   | 2.0   | 2.0   |
| Lost Time Adjust (s) | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |
| Total Lost Time (s)  | 5.9   | 5.9   | 5.9   | 5.6   | 5.6   | 5.6   | 5.6   |
| Lead/Lag             |       |       |       | Lag   | Lead  | Lead  | Lead  |
| Lead-Lag Optimize?   |       |       |       | Yes   | Yes   | Yes   | Yes   |
| Recall Mode          | None  | None  | None  | Max   | C-Max | C-Max | C-Max |

Intersection Summary

Cycle Length: 90

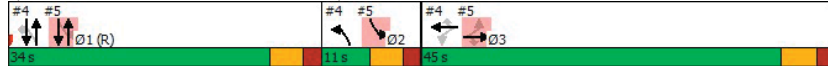
Actuated Cycle Length: 90

Offset: 0 (0%), Referenced to phase 1:NBSB, Start of Green, Master Intersection

Natural Cycle: 90

Control Type: Actuated-Coordinated

Splits and Phases: 4: Goldfield Rd & US-60 WB Ramps



2027 Total PM  
22-1180 Alliance Broadstone Silveray

4: Goldfield Rd & US-60 WB Ramps  
Timings

| Lane Group           | WBL   | WBT   | WBR   | NBL   | NBT   | SBT   | SBR   |
|----------------------|-------|-------|-------|-------|-------|-------|-------|
| Lane Configurations  | ↩     | ↩↩    | ↩     | ↩     | ↩↩    | ↩↩    | ↩     |
| Traffic Volume (vph) | 26    | 0     | 42    | 66    | 186   | 250   | 95    |
| Future Volume (vph)  | 26    | 0     | 42    | 66    | 186   | 250   | 95    |
| Turn Type            | Perm  | NA    | Perm  | pm+pt | NA    | NA    | Perm  |
| Protected Phases     |       | 3     |       | 2     | 1     | 1     |       |
| Permitted Phases     | 3     |       | 3     | 1     |       |       | 1     |
| Detector Phase       | 3     | 3     | 3     | 2     | 1     | 1     | 1     |
| Switch Phase         |       |       |       |       |       |       |       |
| Minimum Initial (s)  | 8.0   | 8.0   | 8.0   | 5.0   | 20.0  | 20.0  | 20.0  |
| Minimum Split (s)    | 44.9  | 44.9  | 44.9  | 10.6  | 31.6  | 31.6  | 31.6  |
| Total Split (s)      | 45.0  | 45.0  | 45.0  | 11.0  | 34.0  | 34.0  | 34.0  |
| Total Split (%)      | 50.0% | 50.0% | 50.0% | 12.2% | 37.8% | 37.8% | 37.8% |
| Yellow Time (s)      | 3.9   | 3.9   | 3.9   | 3.6   | 3.6   | 3.6   | 3.6   |
| All-Red Time (s)     | 2.0   | 2.0   | 2.0   | 2.0   | 2.0   | 2.0   | 2.0   |
| Lost Time Adjust (s) | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |
| Total Lost Time (s)  | 5.9   | 5.9   | 5.9   | 5.6   | 5.6   | 5.6   | 5.6   |
| Lead/Lag             |       |       |       | Lag   | Lead  | Lead  | Lead  |
| Lead-Lag Optimize?   |       |       |       | Yes   | Yes   | Yes   | Yes   |
| Recall Mode          | None  | None  | None  | Max   | C-Max | C-Max | C-Max |

Intersection Summary

Cycle Length: 90

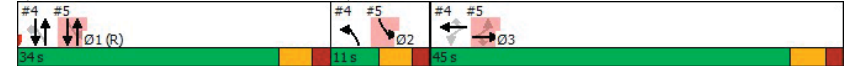
Actuated Cycle Length: 90

Offset: 0 (0%), Referenced to phase 1:NBSB, Start of Green, Master Intersection

Natural Cycle: 90

Control Type: Actuated-Coordinated

Splits and Phases: 4: Goldfield Rd & US-60 WB Ramps





2027 Total AM

4: Goldfield Rd & US-60 WB Ramps

22-1180 Alliance Broadstone Silveray

Queues

|                         | ↙    | ←    | ↖    | ↗    | ↑    | ↓    | ↘    |
|-------------------------|------|------|------|------|------|------|------|
| Lane Group              | WBL  | WBT  | WBR  | NBL  | NBT  | SBT  | SBR  |
| Lane Group Flow (vph)   | 10   | 12   | 12   | 118  | 165  | 211  | 156  |
| v/c Ratio               | 0.07 | 0.05 | 0.05 | 0.13 | 0.07 | 0.06 | 0.14 |
| Control Delay           | 38.1 | 0.5  | 0.4  | 1.5  | 3.4  | 5.3  | 1.3  |
| Queue Delay             | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Total Delay             | 38.1 | 0.5  | 0.4  | 1.5  | 3.4  | 5.3  | 1.3  |
| Queue Length 50th (ft)  | 5    | 0    | 0    | 3    | 7    | 13   | 0    |
| Queue Length 95th (ft)  | 18   | 0    | 0    | 5    | 12   | 21   | 16   |
| Internal Link Dist (ft) | 639  |      |      | 484  |      |      | 300  |
| Turn Bay Length (ft)    | 190  | 190  |      |      |      |      | 145  |
| Base Capacity (vph)     | 730  | 688  | 709  | 894  | 2439 | 3505 | 1139 |
| Starvation Cap Reductn  | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Spillback Cap Reductn   | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Storage Cap Reductn     | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Reduced v/c Ratio       | 0.01 | 0.02 | 0.02 | 0.13 | 0.07 | 0.06 | 0.14 |
| Intersection Summary    |      |      |      |      |      |      |      |

2027 Total PM

4: Goldfield Rd & US-60 WB Ramps

22-1180 Alliance Broadstone Silveray

Queues

|                         | ↙    | ←    | ↖    | ↗    | ↑    | ↓    | ↘    |
|-------------------------|------|------|------|------|------|------|------|
| Lane Group              | WBL  | WBT  | WBR  | NBL  | NBT  | SBT  | SBR  |
| Lane Group Flow (vph)   | 30   | 28   | 28   | 83   | 219  | 294  | 112  |
| v/c Ratio               | 0.16 | 0.11 | 0.11 | 0.11 | 0.10 | 0.09 | 0.11 |
| Control Delay           | 36.8 | 0.9  | 0.9  | 2.8  | 4.4  | 6.7  | 1.8  |
| Queue Delay             | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Total Delay             | 36.8 | 0.9  | 0.9  | 2.8  | 4.4  | 6.7  | 1.8  |
| Queue Length 50th (ft)  | 16   | 0    | 0    | 3    | 10   | 20   | 0    |
| Queue Length 95th (ft)  | 36   | 0    | 0    | 21   | 38   | 34   | 17   |
| Internal Link Dist (ft) | 639  |      |      | 484  |      |      | 300  |
| Turn Bay Length (ft)    | 190  | 190  |      |      |      |      | 145  |
| Base Capacity (vph)     | 730  | 690  | 709  | 776  | 2257 | 3242 | 1050 |
| Starvation Cap Reductn  | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Spillback Cap Reductn   | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Storage Cap Reductn     | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Reduced v/c Ratio       | 0.04 | 0.04 | 0.04 | 0.11 | 0.10 | 0.09 | 0.11 |
| Intersection Summary    |      |      |      |      |      |      |      |

2027 Total AM  
22-1180 Alliance Broadstone Silveray

5: Goldfield Rd & US-60 EB Ramps  
Timings

|                      | ↖     | →     | ↗     | ↖     | ↗     | ↖     | ↗     |
|----------------------|-------|-------|-------|-------|-------|-------|-------|
| Lane Group           | EBL   | EBT   | EBR   | NBT   | NBR   | SBL   | SBT   |
| Lane Configurations  | ↖     | ↖     | ↖     | ↖     | ↖     | ↖     | ↖     |
| Traffic Volume (vph) | 81    | 0     | 52    | 158   | 24    | 136   | 51    |
| Future Volume (vph)  | 81    | 0     | 52    | 158   | 24    | 136   | 51    |
| Turn Type            | Perm  | NA    | Perm  | NA    | Perm  | pm+pt | NA    |
| Protected Phases     |       | 3     |       | 1     |       | 2     | 1     |
| Permitted Phases     | 3     |       | 3     |       | 1     | 1     |       |
| Detector Phase       | 3     | 3     | 3     | 1     | 1     | 2     | 1     |
| Switch Phase         |       |       |       |       |       |       |       |
| Minimum Initial (s)  | 8.0   | 8.0   | 8.0   | 20.0  | 20.0  | 5.0   | 20.0  |
| Minimum Split (s)    | 44.9  | 44.9  | 44.9  | 31.6  | 31.6  | 10.6  | 31.6  |
| Total Split (s)      | 45.0  | 45.0  | 45.0  | 34.0  | 34.0  | 11.0  | 34.0  |
| Total Split (%)      | 50.0% | 50.0% | 50.0% | 37.8% | 37.8% | 12.2% | 37.8% |
| Yellow Time (s)      | 3.9   | 3.9   | 3.9   | 3.6   | 3.6   | 3.6   | 3.6   |
| All-Red Time (s)     | 2.0   | 2.0   | 2.0   | 2.0   | 2.0   | 2.0   | 2.0   |
| Lost Time Adjust (s) | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |
| Total Lost Time (s)  | 5.9   | 5.9   | 5.9   | 5.6   | 5.6   | 5.6   | 5.6   |
| Lead/Lag             |       |       |       | Lead  | Lead  | Lag   | Lead  |
| Lead-Lag Optimize?   |       |       |       | Yes   | Yes   | Yes   | Yes   |
| Recall Mode          | None  | None  | None  | C-Max | C-Max | Max   | C-Max |

Intersection Summary

Cycle Length: 90

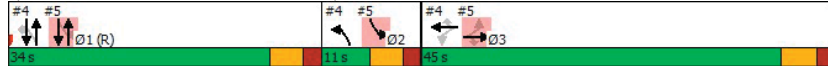
Actuated Cycle Length: 90

Offset: 0 (0%), Referenced to phase 1:NBSB, Start of Green, Master Intersection

Natural Cycle: 90

Control Type: Actuated-Coordinated

Splits and Phases: 5: Goldfield Rd & US-60 EB Ramps



2027 Total PM  
22-1180 Alliance Broadstone Silveray

5: Goldfield Rd & US-60 EB Ramps  
Timings

|                      | ↖     | →     | ↗     | ↖     | ↗     | ↖     | ↗     |
|----------------------|-------|-------|-------|-------|-------|-------|-------|
| Lane Group           | EBL   | EBT   | EBR   | NBT   | NBR   | SBL   | SBT   |
| Lane Configurations  | ↖     | ↖     | ↖     | ↖     | ↖     | ↖     | ↖     |
| Traffic Volume (vph) | 144   | 0     | 106   | 101   | 47    | 186   | 93    |
| Future Volume (vph)  | 144   | 0     | 106   | 101   | 47    | 186   | 93    |
| Turn Type            | Perm  | NA    | Perm  | NA    | Perm  | pm+pt | NA    |
| Protected Phases     |       | 3     |       | 1     |       | 2     | 1     |
| Permitted Phases     | 3     |       | 3     |       | 1     | 1     |       |
| Detector Phase       | 3     | 3     | 3     | 1     | 1     | 2     | 1     |
| Switch Phase         |       |       |       |       |       |       |       |
| Minimum Initial (s)  | 8.0   | 8.0   | 8.0   | 20.0  | 20.0  | 5.0   | 20.0  |
| Minimum Split (s)    | 44.9  | 44.9  | 44.9  | 31.6  | 31.6  | 10.6  | 31.6  |
| Total Split (s)      | 45.0  | 45.0  | 45.0  | 34.0  | 34.0  | 11.0  | 34.0  |
| Total Split (%)      | 50.0% | 50.0% | 50.0% | 37.8% | 37.8% | 12.2% | 37.8% |
| Yellow Time (s)      | 3.9   | 3.9   | 3.9   | 3.6   | 3.6   | 3.6   | 3.6   |
| All-Red Time (s)     | 2.0   | 2.0   | 2.0   | 2.0   | 2.0   | 2.0   | 2.0   |
| Lost Time Adjust (s) | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |
| Total Lost Time (s)  | 5.9   | 5.9   | 5.9   | 5.6   | 5.6   | 5.6   | 5.6   |
| Lead/Lag             |       |       |       | Lead  | Lead  | Lag   | Lead  |
| Lead-Lag Optimize?   |       |       |       | Yes   | Yes   | Yes   | Yes   |
| Recall Mode          | None  | None  | None  | C-Max | C-Max | Max   | C-Max |

Intersection Summary

Cycle Length: 90

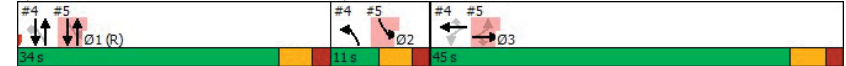
Actuated Cycle Length: 90

Offset: 0 (0%), Referenced to phase 1:NBSB, Start of Green, Master Intersection

Natural Cycle: 90

Control Type: Actuated-Coordinated

Splits and Phases: 5: Goldfield Rd & US-60 EB Ramps





2027 Total AM

22-1180 Alliance Broadstone Silveray

5: Goldfield Rd & US-60 EB Ramps

Queues

|                         |  |  |  |  |  |  |  |
|-------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|
| Lane Group              | EBL                                                                               | EBT                                                                               | EBR                                                                               | NBT                                                                               | NBR                                                                               | SBL                                                                               | SBT                                                                               |
| Lane Group Flow (vph)   | 48                                                                                | 45                                                                                | 43                                                                                | 186                                                                               | 30                                                                                | 160                                                                               | 64                                                                                |
| v/c Ratio               | 0.31                                                                              | 0.19                                                                              | 0.19                                                                              | 0.05                                                                              | 0.03                                                                              | 0.17                                                                              | 0.03                                                                              |
| Control Delay           | 43.9                                                                              | 1.9                                                                               | 1.8                                                                               | 5.3                                                                               | 0.0                                                                               | 1.5                                                                               | 2.8                                                                               |
| Queue Delay             | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               | 0.0                                                                               |
| Total Delay             | 43.9                                                                              | 1.9                                                                               | 1.8                                                                               | 5.3                                                                               | 0.0                                                                               | 1.5                                                                               | 2.8                                                                               |
| Queue Length 50th (ft)  | 27                                                                                | 0                                                                                 | 0                                                                                 | 12                                                                                | 0                                                                                 | 0                                                                                 | 2                                                                                 |
| Queue Length 95th (ft)  | 58                                                                                | 0                                                                                 | 0                                                                                 | 19                                                                                | 0                                                                                 | 4                                                                                 | 4                                                                                 |
| Internal Link Dist (ft) | 535                                                                               |                                                                                   | 222                                                                               |                                                                                   | 484                                                                               |                                                                                   |                                                                                   |
| Turn Bay Length (ft)    | 130                                                                               | 130                                                                               |                                                                                   | 115                                                                               |                                                                                   |                                                                                   |                                                                                   |
| Base Capacity (vph)     | 730                                                                               | 729                                                                               | 709                                                                               | 3505                                                                              | 1123                                                                              | 915                                                                               | 2439                                                                              |
| Starvation Cap Reductn  | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 |
| Spillback Cap Reductn   | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 |
| Storage Cap Reductn     | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 |
| Reduced v/c Ratio       | 0.07                                                                              | 0.06                                                                              | 0.06                                                                              | 0.05                                                                              | 0.03                                                                              | 0.17                                                                              | 0.03                                                                              |

Intersection Summary

2027 Total PM

22-1180 Alliance Broadstone Silveray

5: Goldfield Rd & US-60 EB Ramps

Queues

|                         |  |  |  |  |  |  |  |
|-------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Lane Group              | EBL                                                                                 | EBT                                                                                 | EBR                                                                                 | NBT                                                                                 | NBR                                                                                 | SBL                                                                                 | SBT                                                                                 |
| Lane Group Flow (vph)   | 101                                                                                 | 101                                                                                 | 92                                                                                  | 119                                                                                 | 59                                                                                  | 219                                                                                 | 109                                                                                 |
| v/c Ratio               | 0.54                                                                                | 0.39                                                                                | 0.36                                                                                | 0.04                                                                                | 0.06                                                                                | 0.24                                                                                | 0.05                                                                                |
| Control Delay           | 47.8                                                                                | 12.4                                                                                | 10.9                                                                                | 6.6                                                                                 | 0.6                                                                                 | 2.4                                                                                 | 3.4                                                                                 |
| Queue Delay             | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 | 0.0                                                                                 |
| Total Delay             | 47.8                                                                                | 12.4                                                                                | 10.9                                                                                | 6.6                                                                                 | 0.6                                                                                 | 2.4                                                                                 | 3.4                                                                                 |
| Queue Length 50th (ft)  | 58                                                                                  | 1                                                                                   | 0                                                                                   | 8                                                                                   | 0                                                                                   | 12                                                                                  | 5                                                                                   |
| Queue Length 95th (ft)  | 98                                                                                  | 36                                                                                  | 33                                                                                  | 16                                                                                  | 2                                                                                   | 18                                                                                  | 10                                                                                  |
| Internal Link Dist (ft) | 535                                                                                 |                                                                                     | 222                                                                                 |                                                                                     | 484                                                                                 |                                                                                     |                                                                                     |
| Turn Bay Length (ft)    | 130                                                                                 | 130                                                                                 |                                                                                     | 115                                                                                 |                                                                                     |                                                                                     |                                                                                     |
| Base Capacity (vph)     | 730                                                                                 | 733                                                                                 | 709                                                                                 | 3242                                                                                | 1046                                                                                | 905                                                                                 | 2257                                                                                |
| Starvation Cap Reductn  | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   |
| Spillback Cap Reductn   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   |
| Storage Cap Reductn     | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   |
| Reduced v/c Ratio       | 0.14                                                                                | 0.14                                                                                | 0.13                                                                                | 0.04                                                                                | 0.06                                                                                | 0.24                                                                                | 0.05                                                                                |

Intersection Summary



2027 Total AM  
22-1180 Alliance Broadstone Silveray

7: Goldfield Rd & Resort Blvd  
HCM 6th TWSC

| Intersection             |      |      |      |      |      |      |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh         | 5.7  |      |      |      |      |      |
| Movement                 | WBL  | WBR  | NBT  | NBR  | SBL  | SBT  |
| Lane Configurations      | ↔    | ↔    | ↕    | ↕    | ↕    | ↕    |
| Traffic Vol, veh/h       | 2    | 119  | 57   | 3    | 46   | 24   |
| Future Vol, veh/h        | 2    | 119  | 57   | 3    | 46   | 24   |
| Conflicting Peds, #/hr   | 0    | 0    | 0    | 0    | 0    | 0    |
| Sign Control             | Stop | Stop | Free | Free | Free | Free |
| RT Channelized           | -    | None | -    | None | -    | None |
| Storage Length           | 0    | -    | -    | -    | 50   | -    |
| Veh in Median Storage, # | 0    | -    | 0    | -    | -    | 0    |
| Grade, %                 | 0    | -    | 0    | -    | -    | 0    |
| Peak Hour Factor         | 80   | 85   | 80   | 80   | 80   | 80   |
| Heavy Vehicles, %        | 2    | 2    | 2    | 2    | 2    | 2    |
| Mvmt Flow                | 3    | 140  | 71   | 4    | 58   | 30   |

| Major/Minor          | Minor1 | Major1 | Major2 |
|----------------------|--------|--------|--------|
| Conflicting Flow All | 204    | 38     | 0      |
| Stage 1              | 73     | -      | -      |
| Stage 2              | 131    | -      | -      |
| Critical Hdwy        | 6.84   | 6.94   | -      |
| Critical Hdwy Stg 1  | 5.84   | -      | -      |
| Critical Hdwy Stg 2  | 5.84   | -      | -      |
| Follow-up Hdwy       | 3.52   | 3.32   | -      |
| Pot Cap-1 Maneuver   | 766    | 1026   | -      |
| Stage 1              | 941    | -      | -      |
| Stage 2              | 881    | -      | -      |
| Platoon blocked, %   | -      | -      | -      |
| Mov Cap-1 Maneuver   | 737    | 1026   | -      |
| Mov Cap-2 Maneuver   | 738    | -      | -      |
| Stage 1              | 941    | -      | -      |
| Stage 2              | 848    | -      | -      |

| Approach             | WB  | NB | SB  |
|----------------------|-----|----|-----|
| HCM Control Delay, s | 9.1 | 0  | 4.9 |
| HCM LOS              | A   |    |     |

| Minor Lane/Major Mvmt | NBT | NBRWBLn1 | SBL  | SBT   |
|-----------------------|-----|----------|------|-------|
| Capacity (veh/h)      | -   | -        | 1019 | 1522  |
| HCM Lane V/C Ratio    | -   | -        | 0.14 | 0.038 |
| HCM Control Delay (s) | -   | -        | 9.1  | 7.5   |
| HCM Lane LOS          | -   | -        | A    | A     |
| HCM 95th %tile Q(veh) | -   | -        | 0.5  | 0.1   |

2027 Total PM  
22-1180 Alliance Broadstone Silveray

7: Goldfield Rd & Resort Blvd  
HCM 6th TWSC

| Intersection             |      |      |      |      |      |      |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh         | 4.7  |      |      |      |      |      |
| Movement                 | WBL  | WBR  | NBT  | NBR  | SBL  | SBT  |
| Lane Configurations      | ↔    | ↔    | ↕    | ↕    | ↕    | ↕    |
| Traffic Vol, veh/h       | 2    | 70   | 62   | 6    | 98   | 54   |
| Future Vol, veh/h        | 2    | 70   | 62   | 6    | 98   | 54   |
| Conflicting Peds, #/hr   | 0    | 0    | 0    | 0    | 0    | 0    |
| Sign Control             | Stop | Stop | Free | Free | Free | Free |
| RT Channelized           | -    | None | -    | None | -    | None |
| Storage Length           | 0    | -    | -    | -    | 50   | -    |
| Veh in Median Storage, # | 0    | -    | 0    | -    | -    | 0    |
| Grade, %                 | 0    | -    | 0    | -    | -    | 0    |
| Peak Hour Factor         | 80   | 80   | 80   | 80   | 85   | 80   |
| Heavy Vehicles, %        | 2    | 2    | 2    | 2    | 2    | 2    |
| Mvmt Flow                | 3    | 88   | 78   | 8    | 115  | 68   |

| Major/Minor          | Minor1 | Major1 | Major2 |
|----------------------|--------|--------|--------|
| Conflicting Flow All | 346    | 43     | 0      |
| Stage 1              | 82     | -      | -      |
| Stage 2              | 264    | -      | -      |
| Critical Hdwy        | 6.84   | 6.94   | -      |
| Critical Hdwy Stg 1  | 5.84   | -      | -      |
| Critical Hdwy Stg 2  | 5.84   | -      | -      |
| Follow-up Hdwy       | 3.52   | 3.32   | -      |
| Pot Cap-1 Maneuver   | 641    | 1018   | -      |
| Stage 1              | 932    | -      | -      |
| Stage 2              | 772    | -      | -      |
| Platoon blocked, %   | 1      | -      | -      |
| Mov Cap-1 Maneuver   | 592    | 1018   | -      |
| Mov Cap-2 Maneuver   | 622    | -      | -      |
| Stage 1              | 932    | -      | -      |
| Stage 2              | 713    | -      | -      |

| Approach             | WB | NB | SB  |
|----------------------|----|----|-----|
| HCM Control Delay, s | 9  | 0  | 4.8 |
| HCM LOS              | A  |    |     |

| Minor Lane/Major Mvmt | NBT | NBRWBLn1 | SBL  | SBT   |
|-----------------------|-----|----------|------|-------|
| Capacity (veh/h)      | -   | -        | 1000 | 1508  |
| HCM Lane V/C Ratio    | -   | -        | 0.09 | 0.076 |
| HCM Control Delay (s) | -   | -        | 9    | 7.6   |
| HCM Lane LOS          | -   | -        | A    | A     |
| HCM 95th %tile Q(veh) | -   | -        | 0.3  | 0.2   |

2027 Total AM  
22-1180 Alliance Broadstone Silveray

8: Resort Blvd & Chevron Access  
HCM 6th TWSC

| Intersection             |      |      |      |      |      |      |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh         | 0.6  |      |      |      |      |      |
| Movement                 | EBL  | EBT  | WBT  | WBR  | SBL  | SBR  |
| Lane Configurations      |      | ↔    | ↔    |      | ↔    | ↔    |
| Traffic Vol, veh/h       | 7    | 42   | 120  | 1    | 3    | 1    |
| Future Vol, veh/h        | 7    | 42   | 120  | 1    | 3    | 1    |
| Conflicting Peds, #/hr   | 0    | 0    | 0    | 0    | 0    | 0    |
| Sign Control             | Free | Free | Free | Free | Stop | Stop |
| RT Channelized           | -    | None | -    | None | -    | None |
| Storage Length           | -    | -    | -    | -    | 0    | -    |
| Veh in Median Storage, # | -    | 0    | 0    | -    | 0    | -    |
| Grade, %                 | -    | 0    | 0    | -    | 0    | -    |
| Peak Hour Factor         | 80   | 80   | 85   | 80   | 80   | 80   |
| Heavy Vehicles, %        | 2    | 2    | 2    | 2    | 2    | 2    |
| Mvmt Flow                | 9    | 53   | 141  | 1    | 4    | 1    |

| Major/Minor          | Major1 | Major2 | Minor2 |
|----------------------|--------|--------|--------|
| Conflicting Flow All | 142    | 0      | 213    |
| Stage 1              | -      | -      | 142    |
| Stage 2              | -      | -      | 71     |
| Critical Hdwy        | 4.12   | -      | 6.42   |
| Critical Hdwy Stg 1  | -      | -      | 5.42   |
| Critical Hdwy Stg 2  | -      | -      | 5.42   |
| Follow-up Hdwy       | 2.218  | -      | 3.518  |
| Pot Cap-1 Maneuver   | 1441   | -      | 775    |
| Stage 1              | -      | -      | 885    |
| Stage 2              | -      | -      | 952    |
| Platoon blocked, %   | -      | -      | -      |
| Mov Cap-1 Maneuver   | 1441   | -      | 770    |
| Mov Cap-2 Maneuver   | -      | -      | 770    |
| Stage 1              | -      | -      | 880    |
| Stage 2              | -      | -      | 952    |

| Approach             | EB  | WB | SB  |
|----------------------|-----|----|-----|
| HCM Control Delay, s | 1.1 | 0  | 9.5 |
| HCM LOS              |     |    | A   |

| Minor Lane/Major Mvmt | EBL   | EBT | WBT | WBR | SBLn1 |
|-----------------------|-------|-----|-----|-----|-------|
| Capacity (veh/h)      | 1441  | -   | -   | -   | 800   |
| HCM Lane V/C Ratio    | 0.006 | -   | -   | -   | 0.006 |
| HCM Control Delay (s) | 7.5   | 0   | -   | -   | 9.5   |
| HCM Lane LOS          | A     | A   | -   | -   | A     |
| HCM 95th %tile Q(veh) | 0     | -   | -   | -   | 0     |

2027 Total PM  
22-1180 Alliance Broadstone Silveray

8: Resort Blvd & Chevron Access  
HCM 6th TWSC

| Intersection             |      |      |      |      |      |      |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh         | 0.3  |      |      |      |      |      |
| Movement                 | EBL  | EBT  | WBT  | WBR  | SBL  | SBR  |
| Lane Configurations      |      | ↔    | ↔    |      | ↔    | ↔    |
| Traffic Vol, veh/h       | 2    | 114  | 62   | 0    | 1    | 3    |
| Future Vol, veh/h        | 2    | 114  | 62   | 0    | 1    | 3    |
| Conflicting Peds, #/hr   | 0    | 0    | 0    | 0    | 0    | 0    |
| Sign Control             | Free | Free | Free | Free | Stop | Stop |
| RT Channelized           | -    | None | -    | None | -    | None |
| Storage Length           | -    | -    | -    | -    | 0    | -    |
| Veh in Median Storage, # | -    | 0    | 0    | -    | 0    | -    |
| Grade, %                 | -    | 0    | 0    | -    | 0    | -    |
| Peak Hour Factor         | 80   | 85   | 80   | 80   | 80   | 80   |
| Heavy Vehicles, %        | 2    | 2    | 2    | 2    | 2    | 2    |
| Mvmt Flow                | 3    | 134  | 78   | 0    | 1    | 4    |

| Major/Minor          | Major1 | Major2 | Minor2 |
|----------------------|--------|--------|--------|
| Conflicting Flow All | 78     | 0      | 218    |
| Stage 1              | -      | -      | 78     |
| Stage 2              | -      | -      | 140    |
| Critical Hdwy        | 4.12   | -      | 6.42   |
| Critical Hdwy Stg 1  | -      | -      | 5.42   |
| Critical Hdwy Stg 2  | -      | -      | 5.42   |
| Follow-up Hdwy       | 2.218  | -      | 3.518  |
| Pot Cap-1 Maneuver   | 1520   | -      | 770    |
| Stage 1              | -      | -      | 945    |
| Stage 2              | -      | -      | 887    |
| Platoon blocked, %   | -      | -      | -      |
| Mov Cap-1 Maneuver   | 1520   | -      | 768    |
| Mov Cap-2 Maneuver   | -      | -      | 768    |
| Stage 1              | -      | -      | 943    |
| Stage 2              | -      | -      | 887    |

| Approach             | EB  | WB | SB  |
|----------------------|-----|----|-----|
| HCM Control Delay, s | 0.1 | 0  | 8.9 |
| HCM LOS              |     |    | A   |

| Minor Lane/Major Mvmt | EBL   | EBT | WBT | WBR | SBLn1 |
|-----------------------|-------|-----|-----|-----|-------|
| Capacity (veh/h)      | 1520  | -   | -   | -   | 919   |
| HCM Lane V/C Ratio    | 0.002 | -   | -   | -   | 0.005 |
| HCM Control Delay (s) | 7.4   | 0   | -   | -   | 8.9   |
| HCM Lane LOS          | A     | A   | -   | -   | A     |
| HCM 95th %tile Q(veh) | 0     | -   | -   | -   | 0     |

2027 Total AM  
22-1180 Alliance Broadstone Silveray

9: Chevron Access & Access A  
HCM 6th TWSC

| Intersection             |      |      |      |      |      |      |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh         | 1.5  |      |      |      |      |      |
| Movement                 | EBL  | EBT  | WBT  | WBR  | SBL  | SBR  |
| Lane Configurations      |      | ↔    | ↔    |      | ↔    | ↔    |
| Traffic Vol, veh/h       | 2    | 32   | 8    | 0    | 0    | 7    |
| Future Vol, veh/h        | 2    | 32   | 8    | 0    | 0    | 7    |
| Conflicting Peds, #/hr   | 0    | 0    | 0    | 0    | 0    | 0    |
| Sign Control             | Free | Free | Free | Free | Stop | Stop |
| RT Channelized           | -    | None | -    | None | -    | None |
| Storage Length           | -    | -    | -    | -    | 0    | -    |
| Veh in Median Storage, # | -    | 0    | 0    | -    | 0    | -    |
| Grade, %                 | -    | 0    | 0    | -    | 0    | -    |
| Peak Hour Factor         | 80   | 80   | 80   | 80   | 80   | 80   |
| Heavy Vehicles, %        | 2    | 2    | 2    | 2    | 2    | 2    |
| Mvmt Flow                | 3    | 40   | 10   | 0    | 0    | 9    |

| Major/Minor          | Major1 | Major2 | Minor2 |
|----------------------|--------|--------|--------|
| Conflicting Flow All | 10     | 0      | 56     |
| Stage 1              | -      | -      | 10     |
| Stage 2              | -      | -      | 46     |
| Critical Hdwy        | 4.12   | -      | 6.42   |
| Critical Hdwy Stg 1  | -      | -      | 5.42   |
| Critical Hdwy Stg 2  | -      | -      | 5.42   |
| Follow-up Hdwy       | 2.218  | -      | 3.518  |
| Pot Cap-1 Maneuver   | 1610   | -      | 952    |
| Stage 1              | -      | -      | 1013   |
| Stage 2              | -      | -      | 976    |
| Platoon blocked, %   | -      | -      | -      |
| Mov Cap-1 Maneuver   | 1610   | -      | 950    |
| Mov Cap-2 Maneuver   | -      | -      | 950    |
| Stage 1              | -      | -      | 1011   |
| Stage 2              | -      | -      | 976    |

| Approach             | EB  | WB | SB  |
|----------------------|-----|----|-----|
| HCM Control Delay, s | 0.4 | 0  | 8.4 |
| HCM LOS              |     |    | A   |

| Minor Lane/Major Mvmt | EBL   | EBT | WBT | WBR | SBLn1 |
|-----------------------|-------|-----|-----|-----|-------|
| Capacity (veh/h)      | 1610  | -   | -   | -   | 1071  |
| HCM Lane V/C Ratio    | 0.002 | -   | -   | -   | 0.008 |
| HCM Control Delay (s) | 7.2   | 0   | -   | -   | 8.4   |
| HCM Lane LOS          | A     | A   | -   | -   | A     |
| HCM 95th %tile Q(veh) | 0     | -   | -   | -   | 0     |

2027 Total PM  
22-1180 Alliance Broadstone Silveray

9: Chevron Access & Access A  
HCM 6th TWSC

| Intersection             |      |      |      |      |      |      |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh         | 1.6  |      |      |      |      |      |
| Movement                 | EBL  | EBT  | WBT  | WBR  | SBL  | SBR  |
| Lane Configurations      |      | ↔    | ↔    |      | ↔    | ↔    |
| Traffic Vol, veh/h       | 7    | 40   | 2    | 0    | 0    | 4    |
| Future Vol, veh/h        | 7    | 40   | 2    | 0    | 0    | 4    |
| Conflicting Peds, #/hr   | 0    | 0    | 0    | 0    | 0    | 0    |
| Sign Control             | Free | Free | Free | Free | Stop | Stop |
| RT Channelized           | -    | None | -    | None | -    | None |
| Storage Length           | -    | -    | -    | -    | 0    | -    |
| Veh in Median Storage, # | -    | 0    | 0    | -    | 0    | -    |
| Grade, %                 | -    | 0    | 0    | -    | 0    | -    |
| Peak Hour Factor         | 80   | 80   | 80   | 80   | 80   | 80   |
| Heavy Vehicles, %        | 2    | 2    | 2    | 2    | 2    | 2    |
| Mvmt Flow                | 9    | 50   | 3    | 0    | 0    | 5    |

| Major/Minor          | Major1 | Major2 | Minor2 |
|----------------------|--------|--------|--------|
| Conflicting Flow All | 3      | 0      | 71     |
| Stage 1              | -      | -      | 3      |
| Stage 2              | -      | -      | 68     |
| Critical Hdwy        | 4.12   | -      | 6.42   |
| Critical Hdwy Stg 1  | -      | -      | 5.42   |
| Critical Hdwy Stg 2  | -      | -      | 5.42   |
| Follow-up Hdwy       | 2.218  | -      | 3.518  |
| Pot Cap-1 Maneuver   | 1619   | -      | 933    |
| Stage 1              | -      | -      | 1020   |
| Stage 2              | -      | -      | 955    |
| Platoon blocked, %   | -      | -      | -      |
| Mov Cap-1 Maneuver   | 1619   | -      | 927    |
| Mov Cap-2 Maneuver   | -      | -      | 927    |
| Stage 1              | -      | -      | 1014   |
| Stage 2              | -      | -      | 955    |

| Approach             | EB  | WB | SB  |
|----------------------|-----|----|-----|
| HCM Control Delay, s | 1.1 | 0  | 8.3 |
| HCM LOS              |     |    | A   |

| Minor Lane/Major Mvmt | EBL   | EBT | WBT | WBR | SBLn1 |
|-----------------------|-------|-----|-----|-----|-------|
| Capacity (veh/h)      | 1619  | -   | -   | -   | 1081  |
| HCM Lane V/C Ratio    | 0.005 | -   | -   | -   | 0.005 |
| HCM Control Delay (s) | 7.2   | 0   | -   | -   | 8.3   |
| HCM Lane LOS          | A     | A   | -   | -   | A     |
| HCM 95th %tile Q(veh) | 0     | -   | -   | -   | 0     |



2027 Total AM  
22-1180 Alliance Broadstone Silveray

11: Resort Blvd & Access C  
HCM 6th TWSC

| Intersection             |      |      |      |      |      |      |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh         | 0.8  |      |      |      |      |      |
| Movement                 | EBL  | EBT  | WBT  | WBR  | SBL  | SBR  |
| Lane Configurations      |      | ↔    | ↔    |      | ↔    |      |
| Traffic Vol, veh/h       | 1    | 17   | 38   | 0    | 0    | 5    |
| Future Vol, veh/h        | 1    | 17   | 38   | 0    | 0    | 5    |
| Conflicting Peds, #/hr   | 0    | 0    | 0    | 0    | 0    | 0    |
| Sign Control             | Free | Free | Free | Free | Stop | Stop |
| RT Channelized           | -    | None | -    | None | -    | None |
| Storage Length           | -    | -    | -    | -    | 0    | -    |
| Veh in Median Storage, # | -    | 0    | 0    | -    | 0    | -    |
| Grade, %                 | -    | 0    | 0    | -    | 0    | -    |
| Peak Hour Factor         | 80   | 80   | 80   | 80   | 80   | 80   |
| Heavy Vehicles, %        | 2    | 2    | 2    | 2    | 2    | 2    |
| Mvmt Flow                | 1    | 21   | 48   | 0    | 0    | 6    |

| Major/Minor          | Major1 | Major2 | Minor2        |
|----------------------|--------|--------|---------------|
| Conflicting Flow All | 48     | 0      | 0 71 48       |
| Stage 1              | -      | -      | - 48 -        |
| Stage 2              | -      | -      | - 23 -        |
| Critical Hdwy        | 4.12   | -      | - 6.42 6.22   |
| Critical Hdwy Stg 1  | -      | -      | - 5.42 -      |
| Critical Hdwy Stg 2  | -      | -      | - 5.42 -      |
| Follow-up Hdwy       | 2.218  | -      | - 3.518 3.318 |
| Pot Cap-1 Maneuver   | 1559   | -      | - 933 1021    |
| Stage 1              | -      | -      | - 974 -       |
| Stage 2              | -      | -      | - 1000 -      |
| Platoon blocked, %   | -      | -      | - -           |
| Mov Cap-1 Maneuver   | 1559   | -      | - 932 1021    |
| Mov Cap-2 Maneuver   | -      | -      | - 932 -       |
| Stage 1              | -      | -      | - 973 -       |
| Stage 2              | -      | -      | - 1000 -      |

| Approach             | EB  | WB | SB  |
|----------------------|-----|----|-----|
| HCM Control Delay, s | 0.4 | 0  | 8.5 |
| HCM LOS              |     |    | A   |

| Minor Lane/Major Mvmt | EBL   | EBT | WBT | WBR | SBLn1 |
|-----------------------|-------|-----|-----|-----|-------|
| Capacity (veh/h)      | 1559  | -   | -   | -   | 1021  |
| HCM Lane V/C Ratio    | 0.001 | -   | -   | -   | 0.006 |
| HCM Control Delay (s) | 7.3   | 0   | -   | -   | 8.5   |
| HCM Lane LOS          | A     | A   | -   | -   | A     |
| HCM 95th %tile Q(veh) | 0     | -   | -   | -   | 0     |

2027 Total PM  
22-1180 Alliance Broadstone Silveray

11: Resort Blvd & Access C  
HCM 6th TWSC

| Intersection             |      |      |      |      |      |      |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh         | 1.1  |      |      |      |      |      |
| Movement                 | EBL  | EBT  | WBT  | WBR  | SBL  | SBR  |
| Lane Configurations      |      | ↔    | ↔    |      | ↔    |      |
| Traffic Vol, veh/h       | 5    | 36   | 15   | 0    | 0    | 3    |
| Future Vol, veh/h        | 5    | 36   | 15   | 0    | 0    | 3    |
| Conflicting Peds, #/hr   | 0    | 0    | 0    | 0    | 0    | 0    |
| Sign Control             | Free | Free | Free | Free | Stop | Stop |
| RT Channelized           | -    | None | -    | None | -    | None |
| Storage Length           | -    | -    | -    | -    | 0    | -    |
| Veh in Median Storage, # | -    | 0    | 0    | -    | 0    | -    |
| Grade, %                 | -    | 0    | 0    | -    | 0    | -    |
| Peak Hour Factor         | 80   | 80   | 80   | 80   | 80   | 80   |
| Heavy Vehicles, %        | 2    | 2    | 2    | 2    | 2    | 2    |
| Mvmt Flow                | 6    | 45   | 19   | 0    | 0    | 4    |

| Major/Minor          | Major1 | Major2 | Minor2        |
|----------------------|--------|--------|---------------|
| Conflicting Flow All | 19     | 0      | 0 76 19       |
| Stage 1              | -      | -      | - 19 -        |
| Stage 2              | -      | -      | - 57 -        |
| Critical Hdwy        | 4.12   | -      | - 6.42 6.22   |
| Critical Hdwy Stg 1  | -      | -      | - 5.42 -      |
| Critical Hdwy Stg 2  | -      | -      | - 5.42 -      |
| Follow-up Hdwy       | 2.218  | -      | - 3.518 3.318 |
| Pot Cap-1 Maneuver   | 1597   | -      | - 927 1059    |
| Stage 1              | -      | -      | - 1004 -      |
| Stage 2              | -      | -      | - 966 -       |
| Platoon blocked, %   | -      | -      | - -           |
| Mov Cap-1 Maneuver   | 1597   | -      | - 923 1059    |
| Mov Cap-2 Maneuver   | -      | -      | - 923 -       |
| Stage 1              | -      | -      | - 1000 -      |
| Stage 2              | -      | -      | - 966 -       |

| Approach             | EB  | WB | SB  |
|----------------------|-----|----|-----|
| HCM Control Delay, s | 0.9 | 0  | 8.4 |
| HCM LOS              |     |    | A   |

| Minor Lane/Major Mvmt | EBL   | EBT | WBT | WBR | SBLn1 |
|-----------------------|-------|-----|-----|-----|-------|
| Capacity (veh/h)      | 1597  | -   | -   | -   | 1059  |
| HCM Lane V/C Ratio    | 0.004 | -   | -   | -   | 0.004 |
| HCM Control Delay (s) | 7.3   | 0   | -   | -   | 8.4   |
| HCM Lane LOS          | A     | A   | -   | -   | A     |
| HCM 95th %tile Q(veh) | 0     | -   | -   | -   | 0     |

2027 Total AM  
22-1180 Alliance Broadstone Silveray

12: Resort Blvd & Access D  
HCM 6th TWSC

| Intersection             |      |      |      |      |      |      |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh         | 0.6  |      |      |      |      |      |
| Movement                 | EBL  | EBT  | WBT  | WBR  | SBL  | SBR  |
| Lane Configurations      |      | ↔    | ↔    |      | ↔    | ↔    |
| Traffic Vol, veh/h       | 1    | 16   | 34   | 0    | 0    | 3    |
| Future Vol, veh/h        | 1    | 16   | 34   | 0    | 0    | 3    |
| Conflicting Peds, #/hr   | 0    | 0    | 0    | 0    | 0    | 0    |
| Sign Control             | Free | Free | Free | Free | Stop | Stop |
| RT Channelized           | -    | None | -    | None | -    | None |
| Storage Length           | -    | -    | -    | -    | 0    | -    |
| Veh in Median Storage, # | -    | 0    | 0    | -    | 0    | -    |
| Grade, %                 | -    | 0    | 0    | -    | 0    | -    |
| Peak Hour Factor         | 80   | 80   | 80   | 80   | 80   | 80   |
| Heavy Vehicles, %        | 2    | 2    | 2    | 2    | 2    | 2    |
| Mvmt Flow                | 1    | 20   | 43   | 0    | 0    | 4    |

| Major/Minor          | Major1 | Major2 | Minor2 |
|----------------------|--------|--------|--------|
| Conflicting Flow All | 43     | 0      | 65     |
| Stage 1              | -      | -      | 43     |
| Stage 2              | -      | -      | 22     |
| Critical Hdwy        | 4.12   | -      | 6.42   |
| Critical Hdwy Stg 1  | -      | -      | 5.42   |
| Critical Hdwy Stg 2  | -      | -      | 5.42   |
| Follow-up Hdwy       | 2.218  | -      | 3.518  |
| Pot Cap-1 Maneuver   | 1566   | -      | 941    |
| Stage 1              | -      | -      | 979    |
| Stage 2              | -      | -      | 1001   |
| Platoon blocked, %   | -      | -      | -      |
| Mov Cap-1 Maneuver   | 1566   | -      | 940    |
| Mov Cap-2 Maneuver   | -      | -      | 940    |
| Stage 1              | -      | -      | 978    |
| Stage 2              | -      | -      | 1001   |

| Approach             | EB  | WB | SB  |
|----------------------|-----|----|-----|
| HCM Control Delay, s | 0.4 | 0  | 8.5 |
| HCM LOS              |     |    | A   |

| Minor Lane/Major Mvmt | EBL   | EBT | WBT | WBR | SBLn1 |
|-----------------------|-------|-----|-----|-----|-------|
| Capacity (veh/h)      | 1566  | -   | -   | -   | 1027  |
| HCM Lane V/C Ratio    | 0.001 | -   | -   | -   | 0.004 |
| HCM Control Delay (s) | 7.3   | 0   | -   | -   | 8.5   |
| HCM Lane LOS          | A     | A   | -   | -   | A     |
| HCM 95th %tile Q(veh) | 0     | -   | -   | -   | 0     |

2027 Total PM  
22-1180 Alliance Broadstone Silveray

12: Resort Blvd & Access D  
HCM 6th TWSC

| Intersection             |      |      |      |      |      |      |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh         | 0.8  |      |      |      |      |      |
| Movement                 | EBL  | EBT  | WBT  | WBR  | SBL  | SBR  |
| Lane Configurations      |      | ↔    | ↔    |      | ↔    | ↔    |
| Traffic Vol, veh/h       | 3    | 33   | 13   | 0    | 0    | 2    |
| Future Vol, veh/h        | 3    | 33   | 13   | 0    | 0    | 2    |
| Conflicting Peds, #/hr   | 0    | 0    | 0    | 0    | 0    | 0    |
| Sign Control             | Free | Free | Free | Free | Stop | Stop |
| RT Channelized           | -    | None | -    | None | -    | None |
| Storage Length           | -    | -    | -    | -    | 0    | -    |
| Veh in Median Storage, # | -    | 0    | 0    | -    | 0    | -    |
| Grade, %                 | -    | 0    | 0    | -    | 0    | -    |
| Peak Hour Factor         | 80   | 80   | 80   | 80   | 80   | 80   |
| Heavy Vehicles, %        | 2    | 2    | 2    | 2    | 2    | 2    |
| Mvmt Flow                | 4    | 41   | 16   | 0    | 0    | 3    |

| Major/Minor          | Major1 | Major2 | Minor2 |
|----------------------|--------|--------|--------|
| Conflicting Flow All | 16     | 0      | 65     |
| Stage 1              | -      | -      | 16     |
| Stage 2              | -      | -      | 49     |
| Critical Hdwy        | 4.12   | -      | 6.42   |
| Critical Hdwy Stg 1  | -      | -      | 5.42   |
| Critical Hdwy Stg 2  | -      | -      | 5.42   |
| Follow-up Hdwy       | 2.218  | -      | 3.518  |
| Pot Cap-1 Maneuver   | 1602   | -      | 941    |
| Stage 1              | -      | -      | 1007   |
| Stage 2              | -      | -      | 973    |
| Platoon blocked, %   | -      | -      | -      |
| Mov Cap-1 Maneuver   | 1602   | -      | 938    |
| Mov Cap-2 Maneuver   | -      | -      | 938    |
| Stage 1              | -      | -      | 1004   |
| Stage 2              | -      | -      | 973    |

| Approach             | EB  | WB | SB  |
|----------------------|-----|----|-----|
| HCM Control Delay, s | 0.6 | 0  | 8.4 |
| HCM LOS              |     |    | A   |

| Minor Lane/Major Mvmt | EBL   | EBT | WBT | WBR | SBLn1 |
|-----------------------|-------|-----|-----|-----|-------|
| Capacity (veh/h)      | 1602  | -   | -   | -   | 1063  |
| HCM Lane V/C Ratio    | 0.002 | -   | -   | -   | 0.002 |
| HCM Control Delay (s) | 7.3   | 0   | -   | -   | 8.4   |
| HCM Lane LOS          | A     | A   | -   | -   | A     |
| HCM 95th %tile Q(veh) | 0     | -   | -   | -   | 0     |

2027 Total AM  
22-1180 Alliance Broadstone Silveray

13: Resort Blvd & Access E  
HCM 6th TWSC

| Intersection             |      |      |      |      |      |      |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh         | 0.7  |      |      |      |      |      |
| Movement                 | EBL  | EBT  | WBT  | WBR  | SBL  | SBR  |
| Lane Configurations      |      | ↔    | ↔    |      | ↔    | ↔    |
| Traffic Vol, veh/h       | 1    | 15   | 31   | 0    | 0    | 3    |
| Future Vol, veh/h        | 1    | 15   | 31   | 0    | 0    | 3    |
| Conflicting Peds, #/hr   | 0    | 0    | 0    | 0    | 0    | 0    |
| Sign Control             | Free | Free | Free | Free | Stop | Stop |
| RT Channelized           | -    | None | -    | None | -    | None |
| Storage Length           | -    | -    | -    | -    | 0    | -    |
| Veh in Median Storage, # | -    | 0    | 0    | -    | 0    | -    |
| Grade, %                 | -    | 0    | 0    | -    | 0    | -    |
| Peak Hour Factor         | 80   | 80   | 80   | 80   | 80   | 80   |
| Heavy Vehicles, %        | 2    | 2    | 2    | 2    | 2    | 2    |
| Mvmt Flow                | 1    | 19   | 39   | 0    | 0    | 4    |

| Major/Minor          | Major1 | Major2 | Minor2 |
|----------------------|--------|--------|--------|
| Conflicting Flow All | 39     | 0      | 60     |
| Stage 1              | -      | -      | 39     |
| Stage 2              | -      | -      | 21     |
| Critical Hdwy        | 4.12   | -      | 6.42   |
| Critical Hdwy Stg 1  | -      | -      | 5.42   |
| Critical Hdwy Stg 2  | -      | -      | 5.42   |
| Follow-up Hdwy       | 2.218  | -      | 3.518  |
| Pot Cap-1 Maneuver   | 1571   | -      | 947    |
| Stage 1              | -      | -      | 983    |
| Stage 2              | -      | -      | 1002   |
| Platoon blocked, %   | -      | -      | -      |
| Mov Cap-1 Maneuver   | 1571   | -      | 946    |
| Mov Cap-2 Maneuver   | -      | -      | 946    |
| Stage 1              | -      | -      | 982    |
| Stage 2              | -      | -      | 1002   |

| Approach             | EB  | WB | SB  |
|----------------------|-----|----|-----|
| HCM Control Delay, s | 0.5 | 0  | 8.5 |
| HCM LOS              |     |    | A   |

| Minor Lane/Major Mvmt | EBL   | EBT | WBT | WBR | SBLn1 |
|-----------------------|-------|-----|-----|-----|-------|
| Capacity (veh/h)      | 1571  | -   | -   | -   | 1033  |
| HCM Lane V/C Ratio    | 0.001 | -   | -   | -   | 0.004 |
| HCM Control Delay (s) | 7.3   | 0   | -   | -   | 8.5   |
| HCM Lane LOS          | A     | A   | -   | -   | A     |
| HCM 95th %tile Q(veh) | 0     | -   | -   | -   | 0     |

2027 Total PM  
22-1180 Alliance Broadstone Silveray

13: Resort Blvd & Access E  
HCM 6th TWSC

| Intersection             |      |      |      |      |      |      |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh         | 0.9  |      |      |      |      |      |
| Movement                 | EBL  | EBT  | WBT  | WBR  | SBL  | SBR  |
| Lane Configurations      |      | ↔    | ↔    |      | ↔    | ↔    |
| Traffic Vol, veh/h       | 3    | 30   | 11   | 0    | 0    | 2    |
| Future Vol, veh/h        | 3    | 30   | 11   | 0    | 0    | 2    |
| Conflicting Peds, #/hr   | 0    | 0    | 0    | 0    | 0    | 0    |
| Sign Control             | Free | Free | Free | Free | Stop | Stop |
| RT Channelized           | -    | None | -    | None | -    | None |
| Storage Length           | -    | -    | -    | -    | 0    | -    |
| Veh in Median Storage, # | -    | 0    | 0    | -    | 0    | -    |
| Grade, %                 | -    | 0    | 0    | -    | 0    | -    |
| Peak Hour Factor         | 80   | 80   | 80   | 80   | 80   | 80   |
| Heavy Vehicles, %        | 2    | 2    | 2    | 2    | 2    | 2    |
| Mvmt Flow                | 4    | 38   | 14   | 0    | 0    | 3    |

| Major/Minor          | Major1 | Major2 | Minor2 |
|----------------------|--------|--------|--------|
| Conflicting Flow All | 14     | 0      | 60     |
| Stage 1              | -      | -      | 14     |
| Stage 2              | -      | -      | 46     |
| Critical Hdwy        | 4.12   | -      | 6.42   |
| Critical Hdwy Stg 1  | -      | -      | 5.42   |
| Critical Hdwy Stg 2  | -      | -      | 5.42   |
| Follow-up Hdwy       | 2.218  | -      | 3.518  |
| Pot Cap-1 Maneuver   | 1604   | -      | 947    |
| Stage 1              | -      | -      | 1009   |
| Stage 2              | -      | -      | 976    |
| Platoon blocked, %   | -      | -      | -      |
| Mov Cap-1 Maneuver   | 1604   | -      | 944    |
| Mov Cap-2 Maneuver   | -      | -      | 944    |
| Stage 1              | -      | -      | 1006   |
| Stage 2              | -      | -      | 976    |

| Approach             | EB  | WB | SB  |
|----------------------|-----|----|-----|
| HCM Control Delay, s | 0.7 | 0  | 8.4 |
| HCM LOS              |     |    | A   |

| Minor Lane/Major Mvmt | EBL   | EBT | WBT | WBR | SBLn1 |
|-----------------------|-------|-----|-----|-----|-------|
| Capacity (veh/h)      | 1604  | -   | -   | -   | 1066  |
| HCM Lane V/C Ratio    | 0.002 | -   | -   | -   | 0.002 |
| HCM Control Delay (s) | 7.2   | 0   | -   | -   | 8.4   |
| HCM Lane LOS          | A     | A   | -   | -   | A     |
| HCM 95th %tile Q(veh) | 0     | -   | -   | -   | 0     |

## **APPENDIX L**

### **QUEUE STORAGE ANALYSIS**

22-1180 Alliance Broadstone Silveray  
2027 Queue Storage

Queue Length Analysis

|                              |    |
|------------------------------|----|
| Cycles:                      | 2  |
| Average Vehicle Length (ft): | 26 |
| Trucks > 10%?                | N  |

|    | Veh. Type | % Vehicles |
|----|-----------|------------|
| 25 | Passenger | 98%        |
| 75 | Truck     | 2%         |

| ID | Intersection                               | Control                    | AM Cycle Length (sec) | PM Cycle Length (sec) | Cycle Length AM(PM) | Approach           | Free-Flow Right | Design Speed (mph) | Peak Hour Volume |          | Trips Per 2 Minutes |        |        |        | Trips Per 2 Cycles |        |        |        | HCM        |            |            |                      | AASHTO       |              |                          | ADOT Total Queue Storage Lengths |            |              |              |              |                      |    |  |
|----|--------------------------------------------|----------------------------|-----------------------|-----------------------|---------------------|--------------------|-----------------|--------------------|------------------|----------|---------------------|--------|--------|--------|--------------------|--------|--------|--------|------------|------------|------------|----------------------|--------------|--------------|--------------------------|----------------------------------|------------|--------------|--------------|--------------|----------------------|----|--|
|    |                                            |                            |                       |                       |                     |                    |                 |                    | AM               | (PM)     | AM                  | (PM)   | AM     | (PM)   | AM                 | (PM)   | AM     | (PM)   | Max        | AM(PM)     | AM         | (PM)                 | AM(PM)       | Taper        | Gap                      | Minimum Q <sub>calc</sub>        |            |              |              |              |                      |    |  |
|    |                                            |                            |                       |                       |                     |                    |                 |                    |                  |          |                     |        |        |        |                    |        |        |        |            |            |            |                      |              |              |                          | AM                               | PM         | Max          | AM           | PM           | AM                   | PM |  |
| 1  | Goldfield Rd & Old West Hwy SEB            | 1-Way Stop (WB)            | -                     | -                     | -(-)                | SB Left<br>WB Left |                 | 45<br>35           | 18<br>64         | 21<br>67 | 1<br>3              | 1<br>3 | 1<br>1 | 1<br>1 | -<br>-             | -<br>- | -<br>- | -<br>- | 25'<br>25' | 25'<br>25' | 25'<br>25' | 25'(25')<br>25'(25') | 100'<br>150' | 100'<br>150' | 100'(100')<br>150'(150') | 405'<br>245'                     | 90'<br>60' | 175'<br>180' | 175'<br>180' | 175'<br>180' | 175(175)<br>180(180) |    |  |
| 2  | Goldfield Rd & Old West Hwy NWB            | 2-Way Stop Control (EB/WB) | -                     | -                     | -(-)                | WB Right           | No              | 35                 | 10               | 6        | 1                   | 1      | 1      | 1      | -                  | -      | -      | -      | <25'       | <25'       | <25'       | <25'(<25')           | 100'         | 100'         | 100'(100')               | 245'                             | 60'        |              | 110'         | 110'         | 110(110)             |    |  |
| 3  | Goldfield Rd & US-60/Old West Highway Exit | 1-Way Stop (WB)            | -                     | -                     | -(-)                | WB Right           | No              | 45                 | 179              | 121      | 6                   | 4      | 1      | 1      | -                  | -      | -      | -      |            |            |            | 25'(25')             | 225'         | 175'         | 225'(175')               | 405'                             | 90'        |              | 310'         | 400'         | 400(310)             |    |  |
| 4  | Goldfield Road and US-60 WB Ramps          | Signalized                 | 90                    | 90                    | 90(90)              | NB Left            |                 | 35                 | 100              | 66       | 4                   | 3      | 1      | 1      | 5                  | 4      | 1      | 1      | 5'         | 25'        | 25'        | 5'(25')              | 200'         | 175'         | 200'(175')               | 245'                             | 60'        |              | 400'         |              |                      |    |  |
|    |                                            |                            |                       |                       |                     | WB Left            |                 | 45                 | 9                | 26       | 1                   | 1      | 1      | 1      | 1                  | 2      | 1      | 1      | 20'        | 40'        | 40'        | 20'(40')             | 100'         | 125'         | 100'(125')               | 405'                             | 90'        | 175'         | 175'         | 175'         | 175(175)             |    |  |
|    |                                            |                            |                       |                       |                     | SB Right           | No              | 35                 | 133              | 95       | 5                   | 4      | 1      | 1      | 7                  | 5      | 1      | 1      | <25'       | 20'        | 20'        | <25'(20')            | 250'         | 200'         | 250'(200')               | 245'                             | 60'        | 250'         | 215'         | 250'         | 250(215)             |    |  |
|    |                                            |                            |                       |                       |                     | WB Right           | No              | 45                 | 18               | 42       | 1                   | 2      | 1      | 1      | 1                  | 3      | 1      | 1      | <25'       | <25'       | <25'       | <25'(<25')           | 100'         | 150'         | 100'(150')               | 405'                             | 90'        | 175'         | 220'         | 220'         | 175(220)             |    |  |
| 5  | Goldfield Road and US-60 EB Ramps          | Signalized                 | 90                    | 90                    | 90(90)              | SB Left            |                 | 35                 | 136              | 186      | 5                   | 7      | 1      | 1      | 7                  | 10     | 1      | 1      | 5'         | 20'        | 20'        | 5'(20')              | 250'         | 325'         | 250'(325')               | 245'                             | 60'        | 250'         | 320'         | 320'         | 250(320)             |    |  |
|    |                                            |                            |                       |                       |                     | EB Left            |                 | 45                 | 81               | 144      | 3                   | 5      | 1      | 1      | 4                  | 8      | 1      | 1      | <25'       | 100'       | 100'       | <25'(100')           | 175'         | 275'         | 175'(275')               | 405'                             | 90'        | 265'         | 355'         | 355'         | 265(355)             |    |  |
|    |                                            |                            |                       |                       |                     | NB Right           | No              | 35                 | 24               | 47       | 1                   | 2      | 1      | 1      | 2                  | 3      | 1      | 1      | <25'       | 5'         | 5'         | <25'(5')             | 125'         | 150'         | 125'(150')               | 245'                             | 60'        | 110'         | 145'         | 145'         | 110(145)             |    |  |
|    |                                            |                            |                       |                       |                     | EB Right           | No              | 45                 | 52               | 106      | 2                   | 4      | 1      | 1      | 3                  | 6      | 1      | 1      | <25'       | 35'        | 35'        | <25'(35')            | 150'         | 225'         | 150'(225')               | 405'                             | 90'        | 220'         | 310'         | 310'         | 220(310)             |    |  |
| 6  | Goldfield Road and Chevron Access          | 2-Way Stop Control (EB/WB) | -                     | -                     | -(-)                | NB Left            |                 | 35                 | 0                | 1        | 0                   | 1      | 0      | 1      | -                  | -      | -      | -      | <25'       | <25'       | <25'       | <25'(<25')           | 0'           | 100'         | 0'(100')                 | 245'                             | 60'        | 90'          | 110'         | 110'         | 90(110)              |    |  |
|    |                                            |                            |                       |                       |                     | SB Left            |                 | 35                 | 23               | 38       | 1                   | 2      | 1      | 1      | -                  | -      | -      | -      | 25'        | 25'        | 25'        | 25'(25')             | 100'         | 125'         | 100'(125')               | 245'                             | 60'        | 110'         | 145'         | 145'         | 110(145)             |    |  |
|    |                                            |                            |                       |                       |                     | NB Right           | No              | 35                 | 9                | 9        | 1                   | 1      | 1      | 1      | -                  | -      | -      | -      | <25'       | <25'       | <25'       | <25'(<25')           | 100'         | 100'         | 100'(100')               | 245'                             | 60'        | 110'         | 110'         | 110'         | 110(110)             |    |  |
| 7  | Goldfield Road and Resort Boulevard        | 1-Way Stop (WB)            | -                     | -                     | -(-)                | SB Left            |                 | 35                 | 46               | 98       | 2                   | 4      | 1      | 1      | -                  | -      | -      | -      | 25'        | 25'        | 25'        | 25'(25')             | 125'         | 175'         | 125'(175')               | 245'                             | 60'        | 145'         | 215'         | 215'         | 145(215)             |    |  |

## **APPENDIX M**

### **SIGHT DISTANCE ANALYSIS**

## 22-1180 Alliance Broadstone Silveray

## Sight Distance Analysis

Location: Access A & Chevron Access

### Assumptions and/or Given

#### Elements of Design from AASHTO

6th Edition

AASHTO Ref

|                                    |                           |                    |
|------------------------------------|---------------------------|--------------------|
| Driver Eye Height                  |                           |                    |
| Passenger Vehicle                  | 3.50 ft                   | §3.2.6.1, p 3-15   |
| Truck                              | 7.60 ft                   | §3.2.6.1, p 3-15   |
| Object Height                      |                           |                    |
| Stopping Sight Distance            | 2.00 ft                   | §3.2.6.2, p 3-15   |
| Passing Sight Distance             | 3.50 ft                   | §3.2.6.2, p 3-15   |
| Vehicle Height                     | 4.25 ft                   | §3.2.6.1, p 3-15   |
| Driver Eye Location                |                           |                    |
| From Edge of Major Rd Traveled Way | 14.50 ft                  | §9.5.3.2.1, p 9-43 |
| Deceleration Rate (a)              |                           |                    |
| Passenger Vehicle                  | 11.20 ft/sec <sup>2</sup> | §3.2.2.2, p 3-4    |
| Truck                              | N/A ft                    |                    |
| Brake reaction time (t)            | 2.50 sec                  | §3.2.2.1, p 3-3    |

#### Site Specific Data (Bike & turn lanes are outside traveled way and are not considered)

|                                                                    |           |                           |
|--------------------------------------------------------------------|-----------|---------------------------|
| Major Street Design Speed ( $V_{major}$ )                          | 30        | MPH                       |
| Grades - Approaching Minor Street from: (— = approaching downhill) |           |                           |
| Left ( $G_L$ )                                                     |           | %                         |
| Right ( $G_R$ )                                                    |           | %                         |
| Approach Grade Adjustment Factor                                   | Left 1.0  | Tbl 9-5, p 9-42           |
|                                                                    | Right 1.0 |                           |
| Major Road Through Lanes on Each Approach                          |           | (Use 1 for RI/RO/LI only) |
| Median Width (in "Lane Equivalents")                               |           | (Use 0 for RI/RO/LI only) |
| Minor Road Approach Upgrade, if >3%                                |           | %                         |
| Minor Road Access (check restricted)                               |           |                           |
|                                                                    | LI        | LO/Th RO                  |

### Stopping Sight Distance = Brake Reaction Distance + Braking Distance

#### Neglecting Effect of Grade

$$d = 1.47Vt + 1.075 \frac{V^2}{a} \quad \text{Eq 3-2, p 3-5}$$

|               |          |
|---------------|----------|
| Calculated d= | 196.7 ft |
| Design d=     | 200 ft   |

#### With Effect of Grade

$$d = 1.47Vt + \frac{V^2}{30\left(\left(\frac{a}{32.2}\right) \pm G\right)} \quad \text{Eq 3-3, p 3-5}$$

|               |                 |
|---------------|-----------------|
| Calculated d= | 196.3 ft - left |
|               | 200 ft - right  |
| Design d=     | 196.3 ft - left |
|               | 200 ft - right  |

SSD's do not consider design for truck operations, since better visibility is considered to offset longer braking distance. §3.2.2.5, p 3-6



## 22-1180 Alliance Broadstone Silveray

## Sight Distance Analysis

Location: Access A & Chevron Access

### Intersection Sight Distances

AASHTO Ref

#### Case B—Intersections with Stop Control on the Minor Road

§9.5.3.2, p 9-42

#### Case B1—Left Turn from the Minor Road

§9.5.3.2.1, p 9-43

| Design Vehicle    | Time Gap ( $t_g$ ) |                 |
|-------------------|--------------------|-----------------|
| Passenger Car     | 7.5 sec            | Tbl 9-6, p 9-44 |
| Single-Unit Truck | 9.5 sec            | Tbl 9-6, p 9-44 |
| Combination Truck | 11.5 sec           | Tbl 9-6, p 9-44 |

#### Time gap adjustments

|                                                   |         |                 |
|---------------------------------------------------|---------|-----------------|
| Add'l lanes to cross (1 <sup>st</sup> is assumed) |         |                 |
| Passenger Car                                     | 0.5 sec | See Notes       |
| Trucks                                            | 0.7 sec | below           |
| Minor Approach Upgrade (Per each 1%>3%)           | 0.2 sec | Tbl 9-5, p 9-37 |

#### Site data

|                                     |     |                    |
|-------------------------------------|-----|--------------------|
| Major Road Lanes on Left Approach   | 0.0 | §9.5.3.2.1, p 9-44 |
| Minor Road Approach Upgrade, if >3% | 0 % | §9.5.3.2.1, p 9-44 |

#### Time Gap based on site data

##### Design Vehicle Gap+Adj for Approach Grade>3%+Adjs for Add'l Lanes & Median

|                   |          |
|-------------------|----------|
| Passenger Car     | 7.0 sec  |
| Single-Unit Truck | 8.8 sec  |
| Combination Truck | 10.8 sec |

ISD to left & right along Major Road  $ISD = 1.47V_{major}t_g$  (ft) Eq 9-1, p 9-45

|                   |                 | ISD to Left and Right |
|-------------------|-----------------|-----------------------|
| Passenger Car     | calculated ISD= | 308.7 ft              |
|                   | design ISD=     | 310 ft                |
| Single-Unit Truck | calculated ISD= | 388.1 ft              |
|                   | design ISD=     | 390 ft                |
| Combination Truck | calculated ISD= | 476.3 ft              |
|                   | design ISD=     | 480 ft                |



## 22-1180 Alliance Broadstone Silveray

## Sight Distance Analysis

Location: Access A & Chevron Access

### Intersection Sight Distances (cont'd)

|                                                                    |                    | <b>AASHTO Ref</b>  |  |
|--------------------------------------------------------------------|--------------------|--------------------|--|
| <u>Case B2—Right Turn from the Minor Road</u>                      |                    | §9.5.3.2.2, p 9-47 |  |
| &                                                                  |                    |                    |  |
| <u>Case B3—Crossing Maneuver from the Minor Road</u>               |                    | §9.5.3.2.3, p 9-48 |  |
| Design Vehicle                                                     | Time Gap ( $t_g$ ) |                    |  |
| Passenger Car                                                      | 6.5 sec            | Tbl 9-8, p 9-47    |  |
| Single-Unit Tuck                                                   | 8.5 sec            | &                  |  |
| Combination Truck                                                  | 10.5 sec           | Tbl 9-10, p 9-49   |  |
| Time gap adjustments                                               |                    |                    |  |
| Add'l lanes to cross (1 <sup>st</sup> is assumed) - Case B-3 Only* |                    |                    |  |
| Passenger Car                                                      | 0.5 sec            | See Notes          |  |
| Trucks                                                             | 0.7 sec            | below              |  |
| Minor Approach Upgrade (Per each 1%>3%)                            |                    |                    |  |
| Case B-2 Only                                                      | 0.1 sec            | Tbl 9-8, p 9-47    |  |
| Case B-3 Only                                                      | 0.2 sec            | Tbl 9-10, p 9-49   |  |
| Site data                                                          |                    |                    |  |
| Major Road Lanes on Left Approach                                  | 0.0                | §9.5.3.2.2, p 9-47 |  |
| Minor Road Approach Upgrade, if >3%                                | 0 %                | §9.5.3.2.2, p 9-47 |  |

| Time Gap based on site data (sec)                                                                  | B2 & B3 | B3 Only |
|----------------------------------------------------------------------------------------------------|---------|---------|
| <i>Design Vehicle Gap+Adj for Approach Grade&gt;3% (+Adjs for Add'l Lanes &amp; Median for B3)</i> |         |         |
| Passenger Car                                                                                      | 6.0     | 5.5     |
| Single-Unit Tuck                                                                                   | 7.8     | 7.1     |
| Combination Truck                                                                                  | 9.8     | 9.1     |

ISD to left (B2/B3) & right (B3) along Major Rd  $ISD=1.47V_{major}t_g$  (ft) Eq 9-1, p 9-45

|                   |                 | ISD to Left ISD to right<br>(B2 & B3) (B3 Only) |       |
|-------------------|-----------------|-------------------------------------------------|-------|
| Passenger Car     | calculated ISD= | 264.6                                           | 242.6 |
|                   | design ISD=     | 265                                             | 245   |
| Single-Unit Tuck  | calculated ISD= | 344.0                                           | 313.1 |
|                   | design ISD=     | 345                                             | 315   |
| Combination Truck | calculated ISD= | 432.2                                           | 401.3 |
|                   | design ISD=     | 435                                             | 405   |

\*Number of major road lanes is irrelevant in Case B2.

The differences between Case B1 and Cases B2 & B3 are reduced time gaps and time gap adjustment for the minor approach upgrade. §9.5.3.2.3, p 9-48



## 22-1180 Alliance Broadstone Silveray

## Sight Distance Analysis

Location: Access A & Chevron Access

### Intersection Sight Distances (cont'd)

|                                                                          |                    | <b>AASHTO Ref</b> |  |
|--------------------------------------------------------------------------|--------------------|-------------------|--|
| <b>Case F—Left Turns from the Major Road</b>                             |                    | §9.5.3.6, p 9-56  |  |
| Design Vehicle                                                           | Time Gap ( $t_g$ ) |                   |  |
| Passenger Car                                                            | 5.5 sec            | Tbl 9-16, p 9-57  |  |
| Single-Unit Tuck                                                         | 6.5 sec            | Tbl 9-16, p 9-57  |  |
| Combination Truck                                                        | 7.5 sec            | Tbl 9-16, p 9-57  |  |
| Time gap adjustments                                                     |                    |                   |  |
| Add'l lanes to cross (1 assumed)                                         |                    |                   |  |
| Passenger Car                                                            | 0.5 sec            | See Notes to      |  |
| Trucks                                                                   | 0.7 sec            | Tbl 9-16, p 9-57  |  |
| Site data                                                                |                    |                   |  |
| Opposing Lanes (adj'd for x-wide median)                                 | -1.0               |                   |  |
| Time Gap based on site data                                              |                    |                   |  |
| <i>Design Vehicle Gap+Adj for Add'l Opposing Lanes</i>                   |                    |                   |  |
| Passenger Car                                                            | 5.0 sec            |                   |  |
| Single-Unit Tuck                                                         | 5.8 sec            |                   |  |
| Combination Truck                                                        | 6.8 sec            |                   |  |
| ISD to front along Major Road $ISD=1.47V_{major}t_g$ (ft) Eq 9-1, p 9-45 |                    |                   |  |
| Passenger Car                                                            | calculated ISD=    | 220.5 ft          |  |
|                                                                          | design ISD=        | 225 ft            |  |
| Single-Unit Tuck                                                         | calculated ISD=    | 255.8 ft          |  |
|                                                                          | design ISD=        | 260 ft            |  |
| Combination Truck                                                        | calculated ISD=    | 299.9 ft          |  |
|                                                                          | design ISD=        | 300 ft            |  |

The differences between Case F and Cases B1, B2 & B3 are reduced time gaps and no time gap adjustment for any minor approach upgrade. §9.5.3.6, p 9-58

### SIGHT DISTANCE SUMMARY

| Sight Distance Type           | Governing Case | Car | SU Truck | Combo Truck |
|-------------------------------|----------------|-----|----------|-------------|
| Stopping                      |                |     |          |             |
| Without effect of grade       |                | 200 | N/A      | N/A         |
| With effect of grade on left  |                | 200 | N/A      | N/A         |
| With effect of grade on right |                | 200 | N/A      | N/A         |
| Intersection                  |                |     |          |             |
| To Right                      | B1             | 310 | 390      | 480         |
| To Left                       | B2/B3          | 265 | 345      | 435         |
| On Major Road                 | F              | 225 | 260      | 300         |



## 22-1180 Alliance Broadstone Silveray

## Sight Distance Analysis

Location: Access B & Resort Blvd

### Assumptions and/or Given

#### Elements of Design from AASHTO

6th Edition

AASHTO Ref

|                                    |                           |                    |
|------------------------------------|---------------------------|--------------------|
| Driver Eye Height                  |                           |                    |
| Passenger Vehicle                  | 3.50 ft                   | §3.2.6.1, p 3-15   |
| Truck                              | 7.60 ft                   | §3.2.6.1, p 3-15   |
| Object Height                      |                           |                    |
| Stopping Sight Distance            | 2.00 ft                   | §3.2.6.2, p 3-15   |
| Passing Sight Distance             | 3.50 ft                   | §3.2.6.2, p 3-15   |
| Vehicle Height                     | 4.25 ft                   | §3.2.6.1, p 3-15   |
| Driver Eye Location                |                           |                    |
| From Edge of Major Rd Traveled Way | 14.50 ft                  | §9.5.3.2.1, p 9-43 |
| Deceleration Rate (a)              |                           |                    |
| Passenger Vehicle                  | 11.20 ft/sec <sup>2</sup> | §3.2.2.2, p 3-4    |
| Truck                              | N/A ft                    |                    |
| Brake reaction time (t)            | 2.50 sec                  | §3.2.2.1, p 3-3    |

#### Site Specific Data (Bike & turn lanes are outside traveled way and are not considered)

|                                                                    |           |                           |
|--------------------------------------------------------------------|-----------|---------------------------|
| Major Street Design Speed ( $V_{major}$ )                          | 30        | MPH                       |
| Grades - Approaching Minor Street from: (— = approaching downhill) |           |                           |
| Left ( $G_L$ )                                                     |           | %                         |
| Right ( $G_R$ )                                                    |           | %                         |
| Approach Grade Adjustment Factor                                   | Left 1.0  | Tbl 9-5, p 9-42           |
|                                                                    | Right 1.0 |                           |
| Major Road Through Lanes on Each Approach                          |           | (Use 1 for RI/RO/LI only) |
| Median Width (in "Lane Equivalents")                               |           | (Use 0 for RI/RO/LI only) |
| Minor Road Approach Upgrade, if >3%                                |           | %                         |
| Minor Road Access (check restricted)                               | LI        | LO/Th RO                  |

### Stopping Sight Distance = Brake Reaction Distance + Braking Distance

#### Neglecting Effect of Grade

$$d = 1.47Vt + 1.075 \frac{V^2}{a} \quad \text{Eq 3-2, p 3-5}$$

|               |          |
|---------------|----------|
| Calculated d= | 196.7 ft |
| Design d=     | 200 ft   |

#### With Effect of Grade

$$d = 1.47Vt + \frac{V^2}{30\left(\left(\frac{a}{32.2}\right) \pm G\right)} \quad \text{Eq 3-3, p 3-5}$$

|               |                 |
|---------------|-----------------|
| Calculated d= | 196.3 ft - left |
|               | 200 ft - right  |
| Design d=     | 196.3 ft - left |
|               | 200 ft - right  |

SSD's do not consider design for truck operations, since better visibility is considered to offset longer braking distance. §3.2.2.5, p 3-6



## 22-1180 Alliance Broadstone Silveray

## Sight Distance Analysis

Location: Access B & Resort Blvd

### Intersection Sight Distances

AASHTO Ref

Case B—Intersections with Stop Control on the Minor Road §9.5.3.2, p 9-42

#### Case B1—Left Turn from the Minor Road

§9.5.3.2.1, p 9-43

| Design Vehicle    | Time Gap ( $t_g$ ) |                 |
|-------------------|--------------------|-----------------|
| Passenger Car     | 7.5 sec            | Tbl 9-6, p 9-44 |
| Single-Unit Truck | 9.5 sec            | Tbl 9-6, p 9-44 |
| Combination Truck | 11.5 sec           | Tbl 9-6, p 9-44 |

#### Time gap adjustments

|                                                   |         |                 |
|---------------------------------------------------|---------|-----------------|
| Add'l lanes to cross (1 <sup>st</sup> is assumed) |         |                 |
| Passenger Car                                     | 0.5 sec | See Notes       |
| Trucks                                            | 0.7 sec | below           |
| Minor Approach Upgrade (Per each 1%>3%)           | 0.2 sec | Tbl 9-5, p 9-37 |

#### Site data

|                                     |     |                    |
|-------------------------------------|-----|--------------------|
| Major Road Lanes on Left Approach   | 0.0 | §9.5.3.2.1, p 9-44 |
| Minor Road Approach Upgrade, if >3% | 0 % | §9.5.3.2.1, p 9-44 |

#### Time Gap based on site data

Design Vehicle Gap+Adj for Approach Grade>3%+Adjs for Add'l Lanes & Median

|                   |          |
|-------------------|----------|
| Passenger Car     | 7.0 sec  |
| Single-Unit Truck | 8.8 sec  |
| Combination Truck | 10.8 sec |

ISD to left & right along Major Road  $ISD = 1.47V_{major}t_g$  (ft) Eq 9-1, p 9-45

|                   |                 | ISD to Left and Right |
|-------------------|-----------------|-----------------------|
| Passenger Car     | calculated ISD= | 308.7 ft              |
|                   | design ISD=     | 310 ft                |
| Single-Unit Truck | calculated ISD= | 388.1 ft              |
|                   | design ISD=     | 390 ft                |
| Combination Truck | calculated ISD= | 476.3 ft              |
|                   | design ISD=     | 480 ft                |



**22-1180 Alliance Broadstone Silveray**  
**Location: Access B & Resort Blvd**

**Sight Distance Analysis**

**Intersection Sight Distances (cont'd)**

Case B2—Right Turn from the Minor Road  
 &  
Case B3—Crossing Maneuver from the Minor Road

**AASHTO Ref**  
 §9.5.3.2.2, p 9-47  
 §9.5.3.2.3, p 9-48

| Design Vehicle    | Time Gap ( $t_g$ ) |                  |
|-------------------|--------------------|------------------|
| Passenger Car     | 6.5 sec            | Tbl 9-8, p 9-47  |
| Single-Unit Tuck  | 8.5 sec            | &                |
| Combination Truck | 10.5 sec           | Tbl 9-10, p 9-49 |

|                                                                    |         |                  |
|--------------------------------------------------------------------|---------|------------------|
| Time gap adjustments                                               |         |                  |
| Add'l lanes to cross (1 <sup>st</sup> is assumed) - Case B-3 Only* |         |                  |
| Passenger Car                                                      | 0.5 sec | See Notes        |
| Trucks                                                             | 0.7 sec | below            |
| Minor Approach Upgrade (Per each 1%>3%)                            |         |                  |
| Case B-2 Only                                                      | 0.1 sec | Tbl 9-8, p 9-47  |
| Case B-3 Only                                                      | 0.2 sec | Tbl 9-10, p 9-49 |

|                                     |     |                    |
|-------------------------------------|-----|--------------------|
| Site data                           |     |                    |
| Major Road Lanes on Left Approach   | 0.0 | §9.5.3.2.2, p 9-47 |
| Minor Road Approach Upgrade, if >3% | 0 % | §9.5.3.2.2, p 9-47 |

|                                                                                      |         |         |
|--------------------------------------------------------------------------------------|---------|---------|
| Time Gap based on site data (sec)                                                    | B2 & B3 | B3 Only |
| Design Vehicle Gap+Adj for Approach Grade>3% (+Adjs for Add'l Lanes & Median for B3) |         |         |
| Passenger Car                                                                        | 6.0     | 5.5     |
| Single-Unit Tuck                                                                     | 7.8     | 7.1     |
| Combination Truck                                                                    | 9.8     | 9.1     |

ISD to left (B2/B3) & right (B3) along Major Rd  $ISD=1.47V_{major}t_g$  (ft) Eq 9-1, p 9-45

|               |                 | ISD to Left | ISD to right |
|---------------|-----------------|-------------|--------------|
|               |                 | (B2 & B3)   | (B3 Only)    |
| Passenger Car | calculated ISD= | 264.6       | 242.6        |
|               | design ISD=     | 265         | 245          |

|                   |                 |       |       |
|-------------------|-----------------|-------|-------|
| Single-Unit Tuck  | calculated ISD= | 344.0 | 313.1 |
|                   | design ISD=     | 345   | 315   |
| Combination Truck | calculated ISD= | 432.2 | 401.3 |
|                   | design ISD=     | 435   | 405   |

\*Number of major road lanes is irrelevant in Case B2.

The differences between Case B1 and Cases B2 & B3 are reduced time gaps and time gap adjustment for the minor approach upgrade. §9.5.3.2.3, p 9-48



**22-1180 Alliance Broadstone Silveray**  
**Location: Access B & Resort Blvd**

**Sight Distance Analysis**

**Intersection Sight Distances (cont'd)**

**Case F—Left Turns from the Major Road**

**AASHTO Ref**  
 §9.5.3.6, p 9-56

| Design Vehicle    | Time Gap ( $t_g$ ) |                  |
|-------------------|--------------------|------------------|
| Passenger Car     | 5.5 sec            | Tbl 9-16, p 9-57 |
| Single-Unit Tuck  | 6.5 sec            | Tbl 9-16, p 9-57 |
| Combination Truck | 7.5 sec            | Tbl 9-16, p 9-57 |

|                                  |         |                  |
|----------------------------------|---------|------------------|
| Time gap adjustments             |         |                  |
| Add'l lanes to cross (1 assumed) |         |                  |
| Passenger Car                    | 0.5 sec | See Notes to     |
| Trucks                           | 0.7 sec | Tbl 9-16, p 9-57 |

|                                          |      |
|------------------------------------------|------|
| Site data                                |      |
| Opposing Lanes (adj'd for x-wide median) | -1.0 |

|                                                 |         |  |
|-------------------------------------------------|---------|--|
| Time Gap based on site data                     |         |  |
| Design Vehicle Gap+Adj for Add'l Opposing Lanes |         |  |
| Passenger Car                                   | 5.0 sec |  |
| Single-Unit Tuck                                | 5.8 sec |  |
| Combination Truck                               | 6.8 sec |  |

|                               |                                                |                |
|-------------------------------|------------------------------------------------|----------------|
| ISD to front along Major Road | ISD=1.47V <sub>major</sub> t <sub>g</sub> (ft) | Eq 9-1, p 9-45 |
| Passenger Car                 | calculated ISD= 220.5 ft                       |                |
|                               | design ISD= 225 ft                             |                |
| Single-Unit Tuck              | calculated ISD= 255.8 ft                       |                |
|                               | design ISD= 260 ft                             |                |
| Combination Truck             | calculated ISD= 299.9 ft                       |                |
|                               | design ISD= 300 ft                             |                |

The differences between Case F and Cases B1, B2 & B3 are reduced time gaps and no time gap adjustment for any minor approach upgrade. §9.5.3.6, p 9-58

**SIGHT DISTANCE SUMMARY**

| Sight Distance Type           | Governing Case | Car | SU Truck | Combo Truck |
|-------------------------------|----------------|-----|----------|-------------|
| Stopping                      |                |     |          |             |
| Without effect of grade       |                | 200 | N/A      | N/A         |
| With effect of grade on left  |                | 200 | N/A      | N/A         |
| With effect of grade on right |                | 200 | N/A      | N/A         |
| Intersection                  |                |     |          |             |
| To Right                      | B1             | 310 | 390      | 480         |
| To Left                       | B2/B3          | 265 | 345      | 435         |
| On Major Road                 | F              | 225 | 260      | 300         |



## 22-1180 Alliance Broadstone Silveray

## Sight Distance Analysis

Location: Access C & Resort Blvd

### Assumptions and/or Givens

#### Elements of Design from AASHTO

6th Edition

AASHTO Ref

|                                    |                           |                    |
|------------------------------------|---------------------------|--------------------|
| Driver Eye Height                  |                           |                    |
| Passenger Vehicle                  | 3.50 ft                   | §3.2.6.1, p 3-15   |
| Truck                              | 7.60 ft                   | §3.2.6.1, p 3-15   |
| Object Height                      |                           |                    |
| Stopping Sight Distance            | 2.00 ft                   | §3.2.6.2, p 3-15   |
| Passing Sight Distance             | 3.50 ft                   | §3.2.6.2, p 3-15   |
| Vehicle Height                     | 4.25 ft                   | §3.2.6.1, p 3-15   |
| Driver Eye Location                |                           |                    |
| From Edge of Major Rd Traveled Way | 14.50 ft                  | §9.5.3.2.1, p 9-43 |
| Deceleration Rate (a)              |                           |                    |
| Passenger Vehicle                  | 11.20 ft/sec <sup>2</sup> | §3.2.2.2, p 3-4    |
| Truck                              | N/A ft                    |                    |
| Brake reaction time (t)            | 2.50 sec                  | §3.2.2.1, p 3-3    |

#### Site Specific Data (Bike & turn lanes are outside traveled way and are not considered)

|                                                                    |           |                           |
|--------------------------------------------------------------------|-----------|---------------------------|
| Major Street Design Speed (V <sub>major</sub> )                    | 30        | MPH                       |
| Grades - Approaching Minor Street from: (— = approaching downhill) |           |                           |
| Left (G <sub>L</sub> )                                             |           | %                         |
| Right (G <sub>R</sub> )                                            |           | %                         |
| Approach Grade Adjustment Factor                                   | Left 1.0  | Tbl 9-5, p 9-42           |
|                                                                    | Right 1.0 |                           |
| Major Road Through Lanes on Each Approach                          |           | (Use 1 for RI/RO/LI only) |
| Median Width (in "Lane Equivalents")                               |           | (Use 0 for RI/RO/LI only) |
| Minor Road Approach Upgrade, if >3%                                |           | %                         |
| Minor Road Access (check restricted)                               |           |                           |
|                                                                    | LI        | LO/Th RO                  |

### Stopping Sight Distance = Brake Reaction Distance + Braking Distance

#### Neglecting Effect of Grade

$$d = 1.47Vt + 1.075 \frac{V^2}{a} \quad \text{Eq 3-2, p 3-5}$$

|               |          |
|---------------|----------|
| Calculated d= | 196.7 ft |
| Design d=     | 200 ft   |

#### With Effect of Grade

$$d = 1.47Vt + \frac{V^2}{30 \left( \left( \frac{a}{32.2} \right) \pm G \right)} \quad \text{Eq 3-3, p 3-5}$$

|               |                 |
|---------------|-----------------|
| Calculated d= | 196.3 ft - left |
|               | 200 ft - right  |
| Design d=     | 196.3 ft - left |
|               | 200 ft - right  |

SSD's do not consider design for truck operations, since better visibility is considered to offset longer braking distance. §3.2.2.5, p 3-6



## 22-1180 Alliance Broadstone Silveray

## Sight Distance Analysis

Location: Access C & Resort Blvd

### Intersection Sight Distances

AASHTO Ref

Case B—Intersections with Stop Control on the Minor Road §9.5.3.2, p 9-42

#### Case B1—Left Turn from the Minor Road

§9.5.3.2.1, p 9-43

| Design Vehicle    | Time Gap (t <sub>g</sub> ) |                 |
|-------------------|----------------------------|-----------------|
| Passenger Car     | 7.5 sec                    | Tbl 9-6, p 9-44 |
| Single-Unit Truck | 9.5 sec                    | Tbl 9-6, p 9-44 |
| Combination Truck | 11.5 sec                   | Tbl 9-6, p 9-44 |

#### Time gap adjustments

|                                                   |         |                 |
|---------------------------------------------------|---------|-----------------|
| Add'l lanes to cross (1 <sup>st</sup> is assumed) |         |                 |
| Passenger Car                                     | 0.5 sec | See Notes       |
| Trucks                                            | 0.7 sec | below           |
| Minor Approach Upgrade (Per each 1%>3%)           | 0.2 sec | Tbl 9-5, p 9-37 |

#### Site data

|                                     |     |                    |
|-------------------------------------|-----|--------------------|
| Major Road Lanes on Left Approach   | 0.0 | §9.5.3.2.1, p 9-44 |
| Minor Road Approach Upgrade, if >3% | 0 % | §9.5.3.2.1, p 9-44 |

#### Time Gap based on site data

Design Vehicle Gap+Adj for Approach Grade>3%+Adjs for Add'l Lanes & Median

|                   |          |
|-------------------|----------|
| Passenger Car     | 7.0 sec  |
| Single-Unit Truck | 8.8 sec  |
| Combination Truck | 10.8 sec |

ISD to left & right along Major Road ISD=1.47V<sub>major</sub>t<sub>g</sub> (ft) Eq 9-1, p 9-45

|                   |                 | ISD to Left and Right |
|-------------------|-----------------|-----------------------|
| Passenger Car     | calculated ISD= | 308.7 ft              |
|                   | design ISD=     | 310 ft                |
| Single-Unit Truck | calculated ISD= | 388.1 ft              |
|                   | design ISD=     | 390 ft                |
| Combination Truck | calculated ISD= | 476.3 ft              |
|                   | design ISD=     | 480 ft                |



**22-1180 Alliance Broadstone Silveray**  
**Location: Access C & Resort Blvd**

**Sight Distance Analysis**

**Intersection Sight Distances (cont'd)**

Case B2—Right Turn from the Minor Road  
 &  
Case B3—Crossing Maneuver from the Minor Road

**AASHTO Ref**  
 §9.5.3.2.2, p 9-47  
 §9.5.3.2.3, p 9-48

| Design Vehicle    | Time Gap ( $t_g$ ) |                  |
|-------------------|--------------------|------------------|
| Passenger Car     | 6.5 sec            | Tbl 9-8, p 9-47  |
| Single-Unit Truck | 8.5 sec            | &                |
| Combination Truck | 10.5 sec           | Tbl 9-10, p 9-49 |

|                                                                    |         |                  |
|--------------------------------------------------------------------|---------|------------------|
| Time gap adjustments                                               |         |                  |
| Add'l lanes to cross (1 <sup>st</sup> is assumed) - Case B-3 Only* |         |                  |
| Passenger Car                                                      | 0.5 sec | See Notes        |
| Trucks                                                             | 0.7 sec | below            |
| Minor Approach Upgrade (Per each 1%>3%)                            |         |                  |
| Case B-2 Only                                                      | 0.1 sec | Tbl 9-8, p 9-47  |
| Case B-3 Only                                                      | 0.2 sec | Tbl 9-10, p 9-49 |

|                                     |     |                    |
|-------------------------------------|-----|--------------------|
| Site data                           |     |                    |
| Major Road Lanes on Left Approach   | 0.0 | §9.5.3.2.2, p 9-47 |
| Minor Road Approach Upgrade, if >3% | 0 % | §9.5.3.2.2, p 9-47 |

|                                                                                      |         |         |
|--------------------------------------------------------------------------------------|---------|---------|
| Time Gap based on site data (sec)                                                    | B2 & B3 | B3 Only |
| Design Vehicle Gap+Adj for Approach Grade>3% (+Adjs for Add'l Lanes & Median for B3) |         |         |
| Passenger Car                                                                        | 6.0     | 5.5     |
| Single-Unit Truck                                                                    | 7.8     | 7.1     |
| Combination Truck                                                                    | 9.8     | 9.1     |

ISD to left (B2/B3) & right (B3) along Major Rd  $ISD=1.47V_{major}t_g$  (ft) Eq 9-1, p 9-45

|               |                 | ISD to Left | ISD to right |
|---------------|-----------------|-------------|--------------|
|               |                 | (B2 & B3)   | (B3 Only)    |
| Passenger Car | calculated ISD= | 264.6       | 242.6        |
|               | design ISD=     | 265         | 245          |

|                   |                 |       |       |
|-------------------|-----------------|-------|-------|
| Single-Unit Truck | calculated ISD= | 344.0 | 313.1 |
|                   | design ISD=     | 345   | 315   |
| Combination Truck | calculated ISD= | 432.2 | 401.3 |
|                   | design ISD=     | 435   | 405   |

\*Number of major road lanes is irrelevant in Case B2.

The differences between Case B1 and Cases B2 & B3 are reduced time gaps and time gap adjustment for the minor approach upgrade. §9.5.3.2.3, p 9-48



**22-1180 Alliance Broadstone Silveray**  
**Location: Access C & Resort Blvd**

**Sight Distance Analysis**

**Intersection Sight Distances (cont'd)**

Case F—Left Turns from the Major Road

**AASHTO Ref**  
 §9.5.3.6, p 9-56

| Design Vehicle    | Time Gap ( $t_g$ ) |                  |
|-------------------|--------------------|------------------|
| Passenger Car     | 5.5 sec            | Tbl 9-16, p 9-57 |
| Single-Unit Truck | 6.5 sec            | Tbl 9-16, p 9-57 |
| Combination Truck | 7.5 sec            | Tbl 9-16, p 9-57 |

|                                  |         |                  |
|----------------------------------|---------|------------------|
| Time gap adjustments             |         |                  |
| Add'l lanes to cross (1 assumed) |         |                  |
| Passenger Car                    | 0.5 sec | See Notes to     |
| Trucks                           | 0.7 sec | Tbl 9-16, p 9-57 |

|                                          |      |
|------------------------------------------|------|
| Site data                                |      |
| Opposing Lanes (adj'd for x-wide median) | -1.0 |

|                                                 |         |  |
|-------------------------------------------------|---------|--|
| Time Gap based on site data                     |         |  |
| Design Vehicle Gap+Adj for Add'l Opposing Lanes |         |  |
| Passenger Car                                   | 5.0 sec |  |
| Single-Unit Truck                               | 5.8 sec |  |
| Combination Truck                               | 6.8 sec |  |

|                               |                             |                |
|-------------------------------|-----------------------------|----------------|
| ISD to front along Major Road | $ISD=1.47V_{major}t_g$ (ft) | Eq 9-1, p 9-45 |
| Passenger Car                 | calculated ISD= 220.5 ft    |                |
|                               | design ISD= 225 ft          |                |
| Single-Unit Truck             | calculated ISD= 255.8 ft    |                |
|                               | design ISD= 260 ft          |                |
| Combination Truck             | calculated ISD= 299.9 ft    |                |
|                               | design ISD= 300 ft          |                |

The differences between Case F and Cases B1, B2 & B3 are reduced time gaps and no time gap adjustment for any minor approach upgrade. §9.5.3.6, p 9-58

**SIGHT DISTANCE SUMMARY**

| Sight Distance Type           | Governing Case | Car | SU Truck | Combo Truck |
|-------------------------------|----------------|-----|----------|-------------|
| Stopping                      |                |     |          |             |
| Without effect of grade       |                | 200 | N/A      | N/A         |
| With effect of grade on left  |                | 200 | N/A      | N/A         |
| With effect of grade on right |                | 200 | N/A      | N/A         |
| Intersection                  |                |     |          |             |
| To Right                      | B1             | 310 | 390      | 480         |
| To Left                       | B2/B3          | 265 | 345      | 435         |
| On Major Road                 | F              | 225 | 260      | 300         |



## 22-1180 Alliance Broadstone Silveray

## Sight Distance Analysis

Location: Access D & Resort Blvd

### Assumptions and/or Given

#### Elements of Design from AASHTO

6th Edition

AASHTO Ref

|                                    |                           |                    |
|------------------------------------|---------------------------|--------------------|
| Driver Eye Height                  |                           |                    |
| Passenger Vehicle                  | 3.50 ft                   | §3.2.6.1, p 3-15   |
| Truck                              | 7.60 ft                   | §3.2.6.1, p 3-15   |
| Object Height                      |                           |                    |
| Stopping Sight Distance            | 2.00 ft                   | §3.2.6.2, p 3-15   |
| Passing Sight Distance             | 3.50 ft                   | §3.2.6.2, p 3-15   |
| Vehicle Height                     | 4.25 ft                   | §3.2.6.1, p 3-15   |
| Driver Eye Location                |                           |                    |
| From Edge of Major Rd Traveled Way | 14.50 ft                  | §9.5.3.2.1, p 9-43 |
| Deceleration Rate (a)              |                           |                    |
| Passenger Vehicle                  | 11.20 ft/sec <sup>2</sup> | §3.2.2.2, p 3-4    |
| Truck                              | N/A ft                    |                    |
| Brake reaction time (t)            | 2.50 sec                  | §3.2.2.1, p 3-3    |

#### Site Specific Data (Bike & turn lanes are outside traveled way and are not considered)

|                                                                    |           |                           |
|--------------------------------------------------------------------|-----------|---------------------------|
| Major Street Design Speed (V <sub>major</sub> )                    | 30        | MPH                       |
| Grades - Approaching Minor Street from: (— = approaching downhill) |           |                           |
| Left (G <sub>L</sub> )                                             |           | %                         |
| Right (G <sub>R</sub> )                                            |           | %                         |
| Approach Grade Adjustment Factor                                   | Left 1.0  | Tbl 9-5, p 9-42           |
|                                                                    | Right 1.0 |                           |
| Major Road Through Lanes on Each Approach                          |           | (Use 1 for RI/RO/LI only) |
| Median Width (in "Lane Equivalents")                               |           | (Use 0 for RI/RO/LI only) |
| Minor Road Approach Upgrade, if >3%                                |           | %                         |
| Minor Road Access (check restricted)                               | LI        | LO/Th RO                  |

### Stopping Sight Distance = Brake Reaction Distance + Braking Distance

#### Neglecting Effect of Grade

$$d = 1.47Vt + 1.075 \frac{V^2}{a} \quad \text{Eq 3-2, p 3-5}$$

|               |          |
|---------------|----------|
| Calculated d= | 196.7 ft |
| Design d=     | 200 ft   |

#### With Effect of Grade

$$d = 1.47Vt + \frac{V^2}{30 \left( \left( \frac{a}{32.2} \right) \pm G \right)} \quad \text{Eq 3-3, p 3-5}$$

|               |                 |
|---------------|-----------------|
| Calculated d= | 196.3 ft - left |
|               | 200 ft - right  |
| Design d=     | 196.3 ft - left |
|               | 200 ft - right  |

SSD's do not consider design for truck operations, since better visibility is considered to offset longer braking distance. §3.2.2.5, p 3-6



## 22-1180 Alliance Broadstone Silveray

## Sight Distance Analysis

Location: Access D & Resort Blvd

### Intersection Sight Distances

AASHTO Ref

Case B—Intersections with Stop Control on the Minor Road §9.5.3.2, p 9-42

#### Case B1—Left Turn from the Minor Road

§9.5.3.2.1, p 9-43

| Design Vehicle    | Time Gap (t <sub>g</sub> ) |                 |
|-------------------|----------------------------|-----------------|
| Passenger Car     | 7.5 sec                    | Tbl 9-6, p 9-44 |
| Single-Unit Truck | 9.5 sec                    | Tbl 9-6, p 9-44 |
| Combination Truck | 11.5 sec                   | Tbl 9-6, p 9-44 |

#### Time gap adjustments

|                                                   |         |                 |
|---------------------------------------------------|---------|-----------------|
| Add'l lanes to cross (1 <sup>st</sup> is assumed) |         |                 |
| Passenger Car                                     | 0.5 sec | See Notes       |
| Trucks                                            | 0.7 sec | below           |
| Minor Approach Upgrade (Per each 1%>3%)           | 0.2 sec | Tbl 9-5, p 9-37 |

#### Site data

|                                     |     |                    |
|-------------------------------------|-----|--------------------|
| Major Road Lanes on Left Approach   | 0.0 | §9.5.3.2.1, p 9-44 |
| Minor Road Approach Upgrade, if >3% | 0 % | §9.5.3.2.1, p 9-44 |

#### Time Gap based on site data

Design Vehicle Gap+Adj for Approach Grade>3%+Adjs for Add'l Lanes & Median

|                   |          |
|-------------------|----------|
| Passenger Car     | 7.0 sec  |
| Single-Unit Truck | 8.8 sec  |
| Combination Truck | 10.8 sec |

ISD to left & right along Major Road ISD=1.47V<sub>major</sub>t<sub>g</sub> (ft) Eq 9-1, p 9-45

|                   |                 | ISD to Left and Right |
|-------------------|-----------------|-----------------------|
| Passenger Car     | calculated ISD= | 308.7 ft              |
|                   | design ISD=     | 310 ft                |
| Single-Unit Truck | calculated ISD= | 388.1 ft              |
|                   | design ISD=     | 390 ft                |
| Combination Truck | calculated ISD= | 476.3 ft              |
|                   | design ISD=     | 480 ft                |



**22-1180 Alliance Broadstone Silveray**  
**Location: Access D & Resort Blvd**

**Sight Distance Analysis**

**Intersection Sight Distances (cont'd)**

Case B2—Right Turn from the Minor Road  
 &  
Case B3—Crossing Maneuver from the Minor Road

**AASHTO Ref**  
 §9.5.3.2.2, p 9-47  
 §9.5.3.2.3, p 9-48

| Design Vehicle                                                     | Time Gap ( $t_g$ ) |                  |
|--------------------------------------------------------------------|--------------------|------------------|
| Passenger Car                                                      | 6.5 sec            | Tbl 9-8, p 9-47  |
| Single-Unit Tuck                                                   | 8.5 sec            | &                |
| Combination Truck                                                  | 10.5 sec           | Tbl 9-10, p 9-49 |
| Time gap adjustments                                               |                    |                  |
| Add'l lanes to cross (1 <sup>st</sup> is assumed) - Case B-3 Only* |                    |                  |
| Passenger Car                                                      | 0.5 sec            | See Notes        |
| Trucks                                                             | 0.7 sec            | below            |
| Minor Approach Upgrade (Per each 1%>3%)                            |                    |                  |
| Case B-2 Only                                                      | 0.1 sec            | Tbl 9-8, p 9-47  |
| Case B-3 Only                                                      | 0.2 sec            | Tbl 9-10, p 9-49 |

|                                     |     |                    |
|-------------------------------------|-----|--------------------|
| Site data                           |     |                    |
| Major Road Lanes on Left Approach   | 0.0 | §9.5.3.2.2, p 9-47 |
| Minor Road Approach Upgrade, if >3% | 0 % | §9.5.3.2.2, p 9-47 |

| Time Gap based on site data (sec)                                                                  | B2 & B3 | B3 Only |
|----------------------------------------------------------------------------------------------------|---------|---------|
| <i>Design Vehicle Gap+Adj for Approach Grade&gt;3% (+Adjs for Add'l Lanes &amp; Median for B3)</i> |         |         |
| Passenger Car                                                                                      | 6.0     | 5.5     |
| Single-Unit Tuck                                                                                   | 7.8     | 7.1     |
| Combination Truck                                                                                  | 9.8     | 9.1     |

ISD to left (B2/B3) & right (B3) along Major Rd  $ISD=1.47V_{major}t_g$  (ft) Eq 9-1, p 9-45

|                   |                 | ISD to Left ISD to right<br>(B2 & B3) (B3 Only) |       |
|-------------------|-----------------|-------------------------------------------------|-------|
| Passenger Car     | calculated ISD= | 264.6                                           | 242.6 |
|                   | design ISD=     | 265                                             | 245   |
| Single-Unit Tuck  | calculated ISD= | 344.0                                           | 313.1 |
|                   | design ISD=     | 345                                             | 315   |
| Combination Truck | calculated ISD= | 432.2                                           | 401.3 |
|                   | design ISD=     | 435                                             | 405   |

\*Number of major road lanes is irrelevant in Case B2.

The differences between Case B1 and Cases B2 & B3 are reduced time gaps and time gap adjustment for the minor approach upgrade. §9.5.3.2.3, p 9-48



**22-1180 Alliance Broadstone Silveray**  
**Location: Access D & Resort Blvd**

**Sight Distance Analysis**

**Intersection Sight Distances (cont'd)**

**Case F—Left Turns from the Major Road**

**AASHTO Ref**  
 §9.5.3.6, p 9-56

| Design Vehicle                   | Time Gap ( $t_g$ ) |                  |
|----------------------------------|--------------------|------------------|
| Passenger Car                    | 5.5 sec            | Tbl 9-16, p 9-57 |
| Single-Unit Tuck                 | 6.5 sec            | Tbl 9-16, p 9-57 |
| Combination Truck                | 7.5 sec            | Tbl 9-16, p 9-57 |
| Time gap adjustments             |                    |                  |
| Add'l lanes to cross (1 assumed) |                    |                  |
| Passenger Car                    | 0.5 sec            | See Notes to     |
| Trucks                           | 0.7 sec            | Tbl 9-16, p 9-57 |

|                                          |      |
|------------------------------------------|------|
| Site data                                |      |
| Opposing Lanes (adj'd for x-wide median) | -1.0 |

|                                                        |         |
|--------------------------------------------------------|---------|
| Time Gap based on site data                            |         |
| <i>Design Vehicle Gap+Adj for Add'l Opposing Lanes</i> |         |
| Passenger Car                                          | 5.0 sec |
| Single-Unit Tuck                                       | 5.8 sec |
| Combination Truck                                      | 6.8 sec |

|                               |                             |                |
|-------------------------------|-----------------------------|----------------|
| ISD to front along Major Road | $ISD=1.47V_{major}t_g$ (ft) | Eq 9-1, p 9-45 |
| Passenger Car                 | calculated ISD= 220.5 ft    |                |
|                               | design ISD= 225 ft          |                |
| Single-Unit Tuck              | calculated ISD= 255.8 ft    |                |
|                               | design ISD= 260 ft          |                |
| Combination Truck             | calculated ISD= 299.9 ft    |                |
|                               | design ISD= 300 ft          |                |

The differences between Case F and Cases B1, B2 & B3 are reduced time gaps and no time gap adjustment for any minor approach upgrade. §9.5.3.6, p 9-58

**SIGHT DISTANCE SUMMARY**

| Sight Distance Type           | Governing Case | Car | SU Truck | Combo Truck |
|-------------------------------|----------------|-----|----------|-------------|
| Stopping                      |                |     |          |             |
| Without effect of grade       |                | 200 | N/A      | N/A         |
| With effect of grade on left  |                | 200 | N/A      | N/A         |
| With effect of grade on right |                | 200 | N/A      | N/A         |
| Intersection                  |                |     |          |             |
| To Right                      | B1             | 310 | 390      | 480         |
| To Left                       | B2/B3          | 265 | 345      | 435         |
| On Major Road                 | F              | 225 | 260      | 300         |



## 22-1180 Alliance Broadstone Silveray

## Sight Distance Analysis

Location: Access E & Resort Blvd

### Assumptions and/or Given

#### Elements of Design from AASHTO

6th Edition

AASHTO Ref

|                                    |                           |                    |
|------------------------------------|---------------------------|--------------------|
| Driver Eye Height                  |                           |                    |
| Passenger Vehicle                  | 3.50 ft                   | §3.2.6.1, p 3-15   |
| Truck                              | 7.60 ft                   | §3.2.6.1, p 3-15   |
| Object Height                      |                           |                    |
| Stopping Sight Distance            | 2.00 ft                   | §3.2.6.2, p 3-15   |
| Passing Sight Distance             | 3.50 ft                   | §3.2.6.2, p 3-15   |
| Vehicle Height                     | 4.25 ft                   | §3.2.6.1, p 3-15   |
| Driver Eye Location                |                           |                    |
| From Edge of Major Rd Traveled Way | 14.50 ft                  | §9.5.3.2.1, p 9-43 |
| Deceleration Rate (a)              |                           |                    |
| Passenger Vehicle                  | 11.20 ft/sec <sup>2</sup> | §3.2.2.2, p 3-4    |
| Truck                              | N/A ft                    |                    |
| Brake reaction time (t)            | 2.50 sec                  | §3.2.2.1, p 3-3    |

#### Site Specific Data (Bike & turn lanes are outside traveled way and are not considered)

|                                                                    |           |                           |
|--------------------------------------------------------------------|-----------|---------------------------|
| Major Street Design Speed (V <sub>major</sub> )                    | 30        | MPH                       |
| Grades - Approaching Minor Street from: (— = approaching downhill) |           |                           |
| Left (G <sub>L</sub> )                                             |           | %                         |
| Right (G <sub>R</sub> )                                            |           | %                         |
| Approach Grade Adjustment Factor                                   | Left 1.0  | Tbl 9-5, p 9-42           |
|                                                                    | Right 1.0 |                           |
| Major Road Through Lanes on Each Approach                          |           | (Use 1 for RI/RO/LI only) |
| Median Width (in "Lane Equivalents")                               |           | (Use 0 for RI/RO/LI only) |
| Minor Road Approach Upgrade, if >3%                                |           | %                         |
| Minor Road Access (check restricted)                               |           |                           |
|                                                                    | LI        | LO/Th RO                  |

### Stopping Sight Distance = Brake Reaction Distance + Braking Distance

#### Neglecting Effect of Grade

$$d = 1.47Vt + 1.075 \frac{V^2}{a} \quad \text{Eq 3-2, p 3-5}$$

|               |          |
|---------------|----------|
| Calculated d= | 196.7 ft |
| Design d=     | 200 ft   |

#### With Effect of Grade

$$d = 1.47Vt + \frac{V^2}{30 \left( \left( \frac{a}{32.2} \right) \pm G \right)} \quad \text{Eq 3-3, p 3-5}$$

|               |                 |
|---------------|-----------------|
| Calculated d= | 196.3 ft - left |
|               | 200 ft - right  |
| Design d=     | 196.3 ft - left |
|               | 200 ft - right  |

SSD's do not consider design for truck operations, since better visibility is considered to offset longer braking distance. §3.2.2.5, p 3-6



## 22-1180 Alliance Broadstone Silveray

## Sight Distance Analysis

Location: Access E & Resort Blvd

### Intersection Sight Distances

AASHTO Ref

Case B—Intersections with Stop Control on the Minor Road §9.5.3.2, p 9-42

#### Case B1—Left Turn from the Minor Road

§9.5.3.2.1, p 9-43

| Design Vehicle    | Time Gap (t <sub>g</sub> ) |                 |
|-------------------|----------------------------|-----------------|
| Passenger Car     | 7.5 sec                    | Tbl 9-6, p 9-44 |
| Single-Unit Truck | 9.5 sec                    | Tbl 9-6, p 9-44 |
| Combination Truck | 11.5 sec                   | Tbl 9-6, p 9-44 |

#### Time gap adjustments

|                                                   |         |                 |
|---------------------------------------------------|---------|-----------------|
| Add'l lanes to cross (1 <sup>st</sup> is assumed) |         |                 |
| Passenger Car                                     | 0.5 sec | See Notes       |
| Trucks                                            | 0.7 sec | below           |
| Minor Approach Upgrade (Per each 1%>3%)           | 0.2 sec | Tbl 9-5, p 9-37 |

#### Site data

|                                     |     |                    |
|-------------------------------------|-----|--------------------|
| Major Road Lanes on Left Approach   | 0.0 | §9.5.3.2.1, p 9-44 |
| Minor Road Approach Upgrade, if >3% | 0 % | §9.5.3.2.1, p 9-44 |

#### Time Gap based on site data

Design Vehicle Gap+Adj for Approach Grade>3%+Adjs for Add'l Lanes & Median

|                   |          |
|-------------------|----------|
| Passenger Car     | 7.0 sec  |
| Single-Unit Truck | 8.8 sec  |
| Combination Truck | 10.8 sec |

ISD to left & right along Major Road ISD=1.47V<sub>major</sub>t<sub>g</sub> (ft) Eq 9-1, p 9-45

|                   |                 | ISD to Left and Right |
|-------------------|-----------------|-----------------------|
| Passenger Car     | calculated ISD= | 308.7 ft              |
|                   | design ISD=     | 310 ft                |
| Single-Unit Truck | calculated ISD= | 388.1 ft              |
|                   | design ISD=     | 390 ft                |
| Combination Truck | calculated ISD= | 476.3 ft              |
|                   | design ISD=     | 480 ft                |



**22-1180 Alliance Broadstone Silveray**  
**Location: Access E & Resort Blvd**

**Sight Distance Analysis**

**Intersection Sight Distances (cont'd)**

Case B2—Right Turn from the Minor Road  
 &  
Case B3—Crossing Maneuver from the Minor Road

**AASHTO Ref**  
 §9.5.3.2.2, p 9-47  
 §9.5.3.2.3, p 9-48

| Design Vehicle    | Time Gap ( $t_g$ ) |                  |
|-------------------|--------------------|------------------|
| Passenger Car     | 6.5 sec            | Tbl 9-8, p 9-47  |
| Single-Unit Tuck  | 8.5 sec            | &                |
| Combination Truck | 10.5 sec           | Tbl 9-10, p 9-49 |

|                                                                    |         |                  |
|--------------------------------------------------------------------|---------|------------------|
| Time gap adjustments                                               |         |                  |
| Add'l lanes to cross (1 <sup>st</sup> is assumed) - Case B-3 Only* |         |                  |
| Passenger Car                                                      | 0.5 sec | See Notes        |
| Trucks                                                             | 0.7 sec | below            |
| Minor Approach Upgrade (Per each 1%>3%)                            |         |                  |
| Case B-2 Only                                                      | 0.1 sec | Tbl 9-8, p 9-47  |
| Case B-3 Only                                                      | 0.2 sec | Tbl 9-10, p 9-49 |

|                                     |     |                    |
|-------------------------------------|-----|--------------------|
| Site data                           |     |                    |
| Major Road Lanes on Left Approach   | 0.0 | §9.5.3.2.2, p 9-47 |
| Minor Road Approach Upgrade, if >3% | 0 % | §9.5.3.2.2, p 9-47 |

|                                                                                      |         |         |
|--------------------------------------------------------------------------------------|---------|---------|
| Time Gap based on site data (sec)                                                    | B2 & B3 | B3 Only |
| Design Vehicle Gap+Adj for Approach Grade>3% (+Adjs for Add'l Lanes & Median for B3) |         |         |
| Passenger Car                                                                        | 6.0     | 5.5     |
| Single-Unit Tuck                                                                     | 7.8     | 7.1     |
| Combination Truck                                                                    | 9.8     | 9.1     |

ISD to left (B2/B3) & right (B3) along Major Rd  $ISD=1.47V_{major}t_g$  (ft) Eq 9-1, p 9-45

|               |                 | ISD to Left | ISD to right |
|---------------|-----------------|-------------|--------------|
|               |                 | (B2 & B3)   | (B3 Only)    |
| Passenger Car | calculated ISD= | 264.6       | 242.6        |
|               | design ISD=     | 265         | 245          |

|                   |                 |       |       |
|-------------------|-----------------|-------|-------|
| Single-Unit Tuck  | calculated ISD= | 344.0 | 313.1 |
|                   | design ISD=     | 345   | 315   |
| Combination Truck | calculated ISD= | 432.2 | 401.3 |
|                   | design ISD=     | 435   | 405   |

\*Number of major road lanes is irrelevant in Case B2.

The differences between Case B1 and Cases B2 & B3 are reduced time gaps and time gap adjustment for the minor approach upgrade. §9.5.3.2.3, p 9-48



**22-1180 Alliance Broadstone Silveray**  
**Location: Access E & Resort Blvd**

**Sight Distance Analysis**

**Intersection Sight Distances (cont'd)**

Case F—Left Turns from the Major Road

**AASHTO Ref**  
 §9.5.3.6, p 9-56

| Design Vehicle    | Time Gap ( $t_g$ ) |                  |
|-------------------|--------------------|------------------|
| Passenger Car     | 5.5 sec            | Tbl 9-16, p 9-57 |
| Single-Unit Tuck  | 6.5 sec            | Tbl 9-16, p 9-57 |
| Combination Truck | 7.5 sec            | Tbl 9-16, p 9-57 |

|                                  |         |                  |
|----------------------------------|---------|------------------|
| Time gap adjustments             |         |                  |
| Add'l lanes to cross (1 assumed) |         |                  |
| Passenger Car                    | 0.5 sec | See Notes to     |
| Trucks                           | 0.7 sec | Tbl 9-16, p 9-57 |

|                                          |      |
|------------------------------------------|------|
| Site data                                |      |
| Opposing Lanes (adj'd for x-wide median) | -1.0 |

|                                                 |         |  |
|-------------------------------------------------|---------|--|
| Time Gap based on site data                     |         |  |
| Design Vehicle Gap+Adj for Add'l Opposing Lanes |         |  |
| Passenger Car                                   | 5.0 sec |  |
| Single-Unit Tuck                                | 5.8 sec |  |
| Combination Truck                               | 6.8 sec |  |

|                               |                             |                |
|-------------------------------|-----------------------------|----------------|
| ISD to front along Major Road | $ISD=1.47V_{major}t_g$ (ft) | Eq 9-1, p 9-45 |
| Passenger Car                 | calculated ISD= 220.5 ft    |                |
|                               | design ISD= 225 ft          |                |
| Single-Unit Tuck              | calculated ISD= 255.8 ft    |                |
|                               | design ISD= 260 ft          |                |
| Combination Truck             | calculated ISD= 299.9 ft    |                |
|                               | design ISD= 300 ft          |                |

The differences between Case F and Cases B1, B2 & B3 are reduced time gaps and no time gap adjustment for any minor approach upgrade. §9.5.3.6, p 9-58

**SIGHT DISTANCE SUMMARY**

| Sight Distance Type           | Governing Case | Car | SU Truck | Combo Truck |
|-------------------------------|----------------|-----|----------|-------------|
| Stopping                      |                |     |          |             |
| Without effect of grade       |                | 200 | N/A      | N/A         |
| With effect of grade on left  |                | 200 | N/A      | N/A         |
| With effect of grade on right |                | 200 | N/A      | N/A         |
| Intersection                  |                |     |          |             |
| To Right                      | B1             | 310 | 390      | 480         |
| To Left                       | B2/B3          | 265 | 345      | 435         |
| On Major Road                 | F              | 225 | 260      | 300         |



feet) between delineators is the same as the speed limit (in miles per hour) for the roadway.

(D) *Conduits, sleeves or carrier pipes.* Projects that have parkway landscaping with irrigation lines under public streets shall install conduit sleeves for the irrigation line(s) prior to the paving improvements. All parkway landscaping shall be as directed and approved by the Apache Junction Parks and Recreation Department.

(E) *Signage and striping.* All signage and striping shall be per the latest MUTCD and approved by the Development Services Engineer.

(Ord. 1282, § 3.3, passed 11-7-2006)

#### **§ 10-3-4 DESIGN GUIDELINES.**

Street design will be in accordance with the following criteria, subject to the approval of the City Engineer. Geometric design standards not specifically included in this Standard will conform to the latest *A Policy on Geometric Design of Highways and Streets*, published by the American Association of State Highway and Transportation Officials (AASHTO).

(A) *Street right-of-way requirements.*

(1) The right-of-way requirements shall be as shown in Apache Junction Standard Details AJ-20.1 through AJ-20.8.

(2) Right-of-way widths in excess of the standard widths may be required in special circumstances such as when:

- (a) Cut or fill slopes cannot be confined within the standard width;
- (b) Minimum sight distance lines on horizontal curves are not within standards;
- (c) Minimum sight distances at intersections are not within the standards; and
- (d) Auxiliary lanes are to be provided.

(B) *Intersections.* Although all intersections share certain common elements, they are not subject to generalized treatment.

(1) *Minimize conflict.* To minimize conflicts and provide for anticipated traffic movements, each intersection must be evaluated with regard to its individual characteristics, and designed based on the following factors:

- (a) Traffic factors such as capacities, turning movements, vehicle size and operating characteristics, vehicle speed, pedestrian movements, transit operations and accident history;
- (b) Physical factors such as topography, existing conditions, channelization requirements; and
- (c) Human factors such as driving habits, reaction to surprises, decision and reaction time, and natural paths of movement.

(2) *Angle of intersection.* A right-angle intersection provides the shortest crossing distance for intersecting traffic streams. It also provides the most favorable condition for drivers to judge the relative position and speed of intersecting vehicles. Where special conditions exist, intersection angles may diverge from a right angle with approval of the City Engineer.

(3) *Alignment and profile.* Intersections occurring on horizontal or crest vertical curves are undesirable. When there is latitude in the selection of intersection locations, vertical or horizontal curvature should be avoided. A line or grade change is frequently warranted when major intersections are involved. If a curve is unavoidable, it should be as flat as site conditions permit. Where the grade of the through roadway is steep, flattening through the intersections is desirable as a safety measure.

(4) *Intersection sight visibility.*

(a) *Sight visibility triangles.* Clear lines of sight will be maintained along all streets, alleys and driveways to assure the safety of motorists and pedestrians.

(b) *Lines of sight.* Lines of sight will not be obscured between 24 inches and 6 feet through a triangular area adjacent to a driveway, an alley or a street, where such access ways intersect with another street in a T-configuration. The sight visibility triangle, or sight triangle, consists of 3 sides that are formed by 2 intersecting access ways and a line connecting the 2 (see Apache Junction Standard Detail AJ-27.1).

(C) *Sight distance.*

(1) Adequate sight distance shall be provided at all intersections, alleys and driveways (see Apache Junction Standard Detail AJ-26.1).

(2) The determination of whether an object constitutes a sight obstruction shall consider both the horizontal and vertical alignment of both intersecting roadways, as well as the height and position of the object.

(3) The sight distance required varies according to traffic speeds on the through road. A designer shall provide the sight distance based on the latest AASHTO *Policy on Geometric Design of Highways and Streets* and submit it with the plans.

(D) *Street slopes.*

(1) *Typical street cross-slope.* Undivided streets should have a normal crown that is a 2-way cross-slope with the cross-section high point on the street centerline. Divided streets should have cross-slope on each pavement section. The high point of each slope on each pavement section shall occur on the edge of the pavement nearest to the median. Unusual conditions may cause cross-slope requirements to vary, but normally, the desirable cross-slope is 2%, with a maximum cross-slope of 3% and a minimum cross-slope of 1%. Any deviation from the desirable cross-slope shall be approved by the City Engineer.

(2) *Cross-slopes in street dip sections.* While dip sections are discouraged, where storm drainage runoff flows must cross the street, dip sections are needed and must be approved by the City Engineer. The pavements through the dip section should have a 1-way slope (no crown), curbing and medians must not be raised, and cut-off walls shall be installed in accordance with MAG Standard Detail 552. Transitions back to normal street cross-slopes will be needed at both ends of the dip section.

(3) *Existing cross-slope.* See Vol. II, § 10-3-6(D) for street widening guidelines.

(4) *Longitudinal slope.*

(a) The minimum street and gutter slope for public streets is 0.0032 feet/foot (0.32%). Special approval by the City Engineer is required for slopes less than the minimum.

(b) Projects that have any area with less than the approved minimum gutter slope shall provide construction staking on the actual gutter alignment (not offset) at a spacing not to exceed 25 feet and have the grades checked by a city Engineering Inspector immediately preceding the concrete pour.

(c) Grade breaks and grade changes shall be clearly noted and stationed on the grading and drainage plan and the profile views.

(d) Projects with longitudinal slopes less than 0.32% shall have the gutter lines water-tested in the presence of and to the satisfaction of the city's Inspector.

(5) *Vertical curves.* Roadways with a longitudinal grade break or grade change of greater than 1.5% shall be required to design and construct a vertical curve along that section of roadway. Vertical curves shall be designed, at a minimum, per the most current AASHTO guidelines.

(6) *Superelevation.* Although the superelevation of roadways is discouraged, unusual circumstances may require the use of superelevation. The City Engineer must approve the use and design of superelevated roadways. Roadway drainage must be considered in superelevated conditions.

(7) *Undulating roadways.* Roadways shall be designed to eliminate undulations. In the case where an existing paved roadway undulates, it shall be removed full width and reconstructed to a new grade acceptable to the City Engineer and the entire cost paid for by the developer.

(8) *Side slopes.* Side slopes should be designed for functional effectiveness, ease of maintenance and pleasing appearance.

(a) For areas more than 10 feet from back of curb, slopes of 4:1 or flatter shall be provided.

(b) Steeper slopes may be approved in areas more than 30 feet from back of curb when soils are not highly susceptible to erosion, or when a cut is not more than 4 feet vertical. Cuts or fills greater than 4 feet vertically shall be approved by the City Engineer.

(E) *Pavement tapers.*

(1) Projects are required to provide sufficient pavement tapers at all necessary locations (such as the beginning or end of a project) to properly guide traffic.

(2) The pavement section for tapers shall be per these Guidelines. See Table 10-3.1 under Vol. II, § 10-3-5 below.

(3) Pavement tapers shall be constructed with a thickened edge per MAG Standard Detail 201, Type "B."

(4) Taper length formulas: Taper length for merging traffic situations are calculated by the following formulas:

(a) When the design speed is 40 mph or less:

$$TL = \frac{W \times S^2}{60}$$

(b) When the design speed is 45 mph or greater:  $TL = W \times S$

where:

TL = Taper length in feet

S = Design speed in miles per hour. The design speed is 5 mph over the posted speed limit.

W = Width of the offset between the edge of the travel lane and the edge of the lane after the taper

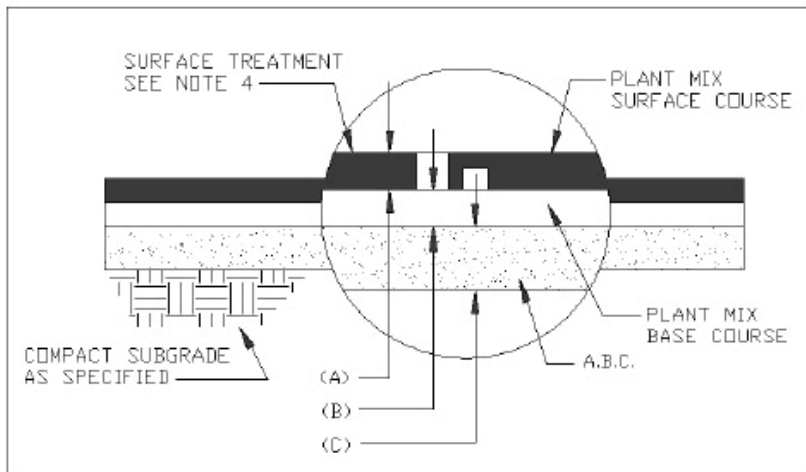
(5) Taper length for non-merging traffic situation (such as where pavement widens with traffic) is normally 50 feet minimum. However, there may be some instances when more than 50 feet of taper may be required. The requirement for a longer taper will be determined on a case-by-case basis by the city.

(6) The Engineer shall investigate the existing conditions and if determined to be substandard, the project shall sawcut and remove any existing pavement tapers when extending or installing new pavement improvements.

(Ord. 1282, § 3.4, passed 11-7-2006)

### § 10-3-5 STREET STRUCTURAL SECTION (AGGREGATE BASE, ASPHALT BASE COURSE AND ASPHALT SURFACE COURSE).

(A) *Flexible pavement.* The flexible pavement street structural section for public streets shall be the minimum depths shown below.



**Table 10-3.1 - Street Structural Section (Minimum Depths)**

| <i>Street Classifications</i>          | <i>Asphalt Surface Course (A)</i> | <i>Asphalt Base Course (B)</i> | <i>ABC Fill (C)</i> |
|----------------------------------------|-----------------------------------|--------------------------------|---------------------|
| Parkway                                | 2.5 in. - A-19**                  | 3 in. - A-19                   | 12 in.*             |
| Arterial                               | 2.5 in. - A-19**                  | 3 in. - A-19                   | 12 in.*             |
| Collector                              | 1.5 in. - A-12.5**                | 2.5 in. - A-19                 | 8 in.               |
| Local Street-Residential               | 2.5 in. - A-12.5**                | 0 in.                          | 6 in.               |
| Local Street-Commercial and Industrial | 1.5 in. - A-12.5**                | 2.5 in. - A-19                 | 8 in.               |